

# Shellharbour Employment Lands Study



25 February 2021

## Document Control

**Document:** Project Name: Shellharbour Employment Lands Study  
PSA Job Number: 1049  
Report Name: Planning Report

**This document has been prepared for:**




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## Revision History

VERSION	DATE	DETAILS	AUTHOR	AUTHORISATION
V6	25 February 2021	FINAL DRAFT	Kate Burke Shelley McCormack	Malcolm Griffin 

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# EXECUTIVE SUMMARY

## Introduction

The Shellharbour Employment Lands Study has been prepared to inform current and future employment needs of Shellharbour City and responds to employment related provisions of the Illawarra Shoalhaven Regional Plan and the Shellharbour Local Strategic Planning Statement.

Recent decades have seen considerable change in the Illawarra's employment profile by way of growth in the service sector (including retail, education, health and community services, and business services) and contraction in manufacturing, agricultural and mining employment. Related to this sectoral change, the employment market has experienced growth in knowledge based employment; an increase in the numbers of commuters to the Sydney metropolitan area; an increase in higher skill level jobs and a contraction in lower skill entry level jobs; an increase in the participation of women in the workforce; and a growth in part-time and casual work.

Traditionally land use planning has provided industrial and commercial land with the assumption that the market will take it up and supply appropriate numbers and types of jobs. This approach needs review to account for the dynamics of not only regional but national and global economies. Planning controls prescribed historically may not be flexible enough to facilitate the appropriate employment outcomes. Employment change has been and is continually influenced by the digital revolution, robotics/automation and globalisation including the Internet, e-commerce, high tech industries and the service sector changing the employment profile.

As such, the Shellharbour Employment Lands Study (SELS) has been prepared to address these emerging issues for employment lands within Shellharbour.

## Purpose of the SELS

The aims of the SELS are to:

- Provide a basis to facilitate a suitable contribution by Shellharbour City towards regional employment needs and employment opportunity, through land use policy;
- Provide a basis to enhance employment opportunities for the Shellharbour community; and
- Address the implications of the Covid-19 pandemic and how the City can recover and increase its resilience, in terms of employment lands/business centres.

## Recommendations

As a result of the analysis undertaken as part of the SELS, the table below provides a summary of the strategic recommendations with respect to amendments that could be made in facilitating greater employment opportunities within Shellharbour. The recommendations have been categorised into location/issue specific recommendations; strategic and/or higher level macro economic trend recommendations; case study recommendations; and COVID-19 response recommendations. These recommendations have also been made being cognisant of the findings of the Shellharbour Business Centres and Surrounding Residential Lands Study, which should be read in conjunction with these.

Shellharbour Employment Lands Study Recommendations	
Category/Issue	Recommendation
<b>Location/Issue Specific Recommendations</b>	
Vacancy Rates	<ol style="list-style-type: none"> <li>1. Council to investigate revitalisation of the B1 Neighbourhood Centres which are currently experiencing high vacancy rates, as a means of improving street appeal and encouraging redevelopment to reinvigorate these centres. This includes facilitating improved design outcomes and revitalisation of these centres' public domains.</li> </ol>
Accommodating Future Industrial Land Demand	<p>Review provisions of LEP 2013 and the DCP to:</p> <ol style="list-style-type: none"> <li>1. Facilitate appropriate redevelopment including: catering for upcoming trends such as high clearance warehouses and the use of robotics</li> <li>2. Facilitate business innovation and local services and amenities for workers in the precinct.</li> </ol>
Employment Zones Reform	<ol style="list-style-type: none"> <li>1. Review provisions of LEP 2013 and the DCP to account for any new zoning framework that is introduced by the State government.</li> </ol>
Illawarra Regional Business Park	<ol style="list-style-type: none"> <li>1. Advocate to the State government for infrastructure charges reductions to encourage take-up of this land.</li> <li>2. Review provisions of LEP 2004 (Illawarra Regional Business Park) and the DCP to: <ul style="list-style-type: none"> <li>• Facilitate appropriate development including: catering for upcoming trends such as high clearance warehouses and the use of robotics</li> <li>• Facilitate business innovation and local services and amenities for workers in the precinct.</li> </ul> </li> <li>3. Council and relevant state agencies make staff resources available dedicated to assist any prospective developer in negotiating/addressing development issues for the site.</li> </ol>
<b>Strategic and/or Macro Economic Trend Recommendations</b>	
The Second Half of the Chessboard	<ol style="list-style-type: none"> <li>1. Council to explore opportunities to capitalise on advanced manufacturing processes and encourage upskilling of the existing workforce in manufacturing, transport and warehousing and information and technology industries. This will assist in diversifying the industrial profile of the area and avoid high proportion of the workforce having redundant skills as advanced manufacturing becomes increasingly prevalent.</li> <li>2. Provide opportunities for an increase in professional and programming-based occupations by facilitating higher amenity and additional services within office precincts within Shellharbour to attract and retain highly skilled workers to the region.</li> <li>3. Encourage more mixed use industry and research hubs either in the form of new agglomerations or adjuncts to existing major research institutions or industrial areas in the form of knowledge and technology precincts.</li> <li>4. Foster strong relationships with the local university, the University of Wollongong, to realise the desire to create a marine based industry precinct within Shell Cove.</li> </ol>
Porous Boundaries	<ol style="list-style-type: none"> <li>1. Facilitate the provision of co-working or hotdesking spaces in town centres and Shellharbour City Centre to attract and retain a greater number of professionals to the region. Having these types of facilities available in Shellharbour City could also work to decrease employment leakage to Wollongong.</li> </ol>



Shellharbour Employment Lands Study Recommendations	
Category/Issue	Recommendation
The Era of the Entrepreneur	1. Shellharbour City to attract entrepreneurs to the area by being structured in a way which allows for flexible and low risk options for start-up spaces.
Divergent Demographics	<ol style="list-style-type: none"> <li>1. Council to actively encourage and facilitate the development of increased and expanded health facilities and service offerings in Shellharbour, including the expansion of the Shellharbour Hospital.</li> <li>2. Council to foster collaborative relationships with a local medical school, such as the University of Wollongong, as a means of attracting workers with a range of skills to Shellharbour Hospital.</li> <li>3. Council to actively encourage and facilitate the development of additional aged care facilities to support an ageing population.</li> </ol>
The Rising Bar	1. Investigate opportunities to grow the education and training industry in Shellharbour to provide people with the opportunity to up-skill and stay relevant in the evolving economy. This could be established through collaboration with universities and research institutes (e.g. to establish a marine industry research institute within Shell Cove).
Tangible Intangibles	<ol style="list-style-type: none"> <li>1. Provide and promote the lifestyle opportunities, services and facilities available for knowledge workers within Shellharbour City by ensuring that employment precincts such as the Shellharbour City Centre and town centres are considered appealing.</li> <li>2. Promote and facilitate the provision of increased office space available for short term leasing or co-working facilities which are well connected to the global network through substantial technological infrastructure.</li> </ol>
Online Retail	1. Promote Shellharbour as an attractive option for online businesses to base themselves to service the city and surrounding areas from an online retail platform, noting that Shellharbour's relative isolation from major strategic freight routes serving greater metropolitan Sydney may be an impediment to fully realising this potential.
Robotics, Automation and Artificial Intelligence	1. Recognise the rapidly changing nature and emergence of jobs of the future and provide flexibility to facilitate the provision of appropriate spaces and planning controls to facilitate these emerging job trends.
Education and Employment	1. Council to actively facilitate partnerships between education and industry as a means to increase the skill level of the workforce in Shellharbour City therefore diversifying the existing employment portfolio in the City. This combination of education and employment seeks to minimise the skill deficit which results from an ageing population, whilst retaining young people and encouraging young families (particularly young professionals) to the region in order to capitalise on these opportunities and the lifestyle afforded by a coastal city.
Investment Incentives	1. Council to continue to strongly promote the marina development at Shell Cove as a significant drawcard to attract and retain businesses within Shellharbour.
<b>Case Study Recommendations</b>	
Surf Coast Shire	1. Council to facilitate ongoing employment growth and retention in the region through building business and facilitating a symbiotic relationship between industry and education, including providing a motive for young professionals to stay in the region, or to locate to the region for work or further study. This will help to address employment leakage and combat the skills deficit which arises due to ageing populations.

Shellharbour Employment Lands Study Recommendations	
Category/Issue	Recommendation
	<ol style="list-style-type: none"> <li>2. Council to facilitate stronger connections between industry bodies and education/training facilities, such as working with the local TAFE and local industry and businesses to identify any skills or educational gaps which may be preventing the connectivity of industry and education in Shellharbour.</li> </ol>
<b>COVID-19 Response Recommendations</b>	
COVID-19 Response	<ol style="list-style-type: none"> <li>1. Council, in conjunction with Tourism Shellharbour, should focus their efforts on promoting Shellharbour and its unique local offering to key intrastate markets (e.g. Sydney) and engage regularly with Destination NSW, through their support services such as the Now's the Time to Love NSW Campaign. The successful attraction of additional visitors to Shellharbour City would likely have flow on benefits to retail trade, particularly cafes and restaurants and boutique retailers, helping to keep these businesses viable during times of uncertainty.</li> <li>2. Council allow for vacant tenancies to be used flexibly during this time, with the focus on attracting tenants. Council to also consider facilitating more flexible workspaces (within vacant centre tenancies) once restrictions are eased further, to accommodate potential heightened levels of entrepreneurship in a low cost environment, given the innovation opportunities created by the COVID-19 pandemic, particularly in regards to technology.</li> <li>3. Council to be supportive of conservation / land management sector funding initiatives and their potential contribution to employment within Shellharbour.</li> </ol>

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### LIST OF ACRONYMS

AAGR	Average Annual Growth Rate
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
CSP	Community Strategic Plan
DCP	Development Control Plan
FSR	Floor Space Ratio
LEP	Local Environmental Plan
LSPS	Local Strategic Planning Statement
SBCSRLS	Shellharbour Business Centres and Surrounding Residential Lands Study
SELS	Shellharbour Employment Lands Study
SLHS	Shellharbour Local Housing Strategy
TCP	Town Centre Plan



# 1 INTRODUCTION

The Shellharbour Employment Lands Study (SELS) has been prepared to address all employment lands within Shellharbour and provide an evidence-base to inform any potential changes to the Shellharbour LEPs, DCP, corporate policy and other high-level policy. The SELS responds to a well-established policy framework led by the Community Strategic Plan (CSP) and will be a key long-term policy document for Council and stakeholders.

## 1.1 Project Background and Context

Shellharbour City is located in the Illawarra Region of New South Wales and is about 100 kilometres south of Sydney (refer Map 1). The Shellharbour Local Government Area (LGA) is home to 73,031 (2019) people in a city that spans 147 square kilometres. Less than half of this area is zoned for urban development, with large parts of the city zoned for rural and environmental purposes. Council's neighbours are Wollongong to the north, Kiama to the south and Wingecarribee LGA to the west.

Geographically, Shellharbour City is bounded by the Illawarra Escarpment in the west and the South Pacific Ocean to the east. Significant features of the city include Lake Illawarra, Macquarie Pass National Park, Killalea State Park, Bass Point Reserve, Blackbutt Forest, Croom Voluntary Conservation Area, various beaches and the Myimbarr Wetlands (Shellharbour City Council, 2019).

Shellharbour is located on the Illawarra railway line, linking south to Kiama and north to Wollongong and Sydney. It contains the train stations of Albion Park, Oak Flats and Shellharbour Junction. Major road infrastructure includes the Princes Highway and the M1 Princes Motorway, also connecting Shellharbour north to Wollongong and Sydney and south to Kiama.

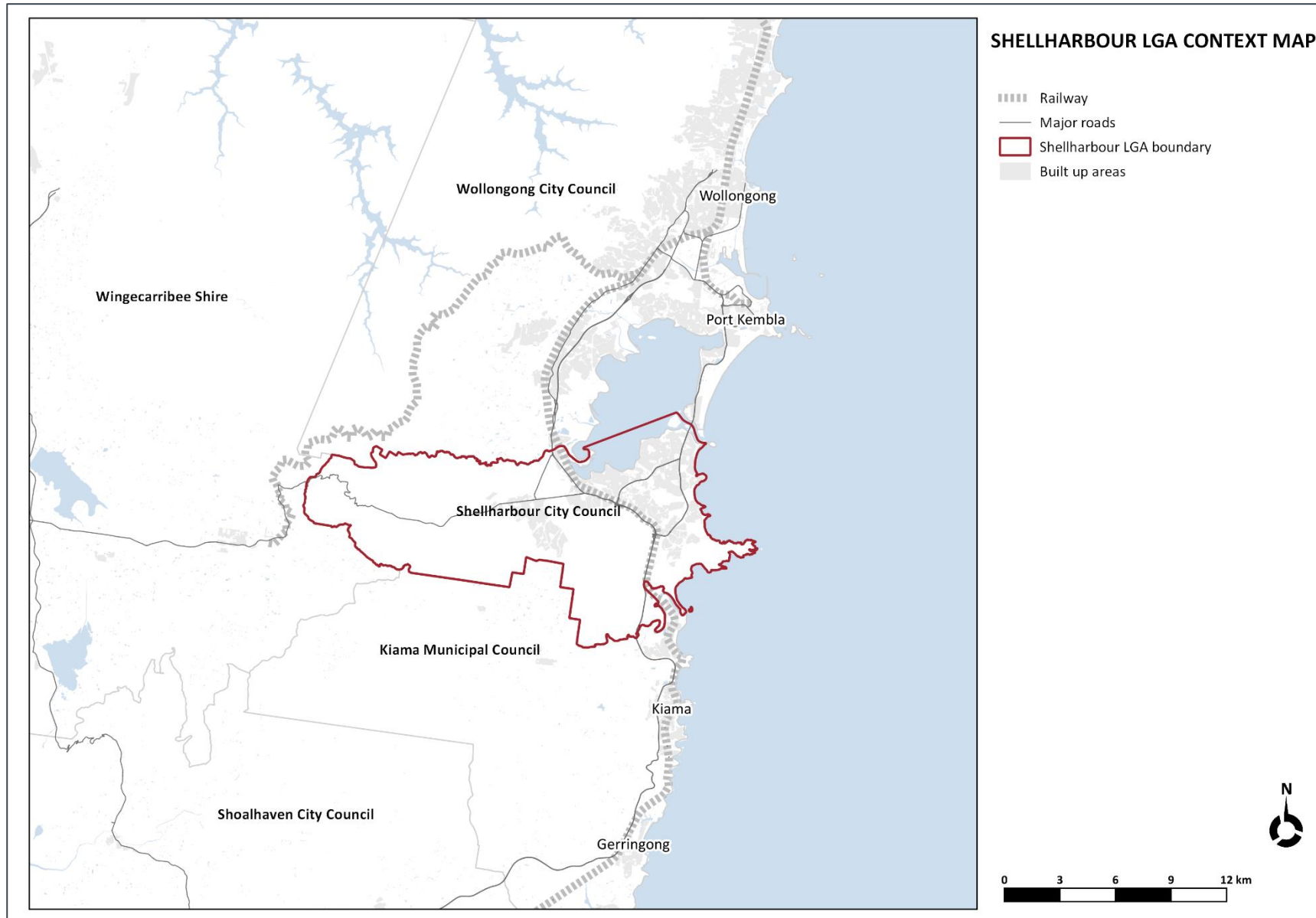
It is estimated in 2031, the population will increase to nearly 87,000 and by 2041 to nearly 95,000. Commensurately an additional 10,625 dwellings are needed between 2016 and 2041 to accommodate the growing population.

This growing population with its diversity of household types presents a challenge for Council in a range of areas including planning for housing, retail, business and employment. The Shellharbour Employment Lands Study is required to inform current and future employment needs of the Shellharbour Local Government Area (LGA) and responds to employment related provisions of the Illawarra Shoalhaven Regional Plan and the Shellharbour Local Strategic Planning Statement.

Recent decades have seen considerable change in the Illawarra's employment profile by way of growth in the service sector (including retail, education, health and community services, and business services) and contraction in manufacturing, agricultural and mining employment. Related to this sectoral change, the employment market has experienced growth in knowledge based employment; an increase in the numbers of commuters to the Sydney metropolitan area; an increase in higher skill level jobs and a contraction in lower skill entry level jobs; an increase in the participation of women in the workforce; and a growth in part-time and casual work.

Traditionally land use planning has provided industrial and commercial land with the assumption that the market will take it up and supply appropriate numbers and types of jobs. This approach needs review to account for the dynamics of not only regional but national and global economies. Planning controls prescribed historically may not be flexible enough to facilitate the appropriate employment outcomes. Employment change has been and is continually influenced by the digital revolution, robotics/automation and globalisation including the Internet, e-commerce, high tech industries and the service sector changing the employment profile.

A continuing trend is home based businesses, which are in 2 categories: home is the work base and business is conducted elsewhere (e.g. self employed trade persons are a major group in this category) and at home businesses where business is conducted from the premises. This can be in categories including property and business services, manufacturing, retail trade, personal and other services, health and community services, education. Many of these businesses are focused on markets in their local area. Improved telecommunications are enlarging the market for home based businesses and increasing the potential for telecommuting, with people working part of their week from home.



Map 1 – Shellharbour LGA Context Map (Source: PSA Consulting)

The continuing trend of automation and robotics also needs to be considered in the SELS and specifically how this may impact on the regional and employment constraints and opportunities for Shellharbour's resident working population.

## 1.2 Purpose and Objectives

The aims of the SELS are to:

- Provide a basis to facilitate a suitable contribution by Shellharbour City towards regional employment needs and employment opportunity, through land use policy;
- Provide a basis to enhance employment opportunities for the Shellharbour community; and
- Address the implications of the Covid-19 pandemic and how the City can recover and increase its resilience, in terms of employment lands/business centres.

## 1.3 Project Methodology

The Project Methodology has been developed to ensure that the project purpose and objectives will be achieved, whilst also ensuring that there is a direct line of sight between the ISRP and overarching Council corporate policies and plans, through to the SELS. This includes any associated recommendations for LEP amendments, whilst also informing the findings of the Shellharbour Business Centres and Surrounding Residential Lands Study (SBCSRLS), which is being undertaken concurrently with this study.

## 1.4 Study Area

For the purposes of the SELS, employment lands are identified as follows:

- B1 Neighbourhood Business zoned land
- B2 Local Centre zoned land
- B3 Commercial Core zoned land
- B4 Mixed Use zoned land
- B5 Business Development zoned land
- B7 Business Park zoned land
- IN1 General Industrial zoned land
- IN2 Light Industrial zoned land
- SP2 Educational Establishment (Shellharbour TAFE)
- SP2 Health Services Facility (Shellharbour Hospital)

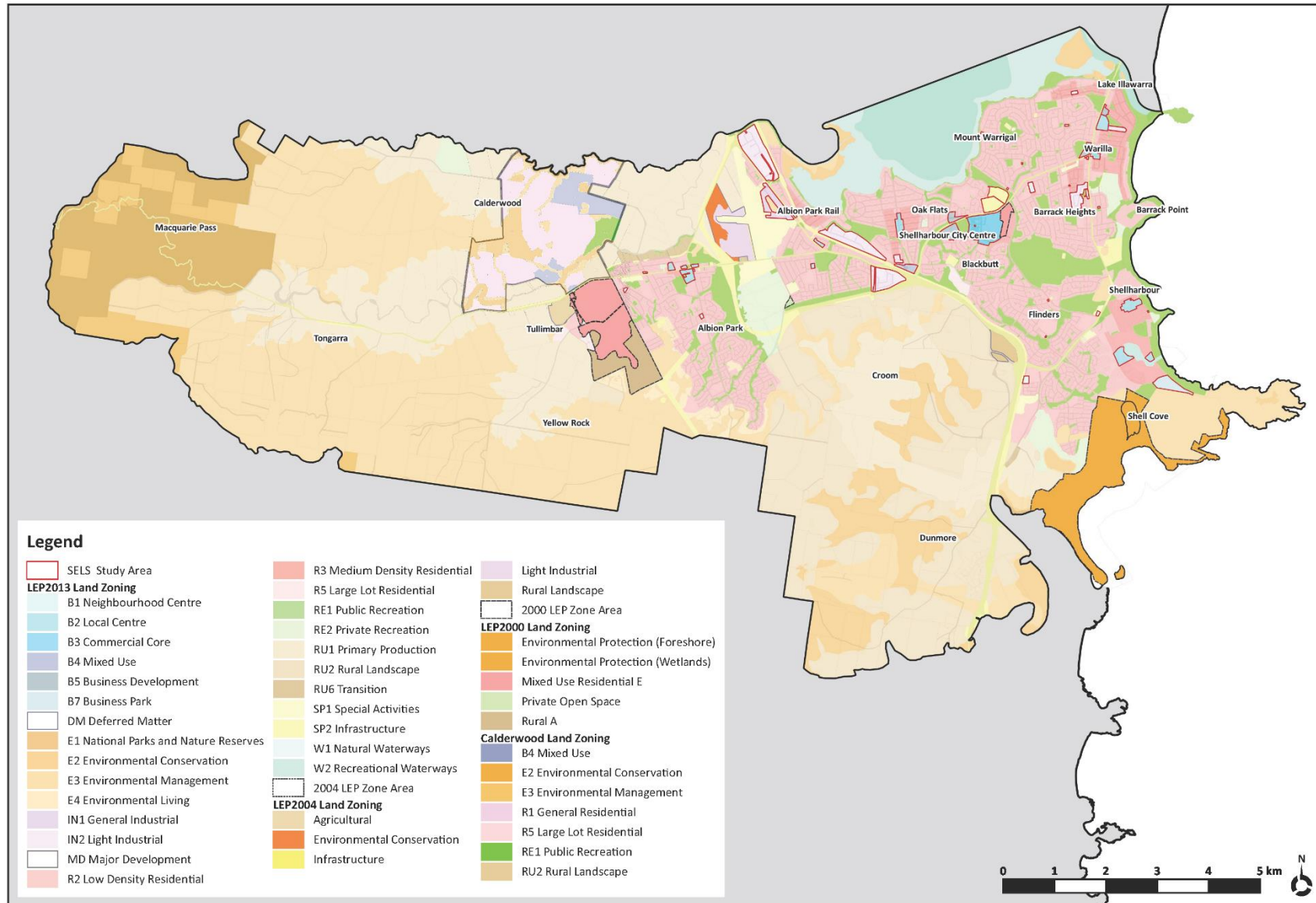
Map 2 depicts these areas. Individual employment lands study area maps are included in **Appendix 1** of this report.

## 1.5 Background Documentation

There are a number of triggers which have prompted the development of the Shellharbour Employment Lands Study. This includes the Illawarra Shoalhaven Regional Plan, whilst Council's Community Strategic Plan (CSP) and Local Strategic Planning Statement (LSPS), also holds relevance for the study's preparation.

### 1.5.1 The Illawarra Shoalhaven Regional Plan (ISRP)

The Illawarra and Shoalhaven Regional Plan provides the strategic policy, planning and decision-making framework to guide 20 year sustainable regional growth for the region, which incorporates the LGA's of Kiama, Shoalhaven, Shellharbour and Wollongong.



PSA Reference: 1049 SSC - Employment Lands Study: Map 1 Context Map 17.02.2021 V4

**Map 2 – SELS Study Area (Source: PSA Consulting)**

1049 – 25 February 2021 – V6



One of the key principles underpinning the Regional Plan is to support a strong, resilient and diversified economy that will enable the community to respond to environmental, economic and social challenges. At the highest level, the SELS will respond to this principle of the Illawarra Shoalhaven Regional Plan (ISRP), which is accompanied by a number of actions and directions to achieve this. Further discussion on the ISRP is provided in section 2.1.1.

### 1.5.2 Shellharbour Community Strategic Plan

Shellharbour Council’s Community Strategic Plan 2018-2028 (CSP) is a long-term plan, which is within the Integrated Planning and Reporting Framework. The CSP focusses on four key areas known as the Quadruple Bottom Line (QBL) being Community, Environment, Economy and Leadership. The SELS will be one of various studies that interact with the CSP to ensure the greatest benefits will be achieved from comprehensively planning for the future. The SELS will sit underneath the CSP and inform the Resourcing Strategy, Delivery Program and Operational Plan as shown in Figure 1 below.

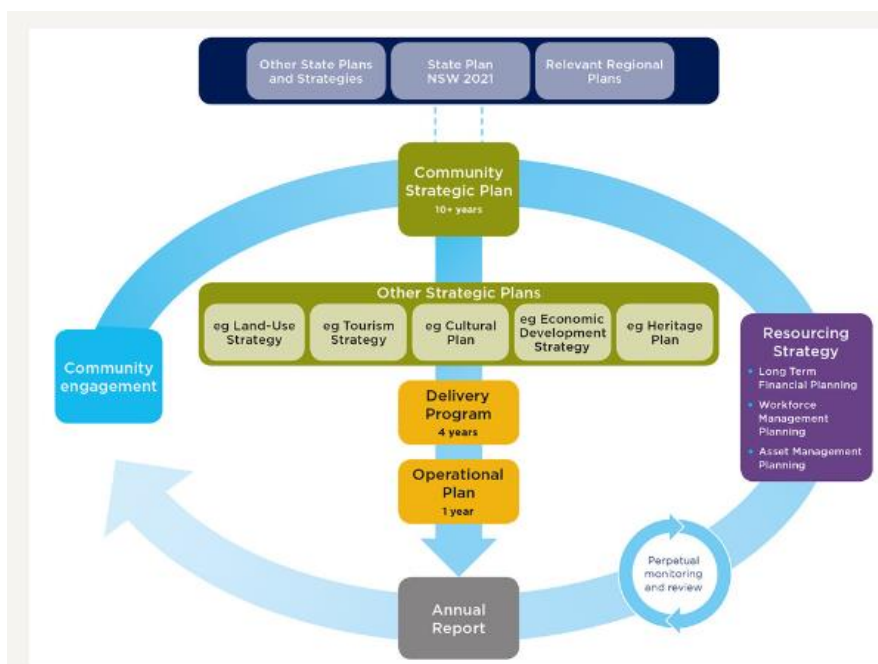


Figure 1 – Integrated Planning and Reporting Framework (Source: Shellharbour City Council)



At the local level, the SELS will also respond to the specific Shellharbour Vision contained in Council’s Community Strategic Plan 2018-2028 (CSP), by planning for employment opportunities which respond to the needs of existing and future populations, by creating a *dynamic* city, being *connected* to community to create a *safe and sustainable* future, and providing *opportunities* for people to both live and work within Shellharbour.

The SELS will respond to the four key areas of the Quadruple Bottom Line (QBL) as contained within the CSP, in particular the Economy Objectives which seek to support and increase employment and business opportunities within a strong local economy.



### 1.5.3 Shellharbour Local Strategic Planning Statement

The Local Strategic Planning Statement (LSPS) builds upon the community’s goals and aspirations that were reflected in the Community Strategic Plan 2018-2028 (CSP). The LSPS brings attention to jobs, homes, services and community infrastructure that is suited to the demand of the community for the next 20 years. The basis of these deliverables are from the Illawarra Shoalhaven Regional Plan, and other council and NSW planning priorities for Shellharbour.

The LSPS brings together and builds on the planning work found in Council’s plans, studies and strategies and will be used to update key components of these plans. It also gives effect to a number of strategic plans prepared by the NSW Government, including the directions and actions contained in the Illawarra Shoalhaven Regional Plan. The LSPS outlines how these State plans will result in changes at the local level.

The four focus areas are aligned to the CSP and also include Community, Environment, Economy and Leadership, with associated planning priorities. The LSPS planning priorities of most relevance to the SELS relate to “Economy” (i.e. P18 – refer Table 1 below).

**Table 1 – Planning Priorities for Local Strategic Planning Statement (Source: Shellharbour City Council)**

Community	Where We Live
	P1 Deliver greater housing diversity and affordability to meet the changing needs of the community
	P2 Quality urban design enhances our local character and delivers liveable places
	Our Services and Social Infrastructure
	P3 Deliver high quality, well-connected and integrated green spaces
	P4 Provide high quality and fit-for-purpose community services and social infrastructure aligned with growth
	P5 Contribute and help to deliver the growing health and education precinct of Shellharbour City Centre
	How we Move and Connect
	P6 Provide accessible and connected suburbs with a range of transport options
P7 Encourage smart and adaptable use of technology for our transport options	
Environment	Our Arts, Culture and Heritage
	P8 Embrace and celebrate Shellharbour City’s heritage and cultural identity
	P9 Foster an artistic, creative and innovative culture for Shellharbour City
	A Sustainable and Resilient City
	P10 Plan for a sustainable and adaptable City
	P11 Manage water, energy and waste efficiently to ensure a sustainable environment
	Our Natural Environment
P12 Respect, protect and enhance our natural assets and significant areas of biodiversity	
P13 Healthy and valued coast and waterways	
Economy	Our Rural Lands
	P14 Protect and enhance our rural lands
	Our Visitors
	P15 Promote our City as a tourist destination
	Our Shellharbour Airport
	P16 Ensure that Shellharbour Airport is viable and grows to meet its potential
Our Town Centres	
P17 Create vibrant, attractive and connected centres that reflect our local character and lifestyle	
Our Business and Employment	
P18 Plan for sufficient local jobs and encourage an innovative employment sector	
Leadership	Infrastructure for the Community
	P19 Ensure infrastructure is aligned to accommodate planned growth and community needs
	Ensure Shellharbour City is Well Planned for the Future
	P20 Monitor, review and report on the LSPS
P21 Advocate for and represent the Shellharbour City community	
Collaboration on Planning for the Future	
P22 The community is involved in planning for the future	

The role of the SELS will be to respond to the strategic planning provisions contained within the LSPS as a means of applying the broader strategic policies for economic and employment and converting this to specific recommendations and outcomes which can be applied in a policy and statutory planning sense, to be practically and effectively implemented.

## 1.6 Relationship to Shellharbour Business Centres and Surrounding Residential Lands Study

The Shellharbour Employment Lands Study (SELS) is being undertaken concurrently with the preparation of the SBCSRLS. The SBCSRLS will be undertaken to determine how and where Shellharbour City Council can appropriately facilitate the provision of housing diversity and choice within selected Business zones of specific centres and the residential areas immediately surrounding some of these centres. This was a finding of the Shellharbour Local Housing Strategy, which determined that while there was sufficient housing supply to meet the projected demand, there was a need to improve housing diversity and choice to meet the needs of the Shellharbour community for people of all life stages and ages, including the provision of smaller, more affordable housing types.

In addition, the SBCSRLS may potentially provide a basis for informing any amendments to Council's Development Control Plan and Local Environmental Plans as they relate to the nominated town centres, Shellharbour City Centre and residential areas adjoining some of these centres, with respect to the following key matters:

- Zones and/or Permissible uses;
- Floor space ratio;
- Height including identifying any gateway sites; and
- Active street frontages.

To the extent relevant, the SELS considers the findings of the SBCSRLS in terms of the planning amendments recommended within that study which could potentially affect the provision of any additional office space and non-residential components of shop top housing within Shellharbour's centres. The recommendations within the SBCSRLS relate primarily to measures aimed at increasing opportunities for additional housing diversity and choice to be achieved within specific centres and their surrounds, rather than necessarily providing more opportunity for additional non-residential development floorspace to occur within these centres. This is based on the analysis conducted within this SELS, which generally shows that there is sufficient supply for commercial and retail floorspace. It is envisaged that the upzoning and take-up of residential land in the immediate surrounds to centres within Shellharbour will assist in supporting centres within Shellharbour, through increasing the population of the immediate local catchment.

Reciprocally, the SELS informs the SBCSRLS in terms of any required floor area increases in centre, to accommodate employment needs.

## 1.7 Report Structure

The SELS has the following structure:

- Section 1 – Introduction
- Section 2 - Planning and Policy Review
- Section 3 – Economic Context
- Section 4 – Current Land Use Patterns and Existing Activity Within Employment Lands
- Section 5 – Employment Trends and Themes
- Section 6 – Employment Lands and Planning Analysis
- Section 7 – Strategic Freight Network in NSW
- Section 8 – Employment Projections
- Section 9 – Projected Demand by Land Use Type
- Section 10 – Stakeholder Consultation
- Section 11 – Implications of COVID-19
- Section 12 – Strategic Recommendations

## 2 PLANNING AND POLICY REVIEW

The review of relevant literature and the policy/draft policy framework has been undertaken to establish the strategic context for employment and employment growth and development in the LGA accounting for:

- settlement and land use patterns;
- sectoral and spatial employment hierarchy;
- the changing characteristics of employment;
- the changes in how employment lands are used, e.g. gyms, churches, play centres setting up in industrial zones;
- economic, technological, social and demographic change; and
- regional development and prospects.

Section 2 provides an overview of the planning policy context, based on the review of the documentation outlined in **Appendix 2**. Section 3 provides an overview of the economic and employment context for Shellharbour, based on the analysis conducted by CDM Smith.

### 2.1 Planning Context

The planning context for employment within Shellharbour City is established through a review of the relevant regional plan and other State, regional and local Shellharbour strategies and studies that contribute to setting the scene for employment. **Appendix 2** contains the comprehensive review of these documents, many of which have varying degrees of relevance. Below, provides a summary of the documents that are considered key in informing the planning context for employment lands within Shellharbour.

#### 2.1.1 Illawarra and Shoalhaven Regional Plan

The Illawarra Shoalhaven Regional Plan provides the strategic policy, planning and decision-making framework to guide the region to sustainable growth over the next 20 years.

The Plan adopts a balanced approach to growth that maximises development in both existing urban areas with their access to jobs, services.

According to the Plan, building a strong, diversified economy is a priority because it will enable the community to respond to environmental, economic and social challenges. A strong economy will generate the high-quality jobs that will retain and attract young people and university graduates. It will enhance the region's centres and public spaces and offer interesting cultural and recreational experiences that will increase the appeal of the region as a place to live, work and invest.

The Plan contains numerous direct actions relevant to Shellharbour City to promote economic growth and employment opportunities. These include:



**Action 1.3.2 Diversify and grow local employment opportunities in the Shellharbour Centre by attracting complementary health and education activities**

**Action 1.3.4 Grow the tourism and light aeronautics industries, and the emergency services roles of Shellharbour Airport**

**Action 1.4.2 Support the development of new industrial land through ongoing collaboration between State and Local Government and servicing authorities, to coordinate infrastructure delivery**

**Action 1.4.3 Support growth in the priority growth sectors through flexible employment lands guidelines for the Illawarra-Shoalhaven**

**Direction 3.1 Grow the opportunities for investment and activity in the region's network of centres.**

The NSW Government's preference is to put retail activity into centres. Proposals for new retail centres (including retail proposals) will be assessed against the region's network of centres. These proposals should demonstrate how they:

Respond to retail supply and demand;

Respond to innovations in the retail sector;

Maximise the use of existing infrastructure (including public transport and community facilities) commensurate with the scale of the proposal; and

Enhance the value of the public realm

The net community benefit should be a factor when assessing these proposals.

**Action 3.3.2 Support Council-led revitalisation of centres**

The NSW Government will:

Improve coordination between State agencies, Councils and the private sector to support council-led revitalisation projects

The ISRP builds on the region's existing economic strengths and identifies the following priority growth sectors:

- tourism;
- health, disability and aged care;
- ICT/knowledge services;
- education and training;
- aviation, defence and advanced manufacturing; and
- freight and logistics.

The SELS will respond to the key directives and actions established by the ISRP where relevant, in terms of how Shellharbour can potentially:

1. Diversify and grow local employment opportunities in the Shellharbour Centre by attracting complementary health and education activities;
2. Grow the tourism and light aeronautics industries, and the emergency services roles of Shellharbour Airport (noting that the role of tourism is beyond the scope of this study);
3. Address the development of new industrial land and any actions or incentives needed to catalyse development;
4. Address how growth might be supported in the priority growth sectors within Shellharbour; and

5. Identify any additional opportunities for investment and activity in the region's network of centres, including actions for Council-led revitalisation of centres.

## 2.2 Shellharbour LEP 2013

Local Environmental Plans (LEPs) are an important component of the NSW planning system, with each local government having an LEP to guide development and planning decisions. Whilst the SEPPs outline the rules and guidelines for land use, councils can nominate more specific rules about land use through their Local Environmental Plans, as well as provide additional guidance in their Development Control Plans (DCPs).

There are currently three LEPs which apply to Shellharbour. These are the Shellharbour LEP 2013, Shellharbour Rural LEP 2004 and the Shellharbour LEP 2000.

The Shellharbour LEP 2013 contains development standards for floor space ratio, height, minimum lot size and other provisions which affect most Development Applications made in Shellharbour. It does not apply to land identified as a Deferred Matter on the Land Application Map. As a result, the Calderwood area is excluded from the Shellharbour Local Environmental Plan (LEP) 2013 and is now covered by State Environmental Planning Policy (State Significant Precincts) 2005. The relevant provisions of the LEP have been considered when preparing the SELS and whether any amendments are warranted as a result of the recommendations arising from the SELS.

The Shellharbour Rural LEP 2004 applies to certain land identified as a Deferred Matter on the Land Application Map within the Shellharbour LEP 2013. This generally relates to the Illawarra Regional Business Park site to the immediate west of the Illawarra Regional Airport; land on the Illawarra Highway to the west of Yellow Rock Road; and land on the Princes Highway to the north west of Shellharbour Road. The Rural LEP 2004 is applicable insofar as it relates to the IRBP and has been considered as part of the SELS in this regard.

The Shellharbour LEP 2000 applies to other land identified as a Deferred Matter on the Land Application Map within the Shellharbour LEP 2013. For example, the 2000 LEP is applicable to the emerging residential area of Tullimbar. It also applies to other areas within the LGA, such as land south of Shell Cove.

## 2.3 Shellharbour DCP

The Shellharbour Development Control Plan (DCP) applies to Shellharbour except for the Calderwood area which is approved for development by the State government under Part 3a of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and has its own development guidelines under that legislation. No LEPs apply to Calderwood.

Unlike the SEPPs and LEPs, DCP provisions are not statutory requirements but can provide guidance on certain development matters. The primary purpose of a DCP is to provide guidance to applicants on:

- Giving the effect to the aims of any environmental planning instrument that applies to the development;
- Facilitating development that is permissible under any such instrument; and
- Achieving the objectives of land zones under any such instrument.

The implications of the recommendations arising from the SELS and any impact this may have on the DCP provisions have been considered when preparing the SELS.

## 2.4 Town Centre Plans

Shellharbour City has adopted town centre plans (TCPs) for Albion Park, Shellharbour Village Centre, Oak Flats and Warilla, which generally identify little future supply deficits of retail and commercial floor space. The town centre LEP recommendations account for this, whilst also encouraging greater density and critical mass of people through various measures such as height controls to promote a sense of enclosure and connected and vibrant mixes of uses. Any recommendations arising from the SELS will need to be cognisant of these town centre LEP recommendations and must provide sufficient justification if they are to override or be inconsistent with these current recommendations. **Appendix 2** provides a more detailed discussion on the TCP recommendations.

## 2.5 Shellharbour LGA Retail/Commercial Centres Study 2008

Hill PDA was commissioned to do a Retail/Commercial Centres Study in 2008. The purpose of the study was to inform the review of the LEP and to aim to accommodate the retail and commercial facility needs of the LGA's residents, visitors, workers and business.

The study identified several key drivers of change in the retail and commercial activity at Shellharbour, including the following:

- *Population and household growth*
- *Declining average household size*
- *An ageing population*
- *Increasing part time employment*
- *Longer working hours*
- *Increasing workforce participation rate*
- *Household income*
- *Employment levels*

To effectively manage the different centres within Shellharbour City, the study recommended a retail hierarchy as shown below.

Centre Typology	Retail Centre
Major Regional Centre	Shellharbour City Centre
Major Town	Warilla Grove, Albion Park
Village	Albion Park Rail, Oak Flats, Shellharbour Village, Warilla, Barrack Heights, Lake Illawarra, Albion Park South, Tullimbar Village (as proposed), Shell Cove (as proposed)
Neighbourhood Centre	Karoo Street, Albion Park Rail Pine Street & Ash Avenue, Albion Park Rail Sophia Street, Albion Park Cnr Tongarra/Calderwood Roads, Albion Park Darley Street, Shellharbour Village Baragoot Road, Flinders Reddall Parade, Lake Illawarra Lagoon Street, Barrack Heights McKenzie Avenue, Mt Warrigal Jones Avenue, Mt Warrigal Queen Street, Warilla Ulster Avenue, Warilla
Major Peripheral Retail >22,000sqm	Shellharbour City Centre Out-of-Centre
Minor Peripheral Retail < 22,000sqm	Albion Park Rail Out-of-Centre (north and south)

**Figure 2 – Shellharbour LGA Retail and Commercial Centres Hierarchy 2007 (Source: Shellharbour LGA Retail/Commercial Centres Study 2008)**

The study also recommended that the selection of zones should reflect the retail hierarchy as follows:

Zone	Centres
B3 – Commercial Core	Shellharbour City Centre (including Shellharbour City Out of Centre)
B2 – Local Centre	Warilla Grove, Warilla, Oak Flats, Albion Park, Albion Park Rail, Shell Cove (as proposed), Shellharbour Village, Tullimbar Village (as proposed), Lake Illawarra, Albion Park South, Barrack Heights
B1 – Neighbourhood Centre	Neighbourhood Centres as identified in the hierarchy
B6 – Enterprise Corridor	Albion Park Rail – Princes Highway as identified in Section 22.7 of this report.
B7 – Business Park	Parts of Illawarra Regional Airport locality (as appropriate)
SP3 – Tourist	Parts of boat harbour at Shell Cove and Shellharbour Village (as appropriate)

**Figure 3 – Recommended LEP Zonings (Source: Shellharbour LGA Retail/Commercial Centres Study 2008)**

These recommendations, where appropriate, were implemented as part of the commencement of the LEP 2013 and have been considered to the extent relevant within the preparation of the SELS.

## 2.6 Shellharbour Employment Lands Study 2009

The Shellharbour Employment Lands Study 2009 was also prepared by Hill PDA and informed the preparation of the LEP 2013. It identified guiding principles for Shellharbour employment lands and that there was no need for increasing the area of employment lands in Shellharbour City.

The study also took into account land zoned special uses, specifically used for employment purposes. The study found that there was 151.3 ha of industrial zoned land, 313.3 ha of special uses zoned land and 53 ha of business zoned land. The Shellharbour Retail and Commercial Centres Study 2008 had already examined the business zones, therefore, the business zones were excluded from this study. The findings and recommendations of the study are summarised in the table below:

**Table 2 – Employment Zone Recommendations (Source: Shellharbour Employment Lands Study 2009)**

	Precinct	Total Precinct Area (ha)	Estimated Vacant (ha)	Lots	Est. Workers	Est. Businesses	Employment Land Assessment Score	Current Employment Zones	Proposed Employment Zones
1	Albion Park Rail	37.1	16.0	77	395	68	41/50	4(a) Light Industrial	B6 Enterprise Corridor
								4(a3) Airport Light Industrial	B6 Enterprise Corridor
2	Illawarra Regional Airport	245.8*	45.7	138	352	25	30/50	5(a) Special Use	SP1 Special Activities
								4(a3) Airport Light Industrial	B6 Enterprise Corridor
								78 Tongarra Road – IN2 Light Industrial under Major Projects SEPP	IN2 Light Industrial
3	Oak Flats	28.1	3.6	121	451	143	31/50	4(a) Light Industrial	IN2 Light Industrial
								4(a) Light Industrial	IN2 Light Industrial
								5(a) Special Use	IN2 Light Industrial
4	Central Business Park, Albion Pk Rail	14.8	7.6	81	272	66	39/50	4(a) Light Industrial	B6 Enterprise Corridor
								9(b) Arterial Road Reservation	SP2 Infrastructure
5	Warilla	8.1*	1.5	57	400	45	43/50	4(a) Light Industrial	IN2 Light Industrial
								2(e) Mixed Use Residential	B4 Mixed Use
								9(b) Arterial Road Reservation	SP2 Infrastructure
								2(b2) Residential	B6 Enterprise Corridor
6	Barrack Heights	9.2	3.2	57	236	56	43/50	Princes Highway 4(a) Light Industrial	B6 Enterprise Corridor
								4(a) Light Industrial	IN2 Light Industrial
								Princes Highway 4(a) Light Industrial	B6 Enterprise Corridor
	<b>TOTAL</b>	<b>343.1</b>	<b>77.6</b>	<b>531</b>	<b>2,106</b>	<b>403</b>			

\* Area includes land not currently zoned for employment uses. See Chapter 5 Assessment of Industrial Precincts.

These recommendations where appropriate, were implemented as part of the commencement of the LEP 2013.

The purpose of this SELS is to provide an updated Employment Lands Study which provides a more up-to-date analysis of the factors contributing to the provision of employment within Shellharbour. Consideration of the current zoning and land use permissibility has been undertaken as part of this SELS.

## 2.7 Shellharbour Economic Development Strategy 2019-2022

The Shellharbour Regional Economic Development Strategy 2019-2022 is a long-term economic strategy for economic development within Shellharbour City, created in collaboration between the Shellharbour City Council and the NSW Government's Centre for Economic and Regional Development (CERD). The strategy has an economic focus of continuing to attract new residents and the development of regionally significant assets. It also investigates opportunities that will assist to leverage endowments involving location, infrastructure, lifestyle and amenity, and affordable housing.

Natural endowments play a key role in the economic development of a regional economy with the CERD Regional Economic Enablers Report (2016) stating: *"the future of individual regional economies is inexorably linked to their natural endowments and attempts to retain or establish industries without an underpinning endowment are unlikely to succeed"*.

Three core strategies have been developed to advise investment and other actions for the next four years:

- Continue to improve services and infrastructure to support population and business growth and enhance the overall amenity of the Region;
- Improve education outcomes and workforce skills to support business growth, economic, inclusiveness and life outcomes; and
- Unlock potential opportunities in the tourism sector.

The SELS has been cognisant of these core strategies when undertaking the employment analysis and developing recommendations.

## 2.8 Shellharbour LGA Employment Land Forecasts – Demand/Supply Analyses 2009

This analyses addresses different pieces of work on employment land/jobs demand and supply in Shellharbour City. The analyses makes conclusions and recommendations on the adequacy of forecast future (2031) employment lands for workers living in Shellharbour in 2031, based on a preferred and conservative methodology.

There were two methods used for the Shellharbour LGA Employment Land Forecasts. The first one is as per that which is shown within the *Shellharbour LGA Employment Lands Study* which uses the population projections and current trends for workforce projections. The second method is the preferred method which identifies a "20 minute job zone" through using the NSW Government Transport Data Centre figures. The preferred method has an assumed zero unemployment rate and assumes that residents will only drive a maximum of 20 minutes for work.

The "20-minute job zone" method is the preferred method as it is the sustainable and conservative option. This identifies that the job supply surpasses demand within Shellharbour in 2031. As mentioned in the *Shellharbour LGA Employment Lands Study*, there are three land use zones identified as employment land: business zone, industrial zone and special use zone. For all three categories, it is forecast that there will be a surplus in all categories, in total there is an estimate of 172,031 jobs and 124,222 workers.

## 2.9 Illawarra and South Coast Employment Lands Strategy 2006

The Illawarra and South Coast ELS is part of a 3 stage strategy conducted by the NSW Department of Planning, Department of State and Regional Development, Premiers Department and Southern Group of Councils.

The Strategy was developed through a 3 stage process, comprising:

1. Stage 1 undertaken by SGS Economics and Planning - "Illawarra and South Coast Employment Lands Audit", DIPNR, July 2004. The study provides a comprehensive audit of commercial and industrial land in the Illawarra and South Coast region, a report analysing the audit results and an Employment Lands Database to enable the data to be interrogated for local and regional strategic planning.



2. Diana Gibbs and Partners - "Stage 2-Illawarra and South Coast Employment Lands Strategy: Economic and Employment Opportunities Study. Final Report", May 2005. The study draws on existing research and uses the recent work of agencies throughout the region to identify a detailed picture of the region's current economic and employment situation. This information has been used to provide an estimate of likely future demand for employment land in the region.
3. Stage 3 - Hill PDA - "Illawarra and South Coast Employment Lands Strategy", February 2006. The report:
  - identifies and discusses the implications of Stages 1-2;
  - reviews existing environmental planning instruments and policy regarding employment lands;
  - develops land use planning and policy options to accommodate future economic activity and optimises the region's ability to facilitate employment generating land uses through the land use planning process;
  - identifies implications for land use planning and regional policy development; and
  - provides Land Use Planning Principles for Employment Land.

The ELS has a goal of ensuring that there are sufficient jobs for the future work population through supporting economic and employment opportunities.

The ELS concluded that in Shellharbour City there is a total of 984.4 ha of employment land available, of which 940 ha is developed, and 44.4 ha is undeveloped. Major classes of employment include:

- Production industries (agriculture, mining, manufacturing) 16.8%
- Services to industry (Construction, transport and storage, wholesale trade) 16.7%
- Business services (finance and insurance, property and business services) 12.3%
- Services to consumers (retail trade, accommodation and cafes, electricity gas and water, communications, cultural and recreational, personal services) 30.3%
- Community services (Government admin, education, health and community services) 23.3%.

Due to the passage of time that has elapsed since much of the employment, retail and commercial related work has been undertaken, it is appropriate to prepare a revised ELS for Shellharbour to respond to the current employment situation. Below provides an overview of the existing economic context for employment lands in Shellharbour.

## 3 ECONOMIC CONTEXT

This chapter provides an understanding of the economic and market-based factors which influence the supply of jobs and demand for employment land within Shellharbour. In undertaking this assessment, the analysis has utilised databases from Informed Decisions (ID) and REMPLAN. The ID database divides Shellharbour City into twelve sub-areas. Hence socio-economic data presented in this chapter is reported by sub-area.

The REMPLAN database, on the other hand, utilises data at the Statistical Area 2 (SA2) level, consistent with ABS geographies. ABS SA2s are designed to reflect functional areas that represent a community that interacts together socially and economically, and take into consideration suburb and locality boundaries. The SA2 boundary is the smallest area for which the majority of ABS datasets are available, and generally have a population range of 3,000 to 25,000 persons. Data relating to gross regional product (GRP) and exports and imports is reported at the SA2 level.

On the other hand, SA4 boundaries are specifically designed to reflect labour markets within each State and Territory and typically contain a population of between 100,000 and 300,000 in regional areas and 300,000 to 500,000 persons in metropolitan areas<sup>1</sup>.

### 3.1 Socio-Economic Profile

The socio-economic characteristics of Shellharbour City as at the 2006, 2011 and 2016 Censuses, benchmarked to Illawarra SA4 and NSW are summarised below, with detailed information provided in Table 3 and in **Appendix 3**:

- As of the 2016 Census the population of Shellharbour City accounted for 23.3% of the total population within the Illawarra SA4. Over 20.0% of the population in Shellharbour City was concentrated in the Albion Park and Rural West sub-area at the time of the last Census;
- In the 2006 to 2016 period, all three areas analysed demonstrated that the incidence of persons aged 0 to 14 years was larger than any other age cohort. However, as of the 2016 Census, the average age of residents of Shellharbour City and in the Illawarra SA4 was 40 years, this is marginally higher than the State average of 39 years recorded in the same year;
- The incidence of couple families with children was the most significant household composition across all areas analysed, and between all Censuses. However, the incidence was marginally higher in Shellharbour City compared to NSW in 2016, representing over a third of all dwellings in the area. The proportion of lone person dwellings within Shellharbour City was consistently lower than that recorded for the broader Illawarra SA4 and the State;
- The average weekly household income within the Shellharbour City was \$1,619.39 per week in 2016 (highest in the Shell Cove – Dunmore sub-area and highest in the Lake Illawarra sub-area), which is \$249.89 per week lower than the recorded State average in the same year;
- The trend of lower household incomes in Shellharbour City was also reflected in average monthly mortgage repayments (\$2,027.54 per month) and average weekly rental payments (\$332.31 per week) in 2016. On average the proportion of household income within Shellharbour City which was spent on housing costs is in line with the State average in 2016;
- The incidence of persons working full time in Shellharbour City was marginally higher than the incidence in the Illawarra SA4 but lower than those recorded for NSW in 2016. However, as of the 2016 Census, the incidence of persons working part-time in Shellharbour City was higher (accounting for over a third of the population) than recorded in NSW;
- The unemployment rate in Shellharbour City was approximately 6.9% in 2016 and was consistently higher than the unemployment rate in NSW across all three Censuses, whilst the participation rate remained lower than the State in the same time period;

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<sup>1</sup> ABS: Australian Statistical Geography Standard (ASGS), accessed [https://www.abs.gov.au/websitedbs/D3310114.nsf/home/Australian+Statistical+Geography+Standard+\(ASGS\)](https://www.abs.gov.au/websitedbs/D3310114.nsf/home/Australian+Statistical+Geography+Standard+(ASGS))

- The incidence of persons with a non-school qualification increased from 35.4% in 2006 to 45.9% in 2016 of the working age population in Shellharbour City. Increases in the proportion of the population holding a non-school qualification is consistent across all three major areas analysed. However, Shellharbour City experienced the most significant growth between the Censuses;
- Shellharbour City recorded an increase in the incidence of persons with a bachelor's degree or higher, however as of the 2016 Census, the proportion of the population in Shellharbour City holding this type of qualification was still half that of the State average. Census data demonstrates that the proportion of persons in Shellharbour City holding a certificate was significantly higher than both the Illawarra SA4 and the State in 2016;
- Of the working population in Shellharbour City and the Illawarra SA4, over a third are lower white-collar workers, making this occupational category the most significant in these areas across all three Censuses. This is in contrast with the State employment trends, which suggests as of the 2006, 2011 and 2016 Censuses the most significant occupational category was upper white-collar workers. This is likely due to the incidence of professionals in NSW being significantly higher than those within Shellharbour City in 2016. However, in the Shell Cove – Dunmore sub-area of Shellharbour City the proportion of professionals in 2016 was only marginally less than the State average; and
- Shellharbour City, the Illawarra SA4 and NSW follow the same trend in significant employment industries overtime. In 2006, across all three areas, the most significant employing industry was retail trade, however, in 2011 and 2016 the most significant industry shifted to health care and social assistance industries. As of 2016, the health care and social assistance industry represented almost a quarter of all employment in Shellharbour City and in the Illawarra SA4, which is marginally higher than the recorded proportion in NSW (12.5% of employment).

**Table 3 - Socio-Economic Profile, Shellharbour City, Illawarra SA4 and NSW, 2006 to 2016**

	Shellharbour City			Illawarra SA4			NSW		
	2006	2011	2016	2006	2011	2016	2006	2011	2016
Population	60,335	63,605	68,456	263,330	275,978	293,493	6,549,175	6,917,601	7,480,242
Age Distribution									
0-14 years	23.0%	21.3%	19.9%	20.0%	19.1%	18.4%	19.8%	19.3%	18.5%
15-24 years	13.3%	13.5%	13.1%	13.8%	13.8%	13.6%	13.3%	12.9%	12.5%
25-34 years	12.3%	11.4%	11.7%	12.4%	11.9%	12.3%	13.6%	13.6%	14.3%
35-44 years	14.8%	13.8%	12.6%	14.2%	13.4%	12.6%	14.6%	14.0%	13.4%
45-54 years	13.7%	14.3%	13.5%	13.7%	13.9%	13.1%	13.8%	13.7%	13.1%
55-64 years	10.6%	11.4%	12.4%	10.7%	11.7%	12.3%	11.0%	11.7%	11.9%
65+ years	12.4%	14.3%	16.8%	15.0%	16.2%	17.8%	13.8%	14.7%	16.3%
Average age (years)	36	38	40	38	39	40	38	39	39
Household Type (% of dwellings)									
Couple families with children	37.3%	35.5%	34.1%	32.7%	31.6%	31.1%	31.8%	31.7%	31.5%
Couple families without children	24.9%	25.3%	25.2%	24.7%	25.1%	24.8%	24.1%	24.5%	24.2%
Single parent family	13.5%	14.0%	13.9%	11.8%	12.0%	11.8%	10.8%	11.0%	10.7%
Lone person households	18.5%	20.1%	19.6%	22.9%	23.7%	23.0%	22.8%	23.1%	22.4%
Average household size	2.8	2.8	2.8	2.6	2.6	2.7	2.7	2.7	2.7
Household Finances									
% of households fully owning home	33.6%	33.0%	33.0%	33.6%	33.0%	33.6%	33.2%	31.9%	30.7%
% of households purchasing home	35.3%	36.3%	34.5%	35.3%	36.3%	35.3%	30.2%	31.9%	30.4%
% of households renting	25.2%	25.9%	25.6%	25.2%	25.9%	25.2%	28.4%	29.1%	30.3%
Average weekly household income	-	-	\$1,619	-	-	\$1,677	-	-	\$1,869

	Shellharbour City			Illawarra SA4			NSW		
	2006	2011	2016	2006	2011	2016	2006	2011	2016
Average monthly housing loan repayment	-	-	\$2,028	-	-	\$2,168	-	-	\$2,384
Average weekly rent payment	-	-	\$332	-	-	\$218	-	-	\$400
Average housing costs (as a % of income)	-	-	15.2%	-	-	13.8%	-	-	15.4%
Labour Market									
Full-time employment (% labour force)	57.1%	57.1%	55.5%	56.6%	55.9%	55.1%	60.8%	60.2%	59.2%
Part-time employment (% labour force)	32.6%	34.0%	36.1%	33.4%	35.2%	36.4%	30.6%	31.8%	32.7%
Total employment (% labour force)	92.7%	93.2%	93.1%	92.6%	93.2%	93.0%	94.1%	94.1%	93.7%
Unemployment rate (% labour force)	7.3%	6.8%	6.9%	7.4%	6.8%	7.0%	5.9%	5.9%	6.3%
Participation rate (% of population > 15 years)	58.3%	58.7%	58.0%	56.1%	56.7%	56.6%	58.9%	59.7%	59.2%
Qualifications									
% of persons with a non-school qualification	35.4%	40.4%	45.9%	40.2%	45.1%	50.3%	40.7%	45.8%	50.4%
% of persons with Bachelor or higher	6.7%	8.2%	10.4%	12.6%	15.2%	18.1%	16.5%	19.9%	23.4%
% of persons with Diploma	5.8%	7.0%	8.6%	6.9%	7.9%	9.1%	7.4%	8.3%	8.9%
% of persons with Certificate	22.9%	25.3%	26.9%	20.7%	22.0%	23.1%	16.8%	17.7%	18.1%
Occupation									
Upper White Collar									
Managers	8.7%	8.9%	9.1%	10.2%	10.0%	10.4%	18.1%	13.3%	13.5%
Professionals	12.8%	13.6%	14.2%	19.6%	20.7%	21.3%	14.4%	22.7%	23.6%
Subtotal	21.5%	22.5%	23.3%	29.8%	30.7%	31.7%	32.5%	36.1%	37.1%
Lower White Collar									
Community & Personal Service Workers	10.4%	11.5%	13.1%	10.0%	11.5%	12.5%	8.9%	9.5%	10.4%
Clerical and Admin Workers	14.0%	14.4%	13.5%	14.4%	14.1%	13.5%	11.7%	15.1%	13.8%
Sales Workers	11.5%	11.3%	11.2%	9.9%	9.4%	9.4%	9.4%	9.3%	9.2%
Subtotal	36.0%	37.2%	37.8%	34.3%	35.1%	35.4%	30.0%	33.8%	33.4%
Upper Blue Collar									
Technicians & Trades Workers	18.0%	17.6%	17.5%	16.4%	15.8%	15.4%	14.4%	13.2%	12.7%
Subtotal	18.0%	17.6%	17.5%	16.4%	15.8%	15.4%	14.4%	13.2%	12.7%
Lower Blue Collar									
Machinery Operators & Drivers	10.7%	10.1%	9.0%	8.2%	7.7%	6.8%	7.2%	6.4%	6.1%
Labourers	12.0%	11.0%	10.7%	9.6%	9.2%	9.1%	13.9%	8.7%	8.8%
Subtotal	22.7%	21.1%	19.8%	17.8%	16.9%	15.9%	21.1%	15.1%	14.9%
Employment by Industry (% of employees)									
Agriculture, forestry & fishing	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	2.7%	2.2%	2.1%
Mining	1.7%	2.4%	2.3%	2.0%	2.6%	2.0%	0.7%	1.0%	0.9%
Manufacturing	14.7%	11.7%	7.0%	12.2%	9.9%	6.0%	9.6%	8.4%	5.8%

	Shellharbour City			Illawarra SA4			NSW		
	2006	2011	2016	2006	2011	2016	2006	2011	2016
Electricity, gas, water & waste services	1.1%	1.2%	1.2%	1.1%	1.1%	1.1%	1.0%	1.1%	0.9%
Construction	9.4%	9.3%	11.1%	8.0%	7.9%	9.5%	7.3%	7.3%	8.4%
Wholesale trade	2.8%	2.8%	2.1%	2.7%	2.6%	2.0%	4.7%	4.4%	3.1%
Retail trade	14.0%	12.9%	12.3%	11.5%	10.5%	10.1%	11.1%	10.3%	9.7%
Accommodation & food services	6.5%	6.7%	7.2%	6.7%	7.2%	7.5%	6.5%	6.7%	7.1%
Transport, postal & warehousing	5.4%	5.9%	5.2%	4.8%	5.1%	4.6%	5.0%	4.9%	4.7%
Information media & telecommunications	1.0%	0.8%	0.8%	1.5%	1.2%	1.1%	2.4%	2.3%	2.2%
Financial & insurance services	2.9%	3.1%	2.9%	3.5%	3.6%	3.5%	5.0%	5.0%	4.9%
Rental, hiring & real estate services	1.8%	1.6%	1.5%	1.8%	1.5%	1.5%	1.7%	1.6%	1.8%
Professional, scientific & technical services	3.7%	3.9%	3.6%	5.2%	5.2%	5.3%	7.3%	7.9%	8.1%
Administrative & support services	3.2%	3.2%	3.5%	2.9%	3.1%	3.4%	3.1%	3.3%	3.5%
Public administration & safety	6.2%	6.7%	7.0%	6.7%	7.0%	7.3%	6.0%	6.1%	6.0%
Education & training	6.6%	7.0%	7.8%	9.8%	10.4%	10.9%	7.6%	7.9%	8.4%
Health care & social assistance	11.1%	13.1%	14.5%	11.5%	13.3%	14.7%	10.5%	11.6%	12.5%
Arts & recreation services	1.3%	1.2%	1.1%	1.5%	1.4%	1.4%	1.4%	1.5%	1.5%
Other services	4.2%	4.5%	4.5%	3.9%	4.1%	4.0%	3.8%	3.7%	3.7%

Source: Community ID, Shellharbour, Illawarra SA4 and NSW Data Exporter (2006, 2011 and 2016)

## 3.2 Population Projections

The population of Shellharbour City is anticipated to increase from 70,492 persons in 2016 to 94,877 persons by 2041, increasing at an average annual growth rate (AAGR) of 1.2% per annum. The population within the Rural Balance sub-area is anticipated to grow the fastest across all the Shellharbour City localities analysed, increasing at an average annual rate of 9.8% per annum. The population of Blackbutt- Shellharbour City Centre and Shell Cove sub-areas is anticipated to grow faster than Shellharbour City as a whole.

The working age population, that is the population aged between 15 and 64 years of age, of Shellharbour City is anticipated to increase from 44,818 persons in 2016 to 54,885 persons in 2041, increasing at an average annual rate of 0.8% per annum. Consistent with population projections, the working age population within the Rural Balance sub-area is anticipated to grow the fastest across all the Shellharbour City Regions analysed, increasing at an AAGR of 9.9% per annum. The working age population of Blackbutt- Shellharbour City Centre and Shell Cove – Dunmore sub-areas are anticipated to grow faster than the working age population for Shellharbour City. The Albion Park Rail and Albion Park sub-areas are anticipated to experience a decrease in the working age population over the projection period, decreasing at an average annual growth rate of 0.6% and 0.4% per annum, respectively.

Overall, the working age population in Shellharbour City is anticipated to increase at a slower rate than the total population in all areas analysed, indicating that the attraction and retention of workers will become increasingly important to ensure the needs of the ageing population can be met locally.



Table 4 below outlines population and working age population projections by localities and Shellharbour City in the 2016 to 2041 period.

**Table 4 - Population and Working Age Population Projections – Localities and Shellharbour City, 2016 to 2041**

	2016	2021	2026	2031	2036	2041	AAGR, 2016-41
<b>Population Projections</b>							
Albion Park	13,603	13,856	14,162	14,394	14,591	14,669	0.3%
Albion Park Rail	7,064	7,102	7,050	7,079	7,174	7,208	0.1%
Barrack Heights	6,042	6,117	6,127	6,142	6,185	6,299	0.2%
Blackbutt - Shellharbour City Centre	3,675	4,626	5,896	6,571	6,971	7,147	2.7%
Flinders	6,937	7,206	7,242	7,315	7,401	7,509	0.3%
Lake Illawarra	3,298	3,480	3,714	3,805	3,874	3,941	0.7%
Mount Warrigal	4,965	4,924	4,798	4,836	4,935	5,052	0.1%
Oak Flats	6,636	6,905	7,177	7,465	7,676	7,875	0.7%
Rural Balance	1,325	3,198	5,298	8,223	11,153	13,839	9.8%
Shell Cove-Dunmore	5,845	7,369	9,328	9,256	9,049	8,932	1.7%
Shellharbour - Barrack Point	4,417	4,365	4,510	4,552	4,672	4,901	0.4%
Warilla	6,684	6,805	6,992	7,185	7,363	7,504	0.5%
<b>Shellharbour City</b>	<b>70,492</b>	<b>75,953</b>	<b>82,293</b>	<b>86,824</b>	<b>91,045</b>	<b>94,877</b>	<b>1.2%</b>
<b>Working Age Population Projections</b>							
Albion Park	8,910	8,731	8,535	8,318	8,200	8,136	-0.4%
Albion Park Rail	4,445	4,205	3,968	3,838	3,833	3,854	-0.6%
Barrack Heights	3,806	3,716	3,632	3,616	3,629	3,690	-0.1%
Blackbutt - Shellharbour City Centre	2,363	2,895	3,639	3,965	4,145	4,209	2.3%
Flinders	4,634	4,697	4,644	4,625	4,597	4,622	0.0%
Lake Illawarra	2,120	2,190	2,182	2,195	2,239	2,273	0.3%
Mount Warrigal	2,977	2,833	2,678	2,672	2,745	2,815	-0.2%
Oak Flats	4,294	4,189	4,108	4,197	4,334	4,466	0.2%
Rural Balance	842	2,048	3,397	5,303	7,227	8,956	9.9%
Shell Cove-Dunmore	3,668	4,613	5,738	5,542	5,302	5,081	1.3%
Shellharbour - Barrack Point	2,788	2,629	2,508	2,455	2,527	2,669	-0.2%
Warilla	3,969	3,895	3,909	3,950	4,010	4,113	0.1%
<b>Shellharbour City</b>	<b>44,818</b>	<b>46,640</b>	<b>48,942</b>	<b>50,674</b>	<b>52,786</b>	<b>54,885</b>	<b>0.8%</b>
<b>Working Age Population (% of Total Population)</b>							
Albion Park	12.6%	11.5%	10.4%	9.6%	9.0%	8.6%	-0.2%
Albion Park Rail	6.3%	5.5%	4.8%	4.4%	4.2%	4.1%	-0.1%
Barrack Heights	5.4%	4.9%	4.4%	4.2%	4.0%	3.9%	-0.1%
Blackbutt - Shellharbour City Centre	3.4%	3.8%	4.4%	4.6%	4.6%	4.4%	0.0%
Flinders	6.6%	6.2%	5.6%	5.3%	5.0%	4.9%	-0.1%
Lake Illawarra	3.0%	2.9%	2.7%	2.5%	2.5%	2.4%	0.0%
Mount Warrigal	4.2%	3.7%	3.3%	3.1%	3.0%	3.0%	-0.1%
Oak Flats	6.1%	5.5%	5.0%	4.8%	4.8%	4.7%	-0.1%
Rural Balance	1.2%	2.7%	4.1%	6.1%	7.9%	9.4%	0.3%
Shell Cove-Dunmore	5.2%	6.1%	7.0%	6.4%	5.8%	5.4%	0.0%
Shellharbour - Barrack Point	4.0%	3.5%	3.0%	2.8%	2.8%	2.8%	0.0%
Warilla	5.6%	5.1%	4.8%	4.5%	4.4%	4.3%	-0.1%
<b>Shellharbour City</b>	<b>63.6%</b>	<b>61.4%</b>	<b>59.5%</b>	<b>58.4%</b>	<b>58.0%</b>	<b>57.8%</b>	<b>-0.2%</b>

Source: Forecast ID, Shellharbour City Council (2019)

### 3.3 Working Population Characteristics

This section provides a brief overview of the existing and projected working population of Shellharbour City, that is employment by place of work.

Working population data is often presented by industry of employment at the one-digit Australian and New Zealand Standard Industrial Classification (ANZSIC) level. The ANZSIC is the hierarchical classification used in Australia and New Zealand for the collection, compilation and publication of statistics by industry. The ANZSIC has four levels, which are as follows; divisions (the broadest level), subdivisions, groups and class (the finest level). One-digit ANZSIC industry categories represent the divisional level, which comprises 19 industry categories and provides a broad overall picture of the economic structure of a region.

#### 3.3.1 Place of Residence for Shellharbour City Workers

In 2016, workers who live and work within Shellharbour City accounted for 55.7% of workers within Shellharbour City. The proportion of workers from outside Shellharbour City working in Shellharbour City accounted for just under 45.0% of all workers. In 2016, workers from Wollongong LGA accounted for 33.7% of Shellharbour City workforce whilst a further 8.1% of workers usually resided in Kiama LGA.

Table 5 below summarises the place of residence of the Shellharbour City workforce (i.e. where do workers in Shellharbour City usually reside).

**Table 5 - Place of Residence for Shellharbour City Workers –2016**

Place of Residence	Number of Workers	Share of total (%)
Shellharbour (C)	10,315	55.7%
Wollongong (C)	6,231	33.7%
Kiama (A)	1,508	8.1%
Shoalhaven (C)	275	1.5%
Sutherland Shire (A)	56	0.3%
Wingecarribee (A)	45	0.2%
Wollondilly (A)	30	0.2%
Campbelltown (C) (NSW)	8	0.0%
Liverpool (C)	8	0.0%
Lismore (C)	7	0.0%
Other LGAs	24	0.1%
<b>Total</b>	<b>18,509</b>	<b>100.0%</b>

Source: REMPLAN Place of Usual residence (2016)

#### 3.3.2 Place of Work for Shellharbour Residents

Shellharbour City has a highly mobile workforce with over 64.0% of residents travelling beyond Shellharbour City for employment. In 2016, 36.5% of Shellharbour City residents also worked within Shellharbour City. The proportion of Shellharbour City residents who travelled to Wollongong LGA for employment was 46.3% in 2016. Shellharbour City residents also travelled to Kiama LGA (3.0%), Shoalhaven LGA (1.6%) and Sydney (1.5%) for employment. Based on place of work data, it is apparent the Shellharbour City exports workers to the broader Illawarra SA4.

Table 6 below summarises the place of work of the Shellharbour City workforce (i.e. where do Shellharbour City usually residence work).

**Table 6 - Place of Work for Shellharbour City Residents –2016**

Place of Work	Number of Workers	Share of total (%)
Wollongong (C)	13,099	46.3%
Shellharbour (C)	10,315	36.5%
No Fixed Address (NSW)	1,289	4.6%

Place of Work	Number of Workers	Share of total (%)
Kiama (A)	856	3.0%
Shoalhaven (C)	452	1.6%
Sydney (C)	423	1.5%
Wollondilly (A)	291	1.0%
Sutherland Shire (A)	285	1.0%
Wingecarribee (A)	165	0.6%
Campbelltown (C) (NSW)	154	0.5%
Other LGAs	939	3.3%
<b>Total</b>	<b>28,269</b>	<b>100.0%</b>

Source: REMPLAN Place of Usual Work (2016)

### 3.3.3 Working Population by Industry

The economic structure of Shellharbour City has been analysed utilising the 2011 and 2016 working population data provided by REMPLAN at the one-digit ANZSIC level. The REMPLAN data package reports trends in the working population of Shellharbour City in 2011 and 2016, benchmarked to Illawarra SA4 and NSW. At the SA2 level, working population data by industry is reported only as of 2016.

The number of persons employed in Shellharbour City increased from 15,550 in 2011 to 18,509 in 2016, an increase of 3.5% per annum.

In 2011 and 2016, the significant industries of employment for persons working in Shellharbour City were retail trade (17.5% in 2011 and 17.7% in 2016), health care and social assistance (15.2% in 2011 and 16.9% in 2016) and education and training (12.4% in 2011 and 12.2% in 2016). Shellharbour City had a higher incidence of employment in these sectors compared to Illawarra SA4 and NSW.

Additionally, Shellharbour City experienced strong growth in the incidence of employment in the construction industry, increasing from 10.3% in 2011 to 12.1% of total employment in 2016. Conversely, the incidence of persons employed in Shellharbour City in the public administrative and safety industry sector decreased from 7.1% in 2011 to 6.3% in 2016. In 2011 and 2016, the incidence of persons employed in the professional, scientific and technical services, financial and insurance services and manufacturing industry sectors was significantly higher in Illawarra SA4 and NSW compared to Shellharbour City.

Table 7 below provides one-digit industry of employment within Shellharbour City, Illawarra SA4 and NSW in 2011 and 2016.

**Table 7 - Working Population, Shellharbour City, Illawarra SA4 and NSW, 2011 and 2016**

Industry	2011			2016		
	Shellharbour City	Illawarra SA4	NSW	Shellharbour City	Illawarra SA4	NSW
Agriculture, Forestry and Fishing	0.5%	0.8%	2.3%	0.5%	0.9%	2.3%
Mining	1.0%	1.6%	1.0%	1.1%	1.1%	1.0%
Manufacturing	4.1%	9.5%	8.6%	2.5%	5.9%	6.2%
Electricity, Gas, Water and Waste Services	0.6%	1.0%	1.1%	0.6%	0.9%	1.0%
Construction	10.3%	8.4%	7.4%	12.1%	9.9%	8.8%
Wholesale Trade	2.5%	2.2%	4.6%	1.9%	1.7%	3.2%
Retail Trade	17.5%	12.0%	10.6%	17.7%	11.6%	10.2%
Accommodation and Food Services	9.3%	8.6%	6.9%	9.4%	9.2%	7.5%
Transport, Postal and Warehousing	3.6%	4.2%	5.1%	3.0%	4.0%	4.9%

Industry	2011			2016		
	Shellharbour City	Illawarra SA4	NSW	Shellharbour City	Illawarra SA4	NSW
Information Media and Telecommunications	0.5%	1.0%	2.4%	0.4%	0.8%	2.3%
Financial and Insurance Services	1.7%	3.1%	5.2%	1.7%	2.9%	5.2%
Rental, Hiring and Real Estate Services	1.5%	1.7%	1.7%	1.4%	1.6%	1.9%
Professional, Scientific and Technical Services	3.0%	4.8%	8.1%	3.0%	4.8%	8.5%
Administrative and Support Services	2.9%	3.3%	3.3%	3.4%	3.7%	3.7%
Public Administration and Safety	7.1%	7.2%	6.1%	6.3%	7.4%	6.1%
Education and Training	12.4%	10.3%	8.2%	12.2%	10.9%	8.8%
Health Care and Social Assistance	15.2%	14.9%	11.9%	16.9%	16.7%	13.1%
Arts and Recreation Services	1.5%	1.5%	1.5%	1.2%	1.4%	1.6%
Other Services	4.9%	4.2%	3.9%	4.7%	4.4%	3.9%
<b>Total</b>	<b>15,550</b>	<b>132,755</b>	<b>3,033,526</b>	<b>18,509</b>	<b>143,610</b>	<b>3,358,119</b>

Note: The REMPLAN database reports on trends in the working population for Shellharbour City as a whole, with an SA2 breakdown available for 2016.

Source: REMPLAN Economy Profile, Trends, Various Locations (2011 and 2016)

The three major employment industries, which are relatively more significant in Shellharbour City compared to the Illawarra SA4 are:

- Retail Trade;
- Health Care and Social Assistance; and
- Education and Training.

As mentioned above, REMPLAN provides working population data breakdown by SA2s as of 2016. Within Shellharbour City, employment was most significant in the Shellharbour – Oak Flats SA2 employing 6,584 workers, contributing to over a third of all employment in Shellharbour City. This result is unsurprising given that this SA2 includes the Shellharbour City Centre. The Warilla SA2 contributed to just under a quarter of all employment in Shellharbour City, employing 4,137 workers.

Shellharbour City's relative significance in retail trade employment demonstrated in the 2016 Census is largely centred in the Shellharbour – Oak Flats SA2 (28.6% of all employment in the SA2) and within the Albion Park Rail SA2 (18.6% of all employment in the SA2). This is due to the Stockland Shellharbour Shopping Centre and the retail along Princes Highway, the two primary shopping destinations in Shellharbour City, being located within the Shellharbour – Oak Flats SA2 and the Albion Park Rail SA2 respectively.

Within the Warilla SA2 employment in the health care and social assistance industry accounted for almost a third of total employment in the area in 2016. The concentration of health care workers in this SA2 is expected as the Shellharbour Private Hospital is within Warilla SA2, and is co-located with the NSW Ambulance base for the City.

The proportion of employment within education and training industry is significantly higher within the Albion Park – Macquarie Pass SA2 compared to another other area within Shellharbour City, representing 26.0% of all employment within the SA2. Within the Warilla SA2 there are approximately four State schools (including primary and secondary facilities), three private schools and two driving instructor businesses (based along Jamberoo Road, Albion Park).

A detailed breakdown of the employment by industry within each SA2 of Shellharbour City is provided in Table 8.

**Table 8 - Working Population by SA2, Shellharbour City, 2016**

Industry Sector	Albion Park - Macquarie Pass	Albion Park Rail	Shellharbour - Oak Flats	Warilla	Shellharbour - Flinders
Agriculture, Forestry and Fishing	2.3%	0.2%	0.1%	0.1%	0.8%
Mining	0.4%	0.3%	0.0%	0.0%	6.6%
Manufacturing	0.6%	6.0%	2.4%	2.1%	2.1%
Electricity, Gas, Water and Waste Services	0.2%	0.5%	0.1%	0.0%	3.0%
Construction	10.6%	17.0%	9.3%	9.8%	18.8%
Wholesale Trade	1.2%	7.7%	0.9%	0.9%	1.0%
Retail Trade	10.6%	18.6%	28.6%	12.1%	6.2%
Accommodation and Food Services	9.0%	7.3%	8.7%	8.1%	15.1%
Transport, Postal and Warehousing	2.3%	5.9%	2.6%	1.7%	3.7%
Information Media and Telecommunications	0.4%	0.4%	0.9%	0.0%	0.0%
Financial and Insurance Services	1.7%	0.0%	2.5%	1.5%	1.4%
Rental, Hiring and Real Estate Services	1.9%	1.4%	1.3%	1.6%	1.3%
Professional, Scientific and Technical Services	4.1%	2.1%	2.6%	2.7%	4.0%
Administrative and Support Services	2.4%	3.5%	3.4%	2.8%	4.9%
Public Administration and Safety	2.0%	2.4%	12.2%	3.2%	4.2%
Education and Training	26.0%	3.3%	8.2%	15.3%	12.8%
Health Care and Social Assistance	18.4%	15.8%	10.6%	31.9%	9.3%
Arts and Recreation Services	1.7%	1.8%	0.5%	1.4%	1.5%
Other Services	4.3%	5.9%	5.0%	4.9%	3.1%
<b>Total</b>	<b>2,465</b>	<b>2,494</b>	<b>6,584</b>	<b>4,137</b>	<b>2,829</b>

Source: REMPLAN Economy Profile, Industries, various locations (2016)



### 3.3.4 Full Time and Part Time Employment

As of 2016, the incidence of persons in Shellharbour City working between 35 and 39 hours per week was lower than recorded for Illawarra SA4 and NSW. However, across all geographies analysed, Shellharbour City had the highest incidence of persons working between 1 and 15 hours per week, as of the 2016 Census. Consistent with the significance of the retail sector as an employer, data relating to hours worked suggests a relatively high level of casualisation with the Shellharbour City workforce compared to the benchmark areas. The proportion of workers in Shellharbour City relative to Illawarra SA4 and NSW, by the number of hours worked, is detailed in Table 9.

**Table 9 - Proportion of Total Workforce, Hours Worked, Shellharbour City, Illawarra SA4 and NSW, 2016**

	Shellharbour City	Illawarra	New South Wales
0 hours	3.2%	3.5%	3.2%
1 - 15 hours	15.9%	14.0%	10.9%
16 - 24 hours	13.2%	12.3%	10.6%
25 - 34 hours	13.6%	12.6%	10.6%
35 - 39 hours	17.8%	19.3%	19.2%
40 hours	16.4%	16.8%	20.1%
41 - 48 hours	7.1%	8.5%	9.2%
49 hours or more	12.1%	12.1%	15.1%
Not stated/Not applicable	0.6%	0.9%	1.1%
<b>Total</b>	<b>18,509</b>	<b>143,610</b>	<b>3,358,119</b>

Source: REMPLAN Economy Profile, various locations (2016)

According to REMPLAN, a person is considered to be working full-time if they worked 35 hours or more in all jobs during the week prior to Census Night. Based on this definition, as of 2016 the incidence of part-time workers in Shellharbour City was higher than Illawarra SA4 and NSW, whilst the proportion of full-time workers in the City was lower. The incidence of full-time and part-time employment (as a proportion of the labour force), as of 2016, is as follows:

- Shellharbour City: 45.9% part-time and 53.5% full-time employment;
- Illawarra SA4: 42.4% part-time and 56.7% full-time employment; and
- NSW: 35.3% part-time and 63.7% full-time employment.

The composition of full-time or part-time employment categories also varies by SA2 within Shellharbour City. Overall the incidence of full-time employment was highest with the Albion Park Rail SA2, accounting for over two-thirds of the total employment in the SA2. This trend was primarily driven by the retail trade industry (20.4% of all full-time workers in the SA2) and the health care and social assistance (12.5% of all full-time workers in the SA2). The highest incidence of part-time employment was in the Albion Park – Macquarie Pass SA2 where just under half of all employment in the SA2 is classified as part-time. Regarding part-time employment within this SA2, the education and training (17.8% of all part-time employment in the SA2), health care and social assistance (17.8% of all part-time workers in the SA2) and retail trade industries (15.2% of all part-time workers in the SA2) were the most significant contributing industries.

Table 10 details the proportion of part-time and full-time employment and the proportion of each by industry within the SA2's of Shellharbour City, as of the 2016 Census.

**Table 10 - Proportion of Full-time and Part-time employment, Shellharbour City SA2's, 2016**

Industry Sector	Albion Park - Macquarie Pass		Albion Park Rail		Shellharbour - Oak Flats		Warilla		Shellharbour - Flinders	
	Employed, worked full-time	Employed, worked part-time	Employed, worked full-time	Employed, worked part-time	Employed, worked full-time	Employed, worked part-time	Employed, worked full-time	Employed, worked part-time	Employed, worked full-time	Employed, worked part-time
Agriculture, Forestry and Fishing	2.2%	2.8%	0.5%	0.0%	0.0%	0.2%	0.2%	0.0%	0.4%	0.6%
Mining	1.7%	0.0%	1.7%	0.5%	0.4%	0.0%	0.0%	0.0%	7.0%	0.0%
Manufacturing	2.9%	1.3%	10.4%	5.8%	5.0%	2.6%	4.5%	2.6%	5.4%	1.4%
Electricity, Gas, Water and Waste Services	0.3%	0.0%	1.0%	0.0%	0.2%	0.0%	0.0%	0.0%	6.7%	0.0%
Construction	12.4%	2.9%	10.3%	4.2%	10.9%	2.9%	8.8%	2.5%	13.2%	5.3%
Wholesale Trade	3.1%	2.0%	10.8%	3.0%	1.5%	1.0%	2.4%	1.7%	0.9%	1.6%
Retail Trade	11.7%	15.2%	20.4%	16.6%	15.5%	33.4%	14.0%	21.3%	6.7%	14.6%
Accommodation and Food Services	3.9%	10.8%	4.2%	23.3%	3.9%	15.0%	4.6%	11.6%	10.8%	23.6%
Transport, Postal and Warehousing	4.7%	2.4%	6.8%	2.5%	3.4%	2.6%	1.8%	1.6%	5.0%	3.6%
Information Media and Telecommunications	0.0%	0.0%	0.0%	0.0%	0.7%	1.6%	0.2%	0.3%	0.3%	0.0%
Financial and Insurance Services	1.7%	2.1%	0.0%	0.0%	2.9%	1.9%	1.4%	1.1%	2.6%	3.3%
Rental, Hiring and Real Estate Services	1.9%	1.4%	1.5%	1.3%	1.7%	0.9%	2.0%	1.7%	2.5%	2.3%
Professional, Scientific and Technical Services	3.8%	4.3%	1.7%	2.3%	2.9%	2.3%	3.0%	2.8%	4.5%	5.3%
Administrative and Support Services	2.4%	2.5%	1.6%	1.0%	1.9%	2.3%	1.4%	3.1%	2.7%	4.3%
Public Administration and Safety	2.8%	1.6%	4.2%	3.5%	21.6%	7.5%	4.1%	2.5%	4.4%	0.4%
Education and Training	21.9%	24.7%	3.5%	6.1%	9.4%	10.0%	15.0%	14.9%	14.9%	14.0%
Health Care and Social Assistance	13.2%	17.8%	12.5%	21.1%	10.9%	10.1%	27.2%	25.5%	6.9%	8.7%
Arts and Recreation Services	1.3%	1.8%	0.9%	2.0%	0.6%	1.8%	1.5%	2.6%	1.5%	2.0%
Other Services	5.5%	4.4%	6.8%	5.0%	5.5%	3.0%	6.4%	3.8%	3.6%	6.7%
Inadequately described	1.0%	1.7%	0.6%	1.0%	0.5%	0.9%	0.4%	0.6%	0.3%	0.6%
Not stated	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%
Total Number	1,089	954	1,112	602	2,485	1,863	1,809	1,546	1,013	699

Source: ABS Census of Population and Housing (2016)

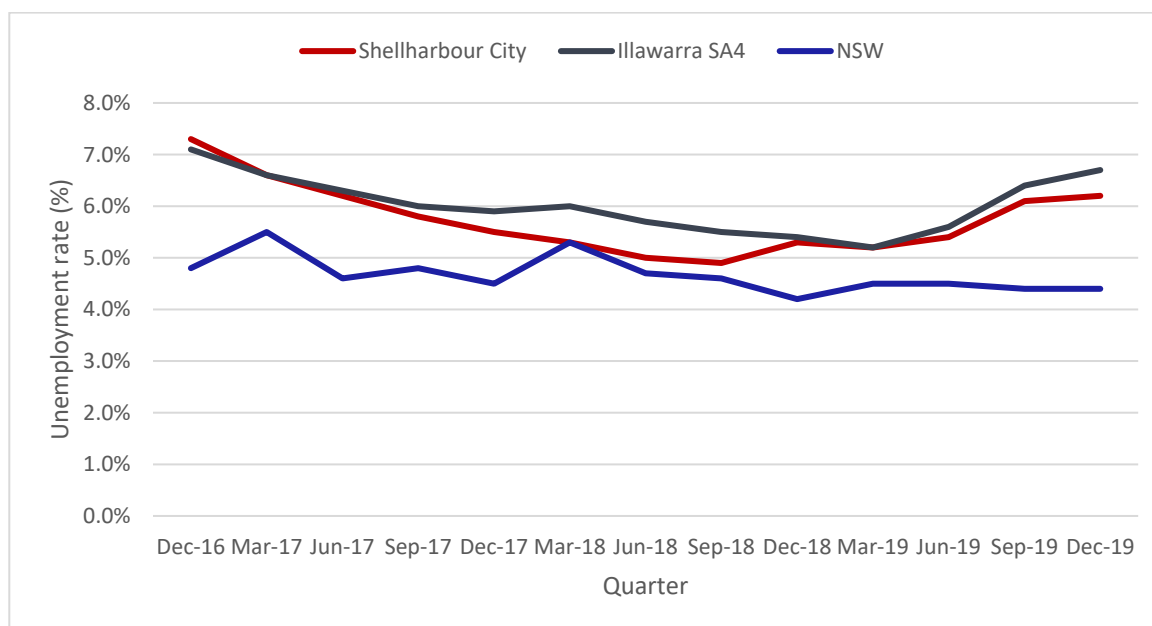
### 3.3.5 Unemployment Rate

The unemployment rates recorded in Shellharbour City since the December quarter of 2016 are largely reflective of the unemployment rates recorded in the Illawarra SA4 over the same time period. However, unemployment rates recorded in Shellharbour City remained higher than the those recorded in NSW between the 2016 December quarter and 2019 December quarter.

As of the 2019 December quarter, Shellharbour City had an unemployment rate of 6.2%, marginally lower than the Illawarra SA4 which stood at 6.7%. Both the Illawarra SA4 and Shellharbour City had significantly higher unemployment rates as of the December quarter in 2019 when compared to the State average, representing the largest variance in unemployment rates between the study areas since the December quarter of 2016.

Figure 4 illustrates the historical trends in unemployment rates for Shellharbour City, Illawarra SA4 and NSW.

**Figure 4 - Unemployment Rate, Shellharbour City, Illawarra SA4 and NSW, 2016 to 2019**



Source: REMPLAN Economy Profile, trends, various locations (2016 to 2019)

### 3.4 Incidence of Work from Home

Across all areas analysed there was an increase in the incidence of persons working from home between 2011 and 2016. Within the Shellharbour SA2 there was an increase of 0.4% points in the proportion of the workforce who work from home. This increase was in line with the trend in the broader Illawarra SA4, however was significantly larger than the increase recorded across the State in the same period.

As the availability and affordability of home technologies increases and as the composition of the Australian workforce continues to evolve over time, it is expected that working from home (or remote workplace arrangements) will become increasing popular, particularly in regional areas. This is a concept which is further discussed in Section 4.2.

Table 11 below outlines the method of travel to work in Shellharbour City, Illawarra SA4 and NSW in 2011 and 2016.

**Table 11 - Incidence of persons working from home – Shellharbour City, Illawarra SA4 and NSW, 2011 and 2016**

	No of Persons		% of Total Workforce	
	2011	2016	2011	2016
Shellharbour City	540	760	3.9%	4.3%
Illawarra SA4	3,233	4,199	3.6%	4.1%
NSW	141,350	163,451	4.7%	4.9%

Source: ABS Census of Population and Housing (2011 and 2016)

In 2011 and 2016, the incidence of persons working from home by industry type (i.e. number of persons working from home employed in personal and other services as a proportion of total persons employed in personal and other services industry sector) was highest in the professional, scientific and technical services sector, contributing with 23.2% in 2011 and 24.1% in 2016. Surprisingly, the incidence of workers in the construction services industry working from home was the second highest of all industry sectors analysed between 2011 and 2016. The remaining industry sectors rounding up the top ten were largely services-oriented industries, which allow for remote working.

Table 12 provides details on the top ten two-digit ANZISC industry sectors with highest incidence of persons working from home in Shellharbour City as of the 2011 and 2016 Census.

**Table 12 - Incidence of persons working from home within each industry type, Shellharbour City, 2011 and 2016**

Two Digit ANZISC Sector	2011		2016	
	No. of persons WFH	Proportion of total employment per industry	No. of persons WFH	Proportion of total employment per industry
Professional, Scientific and Technical Services (except Computer System Design and Related Services)	90	23.2%	115	24.1%
Personal and Other Services	32	9.8%	54	12.7%
Construction Services	40	5.6%	52	5.3%
Inadequately described	11	10.7%	50	10.8%
Social Assistance Services	36	6.2%	49	6.9%
Other Store-Based Retailing	16	1.2%	36	2.0%
Administrative Services	17	14.7%	34	16.9%
Computer System Design and Related Services	17	41.5%	28	70.0%
Medical and Other Health Care Services	12	2.3%	26	3.4%
Repair and Maintenance	16	4.4%	23	6.2%
Other Industries	219	2.2%	256	2.3%
Total	540	3.9%	760	4.3%

Source: ABS Census of Population and Housing (2011 and 2016)

Across the geographies analysed in Table 12, the incidence of employed persons working from home was highest in the professional, scientific and technical service industry in 2016. Within this industry 26.4% of all professional, scientific and technical service employees within Shellharbour City worked from home as of the 2016 Census. However, within the other areas analysed, at both the 2011 and 2016 Census, the incidence of employees working from home was highest in the agriculture, forestry and fishing industry.

As of the 2011 and the 2016 Census the industry with the lowest proportion of employees who work from home in Shellharbour City, the Illawarra SA4 and NSW was the public administration and safety industry. Similarly, the mining industry also had consistently lower proportions of employees working from home. Due to the nature of these industries and the manual labour required, these are not unexpected results.

Table 13 details the proportion of workers within each industry which worked from home in 2011 and in 2016.

**Table 13 - Proportion of workers, by industry, who work from home, 2011 and 2016**

One Digit Industry Sector	2011			2016		
	Shellharbour City	Illawarra SA4	NSW	Shellharbour City	Illawarra SA4	NSW
Agriculture, Forestry and Fishing	35.1%	29.5%	34.5%	22.8%	25.8%	29.6%
Mining	0.0%	0.7%	1.2%	0.0%	1.5%	1.5%
Manufacturing	6.9%	2.1%	2.8%	4.5%	2.1%	3.0%
Electricity, Gas, Water and Waste Services	0.0%	0.5%	1.2%	6.6%	2.0%	1.7%
Construction	7.0%	5.2%	4.3%	4.7%	4.6%	3.9%
Wholesale Trade	5.7%	5.1%	4.6%	5.2%	4.5%	4.3%
Retail Trade	1.1%	1.8%	2.1%	1.5%	1.8%	2.1%
Accommodation and Food Services	0.8%	1.3%	2.5%	0.6%	1.1%	1.9%
Transport, Postal and Warehousing	3.6%	2.2%	2.4%	7.1%	2.7%	2.4%
Information Media and Telecommunications	4.3%	7.7%	5.6%	17.9%	13.3%	6.9%
Financial and Insurance Services	9.7%	4.3%	4.3%	12.5%	4.3%	5.1%
Rental, Hiring and Real Estate Services	4.0%	4.4%	6.0%	5.7%	5.5%	6.9%
Professional, Scientific and Technical Services	25.4%	15.3%	11.8%	26.4%	19.3%	12.7%
Administrative and Support Services	8.4%	5.6%	5.1%	9.6%	6.8%	6.5%
Public Administration and Safety	0.5%	0.6%	0.8%	0.4%	1.1%	1.1%
Education and Training	1.2%	2.3%	2.5%	1.6%	2.7%	2.9%
Health Care and Social Assistance	2.5%	2.3%	2.6%	3.0%	2.5%	2.9%
Arts and Recreation Services	6.0%	9.4%	9.1%	5.0%	9.9%	9.0%
Other Services	6.8%	5.9%	5.4%	9.4%	6.9%	5.8%
Inadequately described	10.7%	8.8%	9.0%	10.8%	9.2%	8.2%
Not stated	42.9%	16.7%	12.3%	0.0%	1.6%	2.6%
Total proportion of employees working from home	3.9%	3.6%	4.7%	4.3%	4.1%	4.9%

Source: ABS Census of Population and Housing (2011 and 2016)

### 3.5 Gross Regional Product

Gross Regional Product (GRP) is a measure of net wealth generated by the economy of interest. According to National Institute of Economic and Industry Research (NIEIR), the real GRP of Shellharbour City was estimated at \$2,823.90 million in 2018, representing an increase of ~60% between 2008 and 2018. The AAGR of real GRP for Shellharbour City was 4.8% between 2008 and 2018, with the largest annual growth occurring between 2015 and 2016 (an 11.5% increase).

Real gross state product (GSP) in NSW increased from \$433,458.38 million in 2008 to \$592,111.77 million in 2018, representing a ~36.6% increase in GSP over the decade, or AAGR of 3.2%, lower than the growth rate recorded in Shellharbour City over the same period. In 2018, the GRP of Shellharbour City accounted for 0.5% of the total NSW GSP.



Table 14 details the estimated real GRP/GSP in Shellharbour City and NSW between 2008 and 2018, including year on year percentage changes in growth.

**Table 14 - Estimates of Real GRP/GSP (\$m) in Shellharbour City, Illawarra SA4 and NSW, 2008 to 2018**

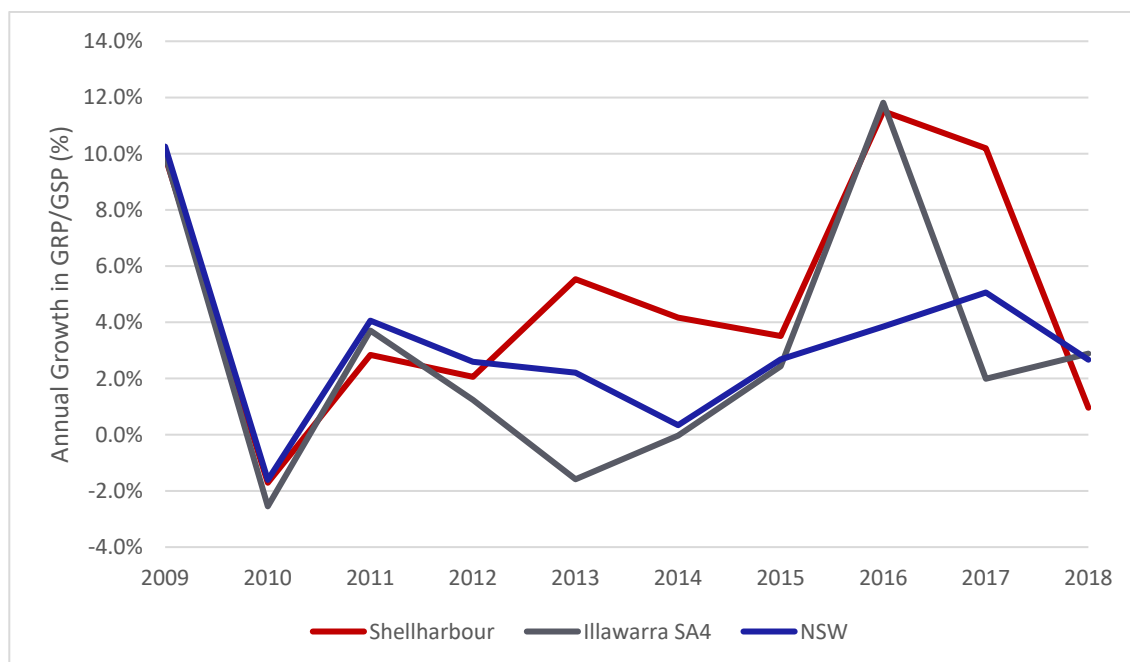
	Shellharbour City		Illawarra SA4		NSW		Shellharbour City GRP Share (%)	
	GRP (\$)	% change from previous year	GRP (\$)	% change from previous year	GSP (\$)	% change from previous year	Illawarra SA4	NSW
2008	\$1,764.58	-	\$17,596.66	-	\$433,458.38	-	10.0%	0.4%
2009	\$1,939.25	9.9%	\$19,348.93	10.0%	\$477,899.52	10.3%	10.0%	0.4%
2010	\$1,906.10	-1.7%	\$18,855.61	-2.5%	\$470,205.76	-1.6%	10.1%	0.4%
2011	\$1,960.19	2.8%	\$19,554.70	3.7%	\$489,285.07	4.1%	10.0%	0.4%
2012	\$2,000.56	2.1%	\$19,796.97	1.2%	\$501,981.50	2.6%	10.1%	0.4%
2013	\$2,111.31	5.5%	\$19,483.35	-1.6%	\$513,047.12	2.2%	10.8%	0.4%
2014	\$2,199.23	4.2%	\$19,477.39	0.0%	\$514,799.95	0.3%	11.3%	0.4%
2015	\$2,276.42	3.5%	\$19,951.65	2.4%	\$528,588.90	2.7%	11.4%	0.4%
2016	\$2,538.42	11.5%	\$22,308.62	11.8%	\$548,926.24	3.8%	11.4%	0.5%
2017	\$2,797.10	10.2%	\$22,752.38	2.0%	\$576,716.00	5.1%	12.3%	0.5%
2018	\$2,823.90	1.0%	\$23,408.44	2.9%	\$592,111.77	2.7%	12.1%	0.5%

Source: REMPLAN Economy Profile, GRP and GSP (2008 to 2018)

The growth in real GRP in Shellharbour City has typically exceeded real GSP growth in NSW since 2013. Shellharbour City's rate of real GRP year on year growth was particularly high in the in the 2016 and 2017 period. However, between 2017 and 2018 there was a significant decline in growth within Shellharbour City, while NSW experienced a marginal decrease.

Figure 5 illustrates the year on year growth for real GRP in Shellharbour City and real GSP growth in NSW in the 2008 to 2018 period.

**Figure 5 - Annual Growth in Real GRP/GSP in Shellharbour City, Illawarra SA4 and NSW, 2008 to 2018**



Source: REMPLAN Economy Profile, GRP and GSP (2008 to 2018)

REMPLAN Economy Profile data on the value added from each SA2 within Shellharbour City indicates that the most significant industries differ between SA2s. The output from each SA2 contributes to the overall GRP of Shellharbour City, and is therefore important in identifying potential regional strengths.

Within Shellharbour City, the most economically significant SA2s in terms of value added were the Shellharbour – Oak Flats SA2 with value added of \$816.59 million, Warilla SA2 recording value added of \$548.05 million, followed by Shellharbour – Flinders SA2 with value added of \$475.66 million.

The most significant industries for each SA2 as recorded in 2018 were as follows:

- Albion Park – Macquarie Pass SA2: Rental, hiring and real estate services accounted for 26.6% of value added from the SA2;
- Albion Park Rail SA2: Construction industry represented 17.9% of value added from the SA2;
- Shellharbour – Oak Flats SA2: Retail trade accounted for 17.0% of value added from the SA2;
- Warilla SA2: Rental, hiring and real estate services represented 26.3% of value added from the SA2; and
- Shellharbour – Flinders: Rental, hiring and real estate services accounted for 23.0% of value added from the SA2.

Table 15 details the value added by industry for each SA2 within Shellharbour City as of 2018.

**Table 15 - Proportion of Real GRP, Shellharbour City SA2's, 2018**

Industry Sector	Albion Park - Macquarie Pass	Albion Park Rail	Shellharbour - Oak Flats	Warilla	Shellharbour - Flinders
Agriculture, Forestry and Fishing	2.5%	0.3%	0.1%	0.1%	0.7%
Mining	1.5%	0.5%	0.0%	0.0%	8.3%
Manufacturing	0.6%	7.5%	1.9%	2.0%	4.0%
Electricity, Gas, Water and Waste Services	0.1%	0.4%	0.0%	0.0%	8.0%
Construction	10.0%	17.9%	10.7%	10.0%	15.6%
Wholesale Trade	1.7%	12.4%	1.5%	1.5%	1.2%
Retail Trade	5.3%	10.2%	17.0%	6.7%	2.7%
Accommodation and Food Services	3.6%	3.1%	4.2%	3.7%	5.3%
Transport, Postal and Warehousing	2.1%	6.5%	1.8%	1.4%	2.7%
Information Media and Telecommunications	0.8%	0.6%	1.5%	0.0%	0.0%
Financial and Insurance Services	6.7%	0.0%	9.6%	3.6%	2.9%
Rental, Hiring and Real Estate Services	26.6%	16.9%	14.1%	26.3%	23.0%
Professional, Scientific and Technical Services	3.8%	2.1%	2.8%	2.8%	3.3%
Administrative and Support Services	1.3%	2.0%	4.9%	1.9%	4.4%
Public Administration and Safety	1.7%	2.2%	12.0%	3.0%	3.3%
Education and Training	17.1%	2.0%	7.3%	11.3%	7.4%
Health Care and Social Assistance	12.0%	11.4%	7.9%	21.9%	5.1%
Arts and Recreation Services	0.7%	0.8%	0.3%	1.0%	0.6%
Other Services	2.0%	3.2%	2.5%	2.6%	1.3%
<b>Total (\$m)</b>	<b>\$364.23</b>	<b>\$336.34</b>	<b>\$816.59</b>	<b>\$548.05</b>	<b>\$475.66</b>

Source: REMPLAN Economy Profile, GRP (2018)

## 3.6 Exports and Imports

Exports data represents the sale of goods and services outside of Shellharbour City that has been generated by businesses and organisations in each of the industry sectors (in other words the data represents regional exports). The total value of regional exports from Shellharbour City was \$875.4 million in 2018. The top five sectors contributing to the value of total exports in Shellharbour City, as of 2018, were:

- Construction: \$225.02 million or 25.7% of all Shellharbour City exports;
- Manufacturing: \$113.44 million or 13.0% of all Shellharbour City exports;
- Education and Training: \$80.27 million or 9.2% of all Shellharbour City exports;
- Mining: \$80.11 million or 9.2% of all Shellharbour City exports; and
- Retail Trade: \$71.33 million or 8.1% if all Shellharbour City exports.

Imports data by industry represents the value of goods and services imported into Shellharbour City by businesses, organisations and households in each of the industry sectors. The total value of imports in Shellharbour City was \$1,027.4 million in 2018. The top five sectors contributing to the value of total imports in Shellharbour City, as of 2018, were:

- Construction: \$209.80 million or 20.4% of all Shellharbour City Imports;
- Manufacturing: \$170.50 million or 16.6% of all Shellharbour City Imports;
- Rental Hiring and Real-estate Services: \$100.59 million or 9.8% of all Shellharbour City Imports;
- Accommodation and Food Services: \$76.58 million or 7.5% of all Shellharbour City imports; and
- Retail Trade: \$61.35 million or 6.0% if all Shellharbour City Imports.

Table 16 below outlines the export and import values by industry in Shellharbour City in 2018.

**Table 16 - Export and Import Values, Shellharbour City**

Industry Sector	Exports Value (%)	Imports Value (%)
Agriculture, Forestry and Fishing	1.1%	0.8%
Mining	9.2%	3.1%
Manufacturing	13.0%	16.6%
Electricity, Gas, Water and Waste Services	1.1%	1.2%
Construction	25.7%	20.4%
Wholesale Trade	2.4%	2.9%
Retail Trade	8.1%	6.0%
Accommodation and Food Services	4.8%	7.5%
Transport, Postal and Warehousing	3.5%	4.4%
Information Media and Telecommunications	1.1%	1.6%
Financial and Insurance Services	7.0%	3.7%
Rental, Hiring and Real Estate Services	3.3%	9.8%
Professional, Scientific and Technical Services	0.7%	3.3%
Administrative and Support Services	2.5%	2.3%
Public Administration and Safety	3.3%	2.9%
Education and Training	9.2%	3.6%
Health Care and Social Assistance	1.6%	5.2%
Arts and Recreation Services	0.4%	1.5%
Other Services	2.1%	3.3%
<b>Total (\$m)</b>	<b>\$875.39</b>	<b>\$1,027.40</b>

Source: REMPLAN Economy Profile, Exports and Imports (2018)

REMPLAN Economy Profile provides export value data for each SA2 within Shellharbour City by industry as of 2018. Export value data by SA2 identifies the strength and production capabilities of the different regions within Shellharbour City. Industries contributing significantly to the total value of exports by SA2 as recorded in 2018 are as follows:

- Albion Park – Macquarie Pass SA2: construction accounted for \$24.10 million or 24.7% of total exports value from the SA2;
- Albion Park Rail SA2: construction accounted for \$43.38 million or 30.5% of total exports value from the SA2;

- Shellharbour – Oak Flats SA2: construction accounted for \$61.80 million or 23.7% of total exports value from the SA2;
- Warilla SA2: construction accounted for \$42.31 million or 28.9% of total exports value from the SA2; and
- Shellharbour – Flinders: mining accounted for \$68.76 million or 30.1% of total exports value from the SA2.

Table 17 below outlines total export values by industry for each SA2 in Shellharbour City in 2018.

**Table 17 - Proportion of Export Values, Shellharbour City SA2s, 2018**

Industry Sector	Albion Park - Macquarie Pass	Albion Park Rail	Shellharbour - Oak Flats	Warilla	Shellharbour - Flinders
Agriculture, Forestry and Fishing	4.9%	0.3%	0.5%	0.5%	1.2%
Mining	8.5%	2.1%	0.0%	0.0%	30.1%
Manufacturing	0.8%	25.4%	5.7%	16.0%	16.7%
Electricity, Gas, Water and Waste Services	0.1%	0.2%	0.0%	0.0%	3.9%
Construction	24.7%	30.5%	23.7%	28.9%	23.4%
Wholesale Trade	1.9%	8.4%	1.4%	1.6%	0.7%
Retail Trade	5.8%	7.1%	15.7%	7.4%	1.7%
Accommodation and Food Services	5.1%	2.7%	5.2%	6.2%	4.5%
Transport, Postal and Warehousing	2.6%	7.4%	3.0%	2.1%	3.1%
Information Media and Telecommunications	0.0%	0.4%	3.3%	0.0%	0.0%
Financial and Insurance Services	9.9%	0.0%	13.0%	7.0%	3.2%
Rental, Hiring and Real Estate Services	4.3%	5.5%	4.0%	2.7%	1.2%
Professional, Scientific and Technical Services	1.1%	0.4%	0.7%	0.8%	0.6%
Administrative and Support Services	1.7%	1.7%	3.6%	2.4%	2.3%
Public Administration and Safety	1.2%	1.2%	7.9%	1.9%	1.2%
Education and Training	22.5%	1.6%	8.4%	15.0%	5.4%
Health Care and Social Assistance	2.4%	1.5%	1.1%	3.5%	0.5%
Arts and Recreation Services	0.6%	0.5%	0.2%	0.8%	0.2%
Other Services	1.5%	3.0%	2.6%	3.1%	0.3%
<b>Total (\$m)</b>	<b>\$97.5</b>	<b>\$142.3</b>	<b>\$260.5</b>	<b>\$146.4</b>	<b>\$228.7</b>

Source: REMPLAN Economy Profile, Exports and Imports (2018)

REMPLAN Economy Profile also provides import value data for each SA2 within Shellharbour City by industry as of 2018. Import value data by SA2 identifies the regions of Shellharbour City reliant on goods and services produced outside the region. The most significant importing industry sectors by SA2 as recorded in 2018 were as follows:

- Albion Park – Macquarie Pass SA2: construction accounted for \$22.88 million or 20.3% of total import value to the SA2;
- Albion Park Rail SA2: manufacturing accounted for \$68.7 million or 33.0% of total import value to the SA2;
- Shellharbour – Oak Flats SA2: construction accounted for \$59.19 million or 18.7% of total import value to the SA2;
- Warilla SA2: construction accounted for \$35.48 million or 18.5% of total import value to the SA2; and
- Shellharbour – Flinders: mining accounted for \$50.02 million or 25.3% of total import value to the SA2.

Table 18 below outlines total imports values by industry for each SA2 in Shellharbour City in 2018.

**Table 18 - Proportion of Import Value, Shellharbour City SA2's, 2018**

Industry Sector	Albion Park - Macquarie Pass	Albion Park Rail	Shellharbour - Oak Flats	Warilla	Shellharbour - Flinders
Agriculture, Forestry and Fishing	3.9%	0.3%	0.7%	0.3%	0.9%
Mining	1.9%	0.5%	0.0%	0.0%	14.5%
Manufacturing	6.0%	33.0%	6.4%	14.4%	10.9%
Electricity, Gas, Water and Waste Services	0.3%	0.5%	0.1%	0.0%	5.4%
Construction	20.3%	20.3%	18.7%	18.5%	25.3%
Wholesale Trade	2.3%	8.0%	3.2%	1.7%	1.2%
Retail Trade	4.3%	4.2%	14.4%	4.9%	1.7%
Accommodation and Food Services	8.2%	3.5%	6.2%	8.5%	9.6%
Transport, Postal and Warehousing	3.3%	10.8%	3.5%	2.1%	3.5%
Information Media and Telecommunications	2.3%	0.7%	3.8%	0.0%	0.0%
Financial and Insurance Services	4.2%	0.0%	11.1%	4.6%	2.5%
Rental, Hiring and Real Estate Services	15.7%	7.0%	4.2%	12.8%	9.1%
Professional, Scientific and Technical Services	5.5%	1.5%	1.6%	3.6%	3.5%
Administrative and Support Services	1.3%	1.0%	3.9%	1.6%	3.0%
Public Administration and Safety	1.1%	0.7%	7.9%	1.8%	1.7%
Education and Training	8.4%	0.6%	8.2%	5.2%	2.9%
Health Care and Social Assistance	5.8%	2.5%	2.6%	12.9%	2.3%
Arts and Recreation Services	2.3%	1.4%	0.3%	2.8%	1.1%
Other Services	2.9%	3.5%	3.4%	4.4%	1.1%
<b>Total (\$m)</b>	<b>\$112.57</b>	<b>\$208.24</b>	<b>\$317.01</b>	<b>\$191.57</b>	<b>\$198.02</b>

Source: REMPLAN Economy Profile, Exports and Imports (2018)

### 3.7 Impact of COVID-19 on Key Economic Factors

Beginning in early 2020, Australia like most of the world has been gripped by the outbreak of the COVID-19 pandemic. In attempting to mitigate the spread of the virus, states and the Federal Government have introduced various physical distancing policies, travel restrictions and health protocols. The introduction of such policies combined with general uncertainty has severely impacted economic activity. In May 2020, REMPLAN published various economic data revising previous publications to reflect the impact of COVID-19. Advice from REMPLAN has indicated that the employment estimates published for February 2020 (pre COVID-19 data) is the same as that published under the 2016 Census. Hence in considering the impact of COVID-19 on the Shellharbour regional economy, REMPLAN advised that considering the impacts in percentage terms, as opposed to absolute terms, is most appropriate, given that pre-COVID-19 estimates have not been updated to reflect actual employment as of February 2020.

This section will focus on the impact of COVID-19 on the following economic factors, based on data provided by REMPLAN:

- Employment;
- Output;
- Wages and Salaries; and
- Value Added.

### 3.7.1 Impact on Employment

As of May 2020, REMPLAN data indicated that employment in Shellharbour City has declined by 15.5% compared to pre COVID-19 levels (February 2020). The degree of impact COVID-19 has had on employment by industry sectors has varied, with the following industry sectors impacted most significantly:

- Accommodation and Food Services: employment in this industry sector decreased by 34.0% between pre COVID-19 (February 2020) and May 2020;
- Arts and Recreation: employment in this industry sector decreased by 33.5% between pre COVID-19 (February 2020) and May 2020; and
- Retail Trade: employment in this industry sector decreased by 24.8% between pre COVID-19 (February 2020) and May 2020.

The impact of COVID-19 on employment across NSW more broadly has followed a similar trend to Shellharbour City, although total employment has declined by less, decreasing by 13.4% between pre COVID-19 (February 2020) and May 2020. The impact by industry sectors in NSW is generally similar to Shellharbour City, with the overall differential impact mostly attributable to the different economic composition of Shellharbour City relative to NSW, most notably a higher reliance of accommodation and food services and retail trade employment, two of the three sectors most significantly impacted in terms of total employment due to COVID-19.

Table 19 below shows the estimated change in employment by industry in Shellharbour City and NSW due to the impact of COVID-19.

**Table 19 - Impact of COVID-19 on Employment by Industry Sector (%), Shellharbour City and NSW, Pre COVID-19 (February 2020) and May 2020**

Industry Sector	Shellharbour City	NSW
Agriculture, Forestry and Fishing	-4.3%	-4.6%
Mining	-18.3%	-16.8%
Manufacturing	-10.5%	-10.2%
Electricity, Gas, Water and Waste Services	-1.9%	-2.2%
Construction	-9.7%	-9.7%
Wholesale Trade	-6.1%	-7.7%
Retail Trade	-24.8%	-24.7%
Accommodation and Food Services	-34.0%	-34.4%
Transport, Postal and Warehousing	-24.4%	-25.1%
Information Media and Telecommunications	-8.5%	-8.6%
Financial and Insurance Services	-2.6%	-2.5%
Rental, Hiring and Real Estate Services	-12.3%	-12.4%
Professional, Scientific and Technical Services	-3.7%	-3.4%
Administrative and Support Services	-5.8%	-7.6%
Public Administration and Safety	-1.0%	-1.0%
Education and Training	-13.2%	-13.3%
Health Care and Social Assistance	-10.2%	-10.2%
Arts and Recreation Services	-33.5%	-33.2%
Other Services	-22.3%	-21.9%
<b>Total</b>	<b>-15.5%</b>	<b>-13.4%</b>

Source: REMPLAN Economy Profile, Employment (May 2020)



### 3.7.2 Impact on Output

Total output across all industry sectors of employment in Shellharbour City in May 2020 declined by 23.8% compared to pre COVID-19 (February 2020). COVID-19 has severely impacted output in the following industry sectors:

- Arts and Recreation Services: output in this industry sector decreased by 56.3% between pre COVID-19 (February 2020) and May 2020;
- Accommodation and Food Services: output in this industry sector decreased by 46.5% between pre COVID-19 (February 2020) and May 2020; and
- Other Services: outputs in this industry sector decreased by 42.1% between pre COVID-19 (February 2020) and May 2020.

In NSW, total output across all industry sectors decreased by 21.6% in May 2020 compared to pre COVID-19 (February 2020). Output across industry sectors has decreased by similar rates in both NSW and Shellharbour City, with the overall differential impact mostly attributable to the different economic composition of Shellharbour City relative to NSW, most notably a higher reliance of accommodation and food services and retail trade employment, two of the three sectors most significantly impacted in terms of output due to COVID-19.

Table 20 below shows the change in output by industry in Shellharbour City and NSW due to the impact of COVID-19.

**Table 20 - Impact of COVID-19 on Output by Industry Sector (%), Shellharbour City and NSW, Pre COVID-19 (February 2020) and May 2020**

Industry Sector	Shellharbour City	NSW
Agriculture, Forestry and Fishing	-14.1%	-14.7%
Mining	-21.4%	-19.5%
Manufacturing	-27.1%	-26.4%
Electricity, Gas, Water and Waste Services	-8.8%	-8.8%
Construction	-17.8%	-17.7%
Wholesale Trade	-12.3%	-15.5%
Retail Trade	-36.1%	-35.9%
Accommodation and Food Services	-46.5%	-47.2%
Transport, Postal and Warehousing	-25.4%	-26.3%
Information Media and Telecommunications	-11.9%	-12.2%
Financial and Insurance Services	-12.9%	-12.8%
Rental, Hiring and Real Estate Services	-28.8%	-29.3%
Professional, Scientific and Technical Services	-16.9%	-16.0%
Administrative and Support Services	-8.7%	-11.4%
Public Administration and Safety	-10.1%	-10.2%
Education and Training	-20.3%	-20.5%
Health Care and Social Assistance	-26.8%	-26.7%
Arts and Recreation Services	-56.3%	-55.8%
Other Services	-42.1%	-41.1%
<b>Total</b>	<b>-23.8%</b>	<b>-21.6%</b>

Source: REMPLAN Economy Profile, Employment (May 2020)

### 3.7.3 Impact on Wages and Salaries

According to REMPLAN May 2020 data, total expenditure for wages and salaries across all industry sectors in Shellharbour City declined by 12.8% compared to pre COVID-19. Within Shellharbour City, wages and salaries expenditure have been impacted mostly significantly within the following industry sectors:

- Accommodation and Food Services: employment in this industry sector decreased by 34.0% pre COVID-19 (February 2020) and May 2020;

- Arts and Recreation: employment in this industry sector decreased by 33.5% pre COVID-19 (February 2020) and May 2020; and
- Retail Trade: employment in this industry sector decreased by 24.8% pre COVID-19 (February 2020) and May 2020.

The decrease in wages and salaries by industry sector in Shellharbour City broadly aligns with the decrease in employment by industry sectors.

Within NSW, total wages and salaries decreased by 10.9% in May 2020 compared to pre-COVID-19 levels (February 2020), lower than that for Shellharbour City, with this differential likely due to the differing economic structure of Shellharbour City relative to NSW, most notably Shellharbour's higher reliance on the retail trade and accommodation and food services sectors.

Table 21 below shows the change in wages and salaries by industry in Shellharbour City and NSW due to the impact of COVID-19.

**Table 21 - Impact of COVID-19 on Wages and Salaries by Industry Sector (%), Shellharbour City and NSW, Pre COVID-19 (February 2020) and May 2020**

Industry Sector	Shellharbour City	NSW
Agriculture, Forestry and Fishing	-4.4%	-4.6%
Mining	-18.5%	-16.8%
Manufacturing	-10.5%	-10.2%
Electricity, Gas, Water and Waste Services	-2.2%	-2.2%
Construction	-9.7%	-9.7%
Wholesale Trade	-6.2%	-7.7%
Retail Trade	-24.8%	-24.7%
Accommodation and Food Services	-34.0%	-34.4%
Transport, Postal and Warehousing	-24.3%	-25.1%
Information Media and Telecommunications	-8.4%	-8.6%
Financial and Insurance Services	-2.5%	-2.5%
Rental, Hiring and Real Estate Services	-12.2%	-12.4%
Professional, Scientific and Technical Services	-3.6%	-3.4%
Administrative and Support Services	-5.8%	-7.6%
Public Administration and Safety	-1.0%	-1.0%
Education and Training	-13.2%	-13.3%
Health Care and Social Assistance	-10.2%	-10.2%
Arts and Recreation Services	-33.5%	-33.2%
Other Services	-22.4%	-21.9%
<b>Total</b>	<b>-12.8%</b>	<b>-10.9%</b>

Source: REMPLAN Economy Profile, Employment (May 2020)

### 3.7.4 Impact on Value Added

Value added as defined by REMPLAN is an indication of the marginal economic value that is added by an industry sector. Value Added is calculated by subtracting local expenditure and expenditure on regional imports from the output generated by an industry sector.

Total value added across all industry sectors within Shellharbour City in May 2020 declined by 17.9% compared to pre COVID-19 levels (February 2020). Within Shellharbour City, value added has been impacted mostly significantly within the following industry sectors:

- Arts and Recreation: value added in this industry sector decreased by 38.2% pre COVID-19 (February 2020) and May 2020;

- Accommodation and Food Services: value added in this industry sector decreased by 36.3% pre COVID-19 (February 2020) and May 2020; and
- Retail Trade: value added in this industry sector decreased by 28.4% pre COVID-19 (February 2020) and May 2020.

Within NSW more broadly, total value added across all industry sectors decreased by 15.7% in May 2020 compared to pre-COVID-19 levels (February 2020), noticeably lower than that for Shellharbour City. The decrease in value added by industry sector is similar to Shellharbour City, with the differential likely mostly attributable to the higher reliance of retail trade and accommodation and food services sector in Shellharbour City.

Table 22 below shows the estimated change in value added by industry in Shellharbour City and NSW due to the impact of COVID-19.

**Table 22 - Impact of COVID-19 on Value Added by Industry Sector (%), Shellharbour City and NSW, Pre COVID-19 (February 2020) and May 2020**

Industry Sector	Shellharbour City	NSW
Agriculture, Forestry and Fishing	-12.3%	-12.7%
Mining	-20.3%	-19.0%
Manufacturing	-16.4%	-16.1%
Electricity, Gas, Water and Waste Services	-6.8%	-6.9%
Construction	-13.3%	-13.2%
Wholesale Trade	-8.1%	-10.2%
Retail Trade	-28.4%	-28.2%
Accommodation and Food Services	-36.3%	-37.0%
Transport, Postal and Warehousing	-24.7%	-25.6%
Information Media and Telecommunications	-10.1%	-10.4%
Financial and Insurance Services	-9.2%	-9.3%
Rental, Hiring and Real Estate Services	-27.7%	-27.5%
Professional, Scientific and Technical Services	-6.9%	-6.5%
Administrative and Support Services	-6.1%	-8.0%
Public Administration and Safety	-10.1%	-10.2%
Education and Training	-13.8%	-13.9%
Health Care and Social Assistance	-12.0%	-12.1%
Arts and Recreation Services	-38.2%	-39.4%
Other Services	-26.9%	-26.0%
<b>Total</b>	<b>-17.9%</b>	<b>-15.7%</b>

Source: REMPLAN Economy Profile, Employment (May 2020)

### 3.8 Summary

The socio-economic profile for Shellharbour City as of the 2016 Census identified that the region was characterised by:

- Older average age relative to NSW, primarily driven by the high average age in Shellharbour – Barrack Point and Warilla;
- Higher incidence of couple families within children relative to both Illawarra SA4 and NSW;
- Higher housing costs relative to Illawarra SA4, particularly in the Flinders sub-area;
- Significantly higher average weekly rents, highest in Shell Cove Dunmore, lowest in Lake Illawarra;
- Higher incidence of part time employment and a higher unemployment rate relative to NSW;
- Lower incidence of persons with a post school qualification, particularly Bachelor or higher qualifications;

- Incidence of a resident holding a Bachelor or higher qualification, highest in the Shell Cove – Dunmore area;
- Higher incidence of lower white-collar workers relative to both Illawarra SA4 and NSW;
- Highest incidence of professionals in the Shell Cove – Dunmore area; and
- Employment concentrated within population serving sectors such as retail trade and health care and social assistance.

In the 2016 to 2041 period, Shellharbour City is anticipated to record moderate population growth, with the rate of growth lower for the working age population, consistent with an increasing average age. Employed residents of Shellharbour City are most likely to work in Wollongong City, likely reflective of the broader range of employment opportunities available. Historically, the unemployment rate is significantly higher in Shellharbour City than in NSW, however this trend is in line with the broader region. It is also more likely that the working population of Shellharbour City will be employed part-time (particularly in Albion Park Rail SA2).

The incidence of residents of Shellharbour City working from home is highest in the professional, scientific and technical services (except Computer System Design and Related Services) and the computer system design and related services, as of 2016. However, the overall employment in the professional services industry is low in Shellharbour City compared to Illawarra SA4 and NSW.

Annual growth in GRP has significantly declined between 2017 and 2018 within Shellharbour City, which was in line with State trends at the time. The most significant area which contributed to Shellharbour City's GRP in 2018 was the Shellharbour – Oak Flats SA2. Overall, the industries which contributed the highest proportions to GRP, across all SA2's were:

- Rental, Hiring and Real Estate Services;
- Education and Training;
- Health Care and Social Assistance; and
- Construction.

Exports from Shellharbour City are most significant in the construction and manufacturing industries, likely due to the strong employment in these industries. Imports however are also highest in these industries, which may be due to the import of intermediate goods. Overall, the imports to Shellharbour City outweigh the total export value from the City.

The full impact of COVID-19 on the Shellharbour City economy is yet to be fully seen, however, REMPLAN data for May 2020 indicate significant economic impacts in terms of employment, output, wages and salaries and value added, as outlined below:

- Employment: declined by 15.5% in May 2020 compared to pre COVID-19 (February 2020), with major impact on the accommodation and food services (34.0% decline), arts and recreation services (33.5% decline) and retail trade (decline of 24.8%);
- Output: declined by 23.8% in May 2020 compared to pre COVID-19 (February 2020), with major impact on the arts and recreation services (56.3% decline), accommodation and food services (46.5% decline) and other services (decline of 42.1%);
- Wages and Salaries: declined by 12.8% in May 2020 compared to pre COVID-19 (February 2020), with major impact on the accommodation and food services (34.0% decline), arts and recreation services (33.5% decline) and retail trade (decline of 24.8%) sectors; and
- Value Added: declined by 17.9% in May 2020 compared to pre COVID-19 (February 2020), ; with major impact on the arts and recreation services (38.2% decline), accommodation and food services (36.3% decline) and retail trade (decline of 28.4%).

The REMPLAN data for the various economic factors indicates that Shellharbour City has been impacted more severely by COVID-19 compared to NSW more broadly, due to its higher reliance on the retail trade and accommodation and food services sectors.

The significant decline in activity within the retail trade and accommodation and food services industry sectors due to COVID-19 is set to have considerable impacts on the demand for retail floor space within Shellharbour City, although in the short term, retailers are anticipated to mostly keep their existing tenancy operational, with less staff on-shift at any one time.

## 4 CURRENT LAND USE PATTERNS AND EXISTING ACTIVITY WITHIN EMPLOYMENT LANDS

### 4.1 Scope of Assessment

In undertaking the assessment of existing activity within employment lands, consideration was given to activity within the following zonings under the Shellharbour Local Environmental Plan (LEP) 2013:

- B1 Neighbourhood Centre
- B2 Local Centre
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B7 Business Park
- IN1 General Industrial
- IN2 Light Industrial
- SP2 Educational Establishment (Shellharbour TAFE)
- SP2 Health Services Facility (Shellharbour Hospital)

In May 2020, a comprehensive inventory was undertaken within these zonings to verify the role and function of activity within each of the relevant zones and to identify vacant tenancies, vacant land and remnant housing within each zone.

The outcomes of the employment lands assessment have been grouped up into the following categories:

- Centres activity
  - B1 Neighbourhood Centre
  - B2 Local Centre
  - B3 Commercial Core
  - B4 Mixed Use
  - B5 Business Development
- Industrial / business park activity
  - B7 Business Park
  - IN1 General Industrial
  - IN2 Light Industrial
- Education / health uses:
  - SP2 Educational Establishment (Shellharbour TAFE)
  - SP2 Health Services Facility (Shellharbour Hospital)

### 4.2 Centres Activity

In May 2020, a comprehensive inventory of centres zoned land within Shellharbour City was undertaken. This inventory provided on-the-ground information about the size, tenant composition, layout and accessibility of existing centres, as well as confirming the role and function of each centre. The centres network assessment included centres located in Shellharbour City Centre, Shellharbour Village, Oak Flats, Lake Illawarra, Albion Park, Albion Park Rail and Warilla.

The inventory also identified and quantified vacant tenancies within each centre.

Table 23 provides a summary of the centres within Shellharbour City including details on total floor space in square metres (sqm), retail floor space and anchor tenants.

**Table 23 - Floor space in Shellharbour City by centre type, total floor space, retail floor space and anchor tenants**

Zoning	Centre Location	Total Retail and Commercial Floor Space (sqm)	Retail Floor Space (sqm)	Anchor tenants
B3 Commercial Core	Shellharbour City Centre – Stockland Shellharbour Mall	59,905	58,277	Myer (11,939m <sup>2</sup> ), Target (7,171m <sup>2</sup> ) and Kmart (6,500m <sup>2</sup> )
	Shellharbour City Centre – on street areas	23,575	13,110	ALDI (1,560m <sup>2</sup> ), Greater Union Cinema (3,770m <sup>2</sup> ) and AP Business Advice Centre (800m <sup>2</sup> )
B2 Local Centre	Albion Park – Tongarra Road	12,588	9,793	Woolworths (3,500m <sup>2</sup> ), Right Choice Real Estate (600m <sup>2</sup> ) and KFC (420m <sup>2</sup> )
	Albion Park Rail – Princes Hwy./Creamery Road	1,740	1,040	BWS (500m <sup>2</sup> ) and Friendly Grocer (160m <sup>2</sup> ).
	Albion Park Rail – Princes Hwy./Kaylaur Cres.	1,475	795	The Oaks Hotel / Motel & Bottleshop (270m <sup>2</sup> ), McDonalds (136m <sup>2</sup> )
	Albion Park Rail – Ash Avenue	2,280	2,280	Aldi (1,860m <sup>2</sup> )
	Oak Flats – Central Avenue	11,900	8,575	St Vincent De Paul (800m <sup>2</sup> ) and IGA (430m <sup>2</sup> )
	Shell Cove	4,800	4,300	Woolworths (3,500m <sup>2</sup> )
	Shellharbour - Shellharbour Village	11,755	9,405	Ocean Beach Hotel (1,200m <sup>2</sup> ) and The Roo Theatre Company (1,100m <sup>2</sup> )
	Warilla	8,445	3,625	Wals Pharmacy (600m <sup>2</sup> ), IMB Bank (250m <sup>2</sup> ) and Casa Mia (240m <sup>2</sup> ).
	Warilla Grove	10,671	9,266	Woolworths (4,379m <sup>2</sup> ) and Aldi (1,511m <sup>2</sup> )
B1 Neighbourhood Centre	Albion Park – Terry St.	1,280	1,045	Albion Park School Uniforms and Workwear (300m <sup>2</sup> )
	Albion Park – Regal Heights Shopping Complex – Church Street	675	450	-
	Albion Park – Calderwood Road	1,510	70	-
	Lake Illawarra – Addison Avenue	3,185	1,175	-
	Lake Illawarra – Queen Street	1,025	340	-
	Barrack Heights – Captain Cook Drive	3,800	600	Barrack Heights Medical Centre (3,200m <sup>2</sup> ) IGA (600m <sup>2</sup> )



Zoning	Centre Location	Total Retail and Commercial Floor Space (sqm)	Retail Floor Space (sqm)	Anchor tenants
	Barrack Heights – Lagoon Street	280	70	Mumma's Fish and Chips (70m <sup>2</sup> )
	Dunmore – Shellharbour Junction Rail Station	-	-	No activity identified
	Albion Park Rail – Koono Street	-	-	Former Camp Quality site (200m <sup>2</sup> )
	Mt Warrigal – Mackenzie Avenue	882	882	Dollarwise Supermarket (147m <sup>2</sup> )
	Mt Warrigal – Jones Avenue	450	350	George's Fruit Shop and Continental (250m <sup>2</sup> )
	Flinders – Wattle Road	220	220	Flinders Friendly Grocer (220m <sup>2</sup> )
	Flinders – Munmorah Circuit	150	150	Flinders Discount Chemist (150m <sup>2</sup> )
	Warilla – Ulster Avenue	120	120	The Little Convenience Store (120m <sup>2</sup> )
	Shellharbour – Darley Street	360	360	Olympic Take Away (360m <sup>2</sup> )
	Shellharbour – Wattle Road	100	100	7 Eleven Service Station (100m <sup>2</sup> )
B5 Business Development	Shellharbour City Centre – north side of New Lake Entrance Road	6,745	3,875	Macdonald Jones Home Builders (1,890m <sup>2</sup> ) and Beacon Lighting (1,050m <sup>2</sup> )
	Shellharbour City Centre – south side of New Lake Entrance Road (Stockland Retail Park)	18,867	18,107	Woolworths (4,370m <sup>2</sup> ), Baby Bunting (2,000m <sup>2</sup> ) and TK Maxx (1,800m <sup>2</sup> )
	Warilla – Shellharbour Road	8,445	1,940	Dreamz Bedrooms and Bedding (500m <sup>2</sup> ), Ocean Storm (500m <sup>2</sup> ) and Bing Lee (500m <sup>2</sup> )
	Warilla Grove – Shellharbour Road	930	930	7 Eleven (300m <sup>2</sup> )

Source: Property Council Australia (PCA) Shopping Centres Directory (2020), Site Inspections (May 2020)

#### 4.2.1 B3 Commercial Core

The maps in **Appendix 1** indicate the extent of the B3 Commercial Core Zone for Shellharbour.

##### 4.2.1.1 Shellharbour City Centre and Stockland Shellharbour

The Shellharbour City Centre including Stockland Shellharbour Mall represents the main shopping destination for residents within Shellharbour City. The precinct is predominantly zoned B3 Commercial Core and B5 Business Development under the Local Environmental Plan 2013. Many of the tenancies available in these facilities are of a medium to large scale. The built environment within the City Centre has limited seating facilities or public spaces, however there is plenty of greenery surrounding the main open carparks.

Stockland Shellharbour Mall had an estimated an estimated 59,905 sqm of total floor space. Major tenants included Myer (11,939 sqm), Target (7,171 sqm) and Kmart (6,500 sqm).<sup>2</sup> At the time of site inspections, there were an estimated 700 sqm of vacant tenancies within Stockland Shellharbour Mall.

There was an estimated 23,575 sqm of floor space identified within the remaining commercial core zoning in Shellharbour City Centre, with major tenants being ALDI (1,560 sqm), (Greater Union Cinema (3,770 sqm) and AP Business Advice Centre (800 sqm). An estimated 1,635 sqm of vacant tenancies were identified within the Shellharbour City Centre in on street areas, representing a vacancy rate of less than 7.0%. Additionally, the inventory undertaken identified vacant land in proximity to the shopping precinct within the B3 zone (discussed further in Section 12.2 of the report).

Table 24 summarises the floor space provision within commercial core zoning at the time of the inventory being undertaken (May 2020).

**Table 24 - Inventory of Commercial Core Zoning by Floor Space Type, May 2020**

	Shellharbour City Centre – Stockland Shellharbour Mall		Shellharbour City Centre – on street areas	
	Floor space (sqm)	% of total floorspace	Floor space (sqm)	% of total floorspace
<b>Retail</b>				
Groceries and take-home food	8,834	14.7%	1,560	6.6%
Dining and take-away food	1,392	2.3%	3,860	16.4%
Clothing, footwear and apparel	17,049	28.5%	0	0.0%
Personal and other goods	18,853	31.5%	6,990	29.7%
Core bulky goods	1,536	2.6%	200	0.8%
Ancillary bulky goods	10,612	17.7%	0	0.0%
Hardware	0	0.0%	500	2.1%
Take away liquor	0	0.0%	0	0.0%
<b>Total retail floor space</b>	<b>58,277</b>	<b>97.3%</b>	<b>13,110</b>	<b>55.6%</b>
<b>Commercial</b>				
Financial and insurance services	557	0.9%	1,100	4.7%
Rental, hiring and real estate services	0	0.0%	0	0.0%
Health care and social assistance	371	0.6%	2,990	12.7%
Professional, scientific and technical services	0	0.0%	2,440	10.3%
Administrative and support services	0	0.0%	2,300	9.8%
<b>Total commercial floor space</b>	<b>928</b>	<b>1.5%</b>	<b>8,830</b>	<b>37.5%</b>
Vacant	700	1.2%	1,635	6.9%
<b>Total floor space</b>	<b>59,905</b>	<b>100.0%</b>	<b>23,575</b>	<b>100.0%</b>

Source: Property Council Australia (PCA) Centres Directory (2020), Site Inspections, May 2020

<sup>2</sup> Floorspace estimates for Stockland Shellharbour were obtained from Property Council of Australia (PCA) Centers Directory

## 4.2.2 B2 Local Centre

The maps in **Appendix 1** indicate the extent of the B2 Local Centre Zone for Shellharbour City.

### 4.2.2.1 Albion Park

There was an estimated 12,588 sqm of floor space identified within the retail located along Tongarra Road, Albion Park with major tenants including Woolworths (3,500 sqm), Right Choice Real Estate (600 sqm) and KFC (420 sqm). An estimated 3,420 sqm of vacant tenancies were identified within the Albion Park Shopping Precinct representing a vacancy rate of 0.4% within the strip.

The retail along Tongarra Road may suffer as this road has high traffic levels and acts as a main thoroughfare from the city centre to the western suburbs of Shellharbour City.

Table 25 summarises the floor space provision within the local centre zoning in Albion Park at the time of the inventory being undertaken (May 2020).

**Table 25 - Inventory of Local Centre Zoning in Albion Park by Floor Space Type, May 2020**

	Albion Park – Tongarra Road	
	Total floor space (sqm)	% of total floorspace
<b>Retail</b>		
Groceries and take-home food	4,010	24.9%
Dining and take-away food	2,308	14.3%
Clothing, footwear and apparel	600	3.7%
Personal and other goods	1,035	6.4%
Core bulky goods	490	3.0%
Ancillary bulky goods	0	0.0%
Hardware	700	4.3%
Take away liquor	650	4.0%
<b>Total retail floor space</b>	<b>9,793</b>	<b>60.8%</b>
<b>Commercial</b>		
Financial and insurance services	0	0.0%
Rental, hiring and real estate services	1,130	9.0%
Health care and social assistance	1,125	8.9%
Professional, scientific and technical services	400	3.2%
Administrative and support services	160	1.3%
<b>Total commercial floor space</b>	<b>2,815</b>	<b>22.4%</b>
Vacant	50	0.4%
<b>Total floor space</b>	<b>12,588</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

### 4.2.2.2 Albion Park Rail

There was an estimated 1,740 sqm of floor space identified within the retail strip located on the corner of Princes Highway and Creamery Road, Albion Park Rail with the major tenants being BWS Bottleshop (500 sqm) and Friendly Grocer (160 sqm). This precinct is zoned for local centre uses under the Local Environmental Plan 2013.

In addition to the above, there was an estimated 1,475 sqm of floor space within the strip retail, located on the corner of Princes Highway and Kaylaur Crescent with the major tenants being the Oaks Hotel / Motel and Bottleshop (270 sqm), McDonalds (136 sqm) and Vet Practice (500 sqm). An estimated 90 sqm of vacant tenancies were identified within this centre representing a vacancy rate of approximately 2.4% within the strip.

There was further local centre activity identified along Ash Avenue, Albion Park Rail. The centre has an estimated 2,280 sqm of floor space identified with ALDI (1,860 sqm) as the major tenant. There were no vacant tenancies identified within this centre as of May 2020.

The nature of the retail within Albion Park Rail is to target persons travelling along the Princes Motorway who can pull in and access the convenience retailers located along the strip.

Table 26 summarises the floor space provision within the local centre zoning in Albion Park Rail at the time of the inventory being undertaken (May 2020).

**Table 26 - Inventory of Local Centre Zoning in Albion Park Rail by Floor Space Type, May 2020**

	Albion Park Rail – Princes Hwy./Creamery Road		Albion Park Rail – Princes Hwy./Kaylaur Crescent		Albion Park Rail – Ash Avenue	
	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space
<b>Retail</b>						
Groceries and take-home food	240	13.8%	0	0.0%	1,860	81.6%
Dining and take-away food	0	0.0%	426	28.9%	280	12.3%
Clothing, footwear and apparel	0	0.0%	0	0.0%	0	0.0%
Personal and other goods	300	17.2%	299	20.3%	140	6.1%
Core bulky goods	0	0.0%	0	0.0%	0	0.0%
Ancillary bulky goods	0	0.0%	0	0.0%	0	0.0%
Hardware	0	0.0%	0	0.0%	0	0.0%
Take away liquor	500	28.7%	70	4.7%	0	0.0%
<b>Total retail floor space</b>	<b>1,040</b>	<b>59.8%</b>	<b>795</b>	<b>53.9%</b>	<b>2,280</b>	<b>100.0%</b>
<b>Commercial</b>						
Financial and insurance services	0	0.0%	0	0.0%	0	0.0%
Rental, hiring and real estate services	120	6.9%	90	6.1%	0	0.0%
Health care and social assistance	460	26.4%	500	33.9%	0	0.0%
Professional, scientific and technical services	120	6.9%	0	0.0%	0	0.0%
Administrative and support services	0	0.0%	0	0.0%	0	0.0%
<b>Total commercial floor space</b>	<b>700</b>	<b>40.2%</b>	<b>590</b>	<b>40.0%</b>	<b>0</b>	<b>0.0%</b>
Vacant	0	0.0%	90	6.1%	0	0.0%
<b>Total floor space</b>	<b>1,740</b>	<b>100.0%</b>	<b>1,475</b>	<b>100.0%</b>	<b>2,280</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.2.3 Oak Flats

There was an estimated 11,900 sqm of floor space identified within the Oak Flats Retail Strip precinct, with major tenant being St Vincent De Paul (800 sqm), IGA (430 sqm) and Oak Flats Electronic (300 sqm). An estimated 340 sqm of vacant tenancies were identified within the Oak Flats retail strip representing a vacancy rate of approximately less than 3.0%.

The Oak Flats Retail Strip is similar to retail precincts seen across regions in Australia, with a number of brick façade individual buildings, a large median strip and parking running along both sides of the Central Avenue. There are a number of tenants within this strip which have revitalised their shops and created a modern shopping experience. Although there is limited public space available along this strip, the roundabouts along Central Avenue create an environment where the only traffic is slow moving cars which is typically more popular with destination shoppers.

Table 27 summarises the floor space provision within the local centre zoning in Oak Flats at the time of the inventory being undertaken (May 2020).

**Table 27 - Inventory of Local Centre Zoning in Oak Flats by Floor Space Type, May 2020**

	Oak Flats – Central Avenue	
	Total floor space (sqm)	% of total floor space
<b>Retail</b>		
Groceries and take-home food	1,660	13.9%
Dining and take-away food	1,400	11.8%
Clothing, footwear and apparel	1,305	11.0%
Personal and other goods	2,640	22.2%
Core bulky goods	1,100	9.2%
Ancillary bulky goods	150	1.3%
Hardware	0	0.0%
Take away liquor	320	2.7%
<b>Total retail floor space</b>	<b>8,575</b>	<b>72.1%</b>
<b>Commercial</b>		
Financial and insurance services	280	2.4%
Rental, hiring and real estate services	200	1.7%
Health care and social assistance	1,940	16.3%
Professional, scientific and technical services	385	3.2%
Administrative and support services	180	1.5%
<b>Total commercial floor space</b>	<b>2,985</b>	<b>25.1%</b>
Vacant	340	2.9%
<b>Total floor space</b>	<b>11,900</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.2.4 Warilla Grove

Warilla Grove Shopping Centre has an estimated 10,671 sqm in total floor space, with major tenants being Woolworths (4,379 sqm) and Aldi (1,511 sqm). An estimated 415 sqm of vacant tenancies were identified within the centre representing a vacancy rate of approximately 3.9%. The Shopping Centre has ample carparking space and is easily accessed via Woolworths Avenue and Veronica Street, off Shellharbour Road. This dual access means the centre is accessible to persons heading both north and southbound along Shellharbour Road. Table 28 summarises the floor space provision within local centres zoning in Warilla Grove at the time of the inventory being undertaken (May 2020).

**Table 28 - Inventory of Local Centres in Warilla Grove by Floor Space Type, May 2020**

	Warilla Grove Shopping Centre	
	Total floor space (sqm)	% of total floor space
<b>Retail</b>		
Groceries and take-home food	6,530	61.2%
Dining and take-away food	360	3.4%
Clothing, footwear and apparel	1,106	10.4%
Personal and other goods	1,180	11.1%
Core bulky goods	440	4.1%
Ancillary bulky goods	0	0.0%
Hardware	0	0.0%
Take away liquor	0	0.0%
<b>Total retail floor space</b>	<b>9,616</b>	<b>90.1%</b>
<b>Commercial</b>		

	Warilla Grove Shopping Centre	
	Total floor space (sqm)	% of total floor space
Financial and insurance services	0	0.0%
Rental, hiring and real estate services	0	0.0%
Health care and social assistance	640	6.0%
Professional, scientific and technical services	0	0.0%
Administrative and support services	0	0.0%
<b>Total commercial floor space</b>	<b>640</b>	<b>6.0%</b>
Vacant	415	3.9%
<b>Total floor space</b>	<b>10,671</b>	<b>100.0%</b>

Source: Property Council of Australia Shopping Centre Directory (2020), Site Inspections, May 2020

#### 4.2.2.5 Warilla

There was an estimated 8,445 sqm of floor space identified within the Warilla Retail Strip located along George Street and Beverley Avenue, with major tenants including Wals Pharmacy (600 sqm), IMB Bank (250 sqm) and Casa Mia (240 sqm). This strip retail has a dated façade however, the signage and accessibility of facilities is sufficient. There was remnant residential identified within this retail precinct, which was approximately 530 sqm. The Warilla Retail Strip had an estimated 100 sqm of vacant tenancies, representing a vacancy rate of approximately 1.2%.

Table 29 summarises the floor space provision within local centres zoning in Warilla at the time of the inventory being undertaken (May 2020).

**Table 29- Inventory of Local Centres in Warilla by Floor Space Type, May 2020**

	Warilla Retail Strip	
	Total floor space (sqm)	% of total floorspace
<b>Retail</b>		
Groceries and take-home food	100	1.2%
Dining and take-away food	1,520	18.0%
Clothing, footwear and apparel	355	4.2%
Personal and other goods	1,350	16.0%
Core bulky goods	0	0.0%
Ancillary bulky goods	0	0.0%
Hardware	0	0.0%
Take away liquor	300	3.6%
<b>Total retail floor space</b>	<b>3,625</b>	<b>42.9%</b>
<b>Commercial</b>		
Financial and insurance services	820	9.7%
Rental, hiring and real estate services	435	5.2%
Health care and social assistance	2,160	25.6%
Professional, scientific and technical services	1,005	11.9%
Administrative and support services	300	3.6%
<b>Total commercial floor space</b>	<b>4,720</b>	<b>55.9%</b>
Vacant	100	1.2%
<b>Total floor space</b>	<b>8,445</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.2.6 Shell Cove

The Shell Cove Retail Strip had an estimated 4,800 sqm of floor space, with major tenant being Woolworths (3,500 sqm). The facilities are modern, with green public spaces surrounding the strip. The inventory also identified a large portion of



land which was undeveloped in proximity to the Shell Cove Retail Strip. The retail strip had an estimated 200 sqm of vacant tenancies, representing a vacancy rate of approximately 4.1%.

Table 30 summarises the floor space provision within the local centre zoning in Shell Cove at the time of the inventory being undertaken (May 2020).

**Table 30 - Inventory of Local Centre Zoning in Shell Cove by Floor Space Type, May 2020**

	Shell Cove Retail Strip	
	Total floor space (sqm)	% of total floor space
<b>Retail</b>		
Groceries and take-home food	3,500	72.9%
Dining and take-away food	400	8.3%
Clothing, footwear and apparel	0	0.0%
Personal and other goods	250	5.2%
Core bulky goods	150	3.1%
Ancillary bulky goods	0	0.0%
Hardware	0	0.0%
Take away liquor	0	0.0%
<b>Total retail floor space</b>	<b>4,300</b>	<b>89.6%</b>
<b>Commercial</b>		
Financial and insurance services	0	0.0%
Rental, hiring and real estate services	200	4.2%
Health care and social assistance	0	0.0%
Professional, scientific and technical services	100	2.1%
Administrative and support services	0	0.0%
<b>Total commercial floor space</b>	<b>300</b>	<b>6.3%</b>
Vacant	200	4.2%
<b>Total floor space</b>	<b>4,800</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.2.7 Shellharbour Village

There was an estimated 11,755 sqm of floor space identified within Shellharbour Village retail precinct, with major tenants including Ocean Beach Hotel (1,200 sqm) and The Roo Theatre Company (1,100 sqm). This strip retail acts as a hub of cafes, restaurants and small business which overlook the harbour. The inventory identified vacant undeveloped land (800 sqm) and two remnant residential within the Shellharbour Village retail precinct. Shellharbour Village had an estimated 200 sqm of vacant tenancies, representing a vacancy rate of less than 2.0% within the centre.

Table 31 summarises the floor space provision within the local centre zoning in Shellharbour Village at the time of the inventory being undertaken (May 2020).

**Table 31 - Inventory of Local Centre Zoning in Shellharbour Village by Floor Space Type, May 2020**

	Shellharbour Village	
	Total floor space (sqm)	% of total floor space
<b>Retail</b>		
Groceries and take-home food	840	7.1%
Dining and take-away food	5,810	49.4%
Clothing, footwear and apparel	455	3.9%
Personal and other goods	2,300	19.6%
Core bulky goods	0	0.0%

	Shellharbour Village	
	Total floor space (sqm)	% of total floor space
Ancillary bulky goods	0	0.0%
Hardware	0	0.0%
Take away liquor	0	0.0%
<b>Total retail floor space</b>	<b>9,405</b>	<b>80.0%</b>
<b>Commercial</b>		
Financial and insurance services	450	3.8%
Rental, hiring and real estate services	550	4.7%
Health care and social assistance	620	5.3%
Professional, scientific and technical services	100	0.9%
Administrative and support services	430	3.7%
<b>Total commercial floor space</b>	<b>2,150</b>	<b>18.3%</b>
Vacant	200	1.7%
<b>Total floor space</b>	<b>11,755</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

### 4.2.3 B1 Neighbourhood Centre

The maps in **Appendix 1** indicate the extent of the B1 Neighbourhood Centre Zone for Shellharbour.

#### 4.2.3.1 Albion Park

The Regal Heights Shopping Complex at Church Street is a neighbourhood centre in the Albion Park locality, with an estimated of 675 sqm in floor space and Blue Jay Café (150 sqm) as a major tenant. There was an estimated 225 sqm in vacant tenancies identified within the Regal Heights Shopping Complex, representing a vacancy rate of 33.3% within the complex.

There was an estimated 1,280 sqm of floor space identified within the Terry Street Shops, with major tenant being Albion Park School Uniforms and Workwear (300 sqm). An estimated 75 sqm of vacant tenancies were identified within the Terry Street Shops representing a vacancy rate of approximately 6.0% within the strip.

In addition to the above, there was an estimated 1,510 sqm of floor space identified within the neighbourhood centre located on Calderwood Road. The centre had an estimated 1,370 sqm of vacant tenancy which previously contained a service station.

The neighbourhood centres in Albion Park are similar in nature, in that many of the tenancies have limited street appeal with dated facades. There are also limited community or green spaces which connect the tenancies or create a 'destination' retailing experience.

Table 32 summarises the floor space provision within the neighbourhood centre zoning in Albion Park at the time of the inventory being undertaken (May 2020).

**Table 32 - Inventory of Neighbourhood Zoning in Albion Park by Floor Space Type, May 2020**

	Albion Park – Regal Heights Shopping Complex, Church Street		Albion Park – Terry St		Albion Park – Calderwood Road	
	Total floor space (sqm)	% of total floorspace	Total floor space (sqm)	% of total floorspace	Total floor space (sqm)	% of total floorspace
<b>Retail</b>						
Groceries and take-home food	0	0.0%	100	7.8%	0	0.0%
Dining and take-away food	225	33.3%	460	35.9%	70	4.9%
Clothing, footwear and apparel	0	0.0%	300	23.4%	0	0.0%

	Albion Park – Regal Heights Shopping Complex, Church Street		Albion Park – Terry St		Albion Park – Calderwood Road	
	Total floor space (sqm)	% of total floorspace	Total floor space (sqm)	% of total floorspace	Total floor space (sqm)	% of total floorspace
Personal and other goods	225	33.3%	185	14.5%	0	0.0%
Core bulky goods	0	0.0%	0	0.0%	0	0.0%
Ancillary bulky goods	0	0.0%	0	0.0%	0	0.0%
Hardware	0	0.0%	0	0.0%	0	0.0%
Take away liquor	0	0.0%	0	0.0%	0	0.0%
<b>Total retail floor space</b>	<b>450</b>	<b>66.7%</b>	<b>1,045</b>	<b>81.6%</b>	<b>70</b>	<b>4.9%</b>
<b>Commercial</b>						
Financial and insurance services	0	0.0%	0	0.0%	0	0.0%
Rental, hiring and real estate services	0	0.0%	0	0.0%	70	4.6%
Health care and social assistance	0	0.0%	160	12.5%	0	0.0%
Professional, scientific and technical services	0	0.0%	0	0.0%	0	0.0%
Administrative and support services	0	0.0%	0	0.0%	0	0.0%
<b>Total commercial floor space</b>	<b>0</b>	<b>0.0%</b>	<b>160</b>	<b>12.5%</b>	<b>70</b>	<b>4.6%</b>
Vacant	225	33.3%	75	5.9%	1,370	90.7%
<b>Total floor space</b>	<b>675</b>	<b>100.0%</b>	<b>1,280</b>	<b>100.0%</b>	<b>1,510</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.3.2 Lake Illawarra

There was an estimated 2,160 sqm of floor space identified within the neighbourhood centre along Addison Avenue, with major tenants including Bottlemart (475 sqm) and Brazilian Jiu Jitsu (240 sqm). The Lake Illawarra Retail Strip had an estimated 1,620 sqm of vacant tenancies, representing a vacancy rate of approximately 35.0% within the retail strip. This neighbourhood centre appears to be significantly rundown.

In addition to the above, there was a small neighbourhood centre identified along Queen Street, Lake Illawarra. The centre had an estimated 1,025 sqm of total floor and had an estimated 685 sqm of vacant tenancies, representing a vacancy rate of approximately of just under 20.0%. The centre is easily accessible but contains limited parking.

Table 33 summarises the floor space provision within the neighbourhood centre zoning in Lake Illawarra at the time of the inventory being undertaken (May 2020).

**Table 33 - Inventory of Neighbourhood Zoning in Lake Illawarra by Floor Space Type, May 2020**

	Lake Illawarra – Addison Avenue		Lake Illawarra – Queen Street	
	Total floor space (sqm)	% of total floorspace	Total floor space (sqm)	% of total floorspace
<b>Retail</b>				
Groceries and take-home food	0	0.0%	0	0.0%
Dining and take-away food	0	0.0%	340	33.2%
Clothing, footwear and apparel	0	0.0%	0	0.0%
Personal and other goods	190	8.8%	0	0.0%
Core bulky goods	170	7.9%	0	0.0%
Ancillary bulky goods	0	0.0%	0	0.0%
Hardware	0	0.0%	0	0.0%
Take away liquor	475	22.0%	0	0.0%

	Lake Illawarra – Addison Avenue		Lake Illawarra – Queen Street	
	Total floor space (sqm)	% of total floorspace	Total floor space (sqm)	% of total floorspace
<b>Total retail floor space</b>	<b>835</b>	<b>38.7%</b>	<b>340</b>	<b>33.2%</b>
<b>Commercial</b>				
Financial and insurance services	0	0.0%	0	0.0%
Rental, hiring and real estate services	0	0.0%	0	0.0%
Health care and social assistance	240	11.1%	0	0.0%
Professional, scientific and technical services	0	0.0%	0	0.0%
Administrative and support services	0	0.0%	0	0.0%
<b>Total commercial floor space</b>	<b>240</b>	<b>11.1%</b>	<b>0</b>	<b>0.0%</b>
Vacant	1,085	50.2%	685	66.8%
<b>Total floor space</b>	<b>2,160</b>	<b>100.0%</b>	<b>1,025</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.3.3 Barrack Heights

There was an estimated 3,800 sqm of floor space identified along Captain Cook Drive, Barrack Heights. The precinct is largely dominated by the Barrack Heights Medical Centre (3,200sqm in size) and an IGA (600 sqm in size).

The Barrack Heights Medical Centre provides a broad range of health services to the local community and comprises general practitioners, a skin cancer clinic, dentists and a broad range of allied health services, including a dietician, exercise physiologist, physiotherapist, naturopath, psychologists, radiologists and podiatrist.

The inventory identified vacant land that was approximately 2,300 sqm in size in proximity to the retail precinct within the B1 zone. This precinct appears to be adequately maintained with ample carparking facilities for local patrons.

The Lagoon Street centre was an estimated 280m<sup>2</sup> in size, with one tenancy identified, this being a fish and chip store. The shop top housing within this centre appeared run down and dated.

Table 34 summarises the floor space provision within the neighbourhood centre zoning in Barrack Heights at the time of the inventory being undertaken (May 2020).

**Table 34 - Inventory of Neighbourhood Zoning in Barrack Heights by Floor Space Type, May 2020**

	Barrack Heights – Captain Cook Drive		Barrack Heights – Lagoon Street	
	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space
<b>Retail</b>				
Groceries and take-home food	600	15.8%	0	0.0%
Dining and take-away food	0	0.0%	70	25.0%
Clothing, footwear and apparel	0	0.0%	0	0.0%
Personal and other goods	0	0.0%	0	0.0%
Core bulky goods	0	0.0%	0	0.0%
Ancillary bulky goods	0	0.0%	0	0.0%
Hardware	0	0.0%	0	0.0%
Take away liquor	0	0.0%	0	0.0%
<b>Total retail floor space</b>	<b>600</b>	<b>15.8%</b>	<b>70</b>	<b>25.0%</b>
<b>Commercial</b>				
Financial and insurance services	0	0.0%	0	0.0%
Rental, hiring and real estate services	0	0.0%	0	0.0%

	Barrack Heights – Captain Cook Drive		Barrack Heights – Lagoon Street	
	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space
Health care and social assistance	3,200	84.2%	0	0.0%
Professional, scientific and technical services	0	0.0%	0	0.0%
Administrative and support services	0	0.0%	0	0.0%
<b>Total commercial floor space</b>	<b>3,200</b>	<b>84.2%</b>	<b>0</b>	<b>0.0%</b>
Vacant	0	0.0%	210	75.0%
<b>Total floor space</b>	<b>3,800</b>	<b>100.0%</b>	<b>280</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.3.4 Dunmore

There was B1 zoned land identified within Dunmore, which was identified as vacant at the time of site inspections.

#### 4.2.3.5 Albion Park Rail

The B1 zoned land at 60 Koona Street, Albion Park Rail is the site formerly occupied by Camp Quality. It is understood that this site was sold in late 2017. At the time of site inspection, the site did not appear to be used for business purposes.

#### 4.2.3.6 Mt Warrigal

There were two B1 zoned sites identified at Mt Warrigal, one located at Mackenzie Avenue and the other located along Jones Avenue. Both sites represented solid brick retail strips with shop top housing. There was an estimated 882m<sup>2</sup> of retail floor space at the Mackenzie Avenue centre, with tenancies including Dollarwise Supermarket, a hairdresser, pharmacy and three dining and takeaway food outlets.

The Jones Avenue centre was anchored by George's Fruit Shop and Continental Deli, with a hairdresser also identified at the site.

Table 35 summarises the floor space provision within the neighbourhood centre zoning in Barrack Heights at the time of the inventory being undertaken (May 2020).

**Table 35 - Inventory of Neighbourhood Zoning in Mt Warrigal by Floor Space Type, May 2020**

	Mackenzie Avenue, Mt Warrigal		Jones Avenue, Mt Warrigal	
	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space
<b>Retail</b>				
Groceries and take-home food	147	16.7%	250	55.6%
Dining and take-away food	441	50.0%	0	0.0%
Clothing, footwear and apparel	0	0.0%	0	0.0%
Personal and other goods	294	33.3%	100	22.2%
Core bulky goods	0	0.0%	0	0.0%
Ancillary bulky goods	0	0.0%	0	0.0%
Hardware	0	0.0%	0	0.0%
Take away liquor	0	0.0%	0	0.0%
<b>Total retail floor space</b>	<b>882</b>	<b>100.0%</b>	<b>350</b>	<b>77.8%</b>
<b>Commercial</b>				
Financial and insurance services	0	0.0%	0	0.0%
Rental, hiring and real estate services	0	0.0%	0	0.0%
Health care and social assistance	0	0.0%	0	0.0%
Professional, scientific and technical services	0	0.0%	0	0.0%

	Mackenzie Avenue, Mt Warrigal		Jones Avenue, Mt Warrigal	
	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space
Administrative and support services	0	0.0%	0	0.0%
<b>Total commercial floor space</b>	<b>0</b>	<b>0.0%</b>	<b>0</b>	<b>0.0%</b>
Vacant	0	0.0%	100	22.2%
<b>Total floor space</b>	<b>882</b>	<b>100.0%</b>	<b>450</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.3.7 Flinders

There were two B1 centres identified within Flinders, one located at 53 Wattle Road and the other at 20 Munmorah Circuit.

Each centre comprises a single tenancy delivered in combination with shop top housing. The tenancy at each centre is:

- Wattle Road: Flinders Friendly Grocer (220sqm); and
- Munmorah Circuit: Flinders Discount Chemist (150sqm).

Table 36 summarises the floor space provision within each B1 centre within Flinders.

**Table 36 - Inventory of Neighbourhood Zoning in Flinders by Floor Space Type, May 2020**

	Wattle Road, Flinders		Munmorah Circuit, Flinders	
	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space
<b>Retail</b>				
Groceries and take-home food	220	100.0%	0	0.0%
Dining and take-away food	0	0.0%	0	0.0%
Clothing, footwear and apparel	0	0.0%	0	0.0%
Personal and other goods	0	0.0%	150	100.0%
Core bulky goods	0	0.0%	0	0.0%
Ancillary bulky goods	0	0.0%	0	0.0%
Hardware	0	0.0%	0	0.0%
Take away liquor	0	0.0%	0	0.0%
<b>Total retail floor space</b>	<b>220</b>	<b>100.0%</b>	<b>150</b>	<b>100.0%</b>
<b>Commercial</b>				
Financial and insurance services	0	0.0%	0	0.0%
Rental, hiring and real estate services	0	0.0%	0	0.0%
Health care and social assistance	0	0.0%	0	0.0%
Professional, scientific and technical services	0	0.0%	0	0.0%
Administrative and support services	0	0.0%	0	0.0%
<b>Total commercial floor space</b>	<b>0</b>	<b>0.0%</b>	<b>0</b>	<b>0.0%</b>
Vacant	0	0.0%	0	0.0%
<b>Total floor space</b>	<b>220</b>	<b>100.0%</b>	<b>150</b>	<b>100.0%</b>

Source: Site Inspections, May 2020



#### 4.2.3.8 Warilla

There was a single B1 centre identified within Warilla, along Ulster Avenue, comprising a single retail tenancy (The Little Convenience Store) with shop top housing.

Table 37 summarises the floor space provision within the B1 centre in Warilla.

**Table 37 - Inventory of Neighbourhood Zoning in Warilla by Floor Space Type, May 2020**

	Ulster Avenue, Warilla	
	Total floor space (sqm)	% of total floor space
<b>Retail</b>		
Groceries and take-home food	120	100.0%
Dining and take-away food	0	0.0%
Clothing, footwear and apparel	0	0.0%
Personal and other goods	0	0.0%
Core bulky goods	0	0.0%
Ancillary bulky goods	0	0.0%
Hardware	0	0.0%
Take away liquor	0	0.0%
<b>Total retail floor space</b>	<b>120</b>	<b>100.0%</b>
<b>Commercial</b>		
Financial and insurance services	0	0.0%
Rental, hiring and real estate services	0	0.0%
Health care and social assistance	0	0.0%
Professional, scientific and technical services	0	0.0%
Administrative and support services	0	0.0%
<b>Total commercial floor space</b>	<b>0</b>	<b>0.0%</b>
Vacant	0	0.0%
<b>Total floor space</b>	<b>120</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.3.9 Shellharbour

There were two B1 centres identified within Shellharbour, these being:

- Darley Street, Shellharbour: Olympic Take Away (360sqm); and
- Corner of Shellharbour and Wattle Road, Shellharbour: 7 Eleven Service Station (100sqm).

Table 38 summarises the B1 centres within Shellharbour.

**Table 38 - Inventory of Neighbourhood Zoning in Shellharbour by Floor Space Type, May 2020**

	Darley Street, Shellharbour		Shellharbour and Wattle Road, Shellharbour	
	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space
<b>Retail</b>				
Groceries and take-home food	0	0.0%	100	100.0%
Dining and take-away food	360	100.0%	0	0.0%
Clothing, footwear and apparel	0	0.0%	0	0.0%
Personal and other goods	0	0.0%	0	0.0%
Core bulky goods	0	0.0%	0	0.0%

	Darley Street, Shellharbour		Shellharbour and Wattle Road, Shellharbour	
	Total floor space (sqm)	% of total floor space	Total floor space (sqm)	% of total floor space
Ancillary bulky goods	0	0.0%	0	0.0%
Hardware	0	0.0%	0	0.0%
Take away liquor	0	0.0%	0	0.0%
<b>Total retail floor space</b>	<b>360</b>	<b>100.0%</b>	<b>100</b>	<b>0.0%</b>
<b>Commercial</b>				
Financial and insurance services	0	0.0%	0	0.0%
Rental, hiring and real estate services	0	0.0%	0	0.0%
Health care and social assistance	0	0.0%	0	0.0%
Professional, scientific and technical services	0	0.0%	0	0.0%
Administrative and support services	0	0.0%	0	0.0%
<b>Total commercial floor space</b>	<b>0</b>	<b>0.0%</b>	<b>0</b>	<b>0.0%</b>
Vacant	0	0.0%	0	0.0%
<b>Total floor space</b>	<b>360</b>	<b>100.0%</b>	<b>100</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.2.4 B5 Business Development

The maps in **Appendix 1** indicate the extent of the B5 Business Development Zone for Shellharbour.

##### 4.2.4.1 Shellharbour City Centre

The Stockland Shellharbour Retail Park situated on the south side of New Lake Entrance Road is located in proximity to Shellharbour City Centre and Stockland Shellharbour. The Shellharbour Stockland Retail Park is the shopping destination of choice for most convenience and discretionary retail within Shellharbour City. This centre also has multiple access points and carparks which makes the centre accessible from most suburbs in Shellharbour City. The centre was estimated to be 18,867 sqm in total floor space, major tenants included Woolworths (4,370 sqm) and Baby Bunting (2,000 sqm). There were no vacant tenancies identified within this centre as of May 2020.

Additionally, centre activity was also situated on the north side of the New Lake Entrance Road. The centre was estimated to be 6,745 sqm in total floor space, major tenants included Macdonald Jones Home Builders (1,890 sqm) and Beacon Lighting (1,050 sqm). At the time of the inventory being undertaken, the centre had an estimated vacancy rate of 8.6%.

Table 39 summarises the floor space provision within the business development zoning in Shellharbour at the time of the inventory being undertaken (May 2020).

**Table 39 - Inventory of Business Development Zoned Centres by Floor Space Type, May 2020**

	Shellharbour City Centre – south side of New Lake Entrance Road (Stockland Retail Park)		Shellharbour City Centre – north side of New Lake Entrance Road	
	Floor space (sqm)	% of total floorspace	Floor space (sqm)	% of total floorspace
<b>Retail</b>				
Groceries and take-home food	4,810	25.5%	300	4.4%
Dining and take-away food	660	3.5%	0	0.0%
Clothing, footwear and apparel	5,560	29.5%	700	10.4%
Personal and other goods	2,100	11.1%	0	0.0%
Core bulky goods	1,180	6.3%	2,505	37.1%
Ancillary bulky goods	2,297	12.2%	0	0.0%
Hardware	0	0.0%	370	5.5%

	Shellharbour City Centre – south side of New Lake Entrance Road (Stockland Retail Park)		Shellharbour City Centre – north side of New Lake Entrance Road	
	Floor space (sqm)	% of total floorspace	Floor space (sqm)	% of total floorspace
Take away liquor	1,500	8.0%	0	0.0%
<b>Total retail floor space</b>	<b>18,107</b>	<b>96.0%</b>	<b>3,875</b>	<b>57.4%</b>
<b>Commercial</b>				
Financial and insurance services	0	0.0%	0	0.0%
Rental, hiring and real estate services	0	0.0%	0	0.0%
Health care and social assistance	760	4.0%	0	0.0%
Professional, scientific and technical services	0	0.0%	2,290	34.0%
Administrative and support services	0	0.0%	0	0.0%
<b>Total commercial floor space</b>	<b>760</b>	<b>4.0%</b>	<b>2,290</b>	<b>34.0%</b>
Vacant	0	0.0%	580	8.6%
<b>Total floor space</b>	<b>18,867</b>	<b>100.0%</b>	<b>6,745</b>	<b>100.0%</b>

Source: Property Council Australia (PCA) Centres Directory (2020), Site Inspections, May 2020

#### 4.2.4.2 Warilla

There was an estimated 3,390 sqm of floor space within the Business Development zoning on the corner of Lake Entrance Road and Shellharbour Road, Warilla, with major tenant being Dreamz Bedrooms and Bedding (500 sqm) and Ocean Storm (500 sqm). The centre had an estimated 1,665 sqm of vacant tenancies, representing a vacancy rate of approximately 46.2% within the centre. The centre is easily accessible from both directions from Lake Entrance Road but is only accessible from one direction for those travelling along Shellharbour Road. Additionally, there is a large public space located directly behind the centre.

It is understood that the Warilla Town Centres Plan, endorsed by Council on 15 December 2015, recommends that some of this land is rezoned from B5 Business Development to B4 Mixed Use, which is likely to incentivise redevelopment of this land.

Table 40 summarises the floor space provision within business development zoning in Warilla at the time of the inventory being undertaken (May 2020).

**Table 40 - Inventory of Business Development Zoned Centres in Warilla by Floor Space Type, May 2020**

	Warilla – Shellharbour Road	
	Floor space (sqm)	% of total floorspace
<b>Retail</b>		
Groceries and take-home food	0	0.0%
Dining and take-away food	440	13.0%
Clothing, footwear and apparel	0	0.0%
Personal and other goods	0	0.0%
Core bulky goods	1,500	44.2%
Ancillary bulky goods	0	0.0%
Hardware	0	0.0%
Take away liquor	0	0.0%
<b>Total retail floor space</b>	<b>1,940</b>	<b>57.2%</b>
<b>Commercial</b>		
Financial and insurance services	0	0.0%
Rental, hiring and real estate services	0	0.0%
Health care and social assistance	0	0.0%

	Warilla – Shellharbour Road	
	Floor space (sqm)	% of total floorspace
Professional, scientific and technical services	0	0.0%
Administrative and support services	0	0.0%
<b>Total commercial floor space</b>	<b>0</b>	<b>0.0%</b>
Vacant	1,450	42.8%
<b>Total floor space</b>	<b>3,390</b>	<b>100.0%</b>

Source: Property Council Australia (PCA) Centres Directory, Site Inspections, May 2020

#### 4.2.4.3 Lake Illawarra

The Business Development zoned centre activity located along Shellharbour Road, Lake Illawarra had an estimated 930sqm of retail floor space, comprising a Metro petrol station, a 7 Eleven store and a dog daycare and grooming centre. The precinct also contained a number of industrial businesses, including Warilla Tyres, Brakes and Mufflers (motor vehicle repair and maintenance business), Mitchells Wholesale Vegetables and TLE Electrical and Data.

The centre is in proximity to Warilla Grove Shopping Centre and Warilla Library. The centre is only accessible via the main road, which is hindered by the large median strip dividing traffic flowing both directions. There are significant traffic volumes along this road, including commuter traffic and trucks. Most individual shops within this strip have limited street appeal, and there are no public spaces (except for the sidewalk) connecting each of the shops.

Table 41 summarises the floor space provision within the business development zone in Lake Illawarra at the time of the inventory being undertaken (May 2020).

**Table 41 - Inventory of Business Development Zoned Centres in Lake Illawarra by Floor Space Type, May 2020**

	Lake Illawarra – Shellharbour Road	
	Floor space (sqm)	% of total floorspace
<b>Retail</b>		
Groceries and take-home food	600	64.5%
Dining and take-away food	0	0.0%
Clothing, footwear and apparel	0	0.0%
Personal and other goods	330	35.5%
Core bulky goods	0	0.0%
Ancillary bulky goods	0	0.0%
Hardware	0	0.0%
Take away liquor	0	0.0%
<b>Total retail floor space</b>	<b>930</b>	<b>100.0%</b>
<b>Commercial</b>		
Financial and insurance services	0	0.0%
Rental, hiring and real estate services	0	0.0%
Health care and social assistance	0	0.0%
Professional, scientific and technical services	0	0.0%
Administrative and support services	0	0.0%
Total commercial floor space	0	0.0%
Vacant	0	0.0%
<b>Total floor space</b>	<b>930</b>	<b>100.0%</b>

Source: Property Council Australia (PCA) Centres Directory, Site Inspections, May 2020

## 4.3 Industrial / Business Park Activity

In May 2020, an inventory of General Industrial (IN1) Light Industrial (IN2) and Business Park (B7) zoned land within Shellharbour City was undertaken. The inventory provided on-the-ground information about the tenant composition of each industrial or business park zone and identified and quantified vacant tenancies within each zoning type.

Industrial activity within Shellharbour City was focussed at Albion Park and Warilla, with business park zoned land identified at Shell Cove.

Industrial activity identified during the inventory undertaken has been classified utilising ABS two-digit ANZSIC industry sector categories. In accordance with the ABS Census Dictionary, two-digit ANZSIC industry sector is defined as sub-divisions providing detailed dissection of the broader one-digit ANZSIC industry sector. The assessment has utilised two digit ANZSIC industry sectors as this provides the appropriate level of detail for the nature of activity on site (e.g. allows for the identification of the nature of manufacturing activity within the industrial area).

The maps in **Appendix 1** indicate the extent of the IN1 General Industrial, IN2 Light Industrial and B7 Business Park Zones for Shellharbour.

### 4.3.1 Light Industrial (IN2)

#### 4.3.1.1 Albion Park Rail

The industrial zoned area along Princes Highway, Albion Park Rail within the IN2 zone comprised of 74 industrial businesses and 18 vacant tenancies (representing a vacancy rate of just under 20.0%). Motor vehicle and motor vehicle parts wholesaling and construction services were the dominant industry type, accounting for just under a third of all activity.

Table 42 provides a summary of the business activity within the IN2 Light Industrial zoning in Albion Park Rail by two-digit ANZSIC category.

**Table 42 - Inventory of Light Industry Zoned Precincts within Albion Park Rail**

Industry Sector (2 Digit ANZSIC)	Albion Park Rail IN2	
	No.	%
Vacant	18	19.6%
Motor Vehicle and Motor Vehicle Parts Wholesaling	17	18.5%
Construction Services	12	13.0%
Repair and Maintenance	9	9.8%
Machinery and Equipment Wholesaling	4	4.3%
Sports and Recreation Activities	4	4.3%
Fuel Retailing	3	3.3%
Road Transport	3	3.3%
Warehousing and Storage Services	3	3.3%
Transport Equipment Manufacturing	2	2.2%
Food and Beverage Service	2	2.2%
Other Store-Based Retailing	2	2.2%
Personal and Other Services	2	2.2%
Administrative Services	2	2.2%
Gas Supply	1	1.1%
Medical and Other Health Care Services	1	1.1%
Commercial	1	1.1%
Food Product Manufacturing	1	1.1%
Machinery and Equipment Manufacturing	1	1.1%
Building Cleaning, Pest Control and Other Support Services	1	1.1%

Industry Sector (2 Digit ANZSIC)	Albion Park Rail IN2	
	No.	%
Transport Support Services	1	1.1%
Printing (including the Reproduction of Recorded Media)	1	1.1%
Food and Beverage Services	1	1.1%
Building Construction	1	1.1%
<b>Total</b>	<b>92</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.3.1.2 Albion Park Rail (Between Princes Highway and the East West Link)

The industrial zoned area identified between Princes Highway and the East West Link, Albion Park Rail comprised of 78 industrial businesses and 27 vacant tenancies (representing a vacancy rate of just under 25.0%). There were four vacant land parcels identified. Repair and maintenance, sports and recreation services and other goods wholesaling were the dominant industry type, accounting for more than a quarter of all activity. This precinct also accommodates the United Mitre 10 trade centre and Bunnings.

Table 43 provides a summary of the business activity within the light industry zoning between the Princes Highway and the East West Link, Albion Park Rail by two-digit ANZSIC category.

**Table 43- Inventory of Light Industry Zoned Precincts within Albion Park Rail (Between Princes Highway and the East West Link)**

Industry Sector (2 Digit ANZSIC)	Albion Park Rail IN2 (Between Princes Highway and East West Link)	
	No.	%
Vacant	27	24.8%
Repair and Maintenance	16	14.7%
Sports and Recreation Services	9	8.3%
Other Goods Wholesaling	6	5.5%
Building Construction	5	4.6%
Other Store-Based Retailing	4	3.7%
Personal and Other Services	4	3.7%
Construction Services	4	3.7%
Furniture and Other Manufacturing	4	3.7%
Creative and Performing Arts Activities	4	3.7%
Motor Vehicle and Motor Vehicle Parts Wholesaling	2	1.8%
Machinery and Equipment Manufacturing	2	1.8%
Primary Metal and Metal Product Manufacturing	2	1.8%
Food and Beverage Services	2	1.8%
Machinery and Equipment Wholesaling	2	1.8%
Telecommunications Services	1	0.9%
Food and Beverage Service	1	0.9%
Other Machinery and Equipment Manufacturing	1	0.9%
Wood Product Manufacturing	1	0.9%
Building Cleaning, Pest Control and Other Support Services	1	0.9%
Textile, Leather, Clothing and Footwear Manufacturing	1	0.9%
Wood Product Manufacturing	1	0.9%

Industry Sector (2 Digit ANZSIC)	Albion Park Rail IN2 (Between Princes Highway and East West Link)	
	No.	%
Polymer Product and Rubber Product Manufacturing	1	0.9%
Transport Support Services	1	0.9%
Machinery and Equipment Manufacturing	1	0.9%
Non-Metallic Mineral Product Manufacturing	1	0.9%
Sports and Recreation Activities	1	0.9%
<b>Total</b>	<b>105</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.3.1.3 Oak Flats (Industrial Road Precinct)

The Oak Flats Industrial Road Precinct comprised 146 industrial business, five vacant tenancies (representing a vacancy rate of 3.4%) and four remnant residential properties. Repair and maintenance and construction services were the dominant industry types, accounting for just over 40.0% of all activity.

Table 44 provides a summary of the business activity within the light industry zoning in Oak Flats by two-digit ANZSIC category.

**Table 44 - Inventory of Light Industry Zoned Precincts within Oak Flats**

Industry Sector (2 Digit ANZSIC)	Oak Flats IN2	
	No.	%
Repair and Maintenance	33	22.6%
Construction Services	27	18.5%
Other Goods Wholesaling	12	8.2%
Motor Vehicle and Motor Vehicle Parts Retailing	7	4.8%
Vacant	5	3.4%
Remnant Residential	4	2.7%
Furniture and Other Manufacturing	4	2.7%
Fabricated Metal Product Manufacturing	4	2.7%
Road Transport	4	2.7%
Personal and Other Services	3	2.1%
Building Cleaning, Pest Control and Other Support Services	3	2.1%
Wood Product Manufacturing	3	2.1%
Machinery and Equipment Wholesaling	2	1.4%
Other Store-Based Retailing	2	1.4%
Polymer Product and Rubber Product Manufacturing	2	1.4%
Non-Metallic Mineral Product Manufacturing	2	1.4%
Creative and Performing Arts Activities	2	1.4%
Sports and Recreation Activities	2	1.4%
Motor Vehicle and Motor Vehicle Parts Wholesaling	2	1.4%
Warehousing and Storage Services	2	1.4%
Machinery and Equipment Manufacturing	2	1.4%
Vacant Land	2	1.4%
Food and Beverage Services	2	1.4%
Printing (including the Reproduction of Recorded Media)	1	0.7%
Rental and Hiring Services (except Real Estate)	1	0.7%
Public Order, Safety and Regulatory Services	1	0.7%



Industry Sector (2 Digit ANZSIC)	Oak Flats IN2	
	No.	%
Basic Material Wholesaling	1	0.7%
Beverage and Tobacco Product Manufacturing	1	0.7%
Computer System Design and Related Services	1	0.7%
Water Supply, Sewerage and Drainage Services	1	0.7%
Public Administration	1	0.7%
Personal and Other Service	1	0.7%
Rail Transport	1	0.7%
Postal and Courier Pick-up and Delivery Services	1	0.7%
Non-Metallic Mineral Product Manufacturing	1	0.7%
Social Assistance Services	1	0.7%
Waste Collection, Treatment and Disposal Services	1	0.7%
Insurance and Superannuation Funds	1	0.7%
<b>Total</b>	<b>146</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.3.1.4 Lake Illawarra – Warilla

The industrial zone area located adjacent to the Warilla Grove Shopping Centre is comprised of 33 industrial businesses and two vacant tenancies (representing a vacancy rate of 5.7%). Repair and maintenance and construction services were the dominant industry types, accounting for just over 45.0% of all activity.

Table 45 provides a summary of the business activity within the light industry zoning in the Lake Illawarra - Warilla Industrial Area by two-digit ANZSIC category.

**Table 45 - Inventory of Light Industry Zoned Precincts within Lake Illawarra - Warilla**

Industry Sector (2 Digit ANZSIC)	Lake Illawarra - Warilla IN2	
	No.	%
Repair and Maintenance	11	31.4%
Construction Services	5	14.3%
Other Goods Wholesaling	3	8.6%
Administrative Services	3	8.6%
Vacant	2	5.7%
Non-Metallic Mineral Product Manufacturing	2	5.7%
Basic Material Wholesaling	1	2.9%
Furniture and Other Manufacturing	1	2.9%
Social Assistance Services	1	2.9%
Machinery and Equipment Manufacturing	1	2.9%
Transport Support Services	1	2.9%
Machinery and Equipment Wholesaling	1	2.9%
Building Construction	1	2.9%
Personal and Other Services	1	2.9%
Printing (including the Reproduction of Recorded Media)	1	2.9%
<b>Total</b>	<b>35</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.3.1.5 Barrack Heights – Warilla

The light industrial zone within Barrack Heights – Warilla comprises 74 businesses, three vacant tenancies (representing a vacancy rate of 3.7%) and five vacant land allotments. Repair and maintenance, sports and recreation activities and construction services were the dominant industry types, accounting for just over 40.0% of all activity.

Table 46 provides a summary of the business activity within the light industry zoning in the Barrack Heights – Warilla Industrial Area by two-digit ANZSIC category.

**Table 46 - Inventory of Light Industry Zoned Precincts within Barrack Heights - Warilla**

Industry Sector (2 Digit ANZSIC)	Barrack Heights- Warilla IN2	
	No.	%
Repair and Maintenance	17	20.7%
Sports and Recreation Activities	9	11.0%
Construction Services	9	11.0%
Other Store-Based Retailing	7	8.5%
Building Construction	5	6.1%
Vacant land	5	6.1%
Vacant	3	3.7%
Fuel Retailing	2	2.4%
Motor Vehicle and Motor Vehicle Parts Retailing	2	2.4%
Machinery and Equipment Manufacturing	2	2.4%
Printing (including the Reproduction of Recorded Media)	2	2.4%
Building Cleaning, Pest Control and Other Support Services	2	2.4%
Creative and Performing Arts Activities	2	2.4%
Transport Equipment Manufacturing	2	2.4%
Other Goods Wholesaling	2	2.4%
Exploration and Other Mining Support Services	2	2.4%
Machinery and Equipment Wholesaling	1	1.2%
Adult, Community and Other Education	1	1.2%
Wood Product Manufacturing	1	1.2%
Professional, Scientific and Technical Services	1	1.2%
Warehousing and Storage Services	1	1.2%
Furniture and Other Manufacturing	1	1.2%
Personal and Other Services	1	1.2%
Grocery, Liquor and Tobacco Product Wholesaling	1	1.2%
Food and Beverage Services	1	1.2%
<b>Total</b>	<b>82</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

#### 4.3.2 General Industrial (IN1)

##### 4.3.2.1 Albion Park Rail

The IN1 zone in Albion Park Rail is located west of the Princes Highway, immediately adjacent to the airport. The inventory identified that there was significant remnant housing within this zone, with five vacant land parcels also identified (including two land allotments with industrial buildings under construction). At the time of site inspection, there were no vacant industrial tenancies identified. Industrial activity within the zone was of a low impact nature, despite the general industry zoning, with the intensity of industrial activity likely limited somewhat by the presence of remnant housing. Activity within the zone also did not appear to directly relate to the airport.

Table 47 provides a summary of the business activity within the general industry zones in Albion Park Rail by two-digit ANZSIC category.

**Table 47 - Inventory of General Industry Zoned Precinct within Albion Park Rail**

Industry Sector (2 Digit ANZSIC)	Albion Park Rail IN1	
	No.	(%)
House	16	48.5%
Vacant	5	15.2%
Warehousing and Storage Services	3	9.1%
Social Assistance Services	3	9.1%
Fuel Retailing	2	6.1%
Sports and Recreation Activities	2	6.1%
Building Cleaning, Pest Control and Other Support Services	1	3.0%
Administrative Services	1	3.0%
<b>Total</b>	<b>33</b>	<b>100.0%</b>

Source: Site Inspections, May 2020

### 4.3.3 B7 Business Park

#### 4.3.3.1 Shell Cove

There is one parcel of B7 Business Park zoned land within Shellharbour City at Shell Cove. This parcel forms part of the broader Shell Cove Boat Harbour precinct concept approval (otherwise known as The Waterfront Shell Cove), which is anticipated to be a residential, retail, tourist, boating and lifestyle destination, comprising:

- Business Park with a maximum gross floor area of 30,000sqm;
- Retail/commercial and community facilities with a maximum gross floor area of 14,830sqm;
- Up to 1,566 dwellings;
- A marina; and
- Landmark hotel.

The business park zoned land at Shell Cove is intended to accommodate the business park component of the broader Shell Cove Boat Harbour development. Employment opportunities identified for the business park precinct include a university and/or marine research and marine biology units.

At present, activity at Shell Cove includes the Woolworths anchored centre (estimated 4,800sqm in size).

## 4.4 Education / Health Uses

The maps in **Appendix 1** indicate the extent of the SP2 Infrastructure Zone for Shellharbour, for Educational Establishment and Health Services Purposes only, which are the subject of the SELS.

### 4.4.1 Shellharbour TAFE

The Shellharbour TAFE is located on the north side of New Lake Entrance Road across the road from the Stockland Shellharbour Shopping Centre and is co-located with the Shellharbour Public and Private Hospitals. This TAFE campus offers over 54 courses across multiple study areas including early childhood education, business services, automotive technology, personal and beauty services and health and community services. The highest qualifications available at the TAFE are:

- Bachelor of Early Childhood Education and Care (Birth-5): a four-year professional degree which provides the sufficient qualification to work as a preschool or long day care teacher;
- Diploma of Human Resource Management: training in strategic management of recruiting, candidate selection, induction and ongoing employee management;

- Diploma of Project Management: training in theories to assist businesses scope, integrate, manage governance and risk;
- Diploma of Remedial Massage: advanced massage techniques to treat a variety of injuries; and
- Diploma of Nursing: sufficient qualification to work as an enrolled nurse.

As the demand for qualified health, wellbeing and community service workers is growing throughout NSW, the Wollongong and Shellharbour TAFE have increased their course offering in health-related qualifications. This shift was evident in the implementation of the Introduction to Health and Community Services short course, which provides prospective students a chance to sample the training and see if it is a career in health is something they would like to pursue further.

As of the 2017-18 NSW TAFE annual report there were no identified major works planned for the Shellharbour Campus. However, a project was identified in this report called 'Illawarra Institute – Growing Flexible Delivery Information Technology Infrastructure (various locations)' which was completed in June 2018. This project cost an estimated \$9.2 million (excluding GST) and funded upgrades to infrastructure to accommodate flexible course delivery throughout the Illawarra region.

#### 4.4.2 Shellharbour Hospital

The Shellharbour Public Hospital is located off Lake Entrance Road, Mt Warrigal in the Illawarra and Shoalhaven Local Health District. The hospital is an acute care facility which provides emergency services, elective surgical services, general medical, antenatal and primary family health care, satellite renal dialysis and adolescent and adult mental health services on site. It is an accredited health care facility with the Australian Council on Health Care Standards (ACHS).

This hospital has 197 beds to service both inpatient, outpatient and community-based services. Shellharbour Hospital also contributes to the Northern Illawarra Hospitals Group Bed Management Policy by providing services and support to the other hospitals in the health district to enhance patient flow.

Table 48 details the services provided at the hospital.

**Table 48 - Services Provided at the Shellharbour Public Hospital**

Patient Type	Services Provided
Inpatient Care	Aged Care; Medical and surgical; Mental health; Acute medical assessment inpatient beds; and Day surgery unit (mainly low risk general, laparoscopic, gynaecological, ophthalmic, dental and minor orthopaedic surgery).
Outpatient Services	Infectious diseases; Dental; Renal; Pre-admission and anaesthetic; Cardiology Clinic; Occupational therapy and physiotherapy; Speech Pathology; Respiratory Clinic; General Surgery Clinic; Antenatal Clinic; Geriatric Clinic; Pulmonary Rehabilitation; Asthma Clinic; Plastics Clinic; and Diabetes Clinic.

Source: NSW Health (2020)

In 2015 the NSW Government in conjunction with the Illawarra Shoalhaven Local Health District committed to a \$379 million redevelopment of the Shellharbour Public Hospital. The NSW Government has committed \$251 million for the redevelopment, with an additional \$128 million from the Australian Federal Government. This upgrade was intended to provide updated facilities and an enhanced service offering to help meet current and future demand for health care within a growing population and deliver more operating theatres, a new emergency department and expanded surgical services.

However, as of September 2019 there was little progress on the redevelopment of the Hospital. Preliminary works on the expansion area on the existing site had however already begun as of 2018 and were estimated to be completed by the end of 2019. These early works include the delivery of an at-grade car park and road works, which are essential to Shellharbour regardless of the hospital redevelopment's final location.

In 2020 the NSW Government announced plans for a new Shellharbour Hospital. It is understood a site for the new hospital is yet to be identified.

For the purposes of this study, it has been assumed that the Shellharbour Hospital remains at its current site.

## 4.5 Summary and Implications

The floor space inventory analysis detailed in this section identifies significant levels of vacancy in parts of Shellharbour City, including:

- Albion Park B1 Neighbourhood Centres (Regal Heights Shopping Complex, Church Street and Calderwood Road);
- Albion Park Rail IN2 Light Industrial zone precincts (Princes Highway and between Princes Highway and the East West Link);
- B5 Business Development zone in Warilla (Shellharbour Road);
- Lake Illawarra B1 Neighbourhood Centres (Addison Avenue and Queen Street);
- Barrack Heights – Lagoon Street B1 Neighbourhood Centre; and
- Mt Warrigal – Jones Avenue B1 Neighbourhood Centre.

Vacancy levels at the B1 Neighbourhood Centres within Shellharbour have occurred for a variety of reasons. The level of vacancy at the Calderwood Road, Albion Park Centre is due to the closure of the service station, which accounted for a significant proportion of floor space within this centre. Vacancy at Calderwood Road centre is likely to persist, unless another service station operator takes up the vacant tenancy. Redevelopment of the service station site for other uses would require significant remediation works, which are likely to be cost prohibitive relative to other opportunities.

On the other hand, the Regal Heights Shopping Complex on Church Street, Albion Park has a dated façade and is in need of refurbishment. This centre is located on a quiet residential street, hence limiting the potential for this centre to benefit from passing trade, other than from families who drop their children to St Joseph's Catholic High School. Redevelopment of this centre is likely to face challenges due to the presence of shop-top housing, which fragments ownership relative to a centre of a similar size with no shop top housing. The B1 Neighbourhood Centres within Lake Illawarra (Addison Avenue and Queen Street), Barrack Heights (Lagoon Street) and Mt Warrigal (Jones Avenue) face similar issues, with these centres located on quiet residential streets, with dated facades and facing redevelopment challenges due to the presence of shop top housing.

It is considered likely that these B1 centres are bypassed in favour of higher order centres on arterial roads, which are easily accessible and offer a broader range of retailing opportunities.

High levels of vacancy were identified within the Albion Park Rail IN2 Light Industrial zone precincts. The Princes Highway IN2 zone is surrounded by low density residential zoned land to the east, west and south, which is likely to be perceived as undesirable by some prospective industrial tenants, given the potential challenges associated with reverse amenity, due to the limited separation between industrial and residential uses. While the Albion Park Rail IN1 General Industrial zone precinct does not have significant vacancies, it is noted this precinct is somewhat constrained by the presence of remnant housing along the eastern boundary. The Albion Park Rail IN2 Light Industrial zoned land between the Princes Highway and the East West Link also faces limited separation from residential uses immediately to the west, which likely limits the range of prospective industrial tenants. It is noted that industrial activity within this precinct is mostly of a population serving nature and includes Bunnings and Mitre 10.

Regarding the business development zone in Warilla, the roads and parking are accessible, the façade is modern and the signage is adequate. Therefore, the environment at these facilities does not appear to be the cause of the high vacancy rates. The size of each of the tenancies is larger than the average in Shellharbour, and it is possible there is limited demand for bulky goods tenancies within Shellharbour outside of the city centre, which accommodates the broadest range of retailing opportunities, including bulky goods tenancies. However, it is understood that the Warilla Town Centres Plan, endorsed by Council on 15 December 2015, recommends that part of this land is rezoned from B5 Business Development to B4 Mixed Use, which is likely to incentivise redevelopment of this land, with the potential to improve vacancy rate outcomes at this site.

**Recommendations**

- 1. Council to investigate revitalisation of the B1 Neighbourhood Centres which are currently experiencing high vacancy rates, as a means of improving street appeal and encouraging redevelopment to reinvigorate these centres. This includes facilitating improved design outcomes and revitalisation of these centres' public domains.**

## 5 EMPLOYMENT TRENDS AND THEMES

Trends are gradual and deep-set trajectories of change which will, at some point, reshape business and alter policy environments. This section identifies key employment trends at the State and National level which will cause implications for employment within Shellharbour City in the future. These trends change the way in which employment is anticipated to evolve over time and the land use implications and considerations necessary to cater for these changes, such as changes to retail centres and commercial office land demand, among other land uses in the area.

The assessment has considered the following employment trends and the implications for Shellharbour City:

- The Second Half of the Chessboard;
- Porous boundaries;
- The era of the entrepreneur;
- Divergent demographics;
- The rising bar;
- Tangible intangibles;
- Online retail; and
- Robotics, automation and artificial intelligence.

These trends have been identified by the CSIRO in their report 'Tomorrow's Digitally Enabled Workforce' (January 2016) and through industry research.

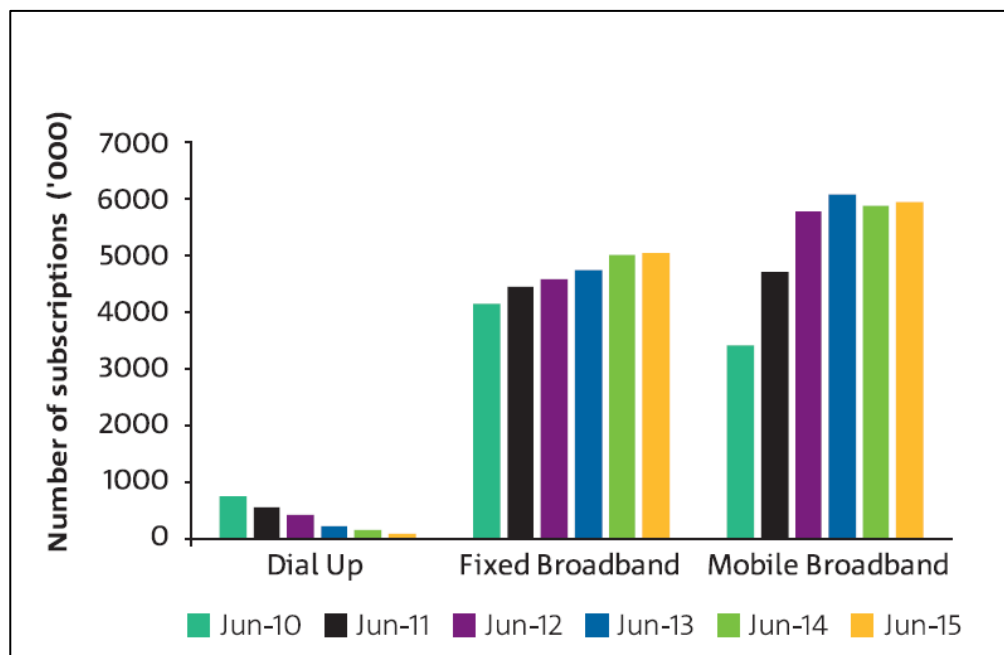
### 5.1 The Second Half of the Chessboard

This trend is centred around the exponential growth in device connectivity, data availability, volumes and computing speed, combined with the rapid advancements in automated systems and artificial intelligence. These advancements enable systems and software's to perform many tasks quicker, more efficiently and safely than humans. The growth in technological capabilities is transforming supply chains, reshaping the workforce and redefining jobs. The challenging prospect is that the growth is not linear (constant) but rather exponential.

A major contributing factor to this trend is affordability of high computing power. This declining cost is of great relevance to the economy, as it contributes to the global accessibility and availability of technology, which is likely to complement workers in the future. In Australia, there are high rates of internet access and mobile connectedness, with the country ranking fourth in the world for active mobile broadband subscriptions per 100 inhabitants. As handheld connected devices become increasingly affordable, both Australia and the world will continue the move towards mobile data for leisure and work.

Figure 6 illustrates the growth in internet connectivity in Australia between June 2010 and June 2015.





**Figure 6 - Growth in Internet Connectivity in Australia, 2010 to 2015**

Source: CSIRO Tomorrow's Digitally Enabled Workforce (2016)

From this connectivity, the Internet of Things (IoT) industry has been established as an integral part of industrial activity around the world. The IoT is a system of interrelated computing devices, mechanical and digital machines which can transfer data over a network without requiring human intervention. For all industry, the benefits can include improved supply chain transparency/provenance, safety, efficiency and environmental sustainability due to efficient resource planning.

The advanced integration with the IoT propels the development of robotics and artificial intelligence for commercial use, therefore eliminating human interaction in the supply chain wherever possible. An international example of limited human participation in a supply chain is the Bowery Farm in New Jersey, New York USA. This is a vertical farm which is controlled through an automated system which anticipated the needs of each crop (within each row of vertical planters), and automatically harvests and packages crops as necessary. Every part of the machinery required in this process is a part of the IoT and uses robotics and artificial intelligence to eliminate manual labour through the farming process.

This technology is also being used within NSW. A promising development looking to incorporate this kind of technology is the Moorebank Logistics Park in Sydney. The park has committed to developing a fully automated intermodal terminal solution by 2022. The key points of automation will include automated yard crane, Rail-Mounting Gantry cranes, horizontal transportation equipment and hybrids auto shuttles and their charging stations, therefore minimising human interaction throughout the supply chain at each of these stages.

The implementation of this technology will however lead to the computerisation of some jobs. It is anticipated that computerisation will affect many low-skill jobs similarly, with computer-guided automation becoming increasingly prevalent across numerous industries and environments including manufacturing, planning and decision-making. An analysis by Frey and Osbourne (CSIRO, 2016) found that on average lower paying jobs with lower formal education requirements are most susceptible to computerisation. However, technological advancements also create new jobs as productivity increases in existing industries, and as new industries are created.

The socio-economic profile details that Shellharbour City has a relative significance in manufacturing industry employment when compared to NSW. This could provide the city with an opportunity to capitalise on advanced manufacturing processes which are being used across the world. By upskilling the existing workforce in manufacturing, transport and warehousing and information and technology industries the City will diversify the industrial profile of the area and avoid high proportion of the workforce having redundant skills as advanced manufacturing becomes increasingly prevalent.

The continued growth in the IoT will also increase the demand for electronics and telecommunications products, often requiring a bespoke design response. To deliver this response, manufacturers will need increased collaboration with research institutions as well as the establishment of industry (or enterprise) funded research bodies. Similarly, major

research institutions are developing commercialisation capability. Co-location of industry and research institutions creates knowledge and technology precincts (KTPs). These hubs can take the form of new clusters or adjunct activities to core research or industry operations. Physical proximity might not always be necessary, but high levels of connectivity (both physical and virtual) between commercialisation centres and research hubs has the potential to drive innovative industrial outcomes. Potential planning implications and consideration arising from this trend include:

- Increase in professional and programming-based occupations which tend to seek higher amenity and additional services in work locations. It would be imperative to ensure that amenity is maximised within office precincts within Shellharbour to attract and retain highly skilled workers to the region; and
- Mixed use industry and research hubs either in the form of new agglomerations or adjuncts to existing major research institutions or industrial areas in the form of knowledge and technology precincts. It is understood that there is a desire to create a marine based industry precinct within Shell Cove, with the potential to attract a marine based research institute. For this initiative to be successful, it is considered that strong linkages would need to be established with a local university, such as the University of Wollongong's GeoQuEST Research Centre, which focusses across five broad research themes, including coastal and marine research.

There are potential implications and opportunities arising from these trends for employment within Shellharbour City. This includes capitalising on advanced manufacturing processes; diversifying the industrial profile; increasing opportunities for professional and programme-based occupations and providing for a greater proportion of mixed use and research hubs, including making a dedicated attempt to attract and create a marine based industry precinct at Shell Cove. Associated recommendations are outlined below.

#### **Recommendations**

- 1. Council to explore opportunities to capitalise on advanced manufacturing processes and encourage upskilling of the existing workforce in manufacturing, transport and warehousing and information and technology industries. This will assist in diversifying the industrial profile of the area and avoid high proportion of the workforce having redundant skills as advanced manufacturing becomes increasingly prevalent.**
- 2. Provide opportunities for an increase in professional and programming-based occupations by facilitating higher amenity and additional services within office precincts within Shellharbour to attract and retain highly skilled workers to the region.**
- 3. Encourage more mixed use industry and research hubs either in the form of new agglomerations or adjuncts to existing major research institutions or industrial areas in the form of knowledge and technology precincts.**
- 4. Foster strong relationships with the local university, the University of Wollongong, to realise the desire to create a marine based industry precinct within Shell Cove.**

## **5.2 Porous Boundaries**

Porous boundaries, as it relates to business and technology, refers to the growth in the peer-to-peer or freelancing economy. Although this business model has not completely taken off in Australia, it is a significant part of the workforce in other countries, such as the United States. Globally, companies are opting for staffing models which are based around a small number of core staff, with other roles filled by freelance or contract workers. The CSIRO's Tomorrow's Digitally Enabled Workforce (2016) publication identifies that jobs of the future are likely to be more flexible, agile, networked and connected.

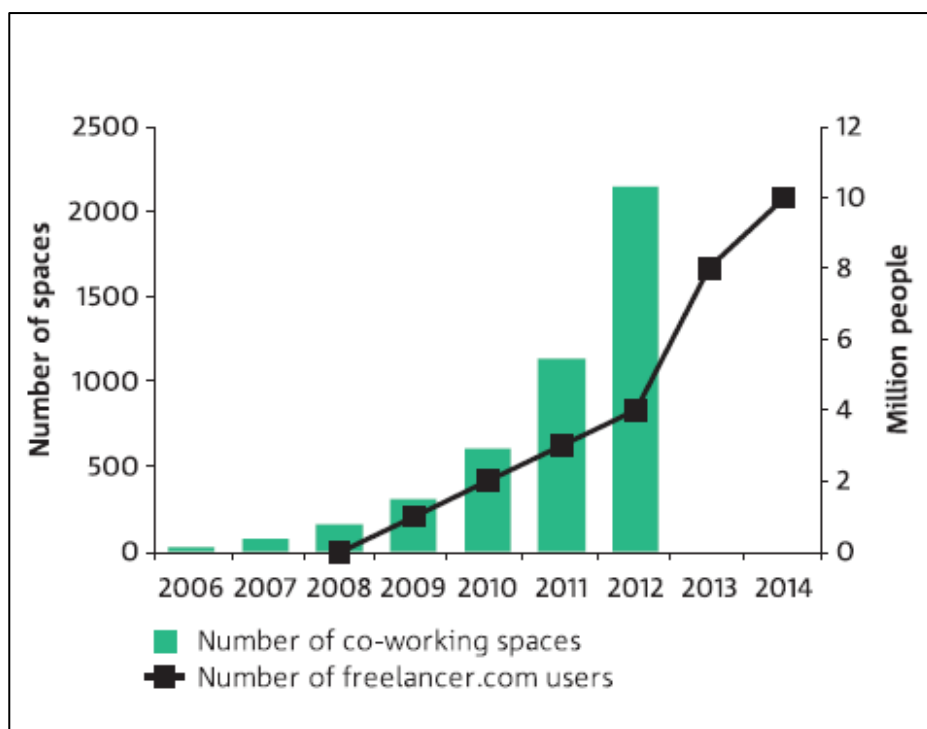
Improvements in technologies, such as the internet, over the past decade have meant that global communication is increasingly simple in a business setting. This is both a product and a catalyst of globalisation which has influenced increases to the interdependence of companies and countries around the world. The interdependence of companies and countries is aided by the advancements in cloud computing which provides a low cost, secure solution to information sharing instantly. The combined benefit of these trends means that geographically diverse groups can easily and instantly collaborate, meaning that businesses can capitalise on fluid workspaces, flexible working arrangements, and co-working environments (CSIRO, 2016).

These kinds of flexible working arrangements facilitate flat organisational structure, which in turn encourage greater collaboration, and shorter lines of communication which enable the organisation to make faster decisions. Within these

organisations, particularly smaller operations, there is increased outsourcing and offshoring of work in order to have varying specialists participating in the organisation, whilst reducing the overhead expenditure resulting from direct staff (Forbes, 2018).

To house the new order of businesses, co-working spaces are expected to continue to grow. The flexibility of co-working spaces is appealing to small business, and freelance workers as it avoids the high overheads which can compromise business profitability and agility. Flexibility of working arrangements is therefore likely to become a sought-after attribute for potential job seekers (CSIRO, 2016). An increasingly mobile and geographically distributed staff might require new approaches to the human resource management of organisations in the future. This demand for flexible workspaces is likely to disrupt traditional office leasing in the near future.

Figure 7 details the increase demand for coworking space alongside the rising trend in freelance or short-term contract workers.



**Figure 7 - Demand for Coworking Space and Increasing Demand for Freelance or Short-term Contract Worker, 2006 and 2014**

Source: CSIRO Tomorrow’s Digitally Enabled Workforce (2016)

Within Shellharbour City, market research has found that there are no co-working or hotdesking facilities within the community, however there are affordable options available within Wollongong. The facilities in Wollongong have only been established since 2017 and are servicing the Illawarra region. Working population data detailed that Wollongong was the most common place of employment for residents in Shellharbour City. Table 49 identifies the co-working facilities available in Wollongong, NSW (as of May 2020).

**Table 49 - Co-working Facilities in Wollongong**

Facility	Address	Start Date	Distance from Shellharbour City (km)	Prices/week (starting price)
The Business Centre Wollongong	Burelli Street, Wollongong	-	20.7	\$72
Zig Zag Hub	104 Crown Street, Suite 7, Wollongong	2019	21.3	\$220
Two and You Collective	7 Crown Lane, Wollongong	2018	21.9	\$100
Smart Space	OW Innovation Campus, Squires Way, North Wollongong	2017	23.6	\$47

Source: CDM Smith Analysis (2020)

Between 2006 and 2016, Shellharbour City experienced significant growth in the number of professionals in the region, and an increasing rate of education at the bachelor degree or higher level. These socio-economic factors suggest that there will be continued growth in the proportion of professionals in Shellharbour City in the future.

As freelance work and remote working becomes more popular in Australia, cities like Shellharbour will become progressively popular among young professionals, primarily due to the proximity to Sydney and the lifestyle afforded by seaside cities. Therefore, providing space (such as co-working or hotdesking space) to attract and retain these residents is

**Recommendations**

**Facilitate the provision of co-working or hotdesking spaces in town centres and Shellharbour City Centre to attract and retain a greater number of professionals to the region. Having these types of facilities available in Shellharbour City could also work to decrease employment leakage to Wollongong.**

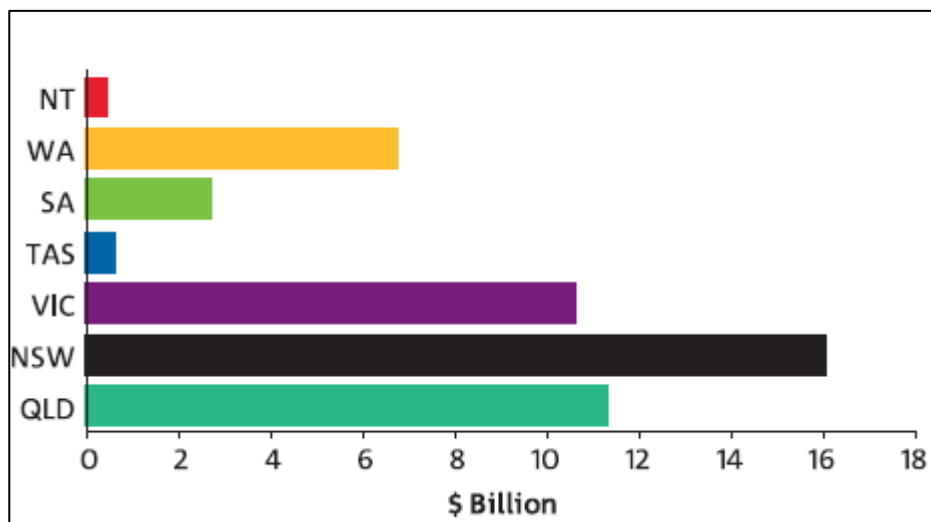
integral. Having these types of facilities available in Shellharbour City could also work to decrease employment leakage to Wollongong. Associated recommendations relating to the provision of co-working or hotdesking spaces to respond to these trends as a means of reducing employment leakage from Shellharbour are outlined below.

### 5.3 The Era of the Entrepreneur

Small businesses demonstrated rapid growth before the global financial crisis, however this growth has flattened in the wake of the crisis. Though, analyses reported in the CSIRO report detail that business can unlock an additional \$49.2 billion in the private sector between 2016 and 2026 if technologies are used to their full potential.

An increasingly global economy means that small businesses have access, with limited barriers to entry, to large scale markets with more niches to exploit. Online platforms which allow business to market themselves, with little to no outlay, such as eBay and LinkedIn facilitate a far-reaching impact of innovation. Within Australia, it is estimated that NSW has the greatest potential for capturing additional income in small businesses in between 2016 and 2026, totalling approximately \$16 billion in additional revenue (CSIRO, 2016).

Figure 8 details the estimated distribution of the potential additional income for small business between 2016 and 2026.



**Figure 8 - Distribution of the Estimated Potential Additional Income for Small Business, 2016 to 2026**

Source: CSIRO Tomorrow’s Digitally Enabled Workforce (2016)

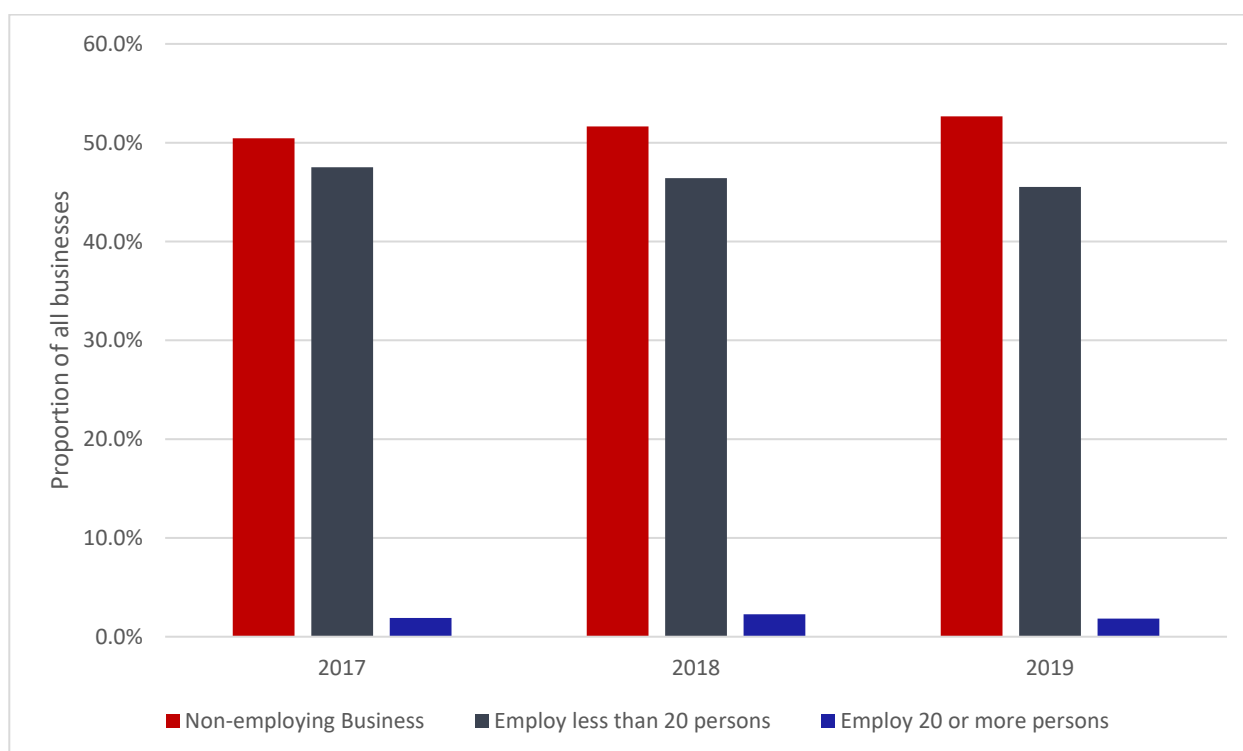
In 2013, Ernst and Young named Australia as having one of the world’s top five entrepreneurial ecosystems, as determined by measurements of five key elements: access to funding, entrepreneurship culture, tax and regulation, education and training, and coordinated support between the public, private and voluntary sectors. They attributed it in part to the adoption and success of new work practices and environments – including the growth of co-working spaces, flexible work contracts and support for small business and start-ups. The Global Entrepreneurship Index (GEI) 2015 report indicates that Australia excels in terms of opportunities for start-ups and its tech sector (CSIRO, 2016). These indicators identify that the business landscape of Australia is likely to continue to grow in the entrepreneurial space over the next decade.

A significant trend among entrepreneurs around the world is the lean start-up principle which embraces low cost entrepreneurialism using digital platforms. These platforms establish low-cost routes to markets and allow the start up to experiment with different business models. Lean start-up assists businesses in accessing previously inaccessible markets, environments and opportunities without the often-associated high risks. However, some funding is still required for lean start-ups. Australian venture capital funding is declining and funding new, innovative start-ups and rapidly growing companies is necessary in order to grow and diversify Australia’s economy, particularly as the mining boom matures and traditional manufacturing diminishes (CSIRO, 2016).

With the decline in Australian funding becoming increasingly prominent, United States of America (USA) show significantly increased investments to early stage start-ups since the Global Financial Crisis. The growth in venture capital funding has led to advancements in technology innovations and a significant increase in private sector employment in the country. Some examples of US venture capital backed companies include Apple, Amazon, Starbucks and Google which evidently are some of the most important companies to the economy of the USA.

Within Shellharbour City, non-employing businesses (i.e. sole traders) have been the most significant proportion of employment between 2017 and 2019 and represented 52.7% of all businesses in 2019. This was followed by businesses which employ less than 20 persons, however the incidence of these businesses decreased between 2017 and 2019. These figures could indicate a move toward lean start-ups in Shellharbour City where business owners are keeping costs low by limiting the number of direct staff in the business.

Figure 9 illustrates the incidence of businesses in Shellharbour City based on the number of employees between 2017 and 2019.



**Figure 9 - Incidence of businesses in Shellharbour City based on the number of employees, 2017 to 2019**

Source: ABS Counts of Australian Businesses (8165.0) (June 2019)

From the previous section it is clear there is likely to be increased activity in freelance, short term contracts and remote working across Australia. However, these kinds of employment in conjunction with flat organisational structures and the access to new technologies in Australia position NSW as a prime location for entrepreneurial activities in the future. For Shellharbour City to attract entrepreneurs to the area, the city has to be structured in a way which allows for flexible and low risk options for spaces as many Australian start-ups will not be receiving venture capital funding. As previously

**Recommendations**

**Shellharbour City to attract entrepreneurs to the area by being structured in a way which allows for flexible and low risk options for start-up spaces.**

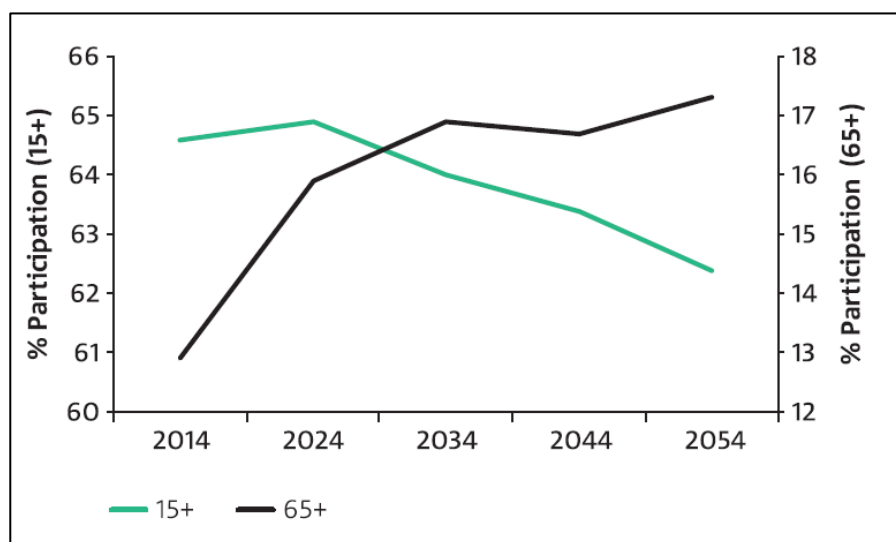
discussed, demand for co-working facilities in Shellharbour City is only likely to increase. Accordingly, the following recommendations can be made in responding to this emerging trend.

## 5.4 Divergent Demographics

As with many other developed countries, Australia’s population is ageing with growing life expectancies. As per 2016 ABS Census Data the Australian population aged over 65 was projected to nearly double by 2035 to reach 19.4% of the total population and the average life expectancy for men and women is projected to reach 84.9 years, and 87.9 years (CSIRO, 2016). An increasing proportion of elderly persons implies an increasing dependency on the workforce of Australia. The numbers of aged care services and staff will also need to expand considerably to meet the growing demand from an ageing population, therefore the aged care system is likely to need new models of care and adopt new technological solutions in order to meet the expected quantity.

Despite Australian’s working for longer before retiring (it is estimated the retirement age will increase to 70 years by 2035), it is expected that there will be a significant overall decrease in the participation rate. The reasons behind it might include jobseekers becoming discouraged, casualisation of work, and the increasing potential for technological unemployment. However, estimates from the treasury Intergenerational Report, 2015, outline that among older Australians the participation rate will continue to rise.

Figure 10 outlines the projected workforce participation rate by age group, as of 2015.



**Figure 10 - Projected workforce participation rate by age group, 2015 to 2054**

Source: CSIRO Tomorrow’s Digitally Enabled Workforce (2016)

Working into older age is widely accepted as being more feasible for knowledge workers compared to manual workers who are likely to require complementary technology. Employers in Australia will need to manage a diverse labour force of different age groups, health and social statuses and genders.

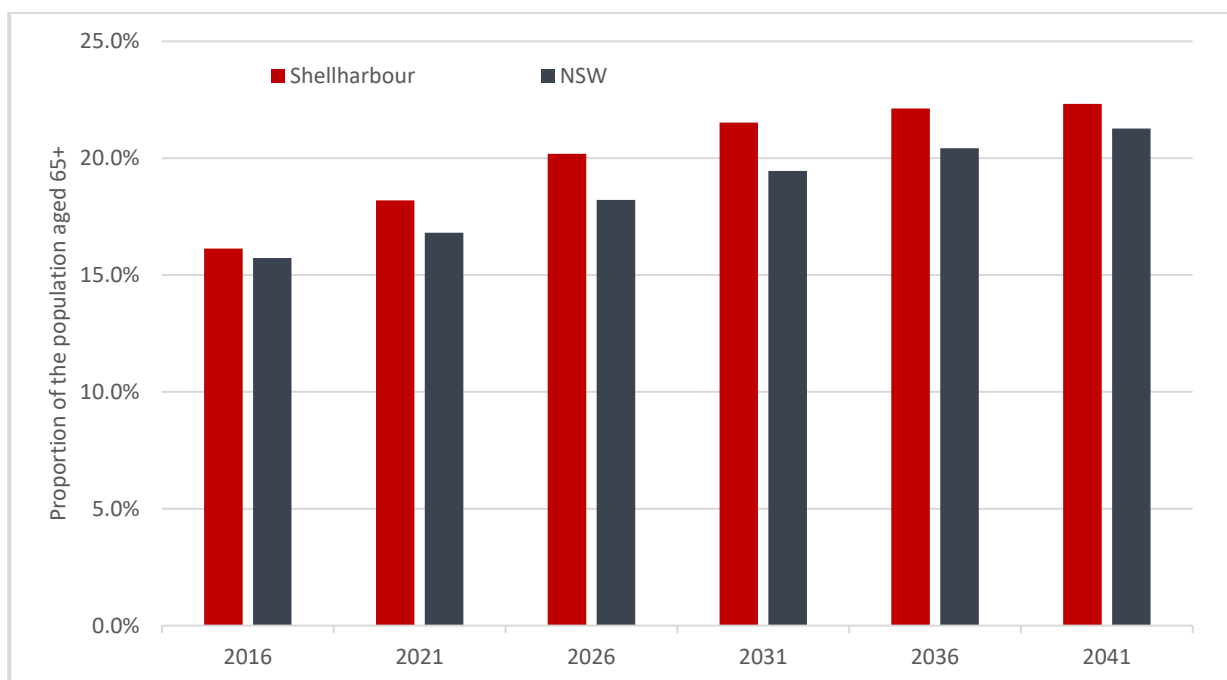
Female participation in the workforce is continuing to grow, while male participation is on the decline, primarily due to a significant proportion of the male labour force occupying previously low skilled jobs (CSIRO, 2016). As women continue to account for an increasing proportion of the labour market, there will be greater pressure on employers to offer flexible working arrangements to employees as more participants will need to balance family and responsibilities and work.

In recent years Australia has had a significant increase in the number of skilled migrant workers. In 2013, migration accounted for 60.0% of total population growth in the country, and over the last decade 83.0% of all migrants were of working age (aged between 15 and 64 years). Migration is estimated to continue to be a significant contributing factor to the Australian population, however the country of origin is expected to continue to shift from being predominantly European migrants, to migrants from Asia (CSIRO, 2016). This shift in migratory origins implies that the offering of aged care facilities in the future will need to provide culturally appropriate care and linguistically diversified aged care services.

The prevalence of obesity and mental health issues are becoming increasingly significant to the Australian Workforce. Employers in the future will need to address these conditions and provide working environments which are beneficial to employee health. More specialists in exercise, diet and mental well-being will be required. New medical technology as

well as automation in medical diagnostics and care are likely to complement labour in the health care sector to meet the increasing demand.

The socio-economic profile details that between 2006 and 2016 Shellharbour City had an increase in the average age of residents totalling 4 years, a similar trend was represented in NSW as a whole. This information indicates that Shellharbour City is no exception to the aging population trend seen throughout Australia. Over 15.0% of the population of Shellharbour City was aged 65 years and over in 2016, therefore the City must consider how to care for these residents as the population becomes progressively aged. Additionally, population projections for Shellharbour City compared to projections for the State indicate that the proportion of persons aged 65 and over is expected to increase, the incidence will remain significantly higher in Shellharbour compared to NSW. This trend is demonstrated in Figure 11 below.



**Figure 11- Proportion of the resident population aged over 65 years, 2016 to 2041**

Source: Projection ID, Shellharbour and NSW Data Exporter (2016 to 2041)

In 2016, Shellharbour City demonstrated a relative significance in employment in health care and social assistance industries compared to NSW. The area can leverage this strength to attract professionals (domestically and through migration) to the area in order to expand service offerings, which will eventually be used to service the ageing population in the region. By taking advantage of educational opportunities in regional NSW, and in Sydney and participating in the implementation of new technologies, the region could have an advantage within the health sector. Collaboration with universities, research institutes and commercialised service providers would be integral in realising the potential in Shellharbour. Therefore, the potential planning implications and consideration arising from divergent demographics are as follows:

- Increase in health and social assistance workers within Shellharbour City, supported by the expansion of the Shellharbour Hospital. In order to attract workers to the hospital, it is suggested that collaborative relationships are fostered with a local medical school, such as the University of Wollongong; and
- Increased aged care facilities and supporting services are likely to be demanded to support an ageing population.



The following recommendations are made in responding to this trend, including encouraging increased health and aged care facilities and offerings within Shellharbour, with particular emphasis on the role of Shellharbour Hospital.

**Recommendations**

- 1. Council to actively encourage and facilitate the development of increased and expanded health facilities and service offerings in Shellharbour, including the expansion of the Shellharbour Hospital.**
- 2. Council to foster collaborative relationships with a local medical school, such as the University of Wollongong, as a means of attracting workers with a range of skills to Shellharbour Hospital.**
- 3. Council to actively encourage and facilitate the development of additional aged care facilities to support an ageing population.**

## 5.5 The Rising Bar

Global economies are increasingly moving away from manufacturing and agriculture to service-based economies, with a growing demand for knowledge and information (Witt, U., & Gross, C., 2019). The shift in the economic landscape has resulted in automated systems requiring high skill levels, with low skilled jobs being moved to less developed countries. This shift has resulted in a “higher bar” being set, with many professions requiring high level skills and education for entry positions.

In the knowledge-based economy, employment is correlated with an obtainment of higher education, which corresponds with technology awareness and increased productivity. Enrolments in higher education has increased across Australia, particularly in the society and culture studies, education and health courses. A decline in enrolment in sectors such as IT and engineering has seen demand for migrant skilled workers grow (CSIRO, 2016).

A knowledge economy requires employees trained in science, technology, engineering and mathematics (STEM), with the vast majority Australia’s fastest-growing professions requiring training in STEM. However, interest and performance in the STEM fields has declined among Australia’s school and university aged population. Increasing costs of higher education has also attributed to declining enrolments in STEM courses. The decline in interest in the STEM fields is anticipated to greatly impact future workforce, innovation and Australia’s competitiveness in the global labour market. The growing popularity of open online courses is anticipated to provide individuals, especially individuals from low income socio-economic backgrounds, access to tertiary education at low cost than traditional higher education institutes and offers flexibility by providing learning material accessible online at any time.

Income inequality has continued to grow in Australia over the last few decades, especially among individuals with and without higher education. However, by providing equal opportunities to education to all individuals, more equal distribution of income is obtained. Although the number of university graduates (i.e. with bachelor’s degree or higher) finding employment after graduation has declined over the last decade, obtaining higher education qualifications still offers better employment prospects than having no higher education qualification.

Additionally, employers are increasingly becoming interested in the ‘soft skills’ of future employees. Soft skills such as interpersonal and organization skills are integral for critical or problem solving and innovation and are often an addition to university degrees.

Shellharbour City has less than half the proportion of professional, scientific and technical service industry employment than NSW. This demonstrates a weakness in the City, which could lead to economic losses as the Australian economy moves towards a primarily service-based workforce. However, employment within the education and training industry is significant, representing almost 10.0% of the workforce (compared to 8.4% of the NSW Workforce).

As detailed in Table 50 opportunity to upskill or obtain higher qualifications within Shellharbour City is limited, with the highest order of education offered being the TAFE campus. It is recognised that there are several aviation educational facilities within the City, however, these only provide a limited line of study opportunities to residents. Shellharbour City should work to grow the education and training industry in order to provide residents with the opportunity to up-skill and stay relevant in the evolving economy. This could be established through collaboration with universities and research institutes and would reduce the leakage of education to other areas of the State.

**Table 50 - Higher Education Offering Shellharbour City, as of April 2020**

Facility	Address	Course Offering
TAFE NSW - Shellharbour	11 College Ave, Oak Flats NSW 2529	Business and administration services, nursing, engineering and automotive trade courses as well as adult basic education, general education and access programs, welfare, child studies, health and recreation and maritime.
Chieftain	136 Princes Hwy, Albion Park Rail NSW 2527	Aviation and flight school
Aerowasp Pty Ltd	32 Airport Rd, Albion Park Rail NSW 2527	Aviation and flight school
Five Point Aviation	3/32 Airport Rd, Albion Park Rail NSW 2527	Aviation and flight school

Source: CDM Smith Analysis (2020)

Through increased access to education, an opportunity arises for the income disparity between Shellharbour City and NSW as a whole to be reduced and wage inequality within the City to decrease overtime.

Shellharbour City also has the potential to benefit significantly from the rising bar trend should the establishment of the marine industry research institute ultimately establish within Shell Cove. A facility of this sort would attract highly skilled workers to the region, who may otherwise relocate to be closer to higher education facilities. The following recommendations are made in responding to the opportunity to both grow the education and training industry within Shellharbour, such as establishing a marine industry research institute at Shell Cove.

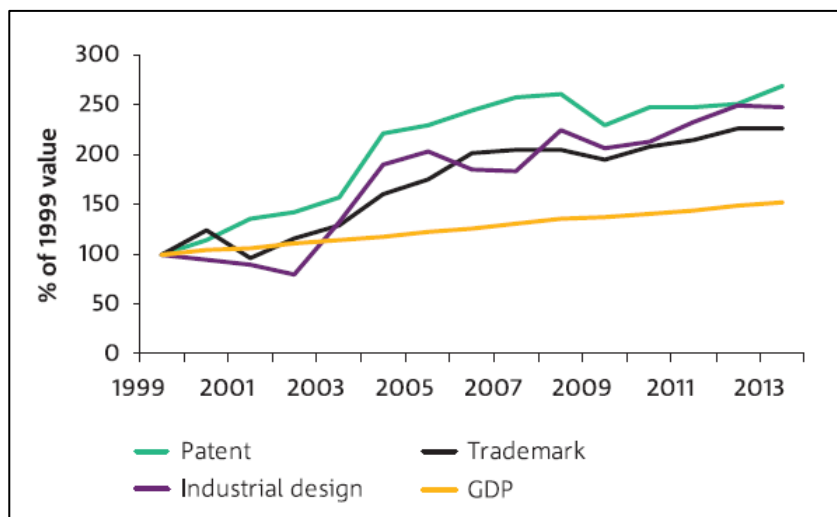
**Recommendations**

***Investigate opportunities to grow the education and training industry in Shellharbour to provide people with the opportunity to up-skill and stay relevant in the evolving economy. This could be established through collaboration with universities and research institutes (e.g. to establish a marine industry research institute within Shell Cove).***

## 5.6 Tangible Intangibles

A growing subset of Australia’s service economy is the knowledge-based economy, contributing to employment and value added across various industries. Knowledge economies are often measured by patent growth, a key indicator of innovation. Although the number of patent applications have increased in Australia over the last few decades, it is modest by global comparisons.

Figure 12 details the intellectual property filings and GDP growth in Australia (indexed 1999 -100%) between 1999 to 2013.



**Figure 12- Intellectual Property Filings and GDP Growth in Australia (indexed 1999 =100%), 1999 to 2013**

Source: CSIRO Tomorrow’s Digitally Enabled Workforce (2016)

The experience economy, where businesses create memorable events for clients, is continuing to grow as a component of Australia’s service economy. Personal trainers, life advisors, tourism and entertainment advisors are expected to play a key role in the growth of the experience economy (CSIRO, 2016).

The growth in the creative sector largely attributable to the digital revolution involves various skill sets ranging from arts to science and knowledge. The value added to the GDP of Australia by the creative sector has increased significantly over the last decade and is anticipated to become an important element of the economy. Generation Z, people born between 1995 and 2009), grew up in a world of digital technology will be a key contributor to the growth of the creative sector and are expected to bring a set of intangible experiences to labour force (CSIRO, 2016). Some of the key features which Gen-Z will bring to the workforce in the future include;

- Constantly connected online: strong communication skill through online methods;
- Entrepreneurial in nature: high proportion of Gen-Z intend to start their own business;
- Collaboration: preference to work in collaboration with a small team;
- Continuing learners: appreciate a working environment which can provide them with continuing learning and mentoring opportunities.

Generation Z might therefore bring a new set of intangible experiences they expect from their work environment. That might imply a need to develop new solutions for the working environment and recruiting, such as bring your own device policy, creativity and learning-stimulating working arrangements.

With respect to land use planning, some key considerations for Shellharbour City relating to the tangible intangibles trend are as follows:

- Increased demand for a range of lifestyle opportunities and services by knowledge workers, rather than simply a place to work. Shellharbour City would need to ensure that employment precincts such as the town centres and Shellharbour City Centre are considered appealing and offered a range of services and facilities to attract and retain knowledge workers. The Shell Cove development is anticipated to represent a desirable place to work at, given its waterfront location and marina boardwalks which provides significant amenity benefit and presence of a range of dining opportunities and community facilities; and
- Increased office space (available for short term leasing) or co-working facilities may be demanded within Shellharbour, which is understood to not be currently available. It is imperative that these facilities are well connected to the global network through substantial technological infrastructure.

The following recommendations are made in responding to this emerging trend, in terms of working with relevant stakeholders to promote the lifestyle and working opportunities that Shellharbour offers, as well as working with land owners to provide the types of spaces and facilities likely to be in demand by those looking for more temporary or shared office spaces.

**Recommendations**

1. **Provide and promote the lifestyle opportunities, services and facilities available for knowledge workers within Shellharbour City by ensuring that employment precincts such as the Shellharbour City Centre and town centres are considered appealing.**
2. **Promote and facilitate the provision of increased office space available for short term leasing or co-working facilities which are well connected to the global network through substantial technological infrastructure.**

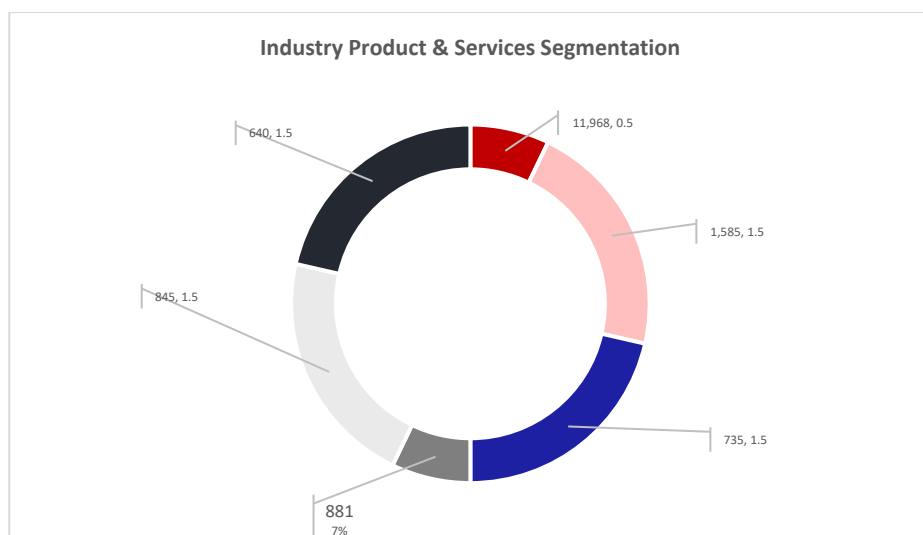
## 5.7 Online Retail

Online retailing is defined as industry retailers operating websites which enable consumers to purchase a range of products such as apparel, computers, recorded music, electronic goods, general merchandise and groceries. As a result of changing consumer attitudes and the mass adoption of in-home technologies over the past decade, online retailing has significantly grown throughout Australia.

Some key industry performance indicators which detail the significance of online retailing in Australia were outlined in IBISWorld’s Online Shopping in Australia report (Australia Industry (ANZSIC) Report X0004), 2019 and are as follows:

- Total Revenue in 2019: \$23.7 billion;
- Annual growth between 2019 and 2024: 7.8% per annum; and
- Number of businesses 2014 and 2019: 8.3% per annum.

In Australia the largest market share was held by Woolworths Group Ltd, which accounted for 8.6% of the total annual revenue in the industry in the 2018-19 financial year. This is likely due to high proportion of online sales in groceries and liquor in Australia, which represents 17.8% of the total industry revenue in 2018-19 (IBISWorld, 2019). The segmentation of online product and services sales is detailed in Figure 13 below.



**Figure 13- Industry Products and Services in Australia, 2019**

Source: IBIS World, Online Shopping in Australia (2019)

There are five key external driving factors which have been identified as contributing significantly to the online growth in the above detailed sectors, both to date and moving forward. The key driving factors are as follows (IBIS World, 2019):

- Internet Subscribers: increases in internet penetration, particularly in regional areas of the country, allows more consumers to engage in transactions online. Therefore, online retailers have access to a growing pool of customers;
- Real Household Discretionary Income: increasing discretionary income provides consumers with more opportunity to spend on a broader product range where online retailing facilitates the purchase of many specialty goods;
- Consumer Sentiment Index: consumer sentiment influences consumer demand for discretionary goods at the retail level;
- Demand from Department Store: rising demand from department stores increases competition for the industry. Demand from department stores is expected to decline in 2018-19; and
- Mobile Telecommunications Density: consumers are increasingly using mobile devices to make online purchases. As the density of mobile telecommunications increases, consumers are more likely to make online purchases using mobile devices, supporting industry demand.

These external driving factors, and their relative trends, are expected to propel the value added from online shopping to increase at an annualised 10.3% over the 10 years (from 2018-19 to 2023-24). This is a significant outperformance compared with anticipated annual GDP growth of 2.6% over the same period (IBIS World, 2019). Therefore, the online shopping industry is growing significantly faster than the Australian economy.

There are noteworthy consequences which arise as a result of the continued growth in online shopping (particularly over the next decade). Bricks and mortar retailers are faced with competing against virtual stores with none of the retail overheads, while simultaneously bricks and mortar retailers are developing their own virtual stores that compete against their own shops. Companies such as Uber Eats and Menulog have demonstrated that there are few products which cannot be fulfilled through technological advancements and online platforms utilised by the consumer. As demonstrated, online retailers sell a broad range of products and product types.

Online retailing is already changing how retail developments are delivered, with retail centres moving away from their traditional retail focus towards more lifestyle-oriented centres. Online retailing will and already is having substantial impacts on retailers that have traditionally relied on large format stores (e.g. supermarkets, discount department stores, department stores, category killers). The ultimate consequence will be an overall reduction in the demand for physical retail floor space per capita, it remains to be seen whether this will result in fewer or smaller stores, this is a trend which has been furthered by the COVID-19 pandemic in early 2020.

To date, the global COVID-19 crisis has had a dramatic effect on almost all facets of the Australian economy, however the retail sector felt the crisis more than most. As non-essential physical stores have closed throughout the country since March 2020, consumer preferences have been forced to shift from brick and mortar stores to online shopping, particularly for the purchase of discretionary goods (S.Bartholomeusz, 2020). A report published by KPMG titled COVID-19: Retail's survival and revival in April, 2020, identifies that eCommerce will play a vital part of retailers response to the crisis and will cause lasting changes in consumer behaviour throughout Australia. The report identifies two-waves of significant eCommerce growth resulting from the pandemic;

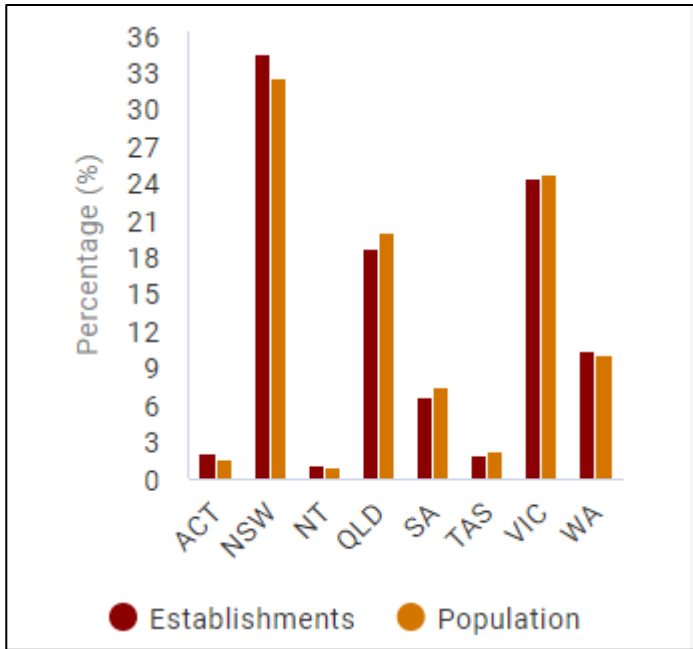
- The shock switch from physical to online channels as a result of public space shutdowns; and
- Regrowth starts and sticks online, due to permanent changes in shopping behaviour.

As of April 2020, Australian retailers are in the first wave, there is a rush for small and medium retailers to develop platforms which can meet online demand and facilitate the delivery of goods. However, in the wake of COVID-19, the nation will move into the second wave of growth. This wave is expected to take-off as consumer confidence returns and the effect is anticipated to be similar to that experience after the GFC which created a four-year eCommerce boom (KPMG, 2020).

The growth in online retailing also has significant indirect effects on the economy, most significantly, rapid growth will be required in logistics and freight networks and in the availability of vacant industrial tenancies. Freight and logistics companies will need to sustain the increased demand for the fulfillment of online orders. While additional industrial space will be required by retailers and wholesalers in order to store and maintain the increased inventory levels required to meet the growing demand (Oxford Economics – Maria Lee, 2020).

Within Australia the distribution of online spending is measured by the location of consumers who purchase goods online. "Demand for online shopping is led by NSW which has the largest national population base, followed by Victoria and

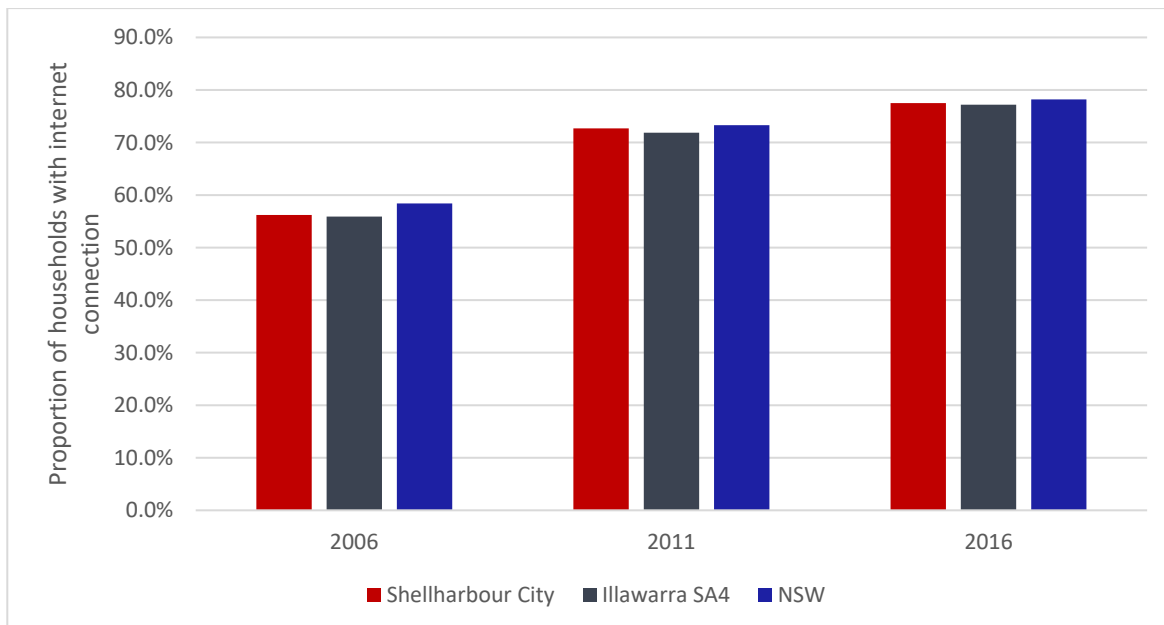
Queensland. Together, these states account for an estimated 77.7% of industry revenue, similar to their share of the population” (IBIS World, 2019). This distribution is illustrated in Figure 14 below.



**Figure 14- Distribution of Online Spending, 2018-19**

Source: IBIS World, Online Shopping in Australia (2019)

NSW is likely to continue to account for a high proportion of online retail purchases due to the high population density and increased proportions of internet connectivity in Shellharbour City and the broader region. Between 2006 and 2016 there were significant increases in the proportion of households with internet connectivity in Shellharbour City, with the largest increase occurring between 2006 and 2011. This increase is illustrated in Figure 15 below.



**Figure 15- Proportion of households with internet connection, 2006 to 2016**

Source: Community ID, Shellharbour, Illawarra SA4 and NSW Data Exporter (2006, 2011 and 2016)

The availability and affordability of technology is expected to continue to positively influence the number of households with internet connectivity over the next decade. Also, as behavioural changes resulting from COVID-19 continue to be normalised, even in the wake of the pandemic, Australia will need to sustain the supply chains servicing the demand for online retailing. The proximity of Shellharbour to Sydney may make the area an attractive option for online businesses to base themselves to service the city and surrounding areas from an online platform. However, this opportunity may somewhat be constrained given Shellharbour's relative isolation from major strategic freight routes serving greater metropolitan Sydney.

The following recommendations are made in responding to this emerging trend.

**Recommendations**

***Promote Shellharbour as an attractive option for online businesses to base themselves to service the city and surrounding areas from an online retail platform, noting that Shellharbour's relative isolation from major strategic freight routes serving greater metropolitan Sydney may be an impediment to fully realising this potential.***

## 5.8 Robotics, Automation and Artificial Intelligence

### 5.8.1 Technology and Employment

The global economy has been primarily driven by major technological changes which have raised global living standards. However, these technological changes are causing considerable short-term disruptions for individuals and society, including the loss of income and wealth. The fear that technological progress will cause unemployment is not a new phenomenon having been experienced numerous times throughout history. The short-term disruptions are more often outweighed by the long-term benefits of increased productivity and living standards.

### 5.8.2 Globalisation

The increasing efficiency and effectiveness of digital technologies has facilitated globalisation by greatly reducing the costs associated with long distance communication. A key area that has been substantially impacted is international trade, generating net economic benefit to various nations. However, increased globalisation has also impacted certain industries and workers who vulnerable to cheap foreign labour and imports. One of those domestic industries impacted by globalisation is manufacturing, declining by approximately 15% over the last 20 years. As the skill level in lower wage countries continues to rise, especially in Asia, this will leave Australian workers exposed to potential job losses. Although, cheap foreign labour costs reduce employment in Australia, it has been shown that this will lead to increased investment, innovation and wages, especially among higher skilled workers.

### 5.8.3 Automation

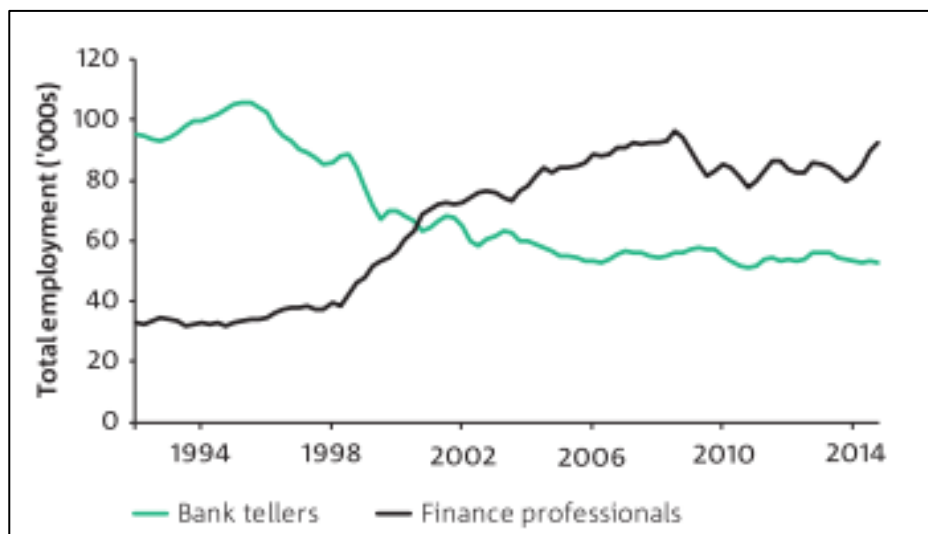
Automation, which is the process by which human workers are replaced by machines or computers, has also impacted local employment. Automation has substituted workers across a range of industries that require routines tasks, making some occupations redundant. This has made 'middle class' jobs increasingly scarce as they are being replaced by technology in advance economies such as the United States of America. However, workers who have skills which compliment technology have seen an increase in productivity, resulting in increased wages and opportunities.

As highlighted above, jobs considered routine (i.e. jobs that follow defined procedures) are most vulnerable to automation. As technological change progresses, tasks which require high cognitive abilities, such as scientific research, are becoming increasingly automated. A study by the University of Oxford which compartmentalised jobs into their component tasks and activities to estimate how vulnerable they are to automation, found approximately 47% of US workers were at risk of losing their job to automation. The same methodology applied to the Australian context estimates 44% of jobs at risk to automation.

Automation can also complement and substitute human labour, presenting various opportunities for human workers to become more productive. A good example of this is the banking industry, which has seen the number of bank tellers decrease due to automated tellers' machines but has created opportunity in other banking related services.

Figure 16 below outlines the decline in the number of bank tellers while showing the increase in the number of highly skilled finance professionals between 1995 and 2005.





**Figure 16 - Number of Bank Tellers and Finance Professionals, 1995 to 2005**

Source: CSIRO Tomorrow's Digitally Enabled Workforce (2016)

#### 5.8.4 Augmentation

It is critical to understand ways technology can augment the value of human labour. Technology can help individuals to accomplish more tasks, access more tools and information, solve complex tasks and be able to spend more time on valuable tasks as opposed to routine ones. Technological augmentation is the key driver behind increasing skilled employment seen across Australia over the last two decades. Whilst employment in occupations which require lower skill levels has declined, this has opened more opportunities for more skilled workers in related occupations. However, not all displaced workers have reaped the benefits of technological changes.

#### 5.8.5 Distributional Impacts

Technological change does not only impact the types of jobs demanded by the labour market but also income levels payable under these occupations and roles. In the United States, wage advantage has largely been enjoyed by more educated workers with higher level skills over the last 30 years, whereas, the real earnings of lower skilled workers have declined. The decreasing labour share of the national income across most advanced economies, including Australia, indicates a shift in income away from labour and towards capital. During Australia's mining boom, capital income growth outperformed the growth experienced in employment and real wages.

Increasing globalisation has also put negative pressure on the wages for lower skilled workers across most advanced economies, this is primarily driven by increased automation. Automation coupled with shift towards globalisation have contributed to increased inequality in advanced economies, although the offshoring of certain jobs has decreased inequality in developing countries. As advanced economies continue to experience decreasing population growth and aging populations, this may lead to growth in the demand for labour, further decreasing inequality within, and between, countries.

As evident across the majority of Europe, there has been a decline in the middle third of skills distribution. In many European countries, the growth in high skilled jobs has outpaced the growth in lower skill jobs. The effect of such a trend is that many lower skilled workers have been unable to upskill in order to avoid their skill set being redundant due to technological advancements. In the Australian context, there has been no absolute decline in employment across any skill level but a notable increase in the number of higher skilled jobs. Real income in Australia has increased across the skill distribution and not only in jobs requiring a high skill level.

A key question that has risen is the willingness of people to pay for human labour compared to technological alternative (i.e. what value people put on personal service compared to automated systems). The introduction of automated check-outs in supermarkets has partly answered this question, with many people disliking the service but are less willing to pay the higher costs associated with longer wait for human service.

Although automated check-outs have gone a long way to replace human operators, the rise of personal trainers indicates people are still willing to pay a high cost for human service in certain settings. The value of human labour/service placed

by individuals in different contexts will determine how much individuals can earn from labour service compared to automated service.

### 5.8.6 Technology and the firm

The rapid technological progress has changed the way businesses are organized and operate with great implications for employment. Basic economic theory does not always highlight the existence of certain firms as it simply considers individuals exchanging goods and services through a market. However, Ronald Coase showed that firms often exist to avoid the transaction costs involved with using markets. This indicates that tasks might be contracted out to the market but since there are high costs associated with finding the right supplies and price, this often results in long term contracts being cheaper than several short-term ones, which paves the way for employment relationship (between firms and long-term contractors).

The optimal size of a firm is correlated with the economies of scale of the firm. As suggested by Coase, the introduction of ICT such as telephones reduced the cost of organizing in various geographical locations and therefore increased the optimal size of a firm. As many firms continue to adopt digital technologies such as the internet coupled with increasing globalisation this will allow firms to expand their size and geographical reach. However, the ongoing improvement of data analysing tools will continue to change the way information is processed and applied, ultimately eliminating the need for middle-management, with networks playing a crucial role.

The introduction of digital platforms that allow buyers and sellers to interact has greatly reduced the transaction costs involved across various markets. Reduced transaction costs due to digital platforms have seen firms shift from offering ongoing employment to existing employees to more short-term contracts. In the future, firms may become smaller in terms of essential staff size but will rely heavily on networks of freelance/temporary providers to deliver a greater share of their work. Firms benefit greatly from flexible employment, which allows them to respond to any changes in the market (i.e. if there is a large order for product, they can hire temporary staff to maintain the large inventory). However, freelance employment model works when incentives can be easily aligned to output. In instances where the quantity and quality are less easily observable, it may be more suitable to keep employment internal and permanent. This is largely due to freelance workers being clearly less invested in the success of a company than internal employees.

Freelance workers are likely to be attracted to jobs which allow them to develop easily transferable skills, which will enable them to obtain future jobs. In order to attract the best freelance workers, firms may need to offer specific skill sets that will ultimately lead the freelancer to gain ongoing employment. It is critical for firms to develop long term relationships with their employees.

As noted in the work of Ronald Coase, the risk preference of workers is an important matter. Freelance work is riskier compared to ongoing permanent employment. As many workers value job security, it is important for firms to offer ongoing employment as a means of keeping and motivating good workers. Many workers often chose to trade off pay and work conditions for permanent secure employment. Freelance work mediated through the emergence of digital platforms is anticipated to make progress in the areas where casual employment already persists, an example of this is Uber replacing contract Taxi drivers in Australia.

### 5.8.7 Market Structure

The marginal costs of production associated with digital goods and services is close to zero, hence, the return to scale is often large. This leads to large firms dominating many markets and often at the global level, as they have cost advantage over smaller firms. Consequently, this can contribute to inequality as returns to scale amplify small differences in performance, so those at the top are rewarded more substantially. Although the revenue of top digital firms is large, this does not necessarily mean such firms employ large number of workers.

The emergence of digital technology has also opened many niche markets in which workers and firms might find beneficial employment. An example of this is the emergence of digital music streaming services that enable writers and musicians to find audiences and therefore income.

The information and moral hazard issues which impede many market transactions are overcome by digital platforms. An example of this is the online reputation mechanism associated with platforms such as Amazon which facilitate the transaction of products between complete strangers across a range of products. Online reputation mechanisms reduce the value of traditional indicators such as brand recognition. This can lead to independent providers competing more effectively against major providers. However, the degree to which markets are fragmented or concentrated will depend of the economies of scale and the extent of heterogeneity in consumer preference.

Digital economies allow greater opportunities for entrepreneurship, primarily due to increased innovation and improved networking which will facilitate access to clients and investors. In the digital economy, it is increasingly becoming easier to build reputation and establish connections, creating a more even playing field for aspiring entrepreneurs. This is welcomed as economic growth depends on innovation.

### 5.8.8 Jobs of the Future

The emergence of technological changes coupled with demographic changes will give rise to brand new jobs. However, there is no precise means of forecasting future jobs. In considering abovementioned trends and insights provided in this chapter, the following six jobs are deemed as jobs of the future:

- Big Data Analysts, i.e. data scientists who can spot trends in increasingly large and varying datasets;
- Complex Decision Support Analysts;
- Remote Controlled Vehicle Operators;
- Customer Experience Experts;
- Personalised and Preventative Health Helpers; and
- Online Chaperones.

The following recommendations are made in responding to jobs of the future and taking a more flexible approach.

**Recommendations**

**Recognise the rapidly changing nature and emergence of jobs of the future and provide flexibility to facilitate the provision of appropriate spaces and planning controls to facilitate these emerging job trends.**

## 5.9 Transport for Employment

There are a number of regional and State-based strategies and documents which contain relevant transport considerations and recommendations that could potentially assist in improving access to and from employment lands within Shellharbour. These are outlined in Table 51 below and provides broad objectives and strategies for improvements to public transport, road network improvements and the like. Improvement to public transport connectivity, accessibility and frequency of services, as well as improved active transport connections should also be explored, in providing a more sustainable alternative in accessing employment lands.

The Draft Illawarra Shoalhaven Regional Transport Plan supports these improvements via its initiatives for investigation which include:

- The provision of 30-minute public transport catchment for Shellharbour City Centre;
- The provision of trial on-demand transport services;
- Encouraging Local Government to necessitate all new developments including provision of secure bicycle parking and end-of-trip facilities;
- The Wollongong Rapid Bus Package (that should link Shellharbour/Albion Park to Wollongong).

Council will also be developing a Pedestrian Access Mobility Plan (PAMP) for Shellharbour City. This will support the provision of pedestrian facilities, cycleways and shared paths that can improve access to public transport.

Bicycle parking/end-of-trip facilities is included in the next review of Council's Development Control Plan.

Table 51 – Transport for Employment

Document Name	Document Owner	Level of Government	Programs/Improvement/Initiatives/Recommendations	Comments
Illawarra Shoalhaven Regional Plan, 2015	NSW Government Planning and Environment	State	<p><u>Direction 1.3 Grow regional strategic assets to support economic growth across the region</u>  <u>Action 1.3.2 Diversify and grow employment opportunities in the Shellharbour Centre by attracting complementary health and education activities</u></p> <ul style="list-style-type: none"> <li>- To enable existing health and education institutions to take advantage of these increased demands and to use their land to grow and attract complementary activity, the priorities are public transport connections and opportunities for expansion.</li> <li>- The Oak Flats Railway Station is the main public transport link to the Shellharbour Centre. Another priority is to improve bus services providing southern connections around Lake Illawarra to make it easier to access the centre.</li> <li>- The NSW Government will work with Shellharbour City Council to deliver a Shellharbour Centre Investment Plan that will: <ul style="list-style-type: none"> <li>- identify and prioritise improved public transport connections.</li> </ul> </li> </ul>	<p>The ISRP strategies to diversify and grow employment opportunities within the Shellharbour Centre by attracting complementary health and education activities are supported, through the range of public transport measures outlined.</p> <p>A Shellharbour Centre Investment Plan to identify and prioritise improved public transport connections should be actively pursued.</p>
Illawarra Regional Transport Plan, 2014	NSW Government Transport for NSW	State	<p><u>Action: Improve road safety</u>  Pedestrian casualty crashes are clustered in the Wollongong urban area, along the coast north to Bulli, around Dapto, Albion Park, Port Kembla, Shellharbour and Nowra.</p>	<p>Council is encouraged to work with Transport for NSW to reduce pedestrian casualty crashes around Albion Park and Shellharbour, through improved pedestrian facilities which provide safe access and connectivity to and within these employment areas.</p>
			<p><u>Action: Improve public and active transport access to Wollongong</u>  In the medium to long term, we will investigate opportunities to provide improved bus services or a free shuttle bus that provides southern connections around Lake Illawarra taking in the growing areas of Shellharbour, Albion Park, Calderwood, Warrawong, and West Dapto with Wollongong.</p>	<p>The provision of improved bus services which provides connections to Shellharbour, Albion Park and Calderwood should be supported and advocated for, in providing better access to employment areas within Shellharbour. The IRTP is currently under review.</p>
Building Momentum State Infrastructure Strategy 2018-2038	NSW Government Planning and Environment	State	<p><u>Recommendation 44</u>  Infrastructure NSW recommends that the NSW Government improve strategic connectivity between the Illawarra-Shoalhaven and the Western Parkland City by investing, subject to business cases, in the following projects over the next five to 10 years:</p> <ul style="list-style-type: none"> <li>- upgrades to road access into the Illawarra via the M1 Princes Motorway, including the Mount Ousley interchange and M1 Princes Motorway between Bulli Tops and Mount Ousley</li> <li>- freight and safety upgrades to Picton Road in recognition of its role as the primary connector between the M31 Hume Motorway and the M1 Princes Motorway.</li> </ul>	<p>This recommendation has a very broad application to Shellharbour only (particularly in relation to employment lands), however improving connectivity between the Illawarra-Shoalhaven region and Western Parkland City is supported.</p>
			<p><u>Recommendation 52</u>  Infrastructure NSW recommends that Transport for NSW complete business cases for Stage 1 and Stage 2 of the SmartRail program by the end of 2018 and 2019 respectively to enable progressive delivery of this program as a priority to provide capacity needed beyond 2021.</p>	<p>This recommendation has a very broad application to Shellharbour only (particularly in relation to employment lands), however the SmartRail program is supported.</p>
			<p><u>Recommendation 57</u>  Infrastructure NSW recommends that Transport for NSW complete the business case for the Western Sydney Airport motorway for delivery in time for opening of the Western Sydney Airport. Corridor planning and protection for future strategic road links in the Western Parkland City and to the Illawarra-Shoalhaven should continue to be progressed.</p>	<p>This recommendation has a very broad application to Shellharbour only (particularly in relation to employment lands), however corridor planning and protection for future strategic road links between the Illawarra-Shoalhaven region and Western Parkland City is supported.</p>
NSW Transport Master Plan, 2014	NSW Government Transport for NSW	State	<p><u>Short term actions</u>  - As part of the NSW Government’s Transport Access Program, a new train station will be built at Flinders and improvements will also be carried out at Dapto, Albion Park, Wollongong, Kiama and Gerringong Stations.</p>	<p>Development of a new train station at Flinders is supported, as are improvements to Albion Park Station. This should have direct benefits in providing greater access to Shellharbour generally.</p>
			<p><u>Medium to longer term</u>  - We will continue our investment in the urban road network to address capacity constraints that impact on travel time reliability and public transport operations.  - Transport services will be provided as early as possible in new development areas, with an appropriate level of bus service provided to West Dapto. This will support and reflect our vision for connected regional communities.  - We will seek to establish connections to the South West Growth Centre, The Southern Highlands and the South Coast – with upgrade works to Picton Road, the Princes Highway (A1) and the Illawarra Highway (A48) as required.  - We will deliver previously identified regional road upgrades to support the planned growth around the new release areas of West Dapto, Calderwood and Tallawarra, including the widening of the F6 (M1) and sections of the Princes (A1) and Illawarra (A48) Highways and a number of new ramps and interchanges on the F6 (M1).</p>	<p>Investments in the road network to address capacity constraints, travel time reliability and public transport options should be encouraged.</p>
			<p><u>How the Long Term Transport Master Plan responds to key issues</u>  <u>Improving and integrating different modes of transport to make it attractive and accessible</u>  Strengthen bus operations, accessible attractive stops and stations and investment in partnership with local councils in infrastructure to make stops safer, introduce the Opal card, continue investment in the Transport Access Program, improvements to wayfinding, interchange upgrades and timetable overhaul as part of Sydney’s Rail Future and creation of NSW Trains to make travel from Sydney to the Illawarra faster and more reliable.  <u>A reliable system that gets you from A to B quickly</u>  Invest in new Oscar outer suburban trains and rolling stock for the journey from Sydney to the region, implement integrated ticketing, Interchange Strategy, accurate and modern wayfinding and immediate work on a timetable overhaul.</p>	<p>The high level principle of improving and integrating different modes of transport to make it more attractive and accessible is supported. Improved accessibility to employment lands through public transport and other road upgrade improvements can only serve to strengthen the viability and attractiveness of Shellharbour as a place to invest and deliver greater employment opportunities.</p>
Future Transport 2056		State	<p><u>Regional NSW committed Initiatives (0-10 years)</u>  - 34. Albion Park Rail Bypass (Planning and Preconstruction)</p>	<p>The Albion Park Rail Bypass once completed, will provide improved opportunities for Albion Park Rail as an employment centre.</p>

Document Name	Document Owner	Level of Government	Programs/Improvement/Initiatives/Recommendations	Comments
Regional NSW Services and Infrastructure Plan	NSW Government Transport for NSW		<p><i>Illawarra-Shoalhaven</i> <u>Satellite city</u> There is a need for improved efficiency of the transport network to, from and within Wollongong and the Illawarra-Shoalhaven region. This includes:</p> <ul style="list-style-type: none"> <li>» Development of an integrated public transport network hierarchy, including: <ul style="list-style-type: none"> <li>- A single operator taking multi-modal responsibility across Wollongong</li> <li>- Improved integration and interchange between modes/services to enable seamless customer experience</li> <li>- Expanding 30 minute catchments for public transport</li> <li>- Improved time of day coverage and service frequency, reduced journey times, and the deployment of on-demand, flexible services</li> <li>- Facilitating car sharing services that are integrated with public transport.</li> </ul> </li> <li>» Improving the accessibility of Wollongong to the three cities of Greater Sydney by public transport and private vehicle. We will work on improving rail travel times between Sydney and Wollongong as well as supporting connections between Campbelltown and the Illawarra. Additionally, road improvements on Appin (including potential bus priority measures) and Picton Roads and the proposed Outer Sydney Orbital will improve connections to Sydney.</li> <li>» Supporting urban renewal and increased accessibility and liveability of key centres through improved transport connections.</li> <li>» Improved access to Port Kembla, an emerging international trade gateway.</li> <li>» Development of active transport networks.</li> <li>» Addressing pinch points in the road network and informing the program of road network optimisation improvements to support the maintenance of 30 minute catchments for car journeys.</li> <li>» Undertaking a car parking review to evaluate and prioritise car parking availability and use within centres and at key interchanges.</li> <li>» Introducing travel demand management policies and transport optimisation programs to rebalance demand against service and infrastructure provision.</li> </ul>	<p>Improvements to the efficiency of the transport network within the Illawarra-Shoalhaven region to, from and within Wollongong is supported, particularly where this improves the actual and perceived accessibility to Shellharbour as a place to work and do business. This includes improved integration, accessibility and increased service frequency, with reduced travel times.</p> <p>Urban renewal of key centres within Shellharbour as employment lands to increase accessibility and liveability through improved transport connections is also supported, but would need to be further explored in terms of specific measures to apply to each centre within Shellharbour.</p>
Delivery Program 2018-2021 Draft Operational Plan 2019 - 2020	Shellharbour City Council	Local	<p><i>Objective 2.3 A city that is connected through places and spaces</i> <u>Delivery Program (3 Years) June 2021</u> 2.3.3 Provide and promote a sustainable, safe and connected transport network - Improved transport in our City that takes into account population growth, infrastructure and community needs</p> <p><i>Objective 2.3 A city that is connected through places and spaces</i> <u>Delivery Program (3 Years) June 2021</u> 2.3.4 Facilitate the development of the built environment to meet community needs - Reduction on the dependence of vehicles within our city and promotion of sustainable transport options</p>	The objectives and delivery programs of the Shellharbour Operational Plan in terms of improving transport in the City and reducing dependence on vehicles within the City to promote sustainable transport options of the Operational Plan are supported and should be implemented. This is particularly the case for improving access to employment centres.
Community Strategic Plan 2018-2028	Shellharbour City Council	Local	<p><u>Objectives</u> 2.3 A city that is connected through places and spaces</p> <p><u>Strategies</u> 2.3.3 Provide and promote a sustainable, safe and connected transport network - Reduction on the dependence of vehicles within our City and promotion of sustainable transport options</p>	The objectives and strategies of the Community Strategic Plan in providing a sustainable, safe and connected transport network and reducing the dependence of vehicles within the city and promotion of sustainable transport options should be advanced, particularly in relation to providing access to employment lands.
Upgrading Road Connectivity Between the Illawarra and Greater Sydney, 2018	Illawarra First Illawarra Business Chamber	Local	<p><u>Recommended projects and investigations</u> Express Bus Service from Shellharbour to Campbelltown: Extension and improvements to bus route 887 service. - This proposal is aimed at extending this service south to Shellharbour City Centre and reducing the number of stops to provide an express service that would reduce the travel time by 15 minutes.</p> <p><u>6.5.2 Express bus service from Shellharbour to Campbelltown via Wollongong</u> - Route 887 bus service currently operates hourly services between Wollongong station and Campbelltown station. The bus journey takes 70 minutes and there are 42 stops along its length. More recently, additional services have been introduced. During peak periods, this service could be improved by extending the route southwards to Shellharbour City Centre and reducing the number of stops to four for specific express services:  <ul style="list-style-type: none"> <li>• Shellharbour City</li> <li>• Wollongong Station</li> <li>• Appin</li> <li>• Campbelltown Station.</li> </ul> </p> <p>- Timetabling and reducing the number of empty return trips also needs to be a consideration. - This would reduce the travel time between Wollongong and Campbelltown by 15 minutes to 55 minutes and would provide a travel time from Shellharbour of less than 90 minutes. - The extension of the route between Shellharbour and Wollongong would also function as an express shuttle between Shellharbour and Wollongong.</p>	An express bus service from Shellharbour City Centre to Campbelltown station and acting as an express shuttle to Wollongong would be supported.



## 6 EMPLOYMENT LANDS PLANNING ANALYSIS

### 6.1 Economic Strengths, Weaknesses and Opportunities

The purpose of this section is to consider the economic strengths, weaknesses and opportunities for Shellharbour City, based on the outcomes of previous analysis conducted in this report. This will inform directions moving forward.

#### 6.1.1 Strengths

A range of economic assets typically anchor the local economy which may include major infrastructure assets, regional institutions, in-region capabilities (e.g. skilled workforce) or a sense of place/history. Within Shellharbour City, regional assets identified include:

- Location;
- Health Services and Facilities; and
- Industry and Exports.

##### 6.1.1.1 Location

The location of Shellharbour City positions the LGA to benefit from being in proximity to a major capital city. Benefits associated with this include transport infrastructure, access to a range of education and employment opportunities (within an hour and a half of the City) and the potential for weekend tourism.

Shellharbour City benefits from having the M1 Princes Motorway/Highway, which is the main link between Sydney and Melbourne. The Shellharbour Airport has access off the Princes Highway at Albion Park Rail. Shellharbour is also located within close proximity to Port Kembla, a major regional port with a diverse trading base. This port is located between Wollongong and Shellharbour City.

##### 6.1.1.2 Health Services and Facilities

With a high proportion of persons aged 65 years and older within Shellharbour City, access to the health system assets such as hospitals are a key asset to the region. The provision of an appropriate health system contributes to the overall liveability of the City for local residents as a place to live and work.

There are two hospitals in Shellharbour City as previously detailed, these being the Shellharbour Public Hospital and the Private Hospital. Whilst these facilities are relatively small, currently the public hospital has only 197 beds and is part of a network of hospitals supporting healthcare throughout the region. However, any planned redevelopment of the Shellharbour Public Hospital (funded by the State and National Government) there will be increased capacity at the facilities. This redevelopment is also likely to generate health care and social assistance employment upon completion, which will further strengthen the City's strength in this industry.

##### 6.1.1.3 Industry and Exports

Exports in construction services account for over a quarter of the total export value from Shellharbour City. This industry is also a significant employment industry in the City and the surround region as of 2016. The construction industry represents a strength in the Cities employment; however, this strength is in line with the surrounding Illawarra SA4 and therefore does not represent a relative significance.

Interestingly the GRP of Shellharbour City represents an increasing proportion of the Illawarra SA4 over time, increasing from 10.0% in 2008 to 12.1% in 2018 (see **Table 14**). This suggests that the Shellharbour SA4 is becoming a more significant contributor to the region, despite the large contributors to the region (Port Kembla for example) lying outside of the city bounds.

#### 6.1.2 Weaknesses

- Shellharbour City also has a number of weaknesses which may hinder further economic growth. Within Shellharbour City, the most significant weaknesses identified as part of this analysis are as follows:
- Changing Demographics;
- Employment opportunities and leakage; and
- Education opportunities.

### 6.1.2.1 Changing Demographics

As detailed in this report previously the working population of Shellharbour City, as a proportion of the total population has been declining since 2006. This trend is also present in the population projections between 2016 to 2041, therefore, a continuation of the ageing population trend seen across Australia. This is considered a weakness for Shellharbour as the current health offering in the City may not have the capacity to support the additional demand for health services as a large proportion of the population are over the age of 65 years. Another key issue which can result from an ageing population, particularly outside of metropolitan areas, is the loss of skilled labour as the current workforce ages out.

### 6.1.2.2 Employment Opportunities and Leakage

The resident workforce of Shellharbour City is highly mobile with almost half of the resident workforce employed in the Wollongong City area. Additionally, there are limited workers travelling to Shellharbour City for employment purposes. This may be due to a lack of diverse employment opportunities within Shellharbour City. Consequently, there is a significantly lower average weekly income and higher unemployment rate in Shellharbour City compared to the NSW.

A lack of employment opportunities can significantly impact the future growth of an area, particularly when paired with an ageing population. If there are limited employment opportunities, the likelihood of drawing new persons to the region (to work or to live) is low, and therefore the skills gap occurring with the ageing population will continue to broaden.

### 6.1.2.3 Education Opportunities

Education and skills development opportunities within Shellharbour City are limited, with the sole education facility being the Shellharbour TAFE campus. As previously detailed, the TAFE does offer a broad range of courses, however there are only four course options which are above a certificate level.

Whilst the socio-economic profile detailed an increase in the proportion of residents holding a non-school qualification between 2006 and 2016, it is still significantly lower than the State values in the same time period. This is mainly driven by the incidence of persons holding a bachelor's degree or higher in Shellharbour being half the recorded incidence in NSW.

As economies shift towards service-based industries, higher education is becoming increasingly important. Historically, Shellharbour City has had a large proportion of the workforce employed in industries centred around manual labour. Whilst these industries remain important, Shellharbour City needs to ensure that there are opportunities for residents to upskill in order to keep up with the changing employment landscape.

An additional concern which arises when there are limited education opportunities for residents is the leakage of young people from the area to surrounding regions in order to obtain a qualification. Due to the aging population, Shellharbour City must consider how to retain the younger population of the area and encourage young professionals to locate to the area. Providing education opportunities in conjunction with a diverse employment market could assist in combatting the aging population issue, however Shellharbour City does not currently have the systems in place to support these changes.

## 6.1.3 Vacancy Rates

The floor space inventory analysis detailed in Section 4 identifies significant levels of vacancy in parts of Shellharbour City, including:

- Albion Park B1 Neighbourhood Centres (Regal Heights Shopping Complex, Church Street and Calderwood Road);
- Albion Park Rail IN2 Light Industrial zone precincts (Princes Highway and between Princes Highway and the East West Link);
- B5 Business Development zone in Warilla (Shellharbour Road);
- Lake Illawarra B1 Neighbourhood Centres (Addison Avenue and Queen Street);
- Barrack Heights – Lagoon Street B1 Neighbourhood Centre; and
- Mt Warrigal – Jones Avenue B1 Neighbourhood Centre.

See Section 4.5 for implications of vacancy levels.

## 6.1.4 Opportunities

### 6.1.4.1 Education and Employment

As previously identified, a key risk within Shellharbour City is the lack of education opportunities for residents of the area. Whilst the TAFE offers a wide range of courses, there is still significant educational leakage to surroundings area (particularly for the attainment of bachelor or higher degrees). It is recognised that Shellharbour City does not yet have the population size to support a university campus to amend this ongoing weakness. However, a partnership of local industry with existing educational



facilities within the Illawarra region may be a strong opportunity for the City to encourage new residents to the area. The Shell Cove region has been identified as a potential location for a marine research institute, which if achieved, would encourage new residents to reside within the region.

By facilitating a partnership between education and industry, the workforce in Shellharbour City will increase in skill level therefore diversifying the existing employment portfolio in the City. This combination of education and employment seeks to assist in minimising the skill deficit which results from an aging population, whilst retaining young people and encouraging young families (particularly young professionals to the region in order to capitalise on these opportunities and the lifestyle afforded by a coastal city.

An example of how this relationship could be fostered by the inception of a Knowledge and Research centre, partnered with a regional university in the City. The key objective of the centre could be to develop Internet of Things (IoT) manufacturing in Shellharbour City, which would build on the existing industrial make-up of the area.

As detailed in the case study analysis in section 6.2 below, Surf Coast Shire Council Plan 2017-2021 has established a similar strategy to facilitate a symbiotic relationship between industry and education in order to combat the declining employment growth and retention in the City.

### **Recommendations**

**Council to actively facilitate partnerships between education and industry as a means to increase the skill level of the workforce in Shellharbour City therefore diversifying the existing employment portfolio in the City. This combination of education and employment seeks to minimise the skill deficit which results from an ageing population, whilst retaining young people and encouraging young families (particularly young professionals) to the region in order to capitalise on these opportunities and the lifestyle afforded by a coastal city.**

#### **6.1.4.2 Investment Incentives**

A key opportunity for Shellharbour City is to encourage additional outsider investment to the City.

Shellharbour City could adopt a similar strategy in inviting new business to the region. Shellharbour City can continue to commercialise its natural assets. Section 5.6 discusses the growth of the experience economy, meaning that consumers are willing to spend more of their discretionary income on experiences rather than on tangible goods. Shellharbour City lies on one of the most famous coast lines in Australia, however, has a limited proportion of employment and exports in tourism-based industries. Although encouraging more tourism is a shift from the current economic make-up of Shellharbour, it could be a way for the City to revitalise and combat the ongoing issues identified earlier. The establishment of the approved hotel facility at Shell Cove is likely to boost tourism to the region. It is noted that Council's Local Strategic Planning Statement contains tourism actions associated with Planning Priority P15 – Promote our City as a tourist destination of choice, which are as follows:

- Review LEP and DCP controls to ensure that tourism and visitor accommodation is supported in Shellharbour City;
  - Collaborate with our neighbouring councils and other stakeholders to implement the relevant actions from the South Coast Marine Tourism Strategy; and
- Continue to work with relevant industry and stakeholders in implementing actions in the Tourism Shellharbour City Destination Management Plan, with particular focus on the development of The Waterfront, Shell Cove.

It is envisaged that the upgrades to the Shellharbour Airport and the marina development at Shell Cove have significant potential to attract and retain businesses within Shellharbour. It is noted that Council has an Illawarra Regional Airport Strategic and Business Plan.

### **Recommendations**

- 1. Council to continue to strongly promote the marina development at Shell Cove as a significant drawcard to attract and retain businesses within Shellharbour.**

## **6.2 Case Study Analysis**

The purpose of the case study analysis was to identify regions or local government areas that have similar characteristics to Shellharbour City and the economic initiatives that they have undertaken to improve job opportunities and local prosperity. The case studies also considered synergies between education institutions and major health providers and private sector within identify regions or local government areas. The relevant regions or local governments areas (LGAs) identified for the purposes of the case studies were:

- Port Stephens Regional Council (NSW);
- Mid-Coast Regional Council (NSW);
- Port Macquarie-Hastings Regional Council (NSW); and
- Surf Coast Shire (Victoria).

### 6.2.1 Port Stephens Regional Council

Port Stephens Local Government Area (LGA) is located 33 kilometres north of Newcastle and approximately 160 kilometres north of Sydney CBD, amid the Hunter Region. As of the 2016 Census, the Port Stephens LGA had an estimated resident population of 69,556, hence of a similar size to Shellharbour City.

Port Stephens plays a significant role in the economy of the wider Hunter Region, with a diverse range of employing industries, including manufacturing and defence. Port Stephens is well linked to regional and national markets through the Pacific Motorway corridor to Newcastle and Sydney and through the New England Highway to Northern Regional NSW. Despite its proximity to Newcastle LGA, over half of all employed persons that reside in Port Stephens LGA also work in Port Stephens LGA<sup>3</sup>.

Port Stephens attracts significant visitation from both domestic and international visitors, benefiting significantly from the presence of the Newcastle Airport within the LGA. Whilst Shellharbour City also has an airport, tourism statistics indicate that visitors tend to bypass Shellharbour City, with a preference to visit other areas in the Illawarra region, most notably Wollongong LGA and Shoalhaven LGA<sup>4</sup>.

Other significant assets within Port Stephens LGA include the Tomaree Community Hospital, Tomaree Community College and the TAFE NSW – Tomaree campus. The TAFE NSW – Tomaree campus has a very limited course offering, with only three certificate opportunities listed on the TAFE NSW website. Similarly, the Tomaree Community Hospital is of a small scale, including a five bed emergency department and a 14 bed acute medical ward. These facilities are of a significantly smaller scale than what is currently present in Shellharbour City.

The Port Stephens economy also faces a range of ongoing challenges, as identified in the Port Stephens Economic Development and Tourism Strategy 2018-2020, including:

- Ageing Population: Approximately 37% of the population of Port Stephens was over 55 years old in 2016, significantly above the NSW average (28%);
- Migration of young workforce: In addition to an ageing population, Port Stephens also has a significant number of young, educated persons leaving the region to pursue career and study options elsewhere (likely metropolitan areas such as Melbourne);
- Infrastructure provision: Infrastructure provision is perceived as not meeting the needs of business, residents and visitors, with asset maintenance costs increasing faster than available sources of funding; and
- Need for revitalisation in town centres: Town centres within Port Stephens, such as Nelson Bay and Raymond Terrace, are perceived to be dated and impacted by the seasonality of tourism.

The Port Stephens Economic Development and Tourism Strategy 2018-2020 aims to expand on opportunities and address the challenges outlined above. The Port Stephens Economic Development and Tourism Strategy 2018-2020 identifies four strategic outcomes and key priorities within each strategic outcome as outlined in Figure 17 below:

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<sup>3</sup> Source: REMPLAN Economic Profile, Port Stephens Council, available at: <https://app.REMPLAN.com.au/portstephens/economy/workers/place-of-usual-residence?state=o1gGcR!o1gGcQJkmT5BLk6FyDjDxtgsWheK5scr2SJhBRSOSjjeOmTJSVvgmcwE2>

<sup>4</sup> Source: Tourism Research LGA profiles, available at: <https://www.tra.gov.au/regional/local-government-area-profiles/local-government-area-profiles>

**Figure 17 – Port Stephens Economic Development and Tourism Strategy Strategic Outcomes (Source: Port Stephens Economic Development and Tourism Strategy, 2018-2020)**

STRATEGIC OUTCOMES	KEY PRIORITIES	MEASURES OF SUCCESS
We will make business growth easier	Increase the capacity and competitiveness of business	Increase in business networking opportunities CBD Occupancy audit Annual business survey feedback Improvements across key economic indicators
	Advocate for business	
	Facilitate evidence-based decision making	
	Support effective Business Networks which demonstrates clear outcomes	
	Coordinate the Economic Development Advisory Panel	
We will increase overnight visitor spend	Provide strategic and financial support to Destination Port Stephens	Development of the DPS Strategic Plan Increase in the economic output of the visitor economy Destination Port Stephens Funding Agreement Key Performance Indicators Secure ongoing funding for destination marketing
	Develop strategic plans to guide the sustainable growth of the visitor economy	
	Build trust and understanding in the value of the visitor economy	
	Build partnerships with Newcastle Airport, neighbouring councils and key stakeholders	
	Encourage investment in high quality tourism product and experiences	
We will attract events that drive economic growth	Develop the Port Stephens Events Strategy	Development of one new cultural event per year Increase in the economic impact of events Increase in funding for events in Port Stephens Development and implementation of Port Stephens Events Strategy
	Increase the diversity and quality of cultural events	
	Educate Council and the community on the value of events	
	Work in partnership with key stakeholders to attract and deliver events	
	Seek increased funding and resources for events in Port Stephens	
We will create people friendly spaces	Promote a place based - design led approach across Council and the community	Success of town centre implementation panels Expression of the Next brand Delivery and success of Vibrant Spaces Program Increase in public art and performance
	Activate our public spaces	
	Develop and use cultural themes to guide placemaking activities	
	Promote processes and partnerships that create place making outcomes	
	Expand "Nelson Bay Next" beyond Nelson Bay	

Significant efforts have been made to revitalise the town centre in Nelson Bay, with the *Nelson Bay Town Centre and Foreshore Strategy* adopted by Council back in 2012. This strategy has been subsequently advanced to *Progressing the Nelson Bay Town Centre and Foreshore Strategy: A revised implementation and delivery program (Delivery Program)*, released in September 2018.

This implementation and delivery program, which provides 33 recommendations to encourage investment and improve the amenity and vibrancy of Nelson Bay town centre. The implementation plan focusses around six broad themes, with key recommendations which could be potentially relevant in the Shellharbour City context outlined below:

- Design excellence:
  - Inclusion of an LEP clause for activated street frontages;
  - Inclusion of an LEP clause relating to appropriate vertical to horizontal proportions to encourage consolidation of narrow and short lots;
  - Establishment of a local independent Urban Design Panel;
  - Development of an education program on urban design for Council officers;
  - Recognising and celebrating design excellence;
- Building heights:
  - Increases to floor space ratios (FSR) and height of building (HoB) to ensure redevelopment is feasible but ensuring the 'village atmosphere' is retained;
- Development incentives:
  - Reduction of uncertainty related to development incentives;
  - Alterations to the DCP to encourage design excellence, specifically in relation to building depth, building separation, street setbacks, side and rear setbacks, orientation, public domain interface, communal and public open space
- Public domain:
  - Development of a public domain plan, addressing the aspects of streetscape, wayfinding and street trees;

- Utilisation of 'smart city' initiatives, such as 'smart parking' and an interactive digital platform that integrates maps, website, digital wayfinding signage and destination information for Nelson Bay;
- Feasibility assessment for public wifi in the town centre;
- Development of a toolkit for public events to encourage activation of the town centre;
- Audit of facilities required to facilitate public events;
- Transport and parking:
  - Identify and review car parking options within the town centre;
  - Review road speed limits in the town centre;
  - Implement the Pedestrian Access and Mobility Plan to create more pedestrian friendly and mobile urban environments;
- Implementation:
  - Implementation Panel to be formed and meet on a regular basis to oversee the delivery of the plan;
  - Identification of funding required and consideration of appropriate funding options;
  - Inclusion of relevant infrastructure items in Council's Strategic Asset Management Plan; and
  - Monitor, report and review the strategy, with provision of an annual report and a comprehensive document review every five years;

This case study highlights that whilst the Port Stephens local economy appears more reliant on tourism than Shellharbour, the region faces similar challenges in relation to an ageing population and town centres requiring revitalisation. Significant efforts have been made to revitalise the town centre in Nelson Bay, with a range of recommendations provided to encourage investment and improve amenity and vibrancy. However, it is unclear how successful these recommendations will ultimately be, given their relative newness.

It is noted that Council has its own adopted Town Centre Plans which contain a range of tailored recommendations for its various centres which are currently being implemented. However, Council should take note of these initiatives for future reference.

## 6.2.2 Mid Coast Regional Council

Forster – Tuncurry is located in the middle of the eastern coast of the MidCoast Region Local Government Area – located approximately 300 kilometres north of Sydney and approximately 425 kilometres north of Shellharbour. They are described as twin towns that are high profile and popular destinations. Since 2006 Forster – Tuncurry has experienced a relatively stable population and has an estimated population of 21,218. 58% of the Forster – Tuncurry population is over 50 years old, with the prevailing age group being 70 to 84 years.

Generally, in the MidCoast Council LGA, employment has been dominated by the Health Care and Social Assistance sector; followed by Retail Trade; and Accommodation and Food Services. The majority of the workforce reside in the area, with approximately 7% of workers working in Sydney or Newcastle, or in neighbouring LGAs. Forster – Tuncurry also has a relatively high unemployment rate of 8.2% as of the 2016 census, compared with the regional NSW unemployment rate of 6.6%. Forster-Tuncurry accommodates 25.2% of the MidCoast Region employment.

The MidCoast region is a popular domestic holiday destination especially for Sydney and Newcastle residents. Aside from the coastline and beaches, other attractions include the Barrington Tops National Park, the Manning River and Ellenborough Falls. Though the area is located mid coast, the Pacific Highway connects to Sydney and Brisbane and provides access to the Port of Newcastle, Newcastle Airport and Port Macquarie Airport. However, it is noticed that during the peak holiday season, Forster – Tuncurry is at capacity causing congestion throughout the twin towns. A push for increased tourism visitation during the off peak is desired to create steady employment.

Key economic industries in the MidCoast region include agriculture, forestry, aquaculture and fishing, manufacturing, mining, road freight transport, aged care and social services, professional, scientific and technical services, and tourism. It is evident that the MidCoast region provides a diverse economy which builds a resilient economy.

In regard to the Forster-Tuncurry region, oyster farming and fishing are important industries. Other existing local assets include a TAFE NSW campus and the WEA Coast Community College in Tuncurry; the Forster Private Hospital; the showgrounds in Forster; and the marine facilities managed by fisherman co-ops in Tuncurry. The maritime facilities at Forster-Tuncurry has been reviewed as part of the NSW Department of Primary Industry's Regional Ports Strategy and is highlighted as an infrastructure

priority with a renewal agenda. Additionally, the Forster – Tuncurry area is an attractor for retirement, with growth in the aged care sector.

The region has several weaknesses and challenges that need to be addressed, which are outlined in the *MidCoast Regional Economic Development Strategy 2018 – 2022*, and includes the following:

- Infrastructure and utilities:
  - Roads — The road infrastructure was the most poorly rated factor in a survey undertaken, with the large majority of respondents identifying roads as being a key weakness;
  - Telecommunications — As is the case in many other areas, there are reports of issues with the roll-out of NBN. Poor mobile coverage was also identified as a key weakness in rural areas;
- Labour force:
  - Generational unemployment — A disproportionately high number of children are being raised in families without employed parents fuelling concerns of generational unemployment;
  - Access to skilled labour — Issues appear to be related to the lack of higher education and migration of young people away from the Region as there are no university institutions within the LGA;
  - Transport options for youth — A lack of public transport options has been raised as a potential barrier for youth employment and higher education;
- Other:
  - Planning and land-use regulations — Difficulties with obtaining planning approval and inconsistencies in land-use regulations were raised as issues; and
  - Marketing — A common perception raised is that the Region has not been sufficiently well promoted to date and that there is a lack of awareness amongst potential visitors, new residents and businesses about the attractions of the Region.

The MidCoast Region outlines three key strategies:

- A. Strengthening the Region as a location of choice;
- B. Creating a supportive environment for businesses to invest and grow; and
- C. Marketing the MidCoast Region.

In the *MidCoast Regional Economic Development Strategy 2018 – 2022*, a key initiatives for Strategy A is to:

*“Enhance and expand business infrastructure that will be drivers for growth, in particular the Northern Gateway project and other employment lands for commercial and light industrial”.*

It is noted in the Economic Development Strategy that there is industrial zoned land in Forster-Tuncurry, which is mostly privately owned. As the Forester-Tuncurry area has a strong tourism and aged care sector, economic and employment strategies focus are shifted to other cities in the LGA. For example, approximately 35 kilometres north, Taree Airport is located which connects to the Pacific Highway where the Northern Gateway project is proposed. The Northern Gateway project is a freight / transport hub which is a strategically positioned hub creating economic activity. The Strategy takes priority for centres adjacent to the Pacific Highway where light industrial activities are lacking.

Following this, MidCoast Region has created a Regional Action Plan which sets to deliver on the above strategies over the next 4 years. Particular reference to Forster-Tuncurry include:

**Table 52 – Regional Action Plan (Source: Mid Coast Council)**

Ref#	Initiative / action	Issue / Opportunity	Impact / Importance	Timeframe	Responsibility / Funding needs
A	Location of choice				
A.2	Enhance and expand business infrastructure				
A.2.a	Develop employment land strategy	Ensure future supply of suitable employment lands	Low	N/A	Council
A.3	Invest in tourism assets				

Ref#	Initiative / action	Issue / Opportunity	Impact / Importance	Timeframe	Responsibility / Funding needs
A.3.a	Implement Destination Management Plan (DMP) including game changer projects such as – Great Lakes Great Walk & Aquatic Trails Project Outdoor & Nature-based Recreation Initiatives Celebrating Culture on Country Centre of Excellence for the Environment & Wetlands Forster-Tuncurry Revitalisation	Build key destination assets and experiences to grow visitor economy.  Maintain and grow existing markets to encourage repeat visitation and increased length of stay.  Attract new markets to increase visitor numbers and yield.  Address seasonality, lack of regional dispersal and capture opportunities to link with other sectors. (Refer to DMP for further information)	High	18/19-20/21	Council, NPWS, Forestry, Crown Lands, LALC and others Funding required for game changer projects
A.3.c	Complete Forster Main Beach Strategy	Including investment in maintaining and enhancing existing facilities, trails and connectivity.	Low-Medium	18/19-19/20	Council
B	Supportive environment for business to invest and grow				
B.1	Remove barriers (regulatory & other) to grow				
B.1.b	Development of a single LEP and DCP for the region	Increase development opportunity and consistency across the area	High	19/20-20/21	Council
C	Marketing the Region				
C.3	Marketing to the community				
C.3.b	Promote and encourage employment opportunities in aged care and service sector	Address perceived issues with these industries (casualisation, lack of career progression)	Low – Medium	19/20-20/21	Service and Training providers

Currently the MidCoast region has three different LEPs and DCPs divided to Manning Region, Greater Lakes Region and the Gloucester Region with action B.1.b being of high priority to ensure there is consistency within the Local Government Area that can address all issues and opportunities in one document.

In August 2019, a draft Employment Zones Review was developed for the MidCoast Region reviewing business and industrial zoned land. Several recommendations were made as a result of the review, these include:

1. Business Zone recommendations
  - a. Defining centre hierarchy
  - b. Updating objectives and land use permissibility for each zone
  - c. Removal of all minimum lot size (for subdivision) requirements except for the B5 Business Development zone which should be 1,500m<sup>2</sup>
  - d. Specify new height of building requirements on a site-by-site basis
  - e. Remove all floor space ratio requirements
  - f. Apply active street frontages local provision to all B1, B2 and B3 zones
  - g. Define a new provision relating to unstructured large B1 and B2 zones to ensure they can develop into vibrant commercial, cultural and social hubs
  - h. One significant zone boundary amendment - changing 4.9ha of the Gloucester town centre B2 zone to residential (as per recommendations in previous strategies)

2. Industrial Zone recommendations



- a. Establishing clear principles for each industrial zone
- b. Updating objectives and land use permissibility for each zone
- c. Specify new height of building requirements as follows:
  - i. IN1 General Industrial: no maximum
  - ii. IN2 Light Industrial: 10m maximum
  - iii. IN3 Heavy Industrial: no maximum
  - iv. IN4 Working Waterfront: 8.5m maximum
- d. Remove all floor space ratio requirements
- e. Significant zone amendments - where large floor plan commercial intrusion has occurred within industrial zones, these areas will be rezoned B5 Business Development.

Forster – Tuncurry shows commonalities with Shellharbour through the ageing demographic and the diverse industry economy. Geographically, both areas are considered coastal areas where the beaches, waterfront and nature potentially offer a key tourism asset to attract visitors to the area. Forster-Tuncurry plans to build and improve these assets and strives for more visitors during the off-peak season to ensure employment stability. The local economy draws focus on their maritime facilities and aims to build upon this infrastructure to strengthen this as a key economic driver. The key factors of tourism and aged care may be relevant to being conveyed in the context of Shellharbour, focusing on building on existing assets and adapting to the market.

The employment zones review undertaken by MidCoast Council has resulted in specific recommendations being applied to its employment lands. These are not tailored to the Shellharbour City Context, however Council should note them for future reference. They are summarised as follows:

1. Business Zone:
  - a. Defining centre hierarchy;
  - b. Updating objectives and land use permissibility;
  - c. Removal of minimum lot size requirements;
  - d. Specify new height of building requirements;
  - e. Remove floor space ratio requirements;
  - f. Apply active street frontages local provision to certain zones;
  - g. Define new provisions for some B zones to ensure they can develop into vibrant commercial, cultural and social hubs; and
  - h. Zone boundary amendments.
2. Industrial Zone recommendations
  - a. Establishing clear principles for each industrial zone;
  - b. Updating objectives and land use permissibility;
  - c. Specify new height of building requirements;
  - d. Remove floor space ratio requirements; and
  - e. Significant zone amendments.

### 6.2.3 Port Macquarie – Hastings Regional Council

Port Macquarie is identified as a regional city and a coastal Local Government Area, which is located approximately 380 km north of Sydney and approximately 510 kilometres north of Shellharbour. The closest largest city, Newcastle, is located approximately 240 kilometres south of Port Macquarie. In 2018, the Port Macquarie-Hastings LGA had an estimated population of 83,131 people, which continues along the growth trend since 2011. 48.9% of the population is over the age of 50, with the most common age group being 60-69 years.

Economically, the Port Macquarie-Hastings Local Government Area is a profitable region where more products and services are sold outside of the LGA (Approximately \$1.75 billion per annum) than are imported (\$1.36 billion per annum). The LGA has a strong local economy valued at \$6 billion. In the *2017 to 2021 Economic Development Strategy*, identified strengths in the



employment market included growth in several sectors, including: Health care and social assistance; Construction; Professional, scientific and technical services; Education and Training sectors – reflecting a diverse local economy.

Aligning with the employment trend of the Professional, Scientific and Technical Services sector, Port Macquarie-Hastings accommodates a NSW TAFE institution, University of Newcastle and Charles Sturt University. Port Macquarie employment is well self-contained, with 5.8% of the entire workforce living outside of the LGA and 6.9% of the resident workers, working outside of the LGA. The unemployment rate has fluctuated in the past years, and is currently at a rate of 4.5%.

Port Macquarie provides a strong tourism sector as it is known for its beaches, waterways and koalas. The Port Macquarie Airport is located approximately 4 kilometres west of the city centre supporting strong international and domestic attraction, attracting 1.6 million visitors per year.

The *2017 to 2021 Economic Development Strategy* identifies four industries that have negative employment projections which include Agriculture, forestry and fishing; Electricity, gas, water and waste services; Mining; and Manufacturing. However, it is evident that the positive trends overshadow the negative trends, which include the identification of the mid-north coast to being a preferred destination to settle, and increased opportunity with the installation of NBN throughout the area.

The *2017 to 2021 Economic Development Strategy* provides a pathway for the Port Macquarie-Hastings LGA to focus on economic renewal, rather than economic redevelopment, compared to the previous economic development strategy. 5 key outcomes are established, which include:

- Embracing business and a strong economy
- Providing the foundations
- Creating vibrant and desirable places
- Driving opportunity
- Partnering for success

These outcomes and strategic objectives will be evaluated against performance measurements as outlined in Figure 18 and Figure 19 below.

Figure 18 – Strategic Objectives and Performance Measures (Source: Port Macquarie-Hastings Council)

Strategic Objective	Performance Measure
Embracing business and a strong economy.	Direct Business Engagements - 100 per annum (including business visits, advocacy or support) Indirect Business Engagements - 500 per annum (including conferences, events and group engagements)
Providing the foundations.	Micromex Research Overall satisfaction with the performance of Council - 3.5 rating (90% satisfaction)
Creating vibrant and desirable places.	Greater Port Macquarie is recognised as a premier regional event destination with an increase of total economic impact figures by 5% per annum for Council supported events. Increase new visits to the portmaquarieinfo.com.au destination website by 15% annually.
Embracing opportunity.	Investment Community Engagement - 25 per annum Facilitate three projects with a direct correlation to employment generation over four years. Grant funding for three projects.
Partnering for success.	Industry Engagement Direct Connects - 3 (Actionable Industries of 18 ANZIC divisions) per annum Industry Engagement Indirect Connects - 6 (of 18 ANZIC divisions) per annum Familiarity with the Economic Development Strategy (53% + as per annual business survey results)

Figure 19 – Performance Measures and Baseline Data (Source: Port-Macquarie Hastings Council)

Performance Measures	Baseline Data
A real (CPI Adjusted) increase of regional exports of 3% (on baseline data)	\$1,972,222,000 (REMPPLAN April 2016)
A real (CPI Adjusted) increase in local Gross Regional Product of 2% (on baseline data)	\$3,983,611,000 (REMPPLAN April 2016)
Continued growth in dwelling approvals of 500+ per annum	642 Approvals (ABS 2015/2016 FY)
An increase in the number of residents of 1.5% per annum	78128 (ABS ERP 2016)
An increase in the number of 18 to 35 year olds of 10% (on baseline data)	11,819
An average age < 46 years	46 years (2011)
Median household income > \$855 per week	\$855.00 per week (2011)
An unemployment rate of < 5.00%	5.03% (September quarter 2016)
Business Confidence >	65.2% of businesses report overall business confidence as either 'good' or 'very good'. (PMHC Business Confidence Survey Wave 2 August 2016)
An improvement in our Regional Australia Institute In[sight] Ranking	Ranked 249 of 563 (2016)

An Employment Land Review was conducted in 2011 by MacroPlan Dimasi for the 2011 to 2031 period. Tourism is highlighted as an instrument to the economy holding up other employment industries. An investment into Charles Sturt University campus is expected to provide additional employment during construction and operation which is said to attract migration especially of the young working adults (20-34 years). Additional lands will be required to supply the demand of employment in business, industrial and special uses zoned land as Port Macquarie-Hastings is undersupplied for the employment forecast of 2031. It was recommended that a rezoning of land be undertaken to represent an approach to deliver more employment land.

Similar to Shellharbour, Port Macquarie-Hastings accommodates an ageing population. Port Macquarie-Hastings looks to build upon this economic shift and sees this as an economic opportunity to adapt to this market. The *Economic Development Strategy 2017-2021* aims to build upon the partnered approach of the previous strategy and focus on economic renewal. The strategic objectives and performance measures are relatively broad and may not have high applicability in the context of Shellharbour, in that no additional lands are required to be rezoned to provide/deliver more employment land (as demonstrated through the findings of this report).

## 6.2.4 Surf Coast Shire

Surf Coast Shire is a local government area located in south-western Victoria, approximately 120 kilometres from Melbourne and 21 kilometres south of Geelong. As of 2019, the estimated resident population of the area was 33,456 persons, growing to an estimated 44,000 persons by 2036<sup>5</sup>. The economy of the Surf Coast Shire like the other areas analysed in this case studies has a diverse range of employing businesses and a strong tourism sector, with the surfing industry employing a large proportion of the local workforce.

Surf Coast benefits significantly from its proximity to Geelong and direct access to Melbourne CBD, attracting new residents who seek a balance between the fast pace of metropolitan areas coupled with a coastal lifestyle. As with many coastal regional centres, Surf Coast Shire faces the challenges associated with an ageing population, additional strains on existing infrastructure due to rapidly growing population and impact of tourism on the local economy.

The *Surf Coast Shire Council Plan 2017-2021* outlines the strategic initiatives and plan to improve the local community, with focus on environmental sustainability, community health and wellbeing and vibrant economic growth. In terms of economic growth, Surf Coast Shire Council Plan 2017-2021 aims to achieve the following strategic outcomes:

- Support the creation and retention of jobs in existing and new businesses:
  - Supporting and building businesses and tourism groups;
  - Investigating the strategic road network impact on commercial transport;
  - Facilitating relationships between industry and education; and
  - Plan Industrial and commercial zones in growing communities.
- Facilitating high quality events throughout the year;
  - Developing diverse, major and signature events and a communication and promotion program;
  - Strengthening the vitality of town centres; and
  - Identify and support economic and social drivers of town centres within the Shire;
- Supporting key industry sectors such as Surfing, tourism, home-based, construction and rural businesses;
  - working with key stakeholders to encourage visitors to stay longer and spend more in the Shire;
  - development and implement industry development and attraction program;
  - advocate for and drive the great Ocean Road visitor economy;
  - develop and implement an agribusiness strategy;

Surf Coast Shire has well-established relationships with key community, businesses, peak bodies and tertiary education providers that will allow the Shire to meet the strategic outcomes outlined above. Some of the key partners are outlined below:

- G21 (Geelong Region Alliance) Economic Development Pillar: a group of local government areas located in the Geelong Region working collaboratively to improve the region's economic prosperity<sup>6</sup>,
- G21 (Geelong Region Alliance) Education & Training Pillar;
- G21 (Geelong Region Alliance) Planning & Services Pillar;
- Deakin University: leading tertiary education provider with a campus in Geelong;
- Gordan Institute of TAFE: tertiary education provider with two campuses in Geelong; and
- Lorne Community Hospital; and
- Surfing Industry (including Surfing Victoria) and Industry bodies.

Whilst Surf Coast Shire is approximately half the population size of the Shellharbour City, there are still parallels which can be drawn. Surf Coast Shire and Shellharbour City are both approximately an hour and half drive from a major capital city. This positions both areas to attract tourists or resident commuters seeking to avoid the metropolitan areas. Another similarity between both LGA's is the ageing resident population and the issues that come with combatting this.

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<sup>5</sup> Forecast.ID projections

<sup>6</sup> <https://www.g21.com.au/economic-development-pillar>

Interestingly, the Surf Coast Shire Council Plan 2017-2021 outlines the need for ongoing employment growth and retention in the region through building business and facilitating a symbiotic relationship between industry and education. Shellharbour faces a similar employment leakage problem to Wollongong and therefore would benefit from similar initiatives which provide a motive for young professionals to stay in the region, or to locate to the region for work or further study. In encouraging young professionals to the region, the City could also combat the skills deficit which arises due to ageing populations.

A vital difference between Surf Coast Shire and Shellharbour City are the existing connections between industry bodies and education/training facilities. The TAFE located in Shellharbour City offers a diverse range of courses, however, there is little to no link between these courses and local industry. In Surf Coast Shire, however, there are initiatives in place within the strategic framework to forge these connections. It may be useful for Shellharbour City to work with the local TAFE and businesses to identify any skills or educational gaps which may be preventing the connectivity of industry and education in the City. Accordingly, recommendations are made below which addresses these current gaps.

#### **Recommendations**

- 1. Council to facilitate ongoing employment growth and retention in the region through building business and facilitating a symbiotic relationship between industry and education, including providing a motive for young professionals to stay in the region, or to locate to the region for work or further study. This will help to address employment leakage and combat the skills deficit which arises due to ageing populations.**
- 2. Council to facilitate stronger connections between industry bodies and education/training facilities, such as working with the local TAFE and local industry and businesses to identify any skills or educational gaps which may be preventing the connectivity of industry and education in Shellharbour.**

### **6.2.5 Summary of Case Studies**

The case study analysis undertaken reveals that there are a number of LGAs which display very similar characteristics, attributes and/or issues for employment as Shellharbour, all of whom are putting specific measures and actions in place to address employment provision within their respective LGA's. A number of initiatives are being undertaken across the various councils, including town centre revitalisation; rezoning of land for additional employment purposes; and addressing specific planning zone provisions, all as a means of strengthening and increasing employment opportunities. Other than the two recommendations relating to fostering relationships between education/training facilities and industry, it is recognised that Shellharbour City Council has a number of initiatives similar to those outlined in the case studies. Further, the case studies can be used as a resource that can be drawn upon and tailored to Shellharbour City where appropriate and relevant in the future.

## 7 STRATEGIC FREIGHT NETWORK IN NSW

The purpose of this section is to consider the strategic freight network in NSW and how it relates to Shellharbour City. The freight sector is a significant contributor to the NSW economy, with big businesses, farmers, retailers and consumers all relying on the efficient delivery of goods. Freight networks and associated infrastructure play a critical role in connecting regional centres to the wider state, country and international markets.

### 7.1 Road Freight Network

In NSW, the majority of freight is moved by road, with over 90% of manufacturing, construction and wholesale/retail distribution all moved through NSW roads.

Greater Sydney's key freight corridors include:

- Pacific Highway,
- Hume Highway;
- Greater Western Highway;
- South Western Motorway;
- Westlink M7;
- Parramatta Road; and
- Foreshore Road.

The WestConnex and NorthConnex are anticipated to be vital to the Greater Sydney freight network once completed.

Additionally, the Regional NSW freight road network includes:

- Hume Highway,
- Pacific Highway;
- Newell Highway;
- Golden Highway
- Great Western Highway;
- Sturt Highway; and
- New England Highway.

The Hume and Pacific Highways were identified as the main highways moving the majority of the regional NSW freight task<sup>7</sup>. The Regional NSW freight task is dominated by commodities including agriculture and livestock, construction materials and forestry and timber. Reliance on the Greater Sydney and Regional NSW road freight networks is anticipated to increase significantly over the next 20 years.

The Hume Highway is the closest key freight corridor to Shellharbour City but is located approximately one hour driving distance from Shellharbour, with access to the Hume Highway northbound via Wollongong along the Princes Motorway and Picton Road. Access southbound to the Hume Highway from Shellharbour is via the Illawarra Highway.

As mentioned above, the main access to the Hume Highway from the Illawarra Region is through Picton Road, providing freight departing or destined to Port Kembla with access to Greater Sydney and Regional NSW. Port Kembla is a major regional port with a diverse range of trade base including general bulk cargoes, containers and motor vehicle imports and grain exports from regional NSW. Port Kembla is expected to experience increased freight volume and is scheduled to be the State's second largest container port. As outlined in the NSW Freight and Port Plan 2018 to 2023, reliance on the Hume Highway from the Illawarra Region is anticipated to increase significantly over the next 20 years. By 2036, the total outbound freight from the Illawarra – Shoalhaven region is anticipated to contribute to 10.0% of total Regional NSW outbound freight.

The key outbound commodities produced in the Illawarra – Shoalhaven region include construction materials (18.0% of total freight outbound freight), manufacturing (13.0% of total outbound freight) and coal (11.0% of total outbound freight). As Shellharbour City and the wider Illawarra Region continue to experience significant population growth and with Port Kembla

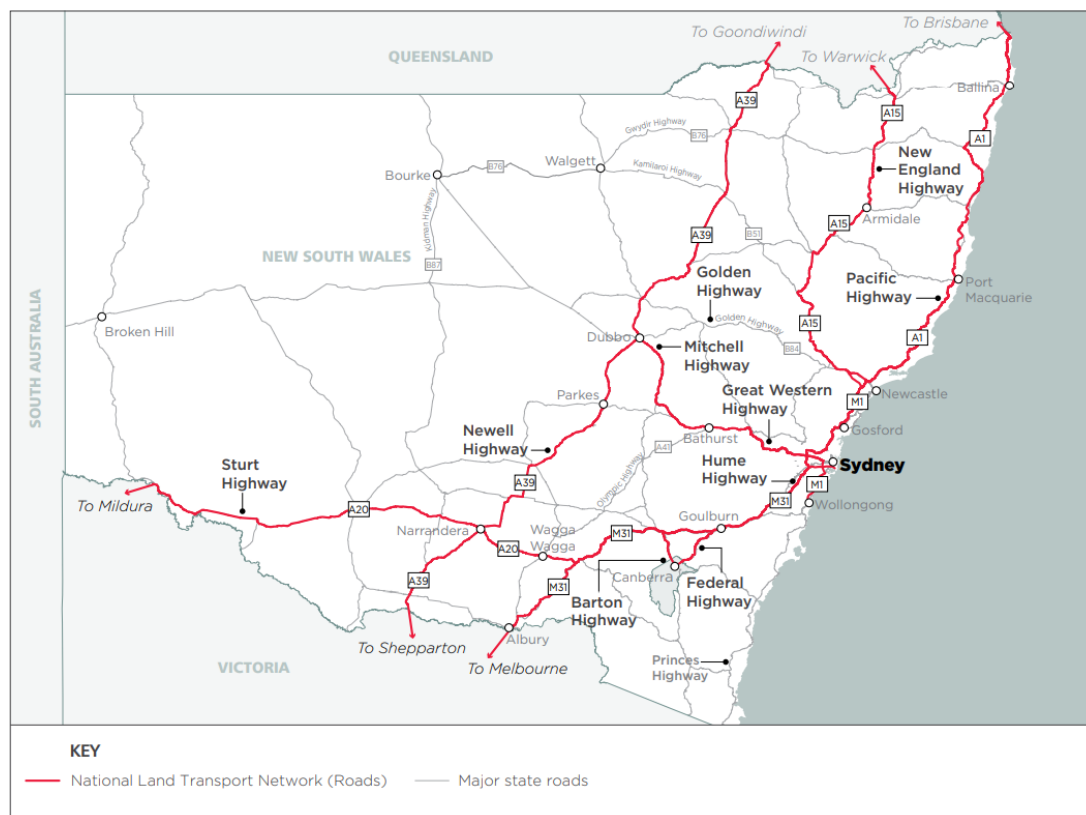
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<sup>7</sup> NSW Ports and Freight Plan 2018 to 2023  
1049 – 25 February 2021 – V6



expected to experience increased freight volume, reliance on the Hume Highway<sup>8</sup> is anticipated to further increase. However, as outlined above, Shellharbour City is located some distance from the Hume Highway and hence is not anticipated to benefit significantly from inter regional freight movements along this corridor.

Figure 20 shows Regional NSW freight road network as identified in the NSW Freight and Ports Plan 2018-2023.



**Figure 20 - Regional NSW Freight Road Network**

Source: Transport for NSW (NSW freight and Ports Plan 2018 to 2023)

There are also major ongoing infrastructure projects within the region which will assist in creating further connectivity to the City. The largest of which is the Princes Highway upgrade at the Albion Park Rail Bypass. The NSW government is building an extension to the M1 Princes Motorway between Yallah (which falls in Wollongong City) and Oak Flats (in Shellharbour City), in order to bypass Albion Park Rail (Shellharbour City). This project is estimated to cost approximately \$630 million and will complete the network of high-quality roads between Sydney and Bomaderry (south of Kiama).

The first of the project’s 13 bridges was opened to the public in May 2020. The new bridge into Albion Park is opened to traffic in both directions temporarily. When the project is complete, this bridge will become the southbound exit ramp for motorists travelling to Albion Park.

## 7.2 Rail Freight Network

The regional NSW rail freight network has increasingly been used to transport bulk construction materials, waste, agriculture products and coal. The key rail freight network servicing the Illawarra Region is the South Coast Line which connects the Illawarra Region to the Sydney Metropolitan area. The South Coast Line is critical to the movement of freight destined for and departing Port Kembla. However, the South Coast Line faces capacity constraints as it also accommodates passenger trains, restricting the movement of freight trains during peak hour.

The South Coast Line passes through Shellharbour City, with stations at Shellharbour Junction, Albion Park and Oak Flats. Industrial zoned land is within proximity to the Oak Flats railway station between the Princes Highway and the East West Link (to the south of the Oak Flats railway station) and between the Oak Flats and Albion Park railway stations along Industrial Road.

The Moss Vale- Unanderra Line is a dedicated rail freight line servicing the Illawarra Region, providing freight from Southern Regional NSW with access to Port Kembla. Unlike the South Coast Line freight network, the Moss Vale -Unanderra Line bypasses

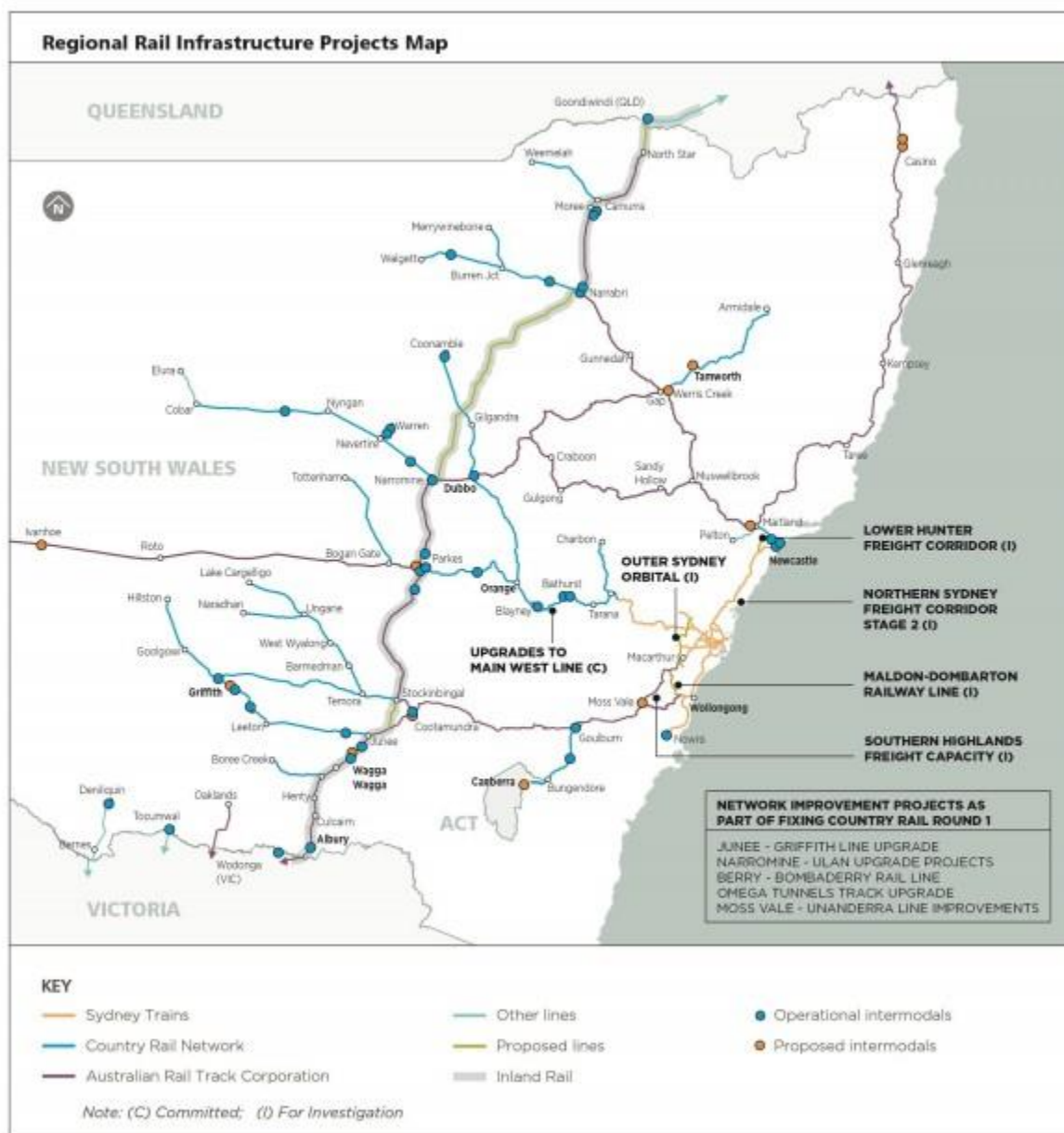
<sup>8</sup> Navigating the Future: NSW Ports’ 30 Year Master Plan (2015)  
1049 – 25 February 2021 – V6



Shellharbour City. Over time, it is anticipated that the use of the rail freight network will favour the Moss Vale – Unanderra line rather than the South Coast Line, given its status as a dedicated rail freight line.

Shellharbour City is also situated a significant distance from operating and proposed intermodal terminals, with the closest operating intermodal terminal located in Nowra. The proposed intermodal terminal in Moss Vale is anticipated to further increase reliance on the Moss Vale – Unanderra Line, leaving Shellharbour City further isolated from any significant rail network.

Figure 21 shows Regional NSW freight rail network, operation and proposed intermodal terminals as identified in the NSW Freight and Ports Plan 2018-2023.



**Figure 21- Regional NSW Freight Rail Network**

Source: Transport for NSW (NSW freight and Ports Plan 2018 to 2023)

### 7.3 Shellharbour Airport

The Shellharbour Airport is located along Airport Road which is accessed from the Princes Highway in the suburb of Albion Park Rail within Shellharbour City. This airport is also known as the Illawarra Regional Airport and therefore services any tourists or airfreight being brought into the region. Onsite at the Shellharbour Airport there is both short and long-term parking facilities (currently available for free).

The regular passenger transport from Shellharbour Airport is provided through Fly Corporate and is limited to direct flights to Melbourne (Essendon Fields) and Brisbane Airport. Under the current COVID-19 climate, flights are only operating every two to three days to each location, however, under normal circumstances there are to eighteen flights on the Melbourne route and eight flights on the Brisbane route each week. Other aviation activities centred around the Shellharbour Airport include scenic helicopter flights, sky diving, flight lessons and the HARS Aviation Museum.

In March 2020, construction started on the Shellharbour Airport upgrade. Shellharbour City Council, together with the State government are investing over \$20 million in airport infrastructure. The funding comprises approximately \$16 million in State government contributions with the remainder funded by Shellharbour City Council. These contributions will fund significant infrastructure works including the delivery of a new terminal building to replace the previous terminal building which suffered significant fire damage in 2013 (Illawarra Mercury, 2019). In addition to the airport infrastructure, there will also be connections built to the Albion Park Rail IN1 industrial area to encourage support industries to the area (currently there are limited aviation related business within Albion Park Rail) (McIlwain, 2020). It is noted that Shellharbour Council has an Illawarra Regional Airport Strategic and Business Plan.

## 7.4 Implications for Shellharbour

The assessment of the strategic freight network servicing Greater Sydney and Regional NSW highlights that Shellharbour City is not proximate to the major road freight corridors, with travel time to the Hume Highway either northbound or southbound approximately an hour. Industrial businesses wishing to service a regional market would require either direct or proximate connectivity to the major road freight network, which cannot be offered by Shellharbour City.

Whilst Shellharbour accommodates three railway stations along the South Coast line which transport both passengers and freight, there were no industrial businesses directly related to rail freight activity identified within proximate industrial estates. Rather it would appear that industrial activity within these precincts predominately services local population needs, rather than regional needs. The importance of the South Coast line for freight movements is only likely to diminish further over time, with freight dedicated rail routes such as the Moss Vale- Unanderra Line likely to be the preferred haulage route for rail freight, particularly as congestion on the passenger rail network only continues to increase.

Industrial zoned land within Shellharbour City is approximately a fifteen to twenty-minute drive from Port Kembla. However, there remains opportunities for industrial businesses to locate within Port Kembla<sup>9</sup> at a similar price point on a per square metre basis as Albion Park Rail and Warilla<sup>10</sup>. Therefore, it would follow that industrial businesses requiring direct port access would locate at Port Kembla as opposed to Shellharbour.

The Shellharbour Airport upgrade has the potential to link the existing industrial areas more closely with activity at the airport, potentially attracting airport related industry activity. However, to date, this industrial land precinct has predominately accommodated population serving industry as opposed to airport related industry, but opportunity exists for this to evolve over time, particularly if there is growth in RPT services to Shellharbour in the medium to long term.

Based on the above factors, it is envisaged that industrial activity within Shellharbour will predominately continue to meet the local needs of Shellharbour City residents, as opposed to serving a broader regional catchment.

***Industrial activity within Shellharbour will predominately continue to meet the local needs of Shellharbour residents, as opposed to serving a broader regional catchment.***

<sup>9</sup> Real Commercial (June 2020) industrial/warehouse property for sale listings indicate a median asking price of \$2,832/sqm in Port Kembla and Warrawong (based on four sales).

<sup>10</sup> Real Commercial (June 2020) industrial/warehouse property for sale listings indicate a median asking price of \$2,905/sqm in Albion Park Rail and Warilla (based on four sales).

## 8 EMPLOYMENT PROJECTIONS

To estimate the projected employment by industry for the 2016 to 2041 period in Shellharbour City, consideration has been given to publicly available data from REMPLAN (2016 employment by industry estimates and employment impacts of COVID-19 datasets) and Transport for NSW (projected employment by industry for Shellharbour City). This report has prepared employment projections at the two-digit ANZSIC industry level, including a breakdown on the projected growth in full-time and part-time employment growth.

For conciseness, employment projections at the single digit ANZSIC level are presented in the body of the report, with employment projections at the two-digit ANZSIC projections presented in **Appendix 4**.

### 8.1 Transport for NSW Employment Projections

In June 2019, Transport for NSW published employment projections by LGA for the Greater Sydney Commission area for the 2016 to 2056 period. The employment projections were undertaken at the single digit ANZSIC level, except for manufacturing, where employment has been published at the two-digit ANZSIC level. Our assessment has considered employment projections for Shellharbour City for the 2016 to 2041 period.

The Transport for NSW employment projections are developed utilising the NSW Department of Planning and Environment population and household projections. Population is disaggregated into Travel Zones using several small area input sources on current and future population distribution and development trends. This methodology also divides population by age/gender, household type, education and labour force status. Employment is forecasted by combining labour force estimates with macroeconomic trends. Employment is then disaggregated by industry and Travel Zones.

Under the Transport for NSW employment projections, total employment in Shellharbour City is anticipated to increase from 20,276 persons in 2016 to 28,703 persons in 2041, an increase of 1.4% per annum over the projection horizon. The following industries are anticipated to experience significant growth over the projection period (in terms of additional workers in the 2016 to 2041 period):

- Health care and social assistance: employment anticipated to increase by 1,676 workers in the 2016 to 2041 period;
- Education and training: employment anticipated to increase by 1,365 workers in the 2016 to 2041 period;
- Retail Trade: employment anticipated to increase by 1,123 workers in the 2016 to 2041 period.

Conversely, the manufacturing and agriculture, forestry, fishing sectors are anticipated to experience a decline in employment, decreasing by 36 and 15 workers between 2016 and 2041.

Table 53 below provides Transport for NSW employment projections by industry sector for Shellharbour City from 2016 to 2041.

**Table 53 - Employment Projections, Shellharbour City, 2016 to 2041**

Industry	2016	2021	2026	2031	2036	2041	AAGR 2016-41
Agriculture, Forestry and Fishing	100	86	86	85	85	85	-0.7%
Mining	290	325	325	328	331	336	0.6%
Manufacturing	564	541	507	494	503	527	-0.3%
Food Product Manufacturing	76	56	49	44	43	44	-2.2%
Beverage and Tobacco Product Manufacturing	4	4	4	4	4	4	-0.2%
Textile, Leather, Clothing and Footwear Manufacturing	14	12	7	5	3	2	-7.1%
Wood Product Manufacturing	65	60	57	56	56	58	-0.5%
Pulp, Paper and Converted Paper Product Manufacturing	4	4	3	3	3	3	-0.4%
Printing (including the Reproduction of Recorded Media)	8	7	6	5	4	4	-2.5%
Petroleum and Coal Product Manufacturing	5	17	18	19	22	27	7.0%
Basic Chemical and Chemical Product Manufacturing	20	25	26	28	30	32	1.9%
Polymer Product and Rubber Product Manufacturing	20	27	28	30	32	35	2.2%
Non-Metallic Mineral Product Manufacturing	81	75	68	66	66	67	-0.7%
Primary Metal and Metal Product Manufacturing	31	29	28	27	27	28	-0.5%
Fabricated Metal Product Manufacturing	53	55	52	49	49	51	-0.2%
Transport Equipment Manufacturing	35	42	42	45	48	52	1.7%
Machinery and Equipment Manufacturing	28	31	29	28	28	29	0.1%

Industry	2016	2021	2026	2031	2036	2041	AAGR 2016- 41
Furniture and Other Manufacturing	120	99	91	86	88	91	-1.1%
Electricity, Gas, Water and Waste Services	108	115	123	131	140	147	1.2%
Construction	2,400	2,502	2,620	2,801	3,005	3,203	1.2%
Wholesale Trade	441	498	502	503	515	517	0.6%
Retail Trade	3,743	4,023	4,008	4,310	4,619	4,866	1.1%
Accommodation and Food Services	1,808	2,046	2,126	2,312	2,487	2,667	1.6%
Transport, Postal and Warehousing	627	732	708	622	649	657	0.2%
Information Media and Telecommunications	85	117	120	122	123	125	1.6%
Financial and Insurance Services	310	380	404	431	459	489	1.8%
Rental, Hiring and Real Estate Services	292	292	332	350	369	390	1.2%
Professional, Scientific and Technical Services	706	847	970	1,077	1,195	1,321	2.5%
Administrative and Support Services	704	659	683	716	748	783	0.4%
Public Administration and Safety	1,123	1,403	1,523	1,650	1,781	1,913	2.2%
Education and Training	2,280	2,656	2,908	3,154	3,400	3,645	1.9%
Health Care and Social Assistance	3,451	3,682	4,069	4,412	4,772	5,126	1.6%
Arts and Recreation Services	312	362	397	433	470	510	2.0%
Other Services	933	1,121	1,169	1,241	1,315	1,397	1.6%
Total	20,276	22,389	23,579	25,173	26,966	28,703	1.4%

Source: Transport for NSW Travel Zone Projections (2019)

Note: Average Annual Growth Rate (AAGR)

## 8.2 Rebased Employment Projections

### 8.2.1 Approach to Rebasing Employment Projections

Our review identified that the Transport for NSW employment estimates were significantly higher than those prepared by REMPLAN for the base year for Shellharbour City Council (2016). For consistency and robustness, we rebased the official employment projections by industry to align with REMPLAN estimates for the base year, with the growth trajectory to align with the Transport for NSW employment projections by industry sector.

The rebased employment projections anticipate total employment in Shellharbour City to increase from 18,509 persons in 2016 to 26,304 persons, representing an increase of 1.4% per annum.

Table 54 below provides rebased employment projections for Shellharbour City from 2016 to 2041.

**Table 54 - Rebased Employment Projections, Shellharbour City, 2016 to 2041**

Industry	2016	2021	2026	2031	2036	2041	AAGR, 2016- 41
Agriculture, Forestry and Fishing	92	79	79	79	78	78	-0.7%
Mining	208	233	233	235	238	241	0.6%
Manufacturing	466	448	419	409	416	436	-0.3%
Food Product Manufacturing	63	46	40	36	36	36	-2.2%
Beverage and Tobacco Product Manufacturing	3	3	3	3	3	3	-0.2%
Textile, Leather, Clothing and Footwear Manufacturing	11	10	6	4	3	2	-7.1%
Wood Product Manufacturing	53	50	47	46	46	48	-0.5%
Pulp, Paper and Converted Paper Product Manufacturing	3	3	3	3	3	3	-0.4%
Printing (including the Reproduction of Recorded Media)	7	6	5	4	4	3	-2.5%
Petroleum and Coal Product Manufacturing	4	14	15	16	18	22	7.0%
Basic Chemical and Chemical Product Manufacturing	17	21	21	23	25	27	1.9%
Polymer Product and Rubber Product Manufacturing	17	23	23	25	27	29	2.2%
Non-Metallic Mineral Product Manufacturing	67	62	56	55	54	56	-0.7%
Primary Metal and Metal Product Manufacturing	26	24	23	22	22	23	-0.5%
Fabricated Metal Product Manufacturing	44	46	43	41	41	42	-0.2%
Transport Equipment Manufacturing	29	34	35	37	40	43	1.7%

Industry	2016	2021	2026	2031	2036	2041	AAGR, 2016-41
Machinery and Equipment Manufacturing	23	25	24	23	23	24	0.1%
Furniture and Other Manufacturing	100	82	75	71	72	75	-1.1%
Electricity, Gas, Water and Waste Services	105	112	119	127	136	143	1.2%
Construction	2,234	2,329	2,439	2,608	2,797	2,981	1.2%
Wholesale Trade	344	389	392	392	402	403	0.6%
Retail Trade	3,285	3,530	3,517	3,782	4,053	4,270	1.1%
Accommodation and Food Services	1,743	1,973	2,050	2,229	2,398	2,572	1.6%
Transport, Postal and Warehousing	550	642	621	546	570	576	0.2%
Information Media and Telecommunications	82	113	116	118	119	121	1.6%
Financial and Insurance Services	311	382	405	432	461	490	1.8%
Rental, Hiring and Real Estate Services	268	268	305	321	338	358	1.2%
Professional, Scientific and Technical Services	547	656	751	834	925	1,024	2.5%
Administrative and Support Services	624	585	606	635	663	694	0.4%
Public Administration and Safety	1,167	1,458	1,584	1,715	1,852	1,988	2.2%
Education and Training	2,262	2,635	2,885	3,129	3,373	3,616	1.9%
Health Care and Social Assistance	3,123	3,333	3,683	3,994	4,319	4,640	1.6%
Arts and Recreation Services	221	256	281	306	332	361	2.0%
Other Services	877	1,054	1,098	1,166	1,236	1,312	1.6%
Total	18,509	20,474	21,582	23,058	24,706	26,304	1.4%

Source: CDM Smith Estimates

Note: Average Annual Growth Rate (AAGR)

## 8.3 Impact of COVID-19 on Employment Growth

The employment projections outlined in Section 8.1 and 8.2 above consider data that was published prior to the global COVID-19 outbreak, as such these employment projections do not reflect the changing economic conditions. In projecting adjusted employment by industry for Shellharbour City, consideration was given to the likely impact of COVID-19 on the economy and how this was likely to affect employment growth in Shellharbour City in the short to medium term.

### 8.3.1 Reserve Bank of Australia

The Reserve Bank of Australia (RBA) released their Statement on Monetary Policy in May 2020 amid the Novel Coronavirus 2019 (COVID-19) global pandemic. The RBA statement reflected the deteriorating global economic conditions and its impact on the Australian economy in the short to medium term horizon<sup>11</sup>. The RBA statement provided forecasting detailing the likely impact of COVID-19 on key macroeconomic variables. National wide economic growth is anticipated to significantly decrease from the June Quarter of 2020 through to the December Quarter of 2020 before making a strong recovery in the June Quarter of 2021. Similarly, employment is anticipated to be greatly impacted over the next two years. The unemployment rate in Australia is anticipated to increase from 5.25% in the December Quarter of 2019 to 10.0% in the June Quarter of 2020. RBA forecasting indicates unemployment is unlikely to return to levels experienced in 2019 until after the June Quarter of 2022. Additionally, inflation is also anticipated to be below the target of 2-3% over the next year before returning to appropriate target levels in the June Quarter of 2021.

The conditions impacting the Australian economy are also anticipated to significantly impact the economic and employment growth in Shellharbour City over the short-term.

Table 55 below outlines forecasted key economic indicators as published by the Reserve Bank of Australia in May 2020.

**Table 55 - RBA Economic Outlook Indicators, May 2020**

Indicators	Dec Qtr 2019	June Qtr 2020	Dec Qtr 2020	June Qtr 2021	Dec Qtr 2021	June Qtr 2022
Economic growth	2.25%	-8.00%	-6.00%	7.00%	6.00%	5.00%
Unemployment rate	5.25%	10.00%	9.00%	8.50%	7.50%	6.50%
Unemployment Change from December 2019 Qtr	-	4.75%	4.00%	3.50%	2.75%	1.75%
Inflation	1.80%	-1.00%	0.25%	2.75%	1.25%	1.50%

<sup>11</sup> The Reserve Bank of Australia Statement on Monetary Policy May 2020, accessed <https://www.rba.gov.au/publications/smp/2020/may/economic-outlook.html>



Source: Reserve Bank of Australia (2020)

### 8.3.2 REMPLAN

As discussed in Section 3.7, REMPLAN published employment data in May 2020 that reflected the impact of COVID-19 on the Shellharbour City economy. According to the REMPLAN data, total employment within Shellharbour City in May 2020 declined by 15.5% compared to pre COVID-19 levels, with the largest impact in the accommodation and food services, arts and recreation and retail trade industry sectors.

Table 56 below shows the REMPLAN employment data for Shellharbour City pre COVID-19 (February 2020) and May 2020.

**Table 56 - REMPLAN employment by industry sector, Shellharbour City, May 2020**

Industry	Point Change (%), Pre COVID-19 (February 2020) to May 2020
Agriculture, Forestry and Fishing	-4.3%
Mining	-18.3%
Manufacturing	-10.5%
Electricity, Gas, Water and Waste Services	-1.9%
Construction	-9.7%
Wholesale Trade	-6.1%
Retail Trade	-24.8%
Accommodation and Food Services	-34.0%
Transport, Postal and Warehousing	-24.4%
Information Media and Telecommunications	-8.5%
Financial and Insurance Services	-2.6%
Rental, Hiring and Real Estate Services	-12.3%
Professional, Scientific and Technical Services	-3.7%
Administrative and Support Services	-5.8%
Public Administration and Safety	-1.0%
Education and Training	-13.2%
Health Care and Social Assistance	-10.2%
Arts and Recreation Services	-33.5%
Other Services	-22.3%
Total	-15.5%

Source: REMPLAN Database (May 2020)

### 8.3.3 Adjusted Employment Growth Rate

The baseline employment projections (Transport for NSW employment projections) outlined in Section 8.1 and rebased employment projections outlined in Section 8.2 were based on data published in prior to the global COVID-19 pandemic. Consequently, the estimates provided did not reflect changes in the global and domestic economic conditions in the short to medium term.

The RBA economic outlook indicators have been used to inform anticipated changes in employment growth in Shellharbour City in the short to medium term as outlined in Table 57. The adjusted employment growth rates in Shellharbour City will be used to prepare employment projections under two COVID-19 influenced scenarios, which are as follows:

- Scenario One:** The rate of employment growth in the 2016-21 period is assumed to halve for all industry sectors. Overall, this represents the employment growth rate decreasing from 2.0% per annum (under the baseline projection) to 1.0% per annum (or approximately half of anticipated growth) in the 2016-21 period. In the 2021-26 period, there will be a recovery in the economy and hence jobs outlook in Shellharbour City (overall growth of 1.5% or 1.5 times higher than forecasted by Transport for NSW). The growth rates post 2026 will be consistent with the Transport for NSW projections for Shellharbour City; and

- Scenario Two:** The base year employment data (2016) is assumed to grow to 2020 at the same average annual growth rate as that under the Transport for NSW projections for the 2016 to 2021 period. The employment data for 2020 is then revised downwards utilising REMPLAN estimates of employment impacts by industry for May 2020 which reflects the impact of COVID-19 (i.e. if total employment fell by 15.5% from pre COVID-19 (February 2020) to May 2020, our employment data for 2020 would also fall by 15.5%). The analysis assumes a moderate recovery between 2020 and 2021, with employment across all sectors to grow at half the average annual growth rate anticipated by the Transport for NSW projections in the 2016 to 2021 period.

The accommodation and food services and retail trade sectors were particularly hit by COVID-19 in terms of employment, due to the restrictions which ultimately impacted their ability to operate. Between February 2020 and May 2020, employment within these sectors fell as follows:

- Accommodation and food services: Employment declined from 1,925 persons to 1,271 persons; and
- Retail trade: Employment declined from 3,480 persons to 2,617 persons.

Table 59 shows the May 2020 figure.

Our analysis assumed that employment levels did not fall further for the remainder of 2020.

Employment within the accommodation and food services and retail trade sectors has been assumed to return to 90% of pre-COVID-19 (February 2020) levels by 2026, i.e.

- Accommodation and food services: 1,732 employed persons (90% of 1,925 employed persons); and
- Retail trade: 3,132 employed persons (90% of 3,480 employed persons).

Table 59 shows the May 2020 figure.

This approach recognises that employment within these sectors is anticipated to mostly, but not fully recover due to residents likely to exercise caution in discretionary spending within these categories for some time. Post 2026, employment growth within the accommodation and food services and retail trade sectors aligns with the Transport for NSW projections. For all other sectors (i.e. excluding the accommodation and food services and retail trade sectors), the rate of employment growth in the 2021 to 2026 period is anticipated to grow at 1.5 times higher than forecasts by Transport for NSW, representing an economic recovery post COVID-19.

Table 57 below outlines the anticipated impact of COVID-19 on employment growth in Shellharbour City in the short to medium term.

**Table 57 - Change in Employment Growth due to COVID-19, 2020**

	2016-21 Growth Rate Per Annum	2021-26 Growth Rate Per Annum	Post 2026 Growth Rate Per Annum
Growth Trajectory under Transport for NSW projections (Baseline)	2.0%	1.0%	1.4%
Scenario One	1.0%	1.5%	1.4%
Scenario Two	-1.3%	2.5%	1.4%

Source: CDM Smith Estimates

## 8.4 Projected Total Employment

### 8.4.1 Scenario One

Under Scenario One, total employment in Shellharbour City is anticipated to increase from 19,263 persons in 2020 to 25,670 persons in 2041. This represents an increase of 6,406 workers in Shellharbour City by 2041, or an average annual growth rate of 1.4% per annum over the projection period.

Table 58 below presents total projections for Shellharbour City under Scenario One from 2020 to 2041.

**Table 58 - Total Employment Projections, Scenario One, Shellharbour City, 2020 to 2041**

Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-41
Agriculture, Forestry and Fishing	87	85	85	84	84	84	-0.2%
Mining	218	220	220	222	224	228	0.2%



Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-41
Manufacturing	459	454	409	397	403	421	-0.4%
Electricity, Gas, Water and Waste Services	108	108	119	127	136	143	1.3%
Construction	2,271	2,281	2,444	2,613	2,803	2,987	1.3%
Wholesale Trade	361	366	370	371	380	381	0.3%
Retail Trade	3,381	3,406	3,387	3,642	3,903	4,112	0.9%
Accommodation and Food Services	1,832	1,855	1,965	2,137	2,299	2,465	1.4%
Transport, Postal and Warehousing	585	595	566	497	519	525	-0.5%
Information Media and Telecommunications	94	97	100	102	103	104	0.5%
Financial and Insurance Services	338	345	377	402	429	456	1.4%
Rental, Hiring and Real Estate Services	268	268	325	342	361	381	1.7%
Professional, Scientific and Technical Services	589	600	734	815	904	1,000	2.6%
Administrative and Support Services	608	604	637	668	697	730	0.9%
Public Administration and Safety	1,277	1,306	1,478	1,600	1,728	1,855	1.8%
Education and Training	2,405	2,443	2,797	3,034	3,270	3,506	1.8%
Health Care and Social Assistance	3,206	3,227	3,746	4,061	4,392	4,719	1.9%
Arts and Recreation Services	235	238	273	297	323	351	1.9%
Other Services	944	962	1,024	1,087	1,152	1,223	1.2%
Total	19,263	19,460	21,052	22,499	24,108	25,670	1.4%

Source: CDM Smith Estimates

Note: Average Annual Growth Rate (AAGR)

## 8.4.2 Scenario Two

Employment projections were also prepared utilising the Scenario Two employment growth rate as outlined in Section 8.3.3. Under Scenario Two, total employment in Shellharbour City is anticipated to increase from 16,940 persons in 2020 to 23,890 persons in 2041. This represents an increase of 6,949 workers in Shellharbour City by 2041, or an average annual growth rate of 1.7% per annum over the projection period. Under Scenario Two, employment in Shellharbour City in 2041 is anticipated to be 1,780 persons less when compared to Scenario One.

Table 59 below presents total projections for Shellharbour City under Scenario Two from 2020 to 2041.

**Table 59 - Total employment projections, Scenario Two, Shellharbour City, 2020 to 2041**

Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-2041
Agriculture, Forestry and Fishing	78	76	75	75	75	74	-0.2%
Mining	186	191	190	192	194	197	0.3%
Manufacturing	402	401	363	388	393	411	0.1%
Electricity, Gas, Water and Waste Services	109	110	120	128	137	144	1.4%
Construction	2,085	2,103	2,253	2,409	2,584	2,754	1.3%
Wholesale Trade	356	365	369	370	379	380	0.3%
Retail Trade	2,617	2,655	3,132	3,368	3,609	3,803	1.8%
Accommodation and Food Services	1,271	1,303	1,732	1,884	2,027	2,173	2.6%
Transport, Postal and Warehousing	471	486	462	406	424	429	-0.4%
Information Media and Telecommunications	97	104	107	109	110	111	0.7%
Financial and Insurance Services	357	372	406	434	462	492	1.5%
Rental, Hiring and Real Estate Services	235	235	285	300	316	334	1.7%
Professional, Scientific and Technical Services	610	632	774	859	953	1,054	2.6%
Administrative and Support Services	558	551	581	609	636	666	0.8%
Public Administration and Safety	1,380	1,443	1,525	1,651	1,783	1,915	1.6%
Education and Training	2,219	2,287	2,620	2,841	3,063	3,284	1.9%
Health Care and Social Assistance	2,955	2,993	3,475	3,768	4,075	4,378	1.9%
Arts and Recreation Services	166	171	195	213	231	251	2.0%
Other Services	789	818	871	924	980	1,040	1.3%
Total	16,940	17,295	19,535	20,930	22,431	23,890	1.7%

Source: CDM Smith Estimates  
Note: Average Annual Growth Rate (AAGR)

## 8.5 Full Time and Part Time Employment Trends

The 2016 Census of Population and Housing defines full-time employment as those who usually work 35 hours or more per week, regardless of how many hours they actually worked, and those who actually worked 35 hours or more in the reference week despite usually working less than 35 hours per week.

Conversely, part-time employment is defined solely based on hours worked and does not depend on employee or employer perception of whether the person is full-time or part-time they usually work less than 35 hours per week and worked less than 35 hours in the survey reference week in all of their jobs.

The incidence of full time and part time employed workers by industry in Shellharbour City as of the 2011 and 2016 ABS Census of Population and Housing was analysed to gain an insight into the historic labour market structure of Shellharbour City. The incidence of full time employed persons has decreased by 1.7% in the 2011 to 2016 period. Over the last two Censuses, the most significant shift in the incidence of full-time employment occurred in the information media and telecommunications sector, which experienced 21.5% increase in full-time employment. The electricity, gas, water and waste services, retail trade and construction industries also experienced noticeable decrease in the incidence of full-time employment between 2011 and 2016.

Table 60 below outlines the incidence of full-time and part-time employment and total employment in Shellharbour City in 2011 and 2016.

**Table 60- Change in the incidence of full-time employment, Shellharbour City, 2011 and 2016**

Industry	Incidence of Full Time Employment, 2011	Incidence of Full Time Employment, 2016	% Point Change in full-time employment (2011 to 2016)
Agriculture, Forestry and Fishing	54.3%	54.0%	-0.3%
Mining	97.5%	93.2%	-4.2%
Manufacturing	73.4%	75.4%	2.0%
Electricity, Gas, Water and Waste Services	100.0%	83.8%	-16.2%
Construction	81.0%	78.9%	-2.1%
Wholesale Trade	71.8%	76.2%	4.4%
Retail Trade	45.2%	39.5%	-5.7%
Accommodation and Food Services	30.6%	29.0%	-1.7%
Transport, Postal and Warehousing	69.2%	68.5%	-0.7%
Information Media and Telecommunications	32.8%	54.3%	21.5%
Financial and Insurance Services	60.9%	61.4%	0.5%
Rental, Hiring and Real Estate Services	64.3%	63.9%	-0.3%
Professional, Scientific and Technical Services	57.9%	60.6%	2.8%
Administrative and Support Services	47.1%	49.9%	2.8%
Public Administration and Safety	76.7%	74.6%	-2.1%
Education and Training	54.1%	55.4%	1.3%
Health Care and Social Assistance	54.3%	51.6%	-2.6%
Arts and Recreation Services	40.5%	36.7%	-3.8%
Other Services	65.3%	59.7%	-5.6%
<b>Total</b>	<b>57.0%</b>	<b>55.2%</b>	<b>-1.7%</b>

Source: ABS Census of Population and Housing (2016)

In projecting the split of full time and part time employment within Shellharbour City, the analysis has assumed that the change in the incidence of full time and part time employment continues to occur at the same rate as between the last two Censuses for the 2016 to 2026 period, with the rate of change moderated in the longer term (2026 to 2041 period) for both Scenario One and Scenario Two.

## 8.6 Projected Full Time and Part Time Employment

### 8.6.1 Scenario One

#### 8.6.1.1 Full-Time Employment Projection

Full-time employment in Shellharbour City is anticipated to increase from 10,705 persons in 2020 to 13,352 persons in 2041, representing an annual growth rate of 1.1% per annum over the projection period. Full time employment growth is anticipated to be highest in the education and training and health care and social assistance sectors in the 2020 to 2041 period.

Table 61 below provides a breakdown of full-time projections for Shellharbour City under Scenario One from 2020 to 2041.

**Table 61 - Full-time Employment projections, Scenario One, Shellharbour City, 2020 to 2041**

Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-41
Agriculture, Forestry and Fishing	47	46	46	45	45	45	-0.2%
Mining	203	201	196	195	195	196	-0.2%
Manufacturing	351	352	322	316	322	337	-0.2%
Electricity, Gas, Water and Waste Services	90	82	80	81	81	79	-0.6%
Construction	1,791	1,775	1,876	1,992	2,122	2,246	1.1%
Wholesale Trade	275	287	298	303	314	319	0.7%
Retail Trade	1,335	1,247	1,144	1,179	1,208	1,214	-0.5%
Accommodation and Food Services	531	522	537	575	609	642	0.9%
Transport, Postal and Warehousing	401	405	384	336	350	353	-0.6%
Information Media and Telecommunications	51	55	58	61	62	64	1.1%
Financial and Insurance Services	207	213	233	250	267	284	1.5%
Rental, Hiring and Real Estate Services	171	171	207	217	229	241	1.6%
Professional, Scientific and Technical Services	357	372	465	522	586	655	2.9%
Administrative and Support Services	303	310	336	357	377	400	1.3%
Public Administration and Safety	952	961	1,071	1,152	1,235	1,316	1.6%
Education and Training	1,333	1,370	1,588	1,733	1,878	2,026	2.0%
Health Care and Social Assistance	1,655	1,623	1,834	1,962	2,093	2,217	1.4%
Arts and Recreation Services	86	83	90	95	100	105	1.0%
Other Services	564	548	554	573	592	611	0.4%
<b>Total</b>	<b>10,705</b>	<b>10,622</b>	<b>11,320</b>	<b>11,943</b>	<b>12,664</b>	<b>13,352</b>	<b>1.1%</b>

Source: CDM Smith Estimates

Note: Average Annual Growth Rate (AAGR)

#### 8.6.1.2 Part-Time Employment Projections

Under Scenario One, part-time employment in Shellharbour City is anticipated to increase from 8,558 persons in 2020 to 12,318 persons in 2041, representing an annual growth rate of 1.7% per annum over the projection period. Growth in part time employment is anticipated to be highest in the retail trade and health care and social assistance sectors.

Table 62 below provides a breakdown of part-time projections for Shellharbour City under Scenario One from 2020 to 2041.

**Table 62 - Part-time Employment projections, Scenario One, Shellharbour City, 2020 to 2041**

Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-41
Agriculture, Forestry and Fishing	40	39	39	39	39	39	-0.1%
Mining	15	20	24	27	29	32	3.8%
Manufacturing	105	102	86	81	81	83	-1.1%
Electricity, Gas, Water and Waste Services	17	26	38	46	55	63	6.3%

Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-41
Construction	480	506	568	621	681	741	2.1%
Wholesale Trade	86	79	72	68	65	62	-1.6%
Retail Trade	2,047	2,158	2,243	2,464	2,695	2,898	1.7%
Accommodation and Food Services	1,301	1,333	1,428	1,562	1,690	1,822	1.6%
Transport, Postal and Warehousing	184	189	182	161	169	172	-0.3%
Information Media and Telecommunications	43	42	41	41	40	40	-0.4%
Financial and Insurance Services	130	132	144	153	162	172	1.3%
Rental, Hiring and Real Estate Services	97	97	118	125	132	140	1.8%
Professional, Scientific and Technical Services	232	228	268	292	318	345	1.9%
Administrative and Support Services	305	294	301	311	320	330	0.4%
Public Administration and Safety	325	345	406	448	493	539	2.4%
Education and Training	1,072	1,072	1,209	1,301	1,392	1,481	1.5%
Health Care and Social Assistance	1,551	1,604	1,911	2,099	2,299	2,502	2.3%
Arts and Recreation Services	149	155	183	203	223	246	2.4%
Other Services	380	414	469	514	560	612	2.3%
Total	8,558	8,838	9,733	10,556	11,444	12,318	1.7%

Source: CDM Smith Estimates

Note: Average Annual Growth Rate (AAGR)

## 8.6.2 Scenario Two

### 8.6.2.1 Full-Time Employment Projection

Full-time employment in Shellharbour City is anticipated to increase from 9,647 persons in 2020 to 12,537 persons in 2041, representing an annual growth rate of 1.3% per annum over the projection period. Growth in full time employment is anticipated to be most significant within the education and training and health care and social assistance sectors.

Table 63 below provides a breakdown of full-time projections for Shellharbour City under Scenario Two from 2020 to 2041.

**Table 63 - Full-time employment projections, Scenario Two, Shellharbour City, 2020 to 2041**

Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-41
Agriculture, Forestry and Fishing	42	41	40	40	40	40	-0.3%
Mining	174	174	169	169	169	169	-0.1%
Manufacturing	314	316	317	311	316	332	0.3%
Electricity, Gas, Water and Waste Services	91	83	81	82	82	80	-0.6%
Construction	1,644	1,636	1,729	1,836	1,956	2,070	1.1%
Wholesale Trade	271	286	297	302	314	319	0.8%
Retail Trade	1,033	973	1,058	1,090	1,117	1,122	0.4%
Accommodation and Food Services	368	367	473	507	537	566	2.1%
Transport, Postal and Warehousing	323	331	313	275	286	288	-0.5%
Information Media and Telecommunications	53	59	63	65	67	69	1.3%
Financial and Insurance Services	219	229	252	269	288	307	1.6%
Rental, Hiring and Real Estate Services	150	150	181	190	201	212	1.6%
Professional, Scientific and Technical Services	370	392	491	551	618	690	3.0%
Administrative and Support Services	278	283	306	325	344	365	1.3%
Public Administration and Safety	1,030	1,061	1,106	1,189	1,274	1,359	1.3%
Education and Training	1,230	1,283	1,487	1,622	1,759	1,897	2.1%
Health Care and Social Assistance	1,525	1,505	1,702	1,820	1,941	2,057	1.4%

Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-41
Arts and Recreation Services	61	59	64	68	71	75	1.0%
Other Services	471	466	471	488	503	520	0.5%
Total	9,647	9,694	10,602	11,199	11,882	12,537	1.3%

Source: CDM Smith Estimates

Note: Average Annual Growth Rate (AAGR)

### 8.6.2.2 Part-Time Employment Projections

Part-time employment in Shellharbour City is anticipated to increase from 7,293 persons in 2020 to 11,353 persons in 2041, representing an annual growth rate of 2.1% per annum over the projection period. Part time employment growth is anticipated to be most significant within the retail trade and health care and social assistance sectors.

Table 64 below provides a breakdown of part-time projections for Shellharbour City under Scenario Two from 2020 to 2041.

**Table 64 - Part-time employment projections, Scenario Two, Shellharbour City, 2020 to 2041**

Industry	May 2020	2021	2026	2031	2036	2041	AAGR, 2020-41
Agriculture, Forestry and Fishing	36	35	35	35	35	34	-0.2%
Mining	13	17	21	23	25	28	3.9%
Manufacturing	88	84	83	78	77	80	-0.5%
Electricity, Gas, Water and Waste Services	18	27	39	47	56	64	6.4%
Construction	441	467	524	573	628	683	2.1%
Wholesale Trade	85	79	72	68	65	61	-1.5%
Retail Trade	1,584	1,683	2,074	2,278	2,493	2,680	2.5%
Accommodation and Food Services	903	936	1,259	1,377	1,490	1,607	2.8%
Transport, Postal and Warehousing	148	155	149	131	138	140	-0.3%
Information Media and Telecommunications	44	45	44	44	43	43	-0.2%
Financial and Insurance Services	138	142	155	165	175	185	1.4%
Rental, Hiring and Real Estate Services	85	85	104	109	116	122	1.8%
Professional, Scientific and Technical Services	240	240	283	308	335	363	2.0%
Administrative and Support Services	280	268	275	284	292	301	0.3%
Public Administration and Safety	351	382	419	462	509	556	2.2%
Education and Training	989	1,004	1,133	1,219	1,303	1,387	1.6%
Health Care and Social Assistance	1,430	1,488	1,773	1,948	2,133	2,321	2.3%
Arts and Recreation Services	105	111	131	145	160	176	2.5%
Other Services	318	352	399	437	477	521	2.4%
Total	7,293	7,601	8,971	9,730	10,549	11,353	2.1%

Source: CDM Smith Estimates

Note: Average Annual Growth Rate (AAGR)

## 8.7 Employment Retention

In 2016, there were an estimated 28,269 residents in Shellharbour City that were employed, which represented 63.1% of the working age population in Shellharbour City (15-64 years). If it is assumed that a similar proportion of persons in Shellharbour City in the 15-64 year age cohort are employed throughout the projection horizon, this would suggest that the number of employed residents in Shellharbour City would increase to 34,619 persons by 2041.

Section 8.4 of the report indicates that total employment in Shellharbour City is anticipated to increase to between 23,890 persons and 25,670 persons by 2041. These estimates therefore indicate that employment retention (i.e. the working population in Shellharbour City divided by the resident employed population in Shellharbour City) in Shellharbour City is anticipated to improve over time, increasing from 65.5% in 2016 to 69.0% to 74.2% in 2041.

Table 65 summarises the estimated employed population working locally in Shellharbour City between 2016 and 2041.

Table 65 -Estimated Employment Retention by Scenario, Shellharbour City, 2020 to 2041

	2016	May 2020	2021	2026	2031	2036	2041
<b>Total Employment - Shellharbour City</b>							
Scenario One	18,509	19,263	19,460	21,052	22,499	24,108	25,670
Scenario Two	18,509	16,940	17,295	19,535	20,930	22,431	23,890
<b>Employed Residents - Shellharbour City</b>	28,269	29,185	29,418	30,870	31,963	33,295	34,619
<b>Estimated Employment Retention</b>							
Scenario One	65.5%	66.0%	66.1%	68.2%	70.4%	72.4%	74.2%
Scenario Two	65.5%	58.0%	58.8%	63.3%	65.5%	67.4%	69.0%

Source: CDM Smith Estimates



## 9 PROJECTED DEMAND BY LAND USE TYPE

This section of the report estimates the projected demand for various land uses within Shellharbour City, utilising the employment projections presented in Section 8 of the report as a key input. This chapter assesses the demand for the following land use types:

- Industrial land;
- Commercial office floor space; and
- Retail floor space.

Commentary is also provided on the trajectory of employment growth within health and education sectors and whether this employment growth is likely to be accommodated at the TAFE or existing hospitals or whether employment growth is associated with the expansion of primary/high schools.

### 9.1 Projected Industrial Land Demand

#### 9.1.1 Sectors Utilising Industrial Land

Industrial land demand projections in this report are based on employment projections for Shellharbour City for industry sectors which require industrial land. Typically, the key industry sectors which are broadly considered to locate in industrial areas include:

- Manufacturing;
- Transport and storage; and
- Wholesale trade.

Industrial activity can be classified into four main categories, these being:

- Large Footprint & General Industry: metal fabrication, welding shops, food & beverage manufacturing, cement and concrete product manufacturing, large machinery repair, etc;
- Service Industry: construction services, printers, locksmiths, canvas repair, etc;
- Warehousing & Storage: landscape supplies, storage units, equipment hire, etc; and
- Transport uses: truck and agricultural machinery sales and servicing, road transport depots, tyre sales, etc.

**Table 66 - Two Digit ANZSIC Sectors within each Industrial Land Use Category**

Industrial Use Category	Two Digit ANZSIC Sectors
Large Footprint and General Industry	<ul style="list-style-type: none"> <li>• Beverage and Tobacco Product Manufacturing</li> <li>• Food Product Manufacturing</li> <li>• Wood Product Manufacturing</li> <li>• Pulp, Paper and Converted Paper Product Manufacturing</li> <li>• Petroleum and Coal Product Manufacturing</li> <li>• Basic Chemical and Chemical Product Manufacturing</li> <li>• Polymer Product and Rubber Product Manufacturing</li> <li>• Non-Metallic Mineral Product Manufacturing</li> <li>• Primary Metal and Metal Product Manufacturing</li> <li>• Machinery and Equipment Manufacturing</li> <li>• Fabricated Metal Product Manufacturing</li> <li>• Transport Equipment Manufacturing</li> <li>• Furniture and Other Manufacturing</li> </ul>
Service Industry	<ul style="list-style-type: none"> <li>• Textile, Leather, Clothing and Footwear Manufacturing</li> <li>• Printing (including the Reproduction of Recorded Media)</li> <li>• Publishing (except Internet and Music Publishing)</li> <li>• Construction Services</li> </ul>

Industrial Use Category	Two Digit ANZSIC Sectors
	<ul style="list-style-type: none"> <li>Repair and Maintenance</li> </ul>
Warehousing and Storage	<ul style="list-style-type: none"> <li>Basic Material Wholesaling</li> <li>Machinery and Equipment Wholesaling</li> <li>Motor Vehicle and Motor Vehicle Parts Wholesaling</li> <li>Grocery, Liquor and Tobacco Product Wholesaling</li> <li>Other Goods Wholesaling</li> <li>Warehousing and Storage Services</li> </ul>
Transport Uses	<ul style="list-style-type: none"> <li>Motor Vehicle and Motor Vehicle Parts Retailing</li> <li>Road Transport</li> <li>Rail Transport</li> <li>Transport Support Services</li> <li>Postal and Courier Pick-up and Delivery Services</li> </ul>

### 9.1.2 Projected Industrial Employment

For conciseness, projected industrial employment in the body of the report is summarised by industrial land use category, with industrial employment estimates at the two-digit ANZSIC level presented in Appendix B.

In estimating employment within industrial areas, typically a small allowance is made for non-industrial uses within industrial estates to service worker needs (e.g. cafes, workwear retailers and medical centres). For the purposes of this assessment, an allowance of 5% of total employment has been made for non-industrial uses.

The projected industrial employment estimates utilise the employment projections prepared in Section 8.4 of the report.

Employment within industrial areas in Shellharbour City is anticipated to increase as follows:

- Scenario One: Increasing from 3,667 persons in 2020 to 4,147 persons in 2041; and
- Scenario Two: Increasing from 3,231 persons in 2020 to 3,785 persons in 2041.

Under both scenarios, industrial employment growth is anticipated to be highest within the service industry sub-sector, whereas little growth is anticipated within the large footprint and general industry and transport uses sub-sectors. **Table 67** reports employment projections by industry type for Scenario One and Two in Shellharbour City in the 2020 to 2041 period with detailed employment projections at the two-digit ANZSIC level provided in Appendix B.

**Table 67 - Employment Projections by Industry Type, Shellharbour City, Scenario One and Two, 2020-2041**

Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Scenario One</b>						
Large Footprint and General Industry	439	438	399	390	397	416
Service Industry	1,883	1,886	1,997	2,123	2,262	2,401
Warehousing and Storage	390	395	397	395	405	407
Transport Uses	772	768	727	678	706	716
Non-industrial land uses (5%)	183	183	185	189	198	207
<b>Total</b>	<b>3,667</b>	<b>3,669</b>	<b>3,706</b>	<b>3,774</b>	<b>3,969</b>	<b>4,147</b>
<b>Scenario Two</b>						
Large Footprint and General Industry	388	387	387	378	386	405
Service Industry	1,690	1,705	1,813	1,926	2,051	2,177
Warehousing and Storage	379	389	392	390	400	401
Transport Uses	613	618	619	580	604	613
Non-industrial land uses (5%)	162	163	169	172	181	189
<b>Total</b>	<b>3,231</b>	<b>3,261</b>	<b>3,380</b>	<b>3,446</b>	<b>3,622</b>	<b>3,785</b>

Source: CDM Smith estimates

### 9.1.3 Employment Densities for Industrial Uses

Employment projections are converted to net industrial land demand estimates based on employment density ratios (i.e. employment per hectare assumptions by industry sector). Table 68 summarises the range of employment densities assumed for each land use type, with detailed employment density ratios at the two-digit ANZSIC level outlined in **Appendix 5**.

**Table 68 - Assumed Employment Densities by Industry Sector, 2018-2041**

Industry Sector	Assumed Employment Densities (emp / ha)	
	Minimum	Maximum
Large Footprint and General Industry	20	35
Service Industry	25	45
Warehousing & Storage	5	35
Transport Uses	5	25

Source: CDM Smith estimates

### 9.1.4 Industrial Land Demand Projections

Based on the above assumptions, net industrial land demand within Shellharbour City is projected to increase as follows:

- **Scenario One:** Net industrial land demand based is anticipated to increase from 156.5 hectares in 2020 to 174.8 hectares in 2041; and
- **Scenario Two:** Net industrial land demand based on total employment projections is anticipated to increase from 137.0 hectares in 2020 to 158.5 hectares in 2041.

Net industrial land demand the Scenario One is anticipated to be 16.3 hectares higher than under Scenario Two, with the most significant differences within the service industry sub-sector.

The net industrial land demand projections by industry type under each scenario are reported in Table 69.

**Table 69 - Net Industrial Land Demand Projections by Industry Type (ha), Shellharbour City, Scenario One and Two, 2016-2041**

Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Scenario One</b>						
Large Footprint and General Industry	15.7	15.6	14.3	13.9	14.2	14.9
Service Industry	75.1	75.2	79.7	84.8	90.4	96.0
Warehousing and Storage	20.2	20.5	20.4	19.8	20.4	20.5
Transport Uses	37.7	37.6	35.6	32.8	34.2	34.7
Non-industrial land uses (5%)	7.8	7.8	7.9	8.0	8.4	8.7
<b>Total</b>	<b>156.5</b>	<b>156.8</b>	<b>157.9</b>	<b>159.4</b>	<b>167.6</b>	<b>174.8</b>
<b>Scenario Two</b>						
Large Footprint and General Industry	13.9	13.9	13.9	13.6	13.9	14.6
Service Industry	67.4	68.0	72.3	76.9	81.9	87.0
Warehousing and Storage	18.9	19.4	19.4	18.9	19.4	19.5
Transport Uses	30.0	30.3	30.1	27.9	29.0	29.4
Non-industrial land uses (5%)	6.9	6.9	7.1	7.2	7.6	7.9
<b>Total</b>	<b>137.0</b>	<b>138.6</b>	<b>142.9</b>	<b>144.5</b>	<b>151.9</b>	<b>158.5</b>

Source: CDM Smith estimates

Under Scenario One, net incremental industrial land demand (over and above 2020 levels) is projected to increase by 18.3 hectares for total employment projections by 2041, or by 0.9 hectares per annum.

Similarly, under Scenario Two, net incremental industrial land demand (over and above 2020 levels) is projected to increase by 21.4 hectares by 2041, or by approximately one hectare per annum. Growth in industrial land demand is almost entirely for service industry uses in Shellharbour City in the 2021 to 2041 period.

The rate of growth in industrial land demand is higher under Scenario Two, reflective of the more significant decline in employment in the 2016 to 2021 period.

The projected net incremental industrial land demand by industry type under Scenario One and Scenario Two are reported in Table 70.

**Table 70 - Projected Net Incremental Industrial Land Demand – Scenario One and Two, 2021-2041**

Industry Sector	2021	2026	2031	2036	2041
<b>Scenario One</b>					
Large Footprint and General Industry	0.0	-1.4	-1.7	-1.5	-0.8
Service Industry	0.1	4.7	9.7	15.3	20.9
Warehousing and Storage	0.3	0.2	-0.4	0.2	0.3
Transport Uses	-0.1	-2.1	-4.8	-3.5	-3.0
Non-industrial land uses (5%)	0.0	0.1	0.1	0.6	0.9
<b>Total</b>	<b>0.3</b>	<b>1.5</b>	<b>2.9</b>	<b>11.1</b>	<b>18.3</b>
<b>Scenario Two</b>					
Large Footprint and General Industry	0.0	0.0	-0.3	0.0	0.7
Service Industry	0.6	4.9	9.5	14.5	19.6
Warehousing and Storage	0.5	0.5	0.0	0.5	0.6
Transport Uses	0.3	0.1	-2.1	-0.9	-0.5
Non-industrial land uses (5%)	0.1	0.3	0.4	0.7	1.1
<b>Total</b>	<b>1.5</b>	<b>5.8</b>	<b>7.4</b>	<b>14.9</b>	<b>21.4</b>

Note: Net incremental industrial land demand estimates are on 2020 levels.

Source: CDM Smith estimates

## 9.2 Commercial Office Demand

### 9.2.1 Sectors that Typically Utilise Commercial Office Space

The demand for commercial office space has been estimated in terms of traditional office space. The sectors that traditionally utilise commercial office space at the two digit ANZSIC level are summarised in Table 71.

**Table 71 - Two Digit ANZSIC Sectors which Typically Require Commercial Office Space**

One Digit ANZSIC Sectors	Two Digit ANZSIC Sectors
Financial & Insurance Services	<ul style="list-style-type: none"> <li>Finance</li> <li>Insurance &amp; Superannuation Funds</li> <li>Auxiliary Finance &amp; Insurance Services</li> <li>Finance &amp; Insurance Services, nfd</li> </ul>
Professional, Scientific & Technical Services	<ul style="list-style-type: none"> <li>Professional, Scientific &amp; Technical Services (except Computer Systems Design &amp; Related Services)</li> <li>Professional, Scientific &amp; Technical Services, nfd</li> <li>Computer Systems Design &amp; Related Services</li> </ul>
Health Care & Social Assistance	<ul style="list-style-type: none"> <li>Medical &amp; Other Health Care Services</li> </ul>
Rental, Hiring & Real Estate Services	<ul style="list-style-type: none"> <li>Property Operators &amp; Real Estate Services</li> </ul>
Public Administration & Safety	<ul style="list-style-type: none"> <li>Public Administration</li> </ul>
Information Media & Telecommunications	<ul style="list-style-type: none"> <li>Internet Publishing &amp; Broadcasting</li> <li>Internet Service Providers, Web Search Portals &amp; Data Processing Services</li> </ul>
Administrative & Support Services	<ul style="list-style-type: none"> <li>Administrative services</li> </ul>

Source: CDM Smith Analysis, 2020

## 9.2.2 Projected Employment in Commercial Office Sectors

The sectors identified in Table 71 above are typically accommodated within commercial office space, with a proportion of employed persons also working from home. However, in the case of the medical and other health care services sector, employment can be accommodated in traditional commercial office space, within a home based setting (i.e. home based business) or within a hospital (e.g. medical specialists at Shellharbour Public Hospital are unlikely to require dedicated commercial office space in Shellharbour City Centre).

Our assessment has therefore assumed that 50% of employment (both full time and part time employment) within the medical and other health care services sector is accommodated either in traditional commercial office space or within a home based setting.

Based on the employment projections generated in Section 8.4 of the report and the assumed adjustment for the medical and other health care services sector, total employment in commercial office sectors is anticipated to increase as follows:

- Scenario One: Total employment in commercial office sectors to increase from 2,985 persons in 2020 to 4,417 persons in 2041;
- Scenario Two: Total employment in commercial office sectors to increase from 2,974 persons in 2020 to 4,391 persons in 2041.

Table 72 summarises the total employment in commercial office sectors between 2020 and 2041 under each scenario.

**Table 72 - Projected Total Employment in Commercial Office Sectors, Shellharbour City, 2020 to 2041**

Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Scenario One</b>						
Financial and Insurance Services	338	345	377	402	429	456
Professional, Scientific and Technical Services	589	600	734	815	904	1,000
Health Care and Social Assistance	864	871	1,012	1,097	1,187	1,276
Rental, Hiring and Real Estate Services	199	199	241	254	268	283
Public Administration and Safety	753	772	876	950	1,027	1,105
Information Media and Telecommunications	7	7	8	8	8	9
Administrative and Support Services	235	235	250	263	275	289
<b>Total</b>	<b>2,985</b>	<b>3,029</b>	<b>3,497</b>	<b>3,789</b>	<b>4,098</b>	<b>4,417</b>
<b>Scenario Two</b>						
Financial and Insurance Services	357	372	406	434	462	492
Professional, Scientific and Technical Services	610	632	774	859	953	1,054
Health Care and Social Assistance	797	808	938	1,018	1,101	1,184
Rental, Hiring and Real Estate Services	174	174	211	223	235	248
Public Administration and Safety	814	853	904	980	1,060	1,140
Information Media and Telecommunications	7	8	8	9	9	9
Administrative and Support Services	216	215	228	240	251	264
<b>Total</b>	<b>2,974</b>	<b>3,062</b>	<b>3,470</b>	<b>3,762</b>	<b>4,071</b>	<b>4,391</b>

Source: CDM Smith Analysis, 2020

## 9.2.3 Projected Employment Requiring Commercial Office Space

Not all employment in commercial office sectors will ultimately be accommodated in commercial office space, due to the increasing availability and affordability of home technologies and the expectation that working from home (or remote workplace arrangements) will become increasingly popular, particularly in regional areas. As discussed in Section 2.4 of this report, there was an increase in the incidence of persons working from home in Shellharbour City over the last two Censuses. Hence, not all those that are employed in commercial office sectors are anticipated to require commercial office space. The incidence of persons working from home within commercial office sectors has been higher than the overall average and increased at a faster rate between the 2011 and 2016 Censuses.

Growth in the incidence of persons working from home varied significantly across sectors and was highest within the computer system design and related services and the professional, scientific and technical services (except computer system design and related services) sectors.

Table 73 summarises the incidence of persons working from home in commercial office sectors in Shellharbour City between 2011 and 2016.

**Table 73 - Incidence of persons working from home – Commercial Office Sectors, Shellharbour City**

	2011	2016	% Point Change, 2011-16
Internet Publishing and Broadcasting	0.0%	0.0%	0.0%
Internet Service Providers, Web Search Portals and Data Processing Services	0.0%	0.0%	0.0%
Finance	7.3%	5.1%	-2.2%
Insurance and Superannuation Funds	14.9%	18.4%	3.5%
Auxiliary Finance and Insurance Services	14.9%	20.0%	5.1%
Property Operators and Real Estate Services	5.7%	4.9%	-0.8%
Professional, Scientific and Technical Services (except Computer System Design and Related Services)	23.2%	24.1%	0.9%
Computer System Design and Related Services	41.5%	70.0%	28.5%
Public Administration	0.0%	0.6%	0.6%
Medical and Other Health Care Services	2.3%	3.4%	1.0%
Administrative Services	14.7%	16.9%	2.3%
Total Commercial Office Sectors	8.3%	9.7%	1.4%
<b>Total All Sectors</b>	<b>3.9%</b>	<b>4.3%</b>	<b>0.5%</b>

Source: ABS Census of Population and Housing, 2011 and 2016

Over time, it is anticipated that the incidence of persons within commercial office sectors that work from home will continue to increase. The assessment has assumed based on historic trends, the following changes in the incidence of persons working from home:

- **2016 to 2026 period:** The incidence of persons working from home in commercial office sectors continues to increase at 1.4% points over each five year time period (consistent with the growth rate recorded between 2011 and 2016); and
- **2026 to 2041 period:** The incidence of persons working from home in commercial office sectors continues to increase at the slower rate of 1.0% points over each five year time period.

Based on the above assumptions, employment in commercial office sectors requiring commercial office space is anticipated to increase as follows:

- Scenario One: 2,658 persons in 2020 to 3,703 persons in 2041; and
- Scenario Two: 2,646 persons in 2020 to 3,668 persons in 2041.

**Table 74 - Projected Employment in Commercial Office Sectors Requiring Commercial Office Space, 2020 to 2041**

Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Scenario One</b>						
Financial and Insurance Services	291	296	318	335	353	371
Professional, Scientific and Technical Services	416	422	506	553	604	659
Health Care and Social Assistance	825	828	948	1,017	1,089	1,157
Rental, Hiring and Real Estate Services	187	186	222	231	241	252
Public Administration and Safety	740	756	845	907	971	1,033
Information Media and Telecommunications	7	7	8	8	8	8
Administrative and Support Services	193	192	200	208	215	223

Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Total</b>	<b>2,658</b>	<b>2,688</b>	<b>3,047</b>	<b>3,260</b>	<b>3,482</b>	<b>3,703</b>
<b>Scenario Two</b>						
Financial and Insurance Services	307	319	343	362	381	400
Professional, Scientific and Technical Services	431	445	533	583	637	694
Health Care and Social Assistance	760	769	879	944	1,010	1,074
Rental, Hiring and Real Estate Services	164	163	195	203	212	221
Public Administration and Safety	799	836	873	936	1,002	1,066
Information Media and Telecommunications	7	8	8	8	9	9
Administrative and Support Services	177	175	183	190	196	204
<b>Total</b>	<b>2,646</b>	<b>2,714</b>	<b>3,014</b>	<b>3,226</b>	<b>3,446</b>	<b>3,668</b>

Source: CDM Smith Analysis, 2020

#### 9.2.4 Projected Commercial Office Space Demand

To convert employment projections to commercial office floor space demand, the analysis has assumed average floor space provision of:

- Full time workers: 15 square metres per worker; and
- Part time workers: 10 square metres per worker, to reflect that in some instances, part time workers may not have a dedicated desk space (e.g. in job share arrangements).

Based on the above assumptions, commercial office floor space demand in Shellharbour City is projected to increase as follows:

- **Scenario One:** Commercial office floor space demand to increase from 34,593sqm in 2020 to 47,932sqm in 2041; and
- **Scenario Two:** Commercial office floor space demand to increase from 34,489sqm in 2020 to 47,536sqm in 2041.

Table 75 reports projected demand for commercial office floor space in Shellharbour City under Scenario One and Two employment projections between 2020 and 2041.

**Table 75 - Projected Commercial Office Floor Space Demand (sqm), Shellharbour City, Scenario One and Two, 2020-2041**

Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Scenario One</b>						
Financial and Insurance Services	3,796	3,866	4,159	4,388	4,624	4,862
Professional, Scientific and Technical Services	5,414	5,520	6,648	7,293	7,990	8,727
Health Care and Social Assistance	10,317	10,306	11,728	12,553	13,398	14,204
Rental, Hiring and Real Estate Services	2,480	2,470	2,945	3,066	3,197	3,340
Public Administration and Safety	9,959	10,142	11,287	12,086	12,904	13,701
Information Media and Telecommunications	102	109	115	118	120	123
Administrative and Support Services	2,525	2,530	2,652	2,762	2,862	2,975
<b>Total</b>	<b>34,593</b>	<b>34,942</b>	<b>39,535</b>	<b>42,266</b>	<b>45,096</b>	<b>47,932</b>
<b>Scenario Two</b>						
Financial and Insurance Services	4,010	4,167	4,483	4,731	4,985	5,241
Professional, Scientific and Technical Services	5,606	5,820	7,010	7,690	8,425	9,202
Health Care and Social Assistance	9,509	9,561	10,881	11,646	12,430	13,178
Rental, Hiring and Real Estate Services	2,174	2,166	2,582	2,688	2,803	2,929
Public Administration and Safety	10,765	11,206	11,650	12,474	13,319	14,142
Information Media and Telecommunications	106	117	123	127	129	132
Administrative and Support Services	2,318	2,307	2,419	2,519	2,610	2,713



Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Total</b>	<b>34,489</b>	<b>35,344</b>	<b>39,148</b>	<b>41,874</b>	<b>44,700</b>	<b>47,536</b>

Source: CDM Smith estimates

## 9.3 Retail Demand

### 9.3.1 Two Digit Sectors that Require Retail Floor Space

The demand for retail floor has been estimated utilising the following two-digit ANZSIC industry sectors:

**Table 76 - Two Digit ANZSIC Sectors which Typically Require Retail Floor Space**

One Digit ANZSIC Sectors	Two-Digit ANZSIC Sectors
Retail Trade	<ul style="list-style-type: none"> <li>Food retailing (e.g. groceries, butcher, greengrocer)</li> <li>Other store based retail (i.e. specialty retail)</li> </ul>
Accommodation and Food Services	<ul style="list-style-type: none"> <li>Food and beverage services (i.e. cafes and restaurants)</li> </ul>

Source: CDM Smith Analysis, 2020

### 9.3.2 Projected Employment in Retail Sectors

Projected employment in retail sectors has been derived based on the employment projection estimates presented in Section 8.4 of the report.

Employment within retail sectors in Shellharbour City is projected to increase as follows:

- Scenario One: Employment to increase from 4,774 persons in 2020 to 6,095 persons in 2041; and
- Scenario Two: Employment to increase from 3,555 persons in 2020 to 5,535 persons in 2041.

Table 77 summarises the projected employment in retail sectors in Shellharbour City in the 2020 to 2041 period.

**Table 77 - Employment Projections for Retail Sectors by Scenario, 2020-2041**

Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Scenario One</b>						
Food Retailing	1,061	1,076	1,077	1,162	1,249	1,321
Other Store-Based Retailing	1,966	1,988	1,984	2,138	2,296	2,424
Food and Beverage Services	1,747	1,769	1,874	2,038	2,192	2,351
<b>Total</b>	<b>4,774</b>	<b>4,833</b>	<b>4,935</b>	<b>5,338</b>	<b>5,738</b>	<b>6,095</b>
<b>Scenario Two</b>						
Food Retailing	822	839	996	1,075	1,155	1,221
Other Store-Based Retailing	1,522	1,550	1,835	1,977	2,123	2,241
Food and Beverage Services	1,212	1,242	1,652	1,797	1,933	2,073
<b>Total</b>	<b>3,555</b>	<b>3,631</b>	<b>4,483</b>	<b>4,849</b>	<b>5,211</b>	<b>5,535</b>

Source: CDM Smith estimates

### 9.3.3 Projected Retail Floor Space Demand

To convert employment projections to retail floor space demand, the following assumptions have been made:

- Assumed employment density for retail tenancies:** Typically, retail tenancies provide in the order of 35 – 50 sqm of floor space per worker, with higher provision of retail floor space per worker within larger tenancies. For the purposes of this analysis, the provision of retail floor space per worker has been assumed to be at the higher end of estimates (i.e. 50 sqm per worker), reflective of the increasingly competitive environment for traditional retail more broadly, leading to retailers to operate their business on a smaller footprint; and
- Adjustment for high incidence of part time employment:** As highlighted in Section 8 of the report, employment within sectors utilising retail floor space is typically of a part time, rather than a full time basis, with the incidence of part time

employment in the sector in Shellharbour City higher than regional and state averages. Based on this, we have adjusted the floor space demand estimates down marginally (by a factor of 0.85).

Based on the above assumptions, the projected demand for retail floor space in Shellharbour City is projected to increase as follows:

- Scenario One: Retail floor space demand to increase from 143,215sqm in 2020 to 182,860sqm in 2041; and
- Scenario Two: Retail floor space demand to increase from 106,649sqm in 2020 to 166,058sqm in 2041.

Table 78 summarises the projected retail floor space by scenario in the 2020 to 2041 period.

**Table 78 - Projected Retail Floor Space by Scenario, 2020-2041**

Industry Sector	May 2020	2021	2026	2031	2036	2041
<b>Scenario One</b>						
Food Retailing	31,844	32,286	32,315	34,868	37,484	39,621
Other Store-Based Retailing	58,975	59,637	59,533	64,153	68,878	72,709
Food and Beverage Services	52,396	53,062	56,205	61,130	65,771	70,530
<b>Total</b>	<b>143,215</b>	<b>144,985</b>	<b>148,053</b>	<b>160,151</b>	<b>172,134</b>	<b>182,860</b>
<b>Scenario Two</b>						
Food Retailing	24,650	25,172	29,883	32,244	34,663	36,638
Other Store-Based Retailing	45,652	46,496	55,052	59,325	63,694	67,237
Food and Beverage Services	36,347	37,265	49,554	53,896	57,988	62,183
<b>Total</b>	<b>106,649</b>	<b>108,934</b>	<b>134,489</b>	<b>145,464</b>	<b>156,344</b>	<b>166,058</b>

Source: CDM Smith estimates

## 9.4 Demand for Education and Health Uses

A review of the employment projections for the relevant two-digit ANZSIC sectors within education identifies that employment growth is anticipated to occur within preschools and schools, as opposed to tertiary education and adult, community and other education facilities.

In the case of health sectors, growth in employment is likely to be primarily accommodated within the Shellharbour Hospital (and facilitated through the expansion of this facility) and commercial office space (for medical and other health care services provided outside of a hospital setting). Employment within the residential care services sector and the social assistance services sector is likely to be accommodated in a hospital setting, within aged care facilities or in a mobile setting (i.e. services provided in-home).

Our high-level assessment would indicate that zoning provisions for the Shellharbour Hospital and the TAFE are sufficient to accommodate future employment growth to 2041.

The employment projections at the two-digit level for the education and health sectors under Scenarios One and Two are presented in Table 79 below.

**Table 79 - Projected Employment in Education and Health Sub-Sectors, Scenarios One and Two, 2020-2041**

	May 2020	2021	2026	2031	2036	2041
<b>Scenario One</b>						
<b>Education sub-sectors</b>						
Preschool and School Education	2,066	2,099	2,406	2,611	2,815	3,019
Tertiary Education	154	157	180	195	210	225
Adult, Community and Other Education	186	187	212	229	245	262
<b>Health sub-sectors</b>						
Hospitals	789	789	910	984	1,061	1,136

	May 2020	2021	2026	2031	2036	2041
Medical and Other Health Care Services	864	871	1,012	1,097	1,187	1,276
Residential Care Services	742	751	877	953	1,034	1,113
Social Assistance Services	811	816	947	1,027	1,111	1,193
<b>Scenario Two</b>						
<b>Education sub-sectors</b>						
Preschool and School Education	1,905	1,966	2,253	2,445	2,636	2,828
Tertiary Education	142	147	168	182	197	211
Adult, Community and Other Education	171	175	198	214	230	245
<b>Health sub-sectors</b>						
Hospitals	727	732	845	913	984	1,054
Medical and Other Health Care Services	797	808	938	1,018	1,101	1,184
Residential Care Services	684	697	813	884	959	1,033
Social Assistance Services	747	757	879	953	1,030	1,107

Source: CDM Smith estimates

## 10 STAKEHOLDER CONSULTATION

Initial stakeholder consultation was conducted on this project on 21<sup>st</sup> May 2020, via a Video workshop. A copy of the Initial Stakeholder Consultation Report is attached as **Appendix 6**.

The feedback received has been taken into consideration in the preparation of the draft SELS, to the extent applicable.

## 11 IMPLICATIONS OF COVID-19

As highlighted in this report, the COVID-19 pandemic to date has had significant impacts on Shellharbour's economy, particularly within the retail trade, accommodation and food services and arts and recreation services sectors. Employment within these sectors is not anticipated to significantly increase from May 2020 levels until restrictions are lifted in their entirety, including both interstate and international travel restrictions.

However, with the recent relaxation of restrictions for hotels and motels within New South Wales<sup>12</sup>, opportunities exist for Shellharbour to focus its efforts on attracting intrastate visitors to the region, promoting local experiences and local destinations that NSW residents may not even be aware exist, due to their previous focus on interstate and international travel destinations. It is suggested that Shellharbour City Council, in conjunction with Tourism Shellharbour, focus their efforts on promoting Shellharbour and its unique local offering to key intrastate markets (e.g. Sydney) and engage regularly with Destination NSW, through their support services such as the Now's the Time to Love NSW Campaign<sup>13</sup>. The successful attraction of additional visitors to Shellharbour City would likely have flow on benefits to retail trade, particularly cafes and restaurants and boutique retailers, helping to keep these businesses viable during times of uncertainty.

It is anticipated that potential exists for vacancy levels in centres to increase from what was identified at the time of inventory, particularly if restrictions continue post the cessation of JobKeeper payments. It is suggested that Council allow for vacant tenancies to be used flexibly during this time, with the focus on attracting tenants. There may also be heightened demand for flexible workspaces once restrictions are eased further, to accommodate potential heightened levels of entrepreneurship in a low cost environment, given the innovation opportunities created by the COVID-19 pandemic, particularly in regards to technology.

There are currently a number of land care and conservation programs underway which Council should also be supportive of, in terms of these conservation / land management sector funding initiatives and their potential contribution to employment during the current pandemic. If it is assumed that there will be significantly more on-shore manufacturing activity in Australia moving forward (rather than being so reliant on China), it is expected that these opportunities are likely to be limited for Shellharbour. This is because there are other areas that are considered to represent more desirable opportunities for manufacturing businesses to locate, in order to service a broader market.

### **Recommendations**

- 1. Council, in conjunction with Tourism Shellharbour, should focus their efforts on promoting Shellharbour and its unique local offering to key intrastate markets (e.g. Sydney) and engage regularly with Destination NSW, through their support services such as the Now's the Time to Love NSW Campaign. The successful attraction of additional visitors to Shellharbour City would likely have flow on benefits to retail trade, particularly cafes and restaurants and boutique retailers, helping to keep these businesses viable during times of uncertainty.**
- 2. Council allow for vacant tenancies to be used flexibly during this time, with the focus on attracting tenants. Council to also consider facilitating more flexible workspaces (within vacant centre tenancies) once restrictions are eased further, to accommodate potential heightened levels of entrepreneurship in a low cost environment, given the innovation opportunities created by the COVID-19 pandemic, particularly in regards to technology.**
- 3. Council to be supportive of conservation / land management sector funding initiatives and their potential contribution to employment within Shellharbour.**

<sup>12</sup> <https://www.nsw.gov.au/covid-19/what-you-can-and-cant-do-under-rules> indicates that there are no restrictions currently in place for hotels and motels within NSW as of 23 June 2020, with up to 20 persons permitted to stay in a holiday home or holiday rental (more than 20 people can stay at a holiday home or holiday rental if they are all members of the same household).

<sup>13</sup> Refer to <https://www.destinationnsw.com.au/news-and-media/tourism-recovery> for further details

## 12 STRATEGIC RECOMMENDATIONS

The purpose of this section is to provide high level recommendations relating to the appropriateness of existing and designated employment lands to accommodate future growth within Shellharbour City, including the appropriateness of identified land surrounding the airport to accommodate employment growth within industrial sectors and for complementary industry to the Shellharbour Airport.

These recommendations should be read in conjunction with the findings of the SBCRSLS, which provides specific LEP and other recommendations for certain business centres and their surrounding residential areas.

The existing planning framework is generally adequate to facilitate sufficient floor space/lands for Shellharbour to make a significant contribution to the region's future employment needs.

Local Environmental Plan and Development Control Plan changes are recommended including to account for any new zoning framework that is introduced by the State government via its employment zones reform program and to facilitate appropriate redevelopment of existing industrial areas and the development of the Illawarra Regional Business Park.

Various corporate initiatives are also recommended to improve employment prospects for residents of Shellharbour and the region.

### 12.1 Supply-Demand Balance for Centres Activity

The purpose of the supply-demand balance is to provide a high level overview of the projected demand for commercial office and retail floor space based on projected employment against the existing supply of facilities, to inform decision making relating to whether need exists to consider additional land and/or extra floor space to accommodate commercial and retail floor space within Shellharbour.

The shortfalls in retail and commercial office provision in the longer term have been compared against development approvals, remaining capacity in centres zones and allowable floor space ratios in business centre zones as part of the SBCSLRS to determine whether future provision is sufficient to accommodate growth.

Typically, in the assessment of retail floor space need, consideration is given to retail expenditure trends within a given catchment, as opposed to high level employment estimates converted to floor space demand based on an assumed floor space ratio. However, a comparison of demand against supply has been presented for completeness and to confirm whether pressing need exists to identify floor space over and above provisions within existing town centre plans, remaining capacity in centres zones and development approvals.

The supply demand balance has been estimated by comparing the projected demand for retail (Section 9.3.3 of the report) and commercial office (Section 9.2.4 of the report) floor space against the supply estimates outlined in Section 4 of the report.

Between 2020 and 2031, demand for retail and commercial office floor space over and above existing provision is anticipated to be as follows:

- Retail floor space: Demand for up to an additional 9,311sqm of retail floor space over and above existing provision to 2031, with Scenario Two suggestive of an oversupply of retail floor space in the order of 5,376sqm in 2031;
- Commercial office floor space: Demand for an additional 9,996sqm to 10,388sqm of commercial office floor space over and above existing provision to 2031.

In the longer term, the supply demand balance indicates the following demand for retail and commercial office floor space over and above existing provision to 2041:

- Retail floor space: Demand for an additional 15,218sqm to 32,020sqm of retail floor space over and above existing provision to 2041; and
- Commercial office floor space: Demand for an additional 15,658sqm to 16,054sqm of commercial office floor space over and above existing provision to 2041.

The large estimated oversupply in retail floor space in Shellharbour City in the 2020 to 2021 period relates to the significant drop in employment in the retail trade and accommodation and food services (i.e. the food and beverage services sub-sector) sectors, based on the REMPLAN data. It is anticipated that in the short term, retailers where possible will keep their current tenancies (with a number likely locked into leasing arrangements), but simply operate with less staff, either through less staff per shift or less staff due to shortened operating hours. Whilst there may be some uplift in retail vacancies relative to the inventory results, the quantum of vacancy is anticipated to be significantly lower than what is reported in the 2020 and 2021 results for Scenario

2. Rather, the results to 2026 under Scenario 2 demonstrate there is likely to be limited demand for additional retail floor space within Shellharbour City in this timeframe.

Table 80 summarises the projected supply demand balance for retail floor space and commercial office floor space in Shellharbour City, based on current levels of provision.

**Table 80 - Projected Supply Demand Balance for Retail Floor Space and Commercial Office Floor Space (sqm), Shellharbour City, 2020-2041**

	May 2020	2021	2026	2031	2036	2041
<b>Existing Supply</b>						
Retail	150,840	150,840	150,840	150,840	150,840	150,840
Commercial	31,878	31,878	31,878	31,878	31,878	31,878
<b>Demand – Scenario 1</b>						
Retail	143,215	144,985	148,053	160,151	172,134	182,860
Commercial	34,593	34,942	39,535	42,266	45,096	47,932
<b>Demand - Scenario 2</b>						
Retail	106,649	108,934	134,489	145,464	156,344	166,058
Commercial	34,489	35,344	39,148	41,874	44,700	47,536
<b>Supply-Demand Balance</b>						
<b>Scenario 1</b>						
Retail	7,625	5,854	2,786	-9,311	-21,294	-32,020
Commercial	-2,714	-3,064	-7,657	-10,388	-13,217	-16,054
<b>Scenario 2</b>						
Retail	44,191	41,906	16,351	5,376	-5,504	-15,218
Commercial	-2,610	-3,466	-7,270	-9,996	-12,822	-15,658

Note: A negative supply-demand balance suggests a shortfall of floor space.

Source: CDM Smith estimates

## 12.2 Existing Zoned Land to Accommodate Centres Activity

Identified vacant land parcels within centre zones within Shellharbour City totalled approximately 50,840 sqm (5.10 hectares), which could accommodate additional retail and commercial office development within existing centre zoned land. There was also remnant housing identified within centres zoned land at Albion Park Rail and Oak Flats, representing an additional 4,178 sqm (0.42 hectares) of land.

It was also identified that the Shellharbour Civic Centre site, which is located on B4 zoned land on the corner of College Avenue and Cygnet Avenue appears underutilised, with more than half of the allotment vacant<sup>14</sup>.

The location, size and zoning of these land parcels is detailed in Table 81.

**Table 81 - Vacant Land and Remnant Housing in Centre Zoned Land, Shellharbour City**

Address	Zone	Approximate sqm
<b>Vacant Land</b>		
26 Gipps Crescent, Barrack Heights	B1 - Neighbourhood Centre	2,105
Aurora Avenue, Dunmore	B1 - Neighbourhood Centre	11,968
139 Tongarra Road, Albion Park	B2 – Local Centre	1,585
11 Addison Street, Shellharbour Village	B2 – Local Centre	735
16 College Avenue, Shellharbour City Centre	B3 – Commercial Core	3,213
15 Lamerton Crescent, Shellharbour City Centre	B3 – Commercial Core	1,801
73 Cygnet Avenue, Shellharbour City Centre	B3 – Commercial Core	1,190
9 Minga Avenue, Shellharbour City Centre	B3 – Commercial Core	2,627

<sup>14</sup> Our estimates suggested that of the 29,018sqm site, approximately 16,298sqm is vacant.



Address	Zone	Approximate sqm
3 Minga Avenue, Shellharbour City Centre	B3 – Commercial Core	2,318
76 Cygnet Avenue, Shellharbour City Centre	B4 – Mixed Use	9,000
101 Pioneer Drive, Oak Flats	B4 – Mixed Use	7,000
<b>Remnant Housing</b>		
60 Koono Street, Albion Park Rail	B1 - Neighbourhood Centre	881
197 Princes Highway, Albion Park Rail	B2 – Local Centre	845
42 Fisher Street, Oak Flats	B2 – Local Centre	640
44 Fisher Street, Oak Flats	B2 – Local Centre	640
43 Griffiths Street, Oak Flats	B2 – Local Centre	1,172
<b>Total</b>	-	<b>47,720</b>

Source: CDM Smith Analysis (2020)

Planning controls for centre precincts within Shellharbour City typically allow a floor space ratio of 1.5:1 for retail and commercial uses in the B2 zone, with the B1 zone allowing for a lower floor space ratio of 0.5:1.

Applying these floor space ratios to the identified B1 and B2 sites in Table 81, suggests the potential to accommodate an additional 15,905 sqm of retail or commercial floor space within Shellharbour City which may satisfy some of the shorter term combined retail/commercial demand, noting that some of the floor space may be absorbed by shop top housing.

There are a number of vacant land parcels within the B3 zone in the Shellharbour City Centre, ranging between 1,191 sqm and 3,220 sqm in size, with a large part of the B4 zone site on the corner of College Avenue and Cygnet Avenue also identified as vacant. Identifying the potential retail or commercial floor space yield within the B3 and B4 zones is more challenging, due to the flexibility offered by these zones within the Shellharbour City Centre (i.e. no applicable FSR and a maximum building height ranging from 15m-18m for these sites). However, it is considered likely that development activity on these sites would further contribute to retail and commercial floor space supply within Shellharbour, noting their combined site areas of 27,000 sqm.

It is understood that development approval has been granted for a four storey mixed use development which includes a child care centre on vacant B4 zoned land at the Oak Flats interchange (101 Pioneer Drive). This site has a 1:1 floor space ratio.

16 College Avenue and 73 Cygnet Avenue are each subject to a development approval which includes commercial/retail floor space and are both now under construction.

## 12.3 Development Approvals for Centre Activities

The following three areas can accommodate further centre activities, as outlined below.

### 12.3.1 Shell Cove

The Shell Cove development via its State government concept approval is anticipated to incorporate a range of employment lands, including 30,000sqm of business park land and the capacity to accommodate up to an additional 14,830sqm of retail, commercial and community facilities floor space. At build out, the Shell Cove development has the potential to provide employment for ~700 persons within the business park, retail, commercial and community facilities tenancies<sup>15</sup>.

It is envisaged that the business park land will accommodate a mix of office and light industrial activity relating to the Shell Cove boat harbour. This development alone is likely to accommodate additional demand within the retail and commercial office sectors in Shellharbour City to around 2026.

The University of Wollongong had intended to establish the Australian Blue Futures (ABF) facility at the Shell Cove Business and Technology Park, however this has not occurred. The University of Wollongong (UoW) is a leading global research into Blue Economy.

The definition of a “blue economy” varies by region, with no agreed upon definition internationally. However, the Australian Department of Foreign Affairs and Trade has provided the following definition:

<sup>15</sup> Based on an assumed employment density of 40 persons per hectare in the business park and 25sqm / person for the retail, commercial office and community facility uses.

A 'blue economy' strikes the right balance between reaping the economic potential of our oceans with the need to safeguard their longer-term health. A blue economy is one in which our ocean ecosystems bring economic and social benefits that are efficient, equitable and sustainable<sup>16</sup>.

A Blue Economy typically incorporates the following traditional maritime industries of:

- Fisheries,
- Coastal tourism,
- Energy and mineral production;
- Boat building;
- Shipping; and
- Activities related to ports.

In addition to the traditional maritime industries, Blue Economy includes the following new and developing industries:

- Aquaculture;
- Renewable energy technologies (wind, wave and tidal energy);
- Bio-products (pharmaceutical and agrichemicals);
- Blue Carbon (carbon sequestration); and
- Desalination.

The University of Wollongong has established the Australian National Centre for Ocean Resources and Security (ANCORS). The ANCORS has been investigating the capabilities of the Illawarra and Shoalhaven region to build and support a new 'Blue Economy' based on sustainable and equitable use of oceans as natural capital. As such, this places Shellharbour City in an ideal situation to benefit from a well-established relationship with the University of Wollongong. Research from the ANCORS indicates the following potential areas of Blue Economy development in the Illawarra Region:

- Ecosystem Protection, Management and Enjoyment (including ecosystem services, passive use, recreation, and tourism);
- Blue Coastal Zone Management (incorporating coastal development, hazard management, and wastewater and sewage);
- Defense and Surveillance (incorporating maritime security and monitoring programs);
- Blue Industry and Energy Production (incorporating deep sea mining, ocean-based renewables, desalinization, and maritime infrastructure and industry, such as ports); and
- Blue Harvesting (Fisheries and Aquaculture) (including commercial fishing, fish processing, and aquaculture operations).

Shell Cove also has two B2 Local Centre zoned areas, which are largely undeveloped and are planned for a combination of mixed use, commercial, retail, community facilities and a hotel.

### 12.3.2 Tullimbar

It is understood that development approval was granted in May 2020 for the subdivision of land at the corner of Broughton Avenue and Eden Place, Tullimbar which comprises a residential subdivision and one commercial/retail allotment. It is understood that the developer has provided a portion of land of up to 2,000sqm for retail/commercial development and that Council is supportive of development of a neighbourhood centre, which would allow up to 1,500sqm of retail or commercial floor space. Advice provided by Location IQ, contained within the Council minutes dated 19 May 2020<sup>17</sup>, advises that the neighbourhood centre at Tullimbar is unlikely to be established prior to 2026.

### 12.3.3 Calderwood

The Calderwood Major Project Area and associated concept approval by the State government provides for approximately 50 hectares of B4 zoned mixed use land for a range of retail, commercial and light industrial uses. This adds substantially to

<sup>16</sup> Innovation for the Blue Economy: Workshop Summary, CSIRO

<sup>17</sup> Refer to page 106 of

[https://cdn.shellharbour.nsw.gov.au/sites/default/files/Meetings/Agenda\\_Ordinary\\_Council\\_Meeting\\_19\\_May\\_2020\\_web\\_0.pdf](https://cdn.shellharbour.nsw.gov.au/sites/default/files/Meetings/Agenda_Ordinary_Council_Meeting_19_May_2020_web_0.pdf)

potential employment supply in the future. However, the developer has indicated an intention to utilise the majority of the B4 zoned land primarily for residential purposes as part of a current application to modify the Concept Approval for the project. It is also intended to provide two areas of retail – Town Centre 20,000m<sup>2</sup> and Village Centre 5,000m<sup>2</sup> in the project area on B4 zoned land in accordance with the existing approved Concept Plan.

#### 12.3.4 Implications

The supply demand balance for centres floor space identifies existing and growing need for additional commercial office floor space and a medium term need for additional retail floor space in Shellharbour City. A review of potential redevelopment opportunities on existing zoned land, combined with approvals and provisions in town centres plans (including those opportunities identified in the Shellharbour Business Centres and Surrounding Residential Lands Study) identifies there is sufficient supply to accommodate future growth in centres floor space needs in Shellharbour City to 2041. As highlighted in Section 8.7 of the report, the provision of sufficient zoned centres land in Shellharbour City will support growth in employment and contribute to improved employment retention outcomes over time. Overall, it is estimated that employment retention in Shellharbour City could potentially increase from 65.5% in 2016 to between 69.0% and 74.2% in 2041, even after adjusting for short to medium term declines in employment as a direct result of COVID-19.

The Shell Cove development alone is anticipated to accommodate an estimated 700 employed persons upon build out and represents an ideal location to accommodate a “blue economy” research institute, providing a broader range of employment opportunities to local residents.

The analysis in previous sections of the report identified the potential to encourage the development of co-working or flexible working spaces within Shellharbour City. This type of facility is likely to cater primarily to persons including who currently work from home due to a lack of affordable space within Shellharbour City suitable to their start up needs and as such is not captured in the assessment of demand for traditional commercial office space. Nor are persons who due to COVID-19 are now more pre-disposed to not having permanent fixed work bases. This cohort may reduce the demand for traditional commercial office space and increase demand for flexible co-working spaces.

The analysis does not account for developed land that may be conducive to redevelopment or land that is underdeveloped. This potential would add significantly to centres’ floor space capacity.

In summary the combined floor space capacities within:

- Vacant land and remnant housing occupied land in business zones in established areas;
- Business zoned developed land in established areas that may be conducive to redevelopment;
- Business zoned land that is underdeveloped in established areas;
- The planned neighbourhood centre at Tullimbar;
- The largely undeveloped business zonings at Shell Cove; and
- The yet to be developed business zones at Calderwood and Dunmore;

have the potential to accommodate the highest combined commercial/retail floor space demand scenario to 2041.

## 12.4 Accommodating Future Industrial Land Demand

The remaining land zoned for industrial purposes within Shellharbour City at Albion Park and Albion Park Rail will be insufficient to accommodate anticipated growth within industrial sectors to 2041. As previously detailed, industrial land demand growth is anticipated to be primarily for service industry type uses, which are typically of a low impact nature.

In the 2020 to 2041 period, growth in net industrial land demand is anticipated to be approximately 18.3 to 21.4 hectares. The inventory identified an estimated 10.4 hectares of vacant zoned industrial land in May 2020, mostly contained within the IN1 and IN2 zone at Albion Park Rail. This estimate is similar to that identified by the NSW Department of Planning, Industry and Environment’s Employment Lands Development Monitor, which identified 6.7 hectares of undeveloped industrial land in Shellharbour City in January 2019.

In the short to medium term, industrial land demand growth is likely to be accommodated within existing zoned land and vacant tenancies throughout Shellharbour, with some light industrial uses also likely to establish within the B7 Business Park zoned land at Shell Cove.

It should be noted that significant vacancy levels were found in the IN2 areas along the Princes Highway Albion Park Rail and between the Princes Highway and the East West Link at Albion Park Rail.

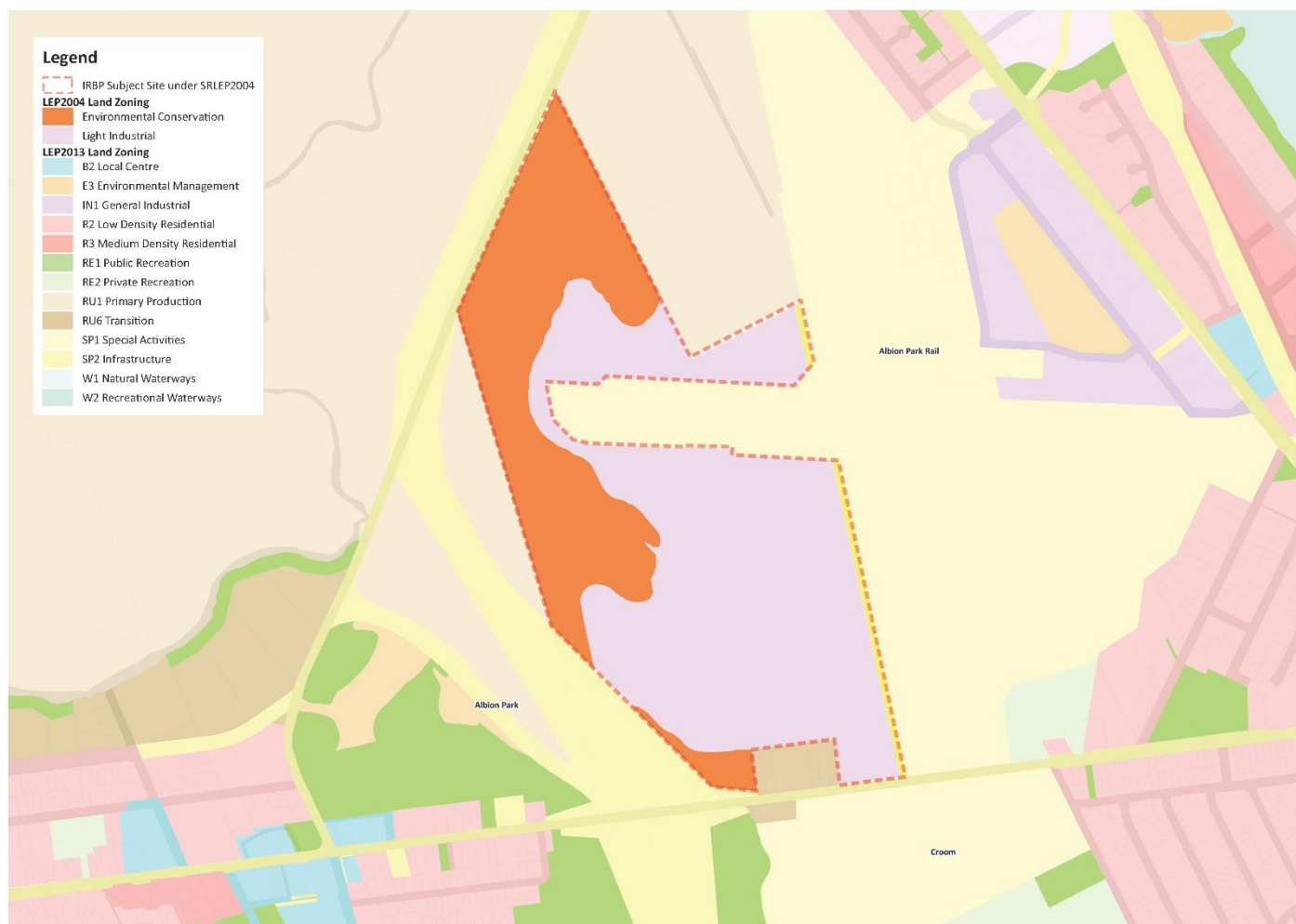
**Recommendations**

**Review provisions of LEP 2013 and the DCP to:**

- **facilitate appropriate redevelopment including: catering for upcoming trends such as high clearance warehouses and the use of robotics**
- **facilitate business innovation and local services and amenities for workers in the precinct.**

**12.4.1 Illawarra Regional Business Park**

The land dedicated to the Illawarra Regional Business Park (IRBP) is located immediately adjacent to the Shellharbour Airport, as illustrated in Figure 22 below. Shellharbour Rural Local Environmental Plan (2004) applies to most of the IRBP. This land is approximately 66 hectares in size and is currently used for cattle grazing and ancillary dairy farming.



**Figure 22 - IRBP Subject Site (PSA Consulting)**

It is understood that approximately 40 hectares of the site is zoned IN2 Light Industrial with the remainder being E2 Environmental Conservation zoning. A sliver of the south western part of the site is reserved under Local Environmental Plan 2013 for works associated with the Albion Park Rail bypass.

According to the Shellharbour Rural Local Environmental Plan (2004) there are a number of provisions for this parcel of land, for the development of the IRBP. Some of these provisions include:

- Land use within the business park must be light industrial, infrastructure or environmental conservation;
- Land within the Illawarra Regional Business Park site may be subdivided, but only with development consent;
- Maximum building height of 7 metres at the southern end of the subject land, and 15 metres elsewhere;
- The floor space ratio for a building on any land in the Illawarra Regional Business Park site is not to exceed 1:1;

- Industrial retail outlets: if development for the purposes of an industrial retail outlet is permitted on any land within the Illawarra Regional Business Park site, the retail floor area must not exceed;
  - 40% of the combined gross floor area of the industrial retail outlet and the building or place on which the relevant industry is carried out, or
  - 400 square metres.
- Development for office premises on land within the Illawarra Regional Business Park site must satisfy:
  - the office premises are ancillary to another use of the land, and
  - the gross floor area of the office premises will not exceed 25% of the gross floor area of all of the buildings on the land.

The Albion Park Rail Bypass, upon completion, will run along the western perimeter of the subject land for the IRBP, which would therefore provide opportunities for business to benefit from being aligned with the road network, providing direct exposure to a higher proportion of the subject site than in the absence of the Albion Park Rail Bypass.

The IRBP represents an ideal location to expand industrial activity within Shellharbour, given its proximity to both the airport and the road network. The landholding is more than sufficiently sized to accommodate industrial land demand to 2041, with the additional ability to also accommodate aviation related uses, should they wish to locate in Shellharbour City. The industrial inventory identified that business activity was typically of a population serving nature as opposed to directly related to the airport, likely due to the limited RPT services to the airport and the absence of significant freight transported via air.

The report *Industrial Land in the Illawarra Region* (Urbis, 2019) investigated the potential for industrial development within the Illawarra Region, including four sites within Shellharbour City. This report identified that land adjacent to the airport, which includes the Illawarra Regional Business Park land as the most appropriate location for the expansion of industrial land activity within Shellharbour City.

It is understood that the Illawarra Regional Business Park land lacks infrastructure servicing (i.e. water, power, sewer, flooding, vehicular access), which is likely to limit the appeal of the land to a prospective developer despite the stated intent.

The State government's planning department issued a concept approval for the site in 2009. This development subject of this approval has never taken place and includes:

- a 60 lot subdivision (59 lots for light industrial uses and 1 lot for environmental conservation) with associated infrastructure and earthworks, demolition of two ancillary farm buildings, relocation of the Wanalama Homestead, development of a café, service station and hotel, the realignment of Frazer's Creek, wetland rehabilitation and the establishment of an environmental management area with associated walkway.

Conditions on the State government concept approval are extensive and may also serve to limit the development appeal of the site. Conditions include those relating to:

- Limiting permissible uses according to flood constraints
- Limiting stormwater/water sensitive urban design infrastructure according to wetland and riparian constraints
- Rehabilitation of the Environmental Management Area, the SEPP 14 wetland and Frazers Creek riparian areas
- Designing/implementing a signalised intersection at the site access point and Tongarra Road
- Re – aligning Frazers creek
- Vegetation management for a significant percentage of the site identified for environmental conservation
- Acid sulfate soils
- Soil contamination assessment and possible remediation
- Water quality measures and monitoring

### **Recommendations**

- 1. Advocate to the State government for infrastructure charges reductions to encourage take-up of this land.**
- 2. Review provisions of LEP 2004 (Illawarra Regional Business Park) and the DCP to:**
  - **Facilitate appropriate development including: catering for upcoming trends such as high clearance warehouses and the use of robotics**
  - **Facilitate business innovation and local services and amenities for workers in the precinct.**
- 3. Council and relevant state agencies make staff resources available dedicated to assist any prospective developer in negotiating/addressing development issues for the site.**

## **12.4.2 Employment Lands Adjoining the Airport – IN1 General Industrial Zone**

With respect to land zoned IN1 General Industrial at Albion Park Rail, it is recognized that the strengths of this land are the fact that it is immediately adjacent to the airport and is both zoned and development ready. However, activity within this zone has likely been limited to some extent by the presence of significant remnant housing, requiring land assembly to achieve the necessary allotment size to allow for feasible industrial developments to proceed. In addition, the probable limits on the impacts of the uses that are acceptable despite the zoning due to proximity to existing housing may also be an impediment to the take up of industrial development. Despite the current IN1 zoning, it is considered that the area is more likely to accommodate light industrial uses due to the factors mentioned above. It is considered that the IRBP likely represents the more realistic opportunity to accommodate medium/high impact industry uses, however this would require appropriate servicing and access to be made available first.

## **12.4.3 Land Adjoining Airport Employment Lands**

Currently, the land adjacent to the Shellharbour Airport, bound by the Illawarra Highway to the north and the IRBP to the south is zoned as RU1 which represents primary production. This land is zoned to permit extensive agriculture and home occupations without consent, however also allows a range of additional uses under Council's consent, including:

- Airstrips;
- Heli-pads;
- Eco-tourist facilities; and
- Environmental facilities.

The Illawarra Regional Airport Business Plan talks extensively about plans to expand the airport to cover 155.53 hectares of land, which would involve the acquisition of some of the above-mentioned parcel of land. In doing so the airport would have the capacity to meet the requirements for a Code 3C Aircraft, which would increase the ability to attract and retain RPT services to the airport.

Land at 9 Illawarra Highway, Albion Park Rail is currently zoned RU1 Primary Production and is the subject of a current Planning Proposal which seeks an IN2 Light Industrial zone for the subject site (and potentially beyond), to include light industrial zone type activities currently conducted in Croome Lane.

The IN2 zone for the subject site would provide the following objectives:-

- To provide a wide range of light industrial, warehouse and related land uses;
- To encourage employment opportunities and to support the viability of centres;
- To minimise any adverse effect on industry on other land uses;
- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area; and
- To support and protect industrial land for industrial uses.

The Planning Proposal proposes no changes to either the land uses permitted with consent or which are prohibited currently within Shellharbour LEP 2013, or for the objectives of the IN2 Light Industrial zone.

Council has been unable to determine or progress the Planning Proposal, due to outstanding details on servicing provision which would need to be resolved as part of the Planning Proposal.



## 12.5 Employment Zones Reform

In November 2020 the Department of Planning Industry and Environment (DPIE) advised Councils it is undertaking a reform of employment zones under the standard instrument Local Environmental Plan.

DPIE's advice is:

- That the reform will include a new zoning framework to replace the current business and industrial zones.
- The purpose of this reform is to ensure:
  - employment zones are fit for purpose;
  - support productivity and jobs creation;
  - reduce the number of zones;
  - increase flexibility; and
  - support strategic planning and include a clear strategic intent.
- Residential, rural and special uses zones are outside of the reform scope.
- Some business zones currently include residential uses, and this is likely to continue.

Council will provide a copy of the Shellharbour Employment Lands Study to DPIE to form part of the evidence base for the reform.

Council in reviewing its LEP will need to ensure it is compatible with both the SELS and employment zones reform.

### **Recommendations**

**Review provisions of LEP 2013 and the DCP to account for any new zoning framework that is introduced by the State government.**

## 12.6 Summary of Recommendations

As a result of the analysis undertaken as part of the SELS, Table 82 provides a summary of the strategic recommendations with respect to amendments that could be made in facilitating employment within Shellharbour. The recommendations have been categorised into location/issue specific recommendations; strategic and/or higher level macro economic trend recommendations; case study recommendations; and COVID-19 response recommendations. These recommendations have also been made being cognisant of the findings of the SBCSRLS, which should be read in conjunction with these.

These strategic recommendations will help support employment growth within Shellharbour City and provide jobs locally for an increasing proportion of the working population over time, with employment retention anticipated to increase from 65.5% in 2016 to between 69.0% and 74.2% by 2041.

**Table 82 – SELS Recommendations**

Shellharbour Employment Lands Study Recommendations	
Category/Issue	Recommendation
<b>Location/Issue Specific Recommendations</b>	
Vacancy Rates	1. Council to investigate revitalisation of the B1 Neighbourhood Centres which are currently experiencing high vacancy rates, as a means of improving street appeal and encouraging redevelopment to reinvigorate these centres. This includes facilitating improved design outcomes and revitalisation of these centres' public domains.
Accommodating Future Industrial Land Demand	Review provisions of LEP 2013 and the DCP to: <ol style="list-style-type: none"> <li>1. Facilitate appropriate redevelopment including: catering for upcoming trends such as high clearance warehouses and the use of robotics.</li> <li>2. Facilitate business innovation and local services and amenities for workers in the precinct.</li> </ol>



Shellharbour Employment Lands Study Recommendations	
Category/Issue	Recommendation
Employment Zones Reform	<ol style="list-style-type: none"> <li>1. Review provisions of LEP 2013 and the DCP to account for any new zoning framework that is introduced by the State government.</li> </ol>
Illawarra Regional Business Park	<ol style="list-style-type: none"> <li>1. Advocate to the State government for infrastructure charges reductions to encourage take-up of this land.</li> <li>2. Review provisions of LEP 2004 (Illawarra Regional Business Park) and the DCP to: <ul style="list-style-type: none"> <li>• Facilitate appropriate development including: catering for upcoming trends such as high clearance warehouses and the use of robotics</li> <li>• Facilitate business innovation and local services and amenities for workers in the precinct.</li> </ul> </li> <li>3. Council and relevant state agencies make staff resources available dedicated to assist any prospective developer in negotiating/addressing development issues for the site.</li> </ol>
<b>Strategic and/or Macro Economic Trend Recommendations</b>	
The Second Half of the Chessboard	<ol style="list-style-type: none"> <li>1. Council to explore opportunities to capitalise on advanced manufacturing processes and encourage upskilling of the existing workforce in manufacturing, transport and warehousing and information and technology industries. This will assist in diversifying the industrial profile of the area and avoid high proportion of the workforce having redundant skills as advanced manufacturing becomes increasingly prevalent.</li> <li>2. Provide opportunities for an increase in professional and programming-based occupations by facilitating higher amenity and additional services within office precincts within Shellharbour to attract and retain highly skilled workers to the region.</li> <li>3. Encourage more mixed use industry and research hubs either in the form of new agglomerations or adjuncts to existing major research institutions or industrial areas in the form of knowledge and technology precincts.</li> <li>4. Foster strong relationships with the local university, the University of Wollongong, to realise the desire to create a marine based industry precinct within Shell Cove.</li> </ol>
Porous Boundaries	<ol style="list-style-type: none"> <li>1. Facilitate the provision of co-working or hotdesking spaces in town centres and Shellharbour City Centre to attract and retain a greater number of professionals to the region. Having these types of facilities available in Shellharbour City could also work to decrease employment leakage to Wollongong.</li> </ol>
The Era of the Entrepreneur	<ol style="list-style-type: none"> <li>1. Shellharbour City to attract entrepreneurs to the area by being structured in a way which allows for flexible and low risk options for start-up spaces.</li> </ol>
Divergent Demographics	<ol style="list-style-type: none"> <li>1. Council to actively encourage and facilitate the development of increased and expanded health facilities and service offerings in Shellharbour, including the expansion of the Shellharbour Hospital.</li> <li>2. Council to foster collaborative relationships with a local medical school, such as the University of Wollongong, as a means of attracting workers with a range of skills to Shellharbour Hospital.</li> <li>3. Council to actively encourage and facilitate the development of additional aged care facilities to support an ageing population.</li> </ol>

Shellharbour Employment Lands Study Recommendations	
Category/Issue	Recommendation
The Rising Bar	1. Investigate opportunities to grow the education and training industry in Shellharbour to provide people with the opportunity to up-skill and stay relevant in the evolving economy. This could be established through collaboration with universities and research institutes (e.g. to establish a marine industry research institute within Shell Cove).
Tangible Intangibles	1. Provide and promote the lifestyle opportunities, services and facilities available for knowledge workers within Shellharbour City by ensuring that employment precincts such as the Shellharbour City Centre and town centres are considered appealing. 2. Promote and facilitate the provision of increased office space available for short term leasing or co-working facilities which are well connected to the global network through substantial technological infrastructure.
Online Retail	1. Promote Shellharbour as an attractive option for online businesses to base themselves to service the city and surrounding areas from an online retail platform, noting that Shellharbour's relative isolation from major strategic freight routes serving greater metropolitan Sydney may be an impediment to fully realising this potential.
Robotics, Automation and Artificial Intelligence	1. Recognise the rapidly changing nature and emergence of jobs of the future and provide flexibility to facilitate the provision of appropriate spaces and planning controls to facilitate these emerging job trends.
Education and Employment	1. Council to actively facilitate partnerships between education and industry as a means to increase the skill level of the workforce in Shellharbour City therefore diversifying the existing employment portfolio in the City. This combination of education and employment seeks to minimise the skill deficit which results from an ageing population, whilst retaining young people and encouraging young families (particularly young professionals) to the region in order to capitalise on these opportunities and the lifestyle afforded by a coastal city.
Investment Incentives	1. Council to continue to strongly promote the marina development at Shell Cove as a significant drawcard to attract and retain businesses within Shellharbour.
<b>Case Study Recommendations</b>	
Surf Coast Shire	1. Council to facilitate ongoing employment growth and retention in the region through building business and facilitating a symbiotic relationship between industry and education, including providing a motive for young professionals to stay in the region, or to locate to the region for work or further study. This will help to address employment leakage and combat the skills deficit which arises due to ageing populations. 2. Council to facilitate stronger connections between industry bodies and education/training facilities, such as working with the local TAFE and local industry and businesses to identify any skills or educational gaps which may be preventing the connectivity of industry and education in Shellharbour.
<b>COVID-19 Response Recommendations</b>	
COVID-19 Response	1. Council, in conjunction with Tourism Shellharbour, should focus their efforts on promoting Shellharbour and its unique local offering to key intrastate markets (e.g. Sydney) and engage regularly with Destination NSW, through their support services such as the Now's the Time to Love NSW Campaign. The successful attraction of additional visitors to Shellharbour City would likely have flow on benefits to retail trade,

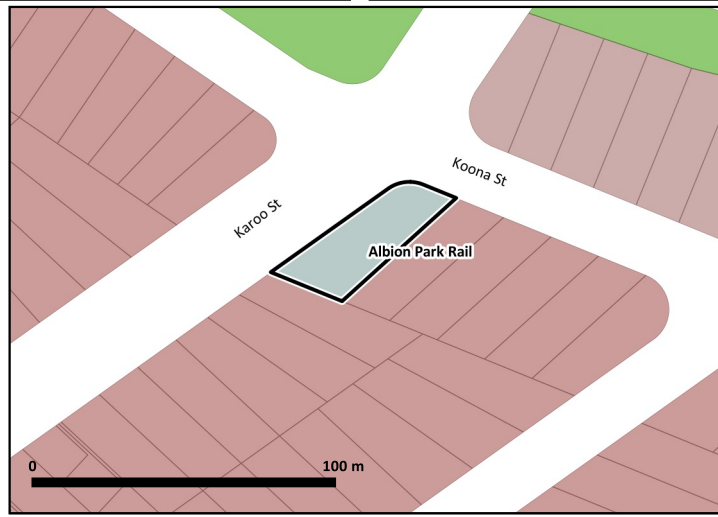
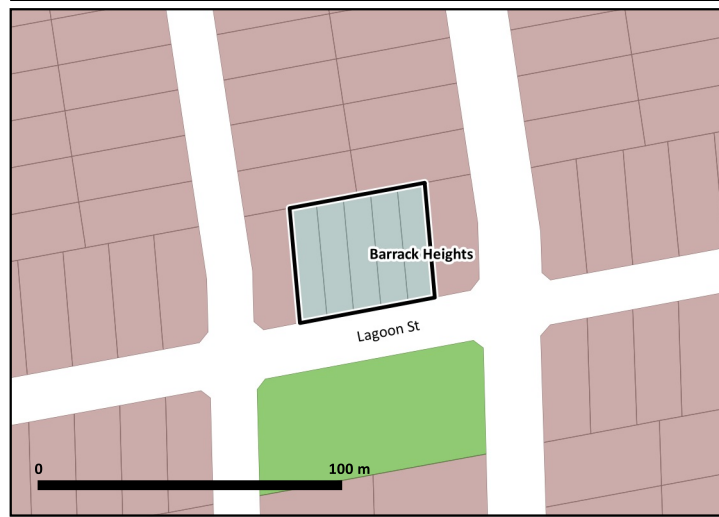
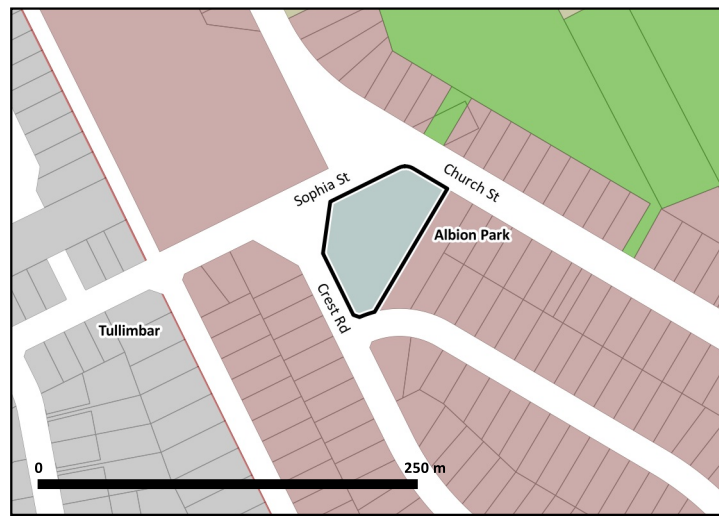
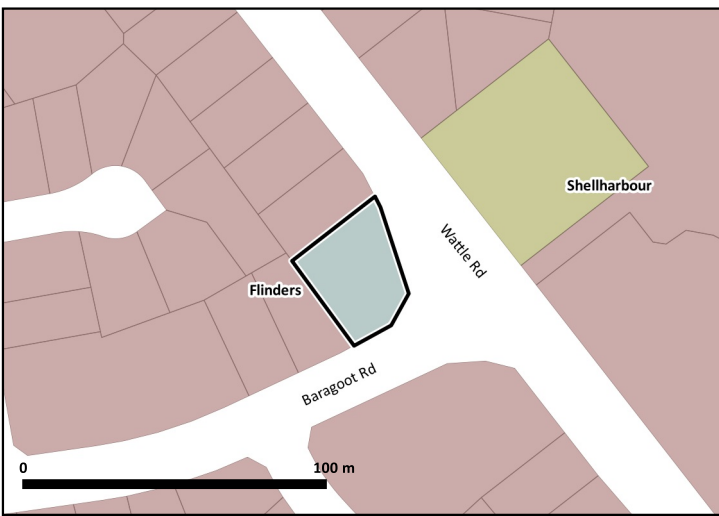
Shellharbour Employment Lands Study Recommendations	
Category/Issue	Recommendation
	<p>particularly cafes and restaurants and boutique retailers, helping to keep these businesses viable during times of uncertainty.</p> <ol style="list-style-type: none"> <li>2. Council allow for vacant tenancies to be used flexibly during this time, with the focus on attracting tenants. Council to also consider facilitating more flexible workspaces (within vacant centre tenancies) once restrictions are eased further, to accommodate potential heightened levels of entrepreneurship in a low cost environment, given the innovation opportunities created by the COVID-19 pandemic, particularly in regards to technology.</li> <li>3. Council to be supportive of conservation / land management sector funding initiatives and their potential contribution to employment within Shellharbour.</li> </ol>

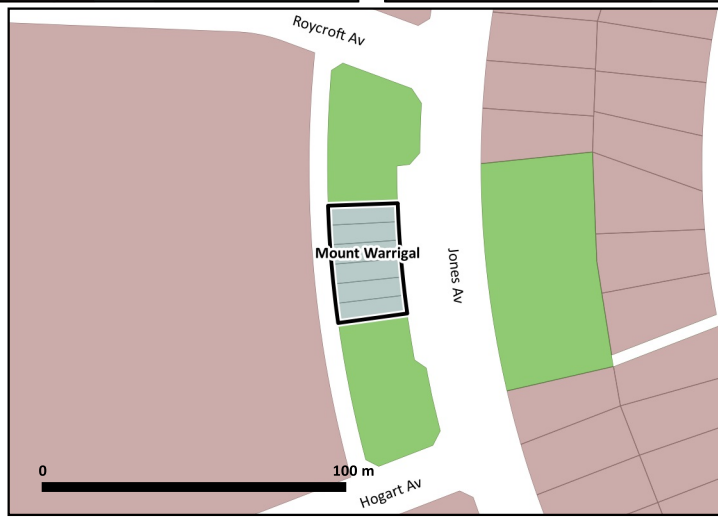
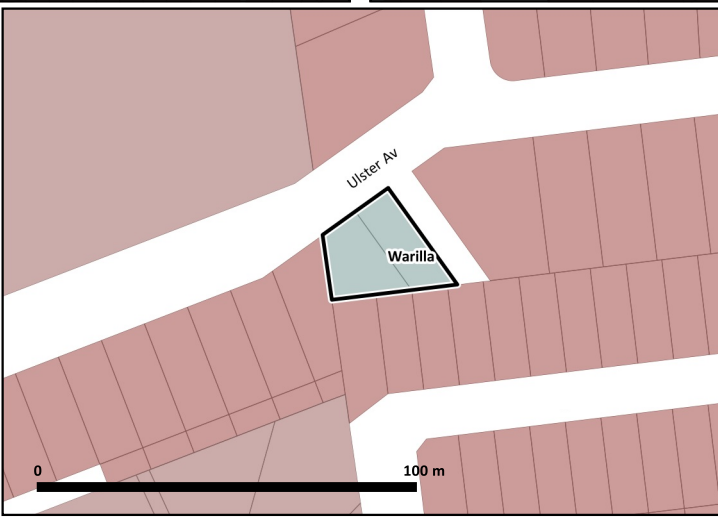
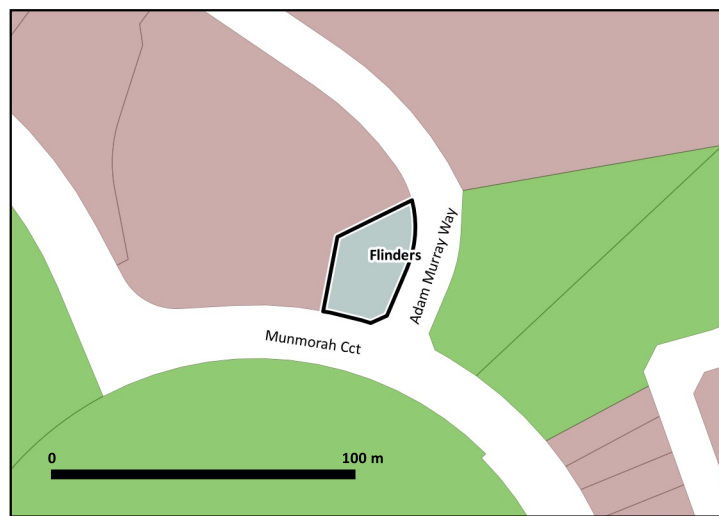
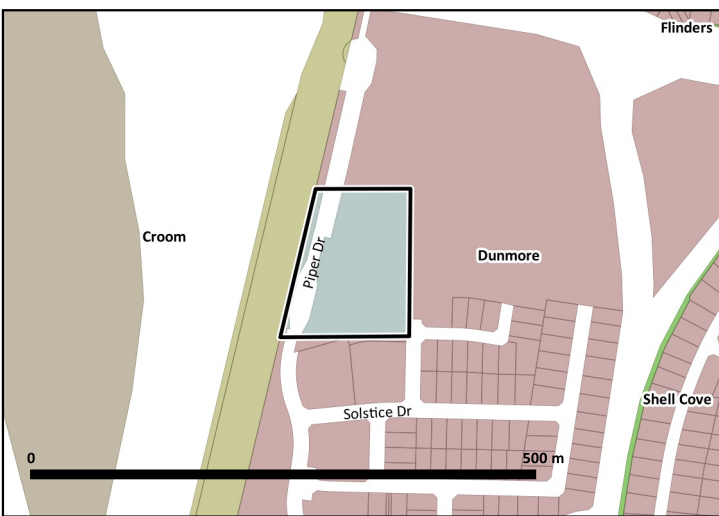
## APPENDIX 1: Study Area Maps

AP01



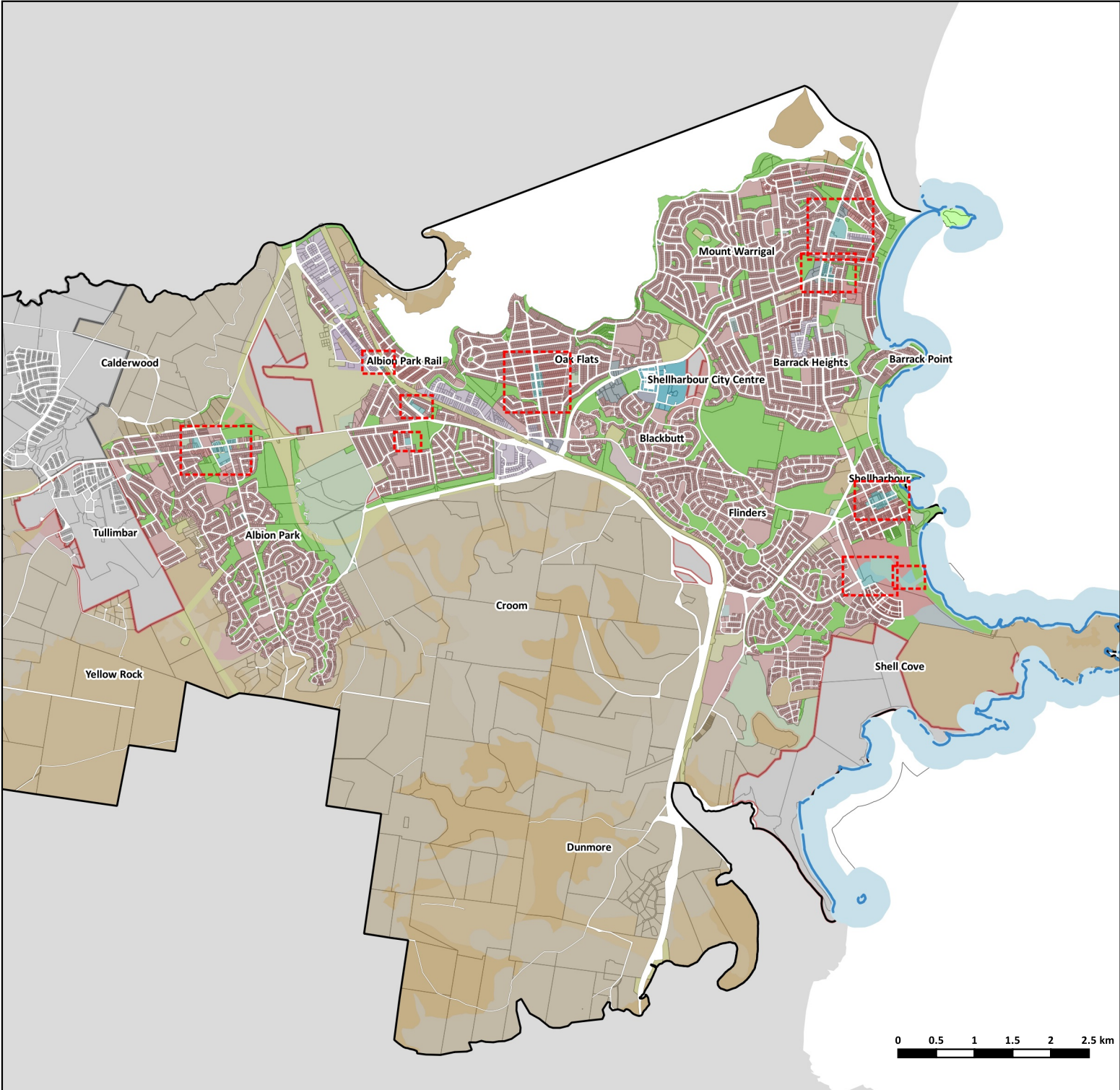




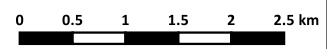




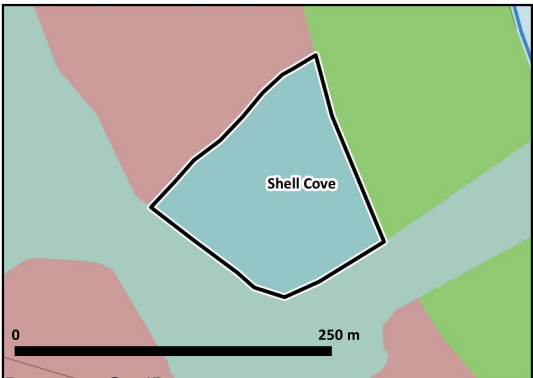
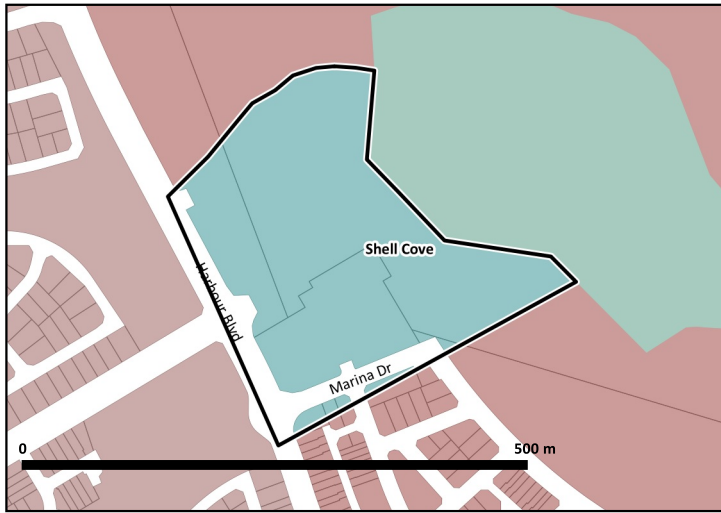
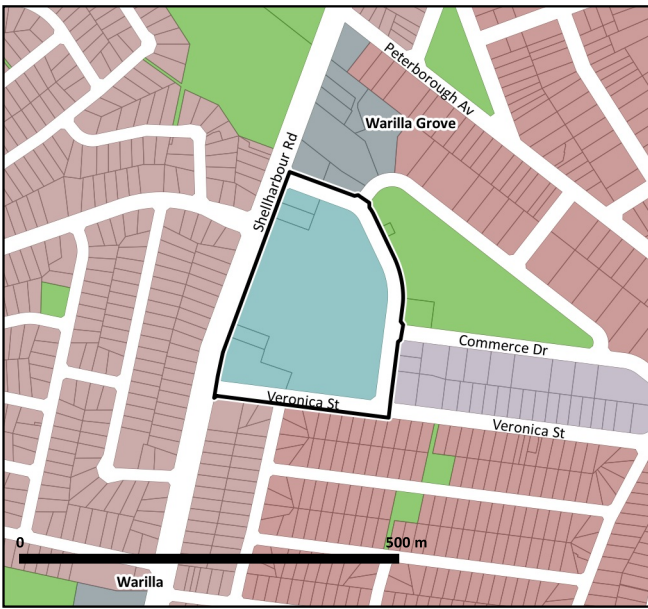
# DETAILED STUDY AREAS B2 LOCAL CENTRE



- B2 Local Centre & Surrounding Area
- LEP 2013 Land Zoning**
- B1 Neighbourhood Centre
- B2 Local Centre
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B7 Business Park
- DM Deferred Matter
- E1 National Parks and Nature Reserves
- E2 Environmental Conservation
- E3 Environmental Management
- E4 Environmental Living
- IN1 General Industrial
- IN2 Light Industrial
- MD Major Development
- R2 Low Density Residential
- R3 Medium Density Residential
- R5 Large Lot Residential
- RE1 Public Recreation
- RE2 Private Recreation
- RU1 Primary Production
- RU2 Rural Landscape
- RU6 Transition
- SP1 Special Activities
- SP2 Infrastructure
- W1 Natural Waterways
- W2 Recreational Waterways


































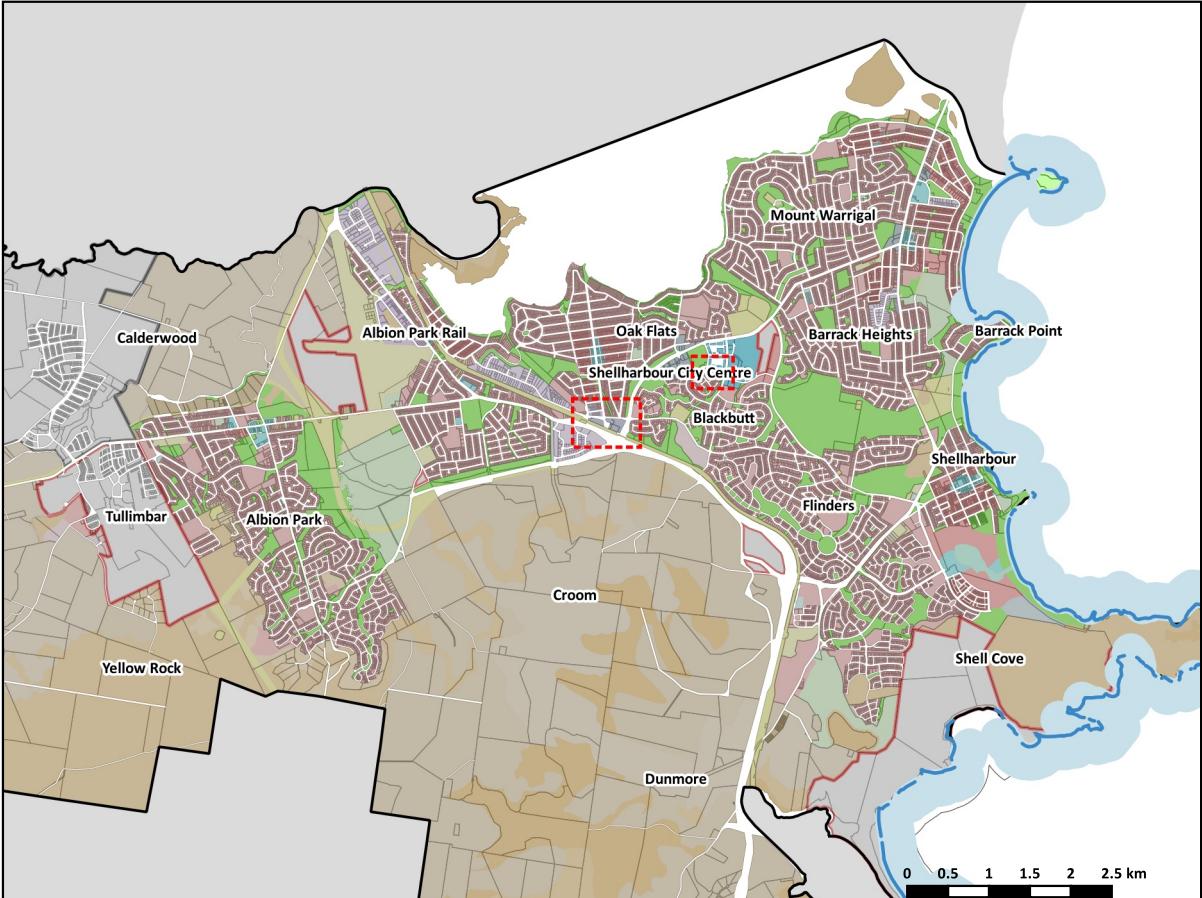




# DETAILED STUDY AREAS

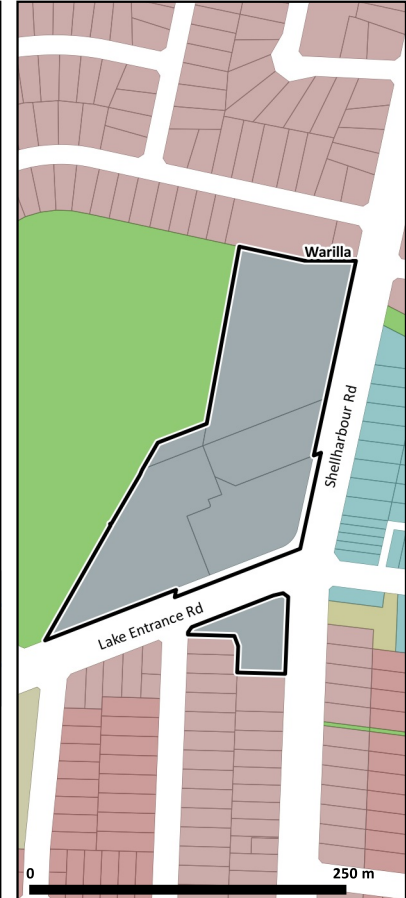
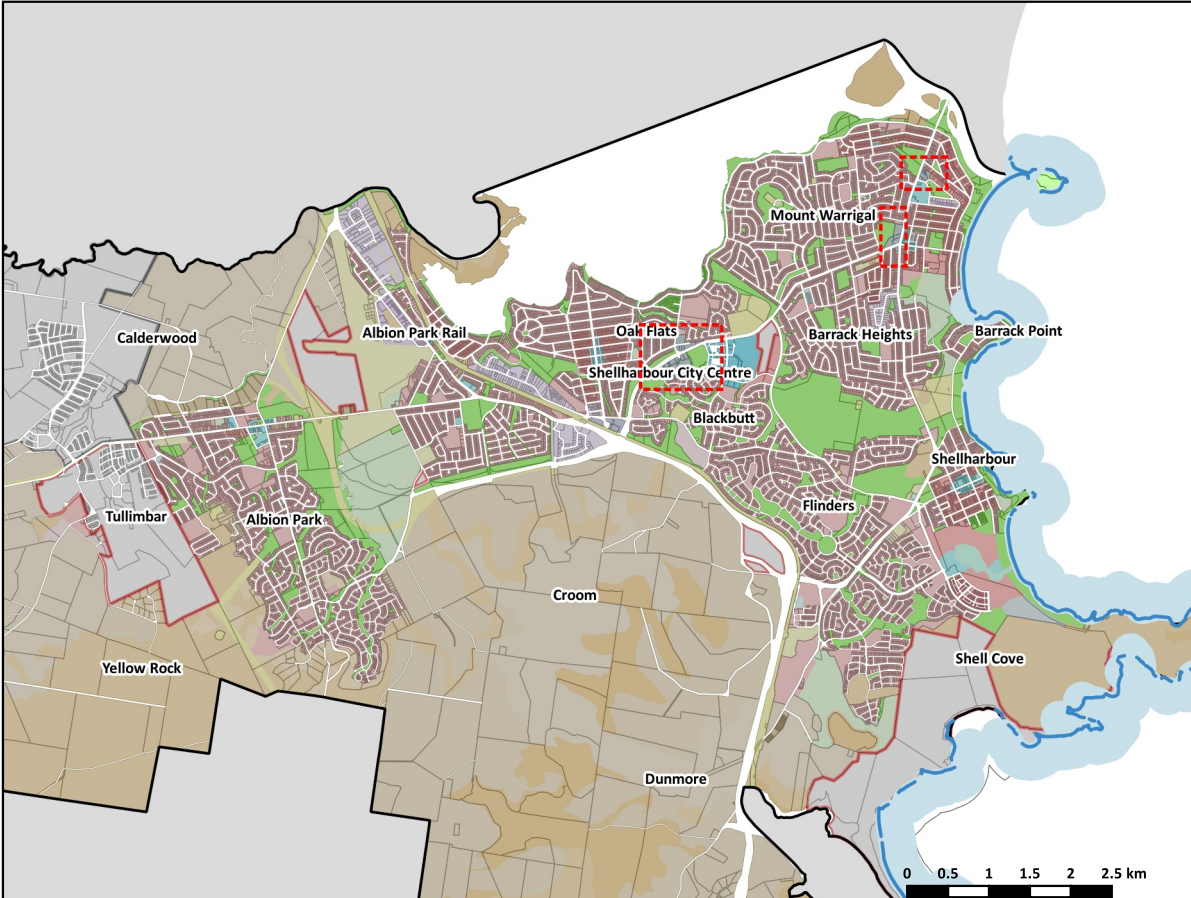
## B4 MIXED USE

-  B4 Mixed Use
- LEP 2013 Land Zoning**
-  B1 Neighbourhood Centre
-  B2 Local Centre
-  B3 Commercial Core
-  B4 Mixed Use
-  B5 Business Development
-  B7 Business Park
-  DM Deferred Matter
-  E1 National Parks and Nature Reserves
-  E2 Environmental Conservation
-  E3 Environmental Management
-  E4 Environmental Living
-  IN1 General Industrial
-  IN2 Light Industrial
-  MD Major Development
-  R2 Low Density Residential
-  R3 Medium Density Residential
-  R5 Large Lot Residential
-  RE1 Public Recreation
-  RE2 Private Recreation
-  RU1 Primary Production
-  RU2 Rural Landscape
-  RU6 Transition
-  SP1 Special Activities
-  SP2 Infrastructure
-  W1 Natural Waterways
-  W2 Recreational Waterways

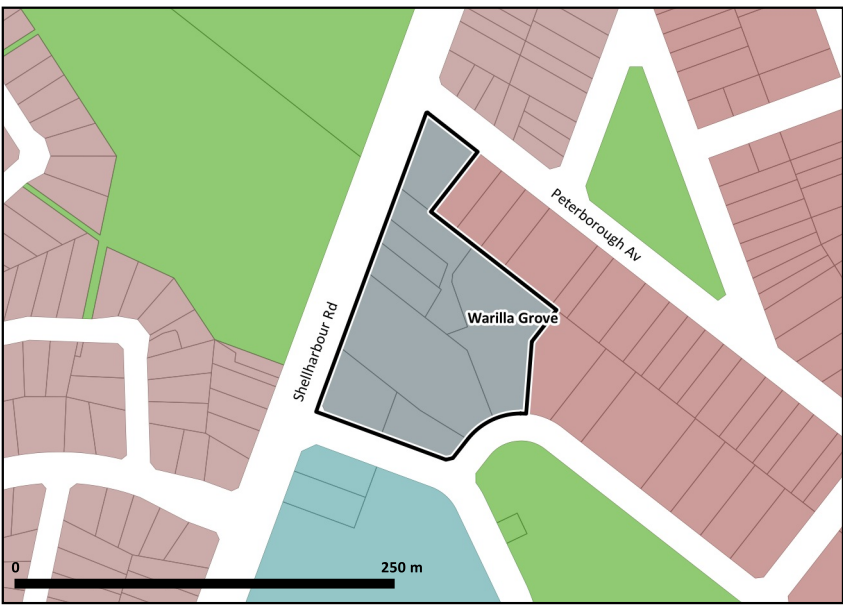




# DETAILED STUDY AREAS B5 BUSINESS DEVELOPMENT

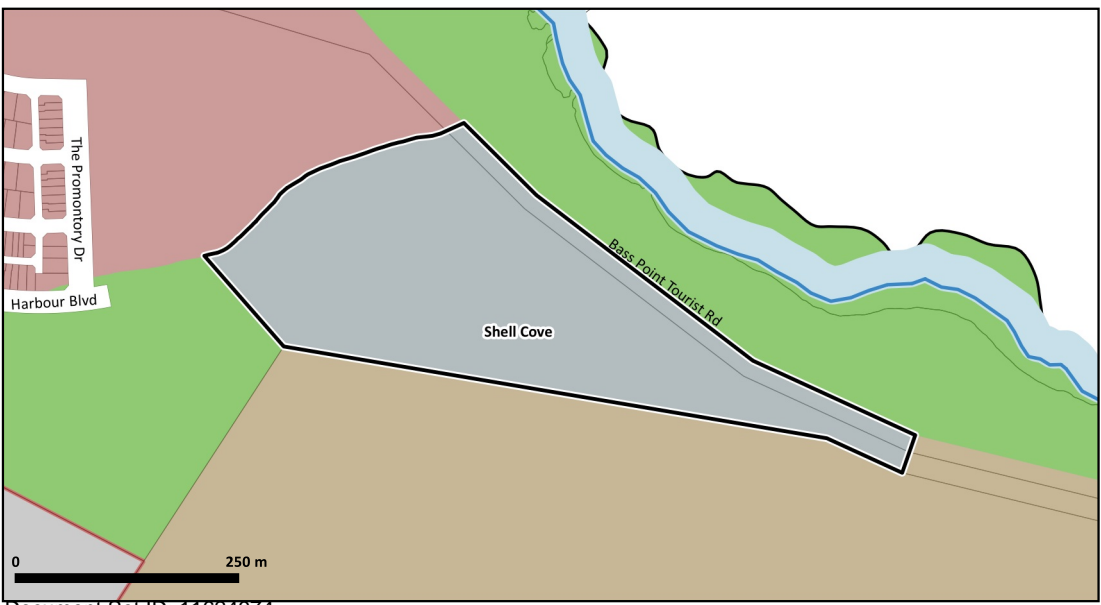
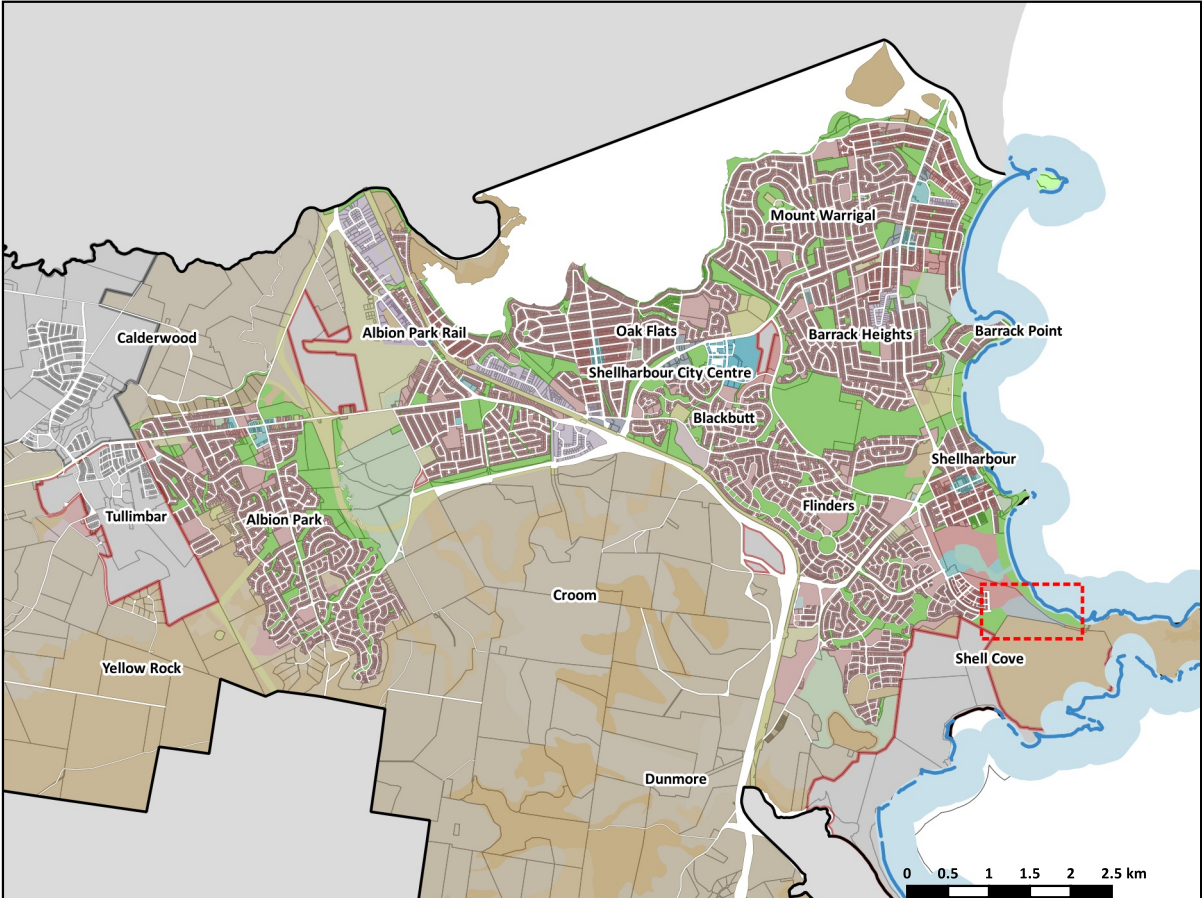


- B5 Business Development
- LEP 2013 Land Zoning**
- B1 Neighbourhood Centre
- B2 Local Centre
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B7 Business Park
- DM Deferred Matter
- E1 National Parks and Nature Reserves
- E2 Environmental Conservation
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- E4 Environmental Living
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- RU1 Primary Production
- RU2 Rural Landscape
- RU6 Transition
- SP1 Special Activities
- SP2 Infrastructure
- W1 Natural Waterways
- W2 Recreational Waterways



# DETAILED STUDY AREAS

## B7 BUSINESS PARK

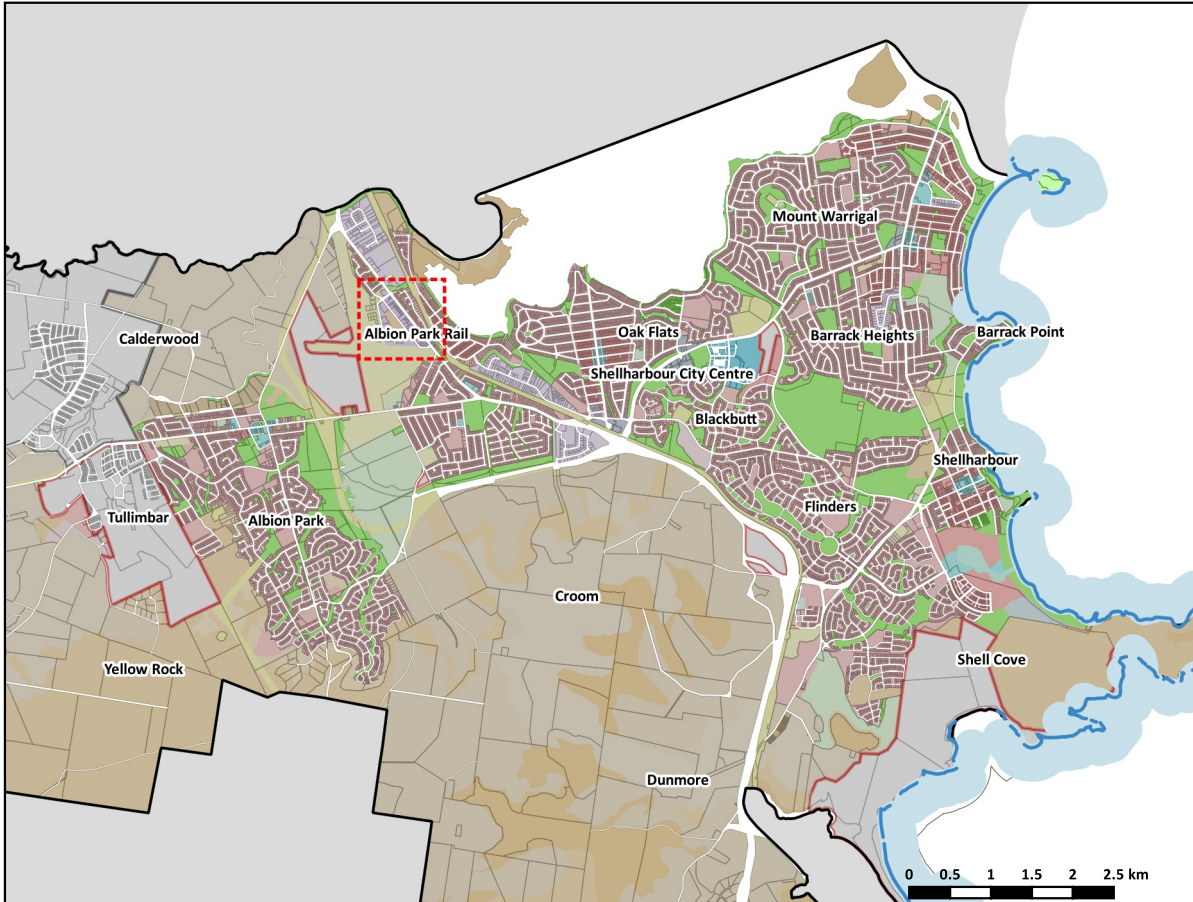


- B7 Business Park
- LEP 2013 Land Zoning**
- B1 Neighbourhood Centre
- B2 Local Centre
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B7 Business Park
- DM Deferred Matter
- E1 National Parks and Nature Reserves
- E2 Environmental Conservation
- E3 Environmental Management
- E4 Environmental Living
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- RE1 Public Recreation
- RE2 Private Recreation
- RU1 Primary Production
- RU2 Rural Landscape
- RU6 Transition
- SP1 Special Activities
- SP2 Infrastructure
- W1 Natural Waterways
- W2 Recreational Waterways





# DETAILED STUDY AREAS IN1 GENERAL INDUSTRIAL

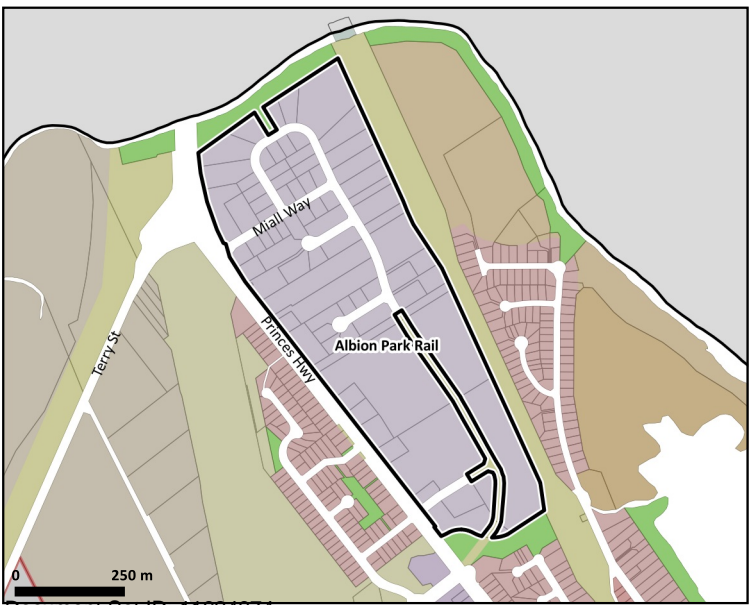
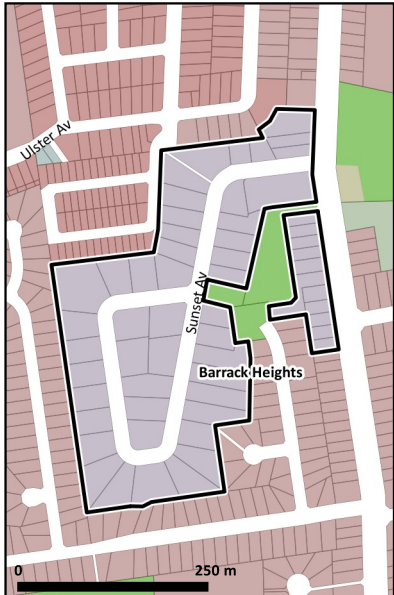
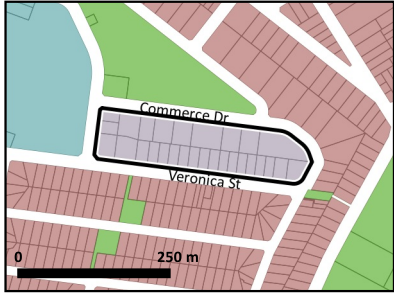
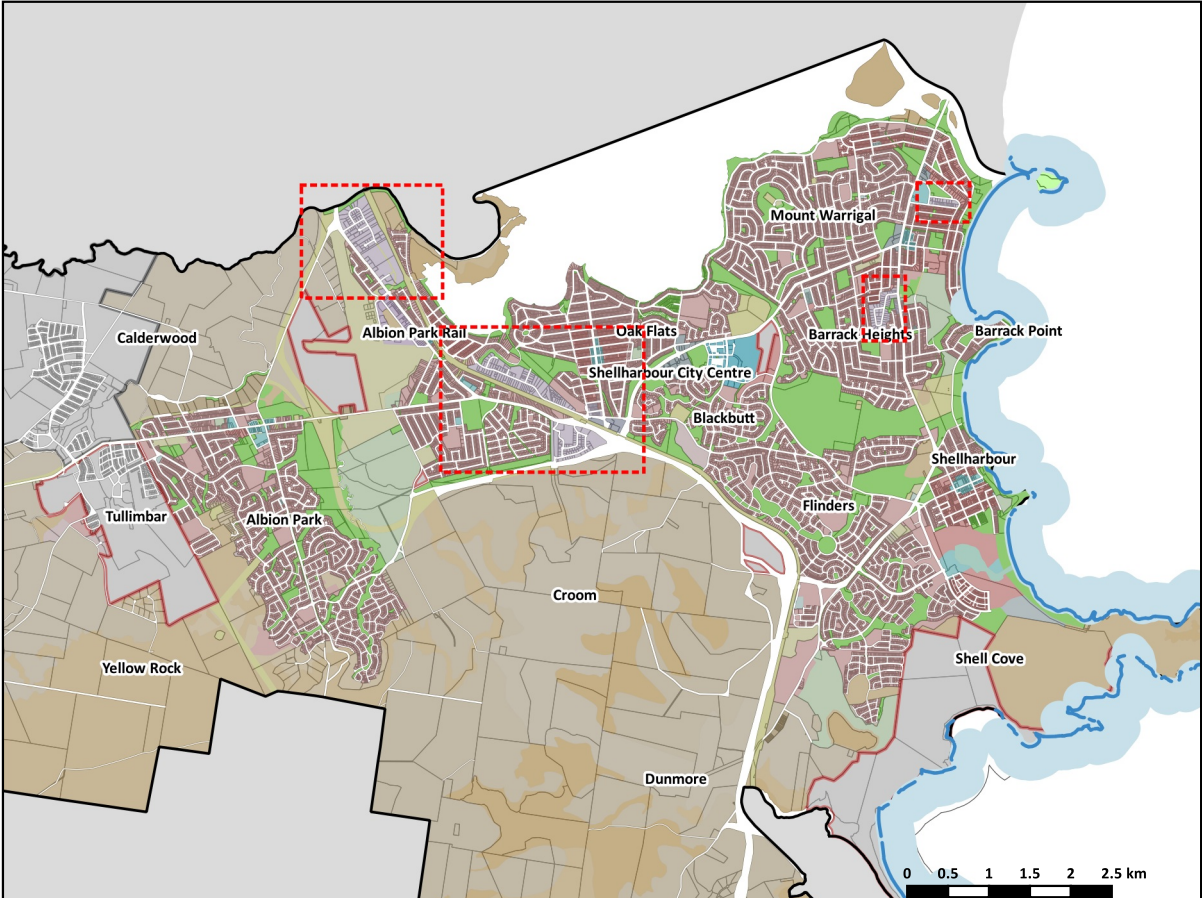


- IN1 General Industrial
- LEP 2013 Land Zoning**
- B1 Neighbourhood Centre
- B2 Local Centre
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B7 Business Park
- DM Deferred Matter
- E1 National Parks and Nature Reserves
- E2 Environmental Conservation
- E3 Environmental Management
- E4 Environmental Living
- IN1 General Industrial
- IN2 Light Industrial
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- R2 Low Density Residential
- R3 Medium Density Residential
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- RE1 Public Recreation
- RE2 Private Recreation
- RU1 Primary Production
- RU2 Rural Landscape
- RU6 Transition
- SP1 Special Activities
- SP2 Infrastructure
- W1 Natural Waterways
- W2 Recreational Waterways





# DETAILED STUDY AREAS IN2 LIGHT INDUSTRIAL

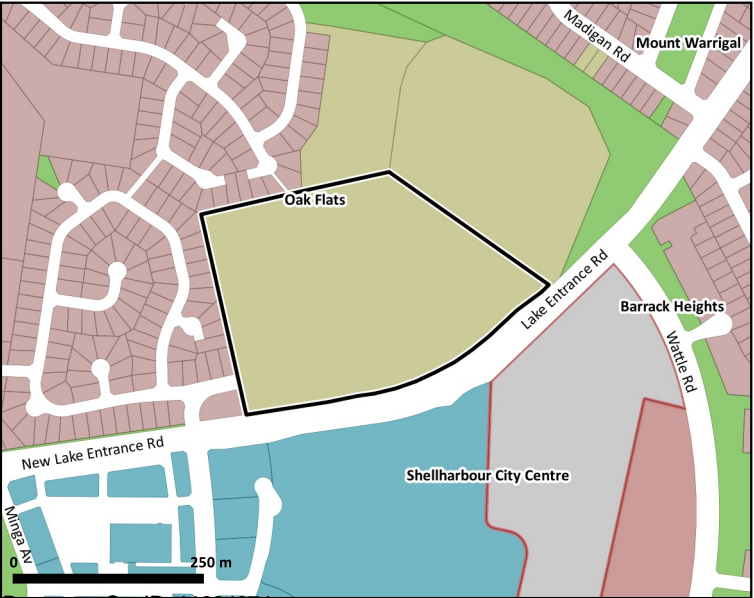
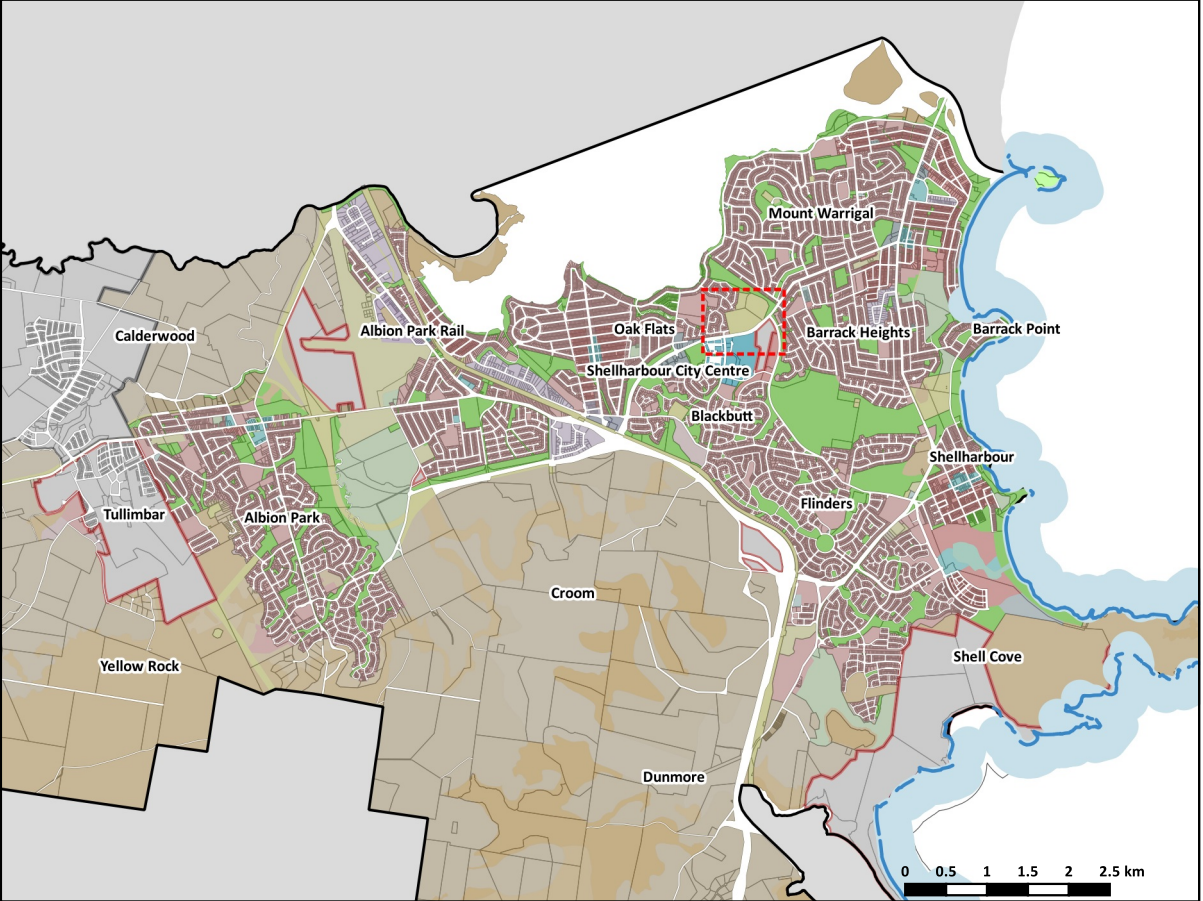


- IN2 Light Industrial
- LEP 2013 Land Zoning**
- B1 Neighbourhood Centre
- B2 Local Centre
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B7 Business Park
- DM Deferred Matter
- E1 National Parks and Nature Reserves
- E2 Environmental Conservation
- E3 Environmental Management
- E4 Environmental Living
- IN1 General Industrial
- IN2 Light Industrial
- MD Major Development
- R2 Low Density Residential
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- SP1 Special Activities
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- W2 Recreational Waterways





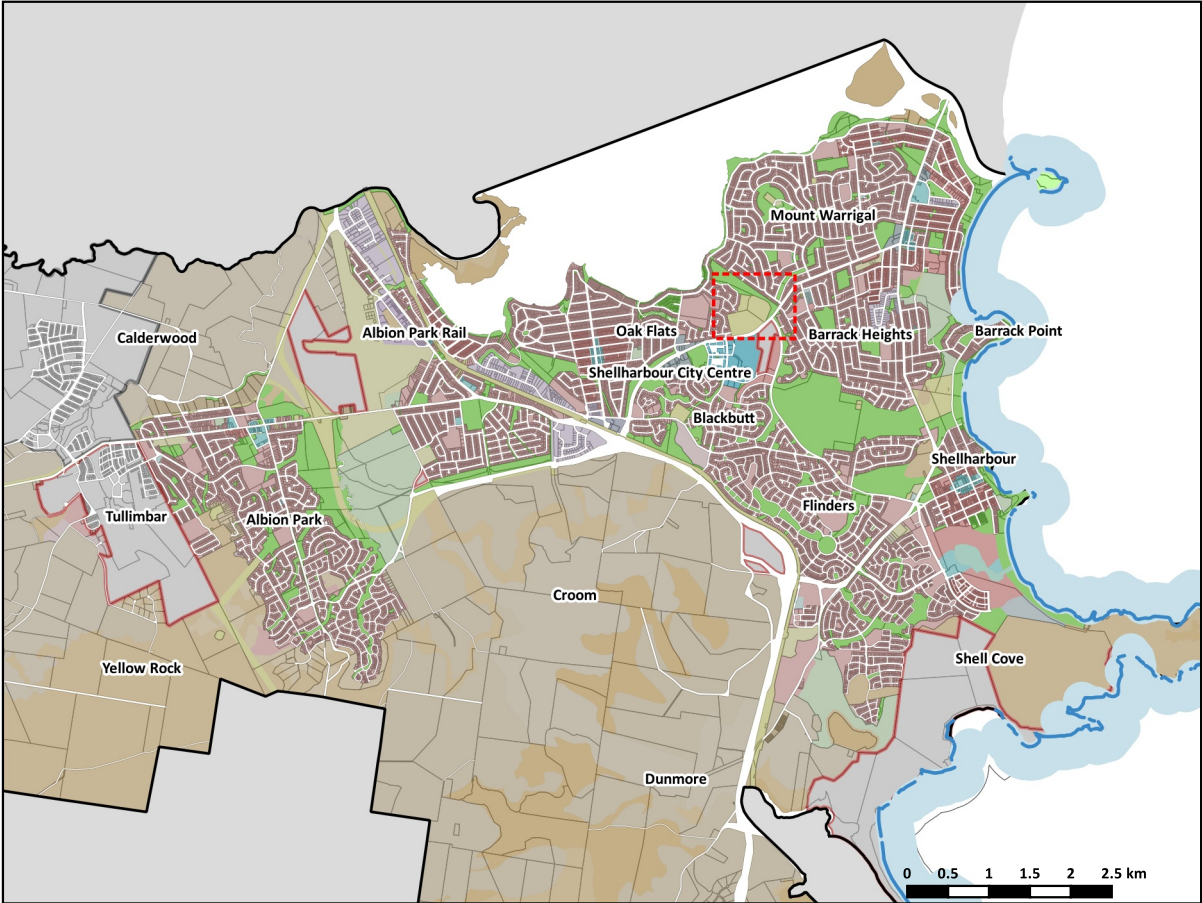
# DETAILED STUDY AREAS SP2 INFRASTRUCTURE - EDUCATIONAL ESTABLISHMENT



- SP2 Infrastructure - Educational Establishment
- LEP 2013 Land Zoning**
- B1 Neighbourhood Centre
- B2 Local Centre
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B7 Business Park
- DM Deferred Matter
- E1 National Parks and Nature Reserves
- E2 Environmental Conservation
- E3 Environmental Management
- E4 Environmental Living
- IN1 General Industrial
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- R2 Low Density Residential
- R3 Medium Density Residential
- R5 Large Lot Residential
- RE1 Public Recreation
- RE2 Private Recreation
- RU1 Primary Production
- RU2 Rural Landscape
- RU6 Transition
- SP1 Special Activities
- SP2 Infrastructure
- W1 Natural Waterways
- W2 Recreational Waterways



# DETAILED STUDY AREAS SP2 INFRASTRUCTURE - HEALTH SERVICES FACILITIES



- SP2 Infrastructure - Health Services Facility
- LEP 2013 Land Zoning**
- B1 Neighbourhood Centre
- B2 Local Centre
- B3 Commercial Core
- B4 Mixed Use
- B5 Business Development
- B7 Business Park
- DM Deferred Matter
- E1 National Parks and Nature Reserves
- E2 Environmental Conservation
- E3 Environmental Management
- E4 Environmental Living
- IN1 General Industrial
- IN2 Light Industrial
- MD Major Development
- R2 Low Density Residential
- R3 Medium Density Residential
- R5 Large Lot Residential
- RE1 Public Recreation
- RE2 Private Recreation
- RU1 Primary Production
- RU2 Rural Landscape
- RU6 Transition
- SP1 Special Activities
- SP2 Infrastructure
- W1 Natural Waterways
- W2 Recreational Waterways



## APPENDIX 2: Background Document Literature Review

AP02

## BACKGROUND LITERATURE REVIEW

Below provides an overview of the background documents and studies which are of relevance to the preparation of the SELS. This includes a range of Federal, State, regional and local documents and studies.

### FEDERAL POLICIES

There are a number of Commonwealth policies and programs that relate to housing within Australia. Several of these hold relevance for the SELS and are outlined below.

#### *Smart Cities Plan*

The Smart Cities Plan outlines the Australian Government's vision for our cities, and our plan for maximising their potential. It incorporates the three pillars of Smart Investment, Smart Policy and Smart Technology.

Of broad policy relevance to the preparation of the Employment Lands Study for Shellharbour is the intent to prioritise projects that facilitate additional jobs. Through incentivising reforms, additional benefits will be generated for the economy making cities better places to live in and do business.

The Smart Cities Plan applies to cities of all sizes across Australia which are facing different opportunities and challenges. "While congestion and affordability are critical issues in capital and major cities, many regional cities are suffering from low or negative growth, as jobs lost in the manufacturing sector, or more recently the resources and energy sectors, are not replaced quickly enough. We need to plan for the future of regional cities, maximising their unique advantages and supporting their long term growth. The Smart Cities Plan provides a platform for long term investment and coordinated planning to help Australian cities reach their full potential" (Smart Cities Plan, 2016).

The Plan states:

"Job clusters can form in the heart of capital cities, regional cities or suburban employment zones. While they do not always form the same way, they tend to have the following characteristics:

- Concentration of a few specialised industries—where there are a number of successful organisations in a specific field in which they are world leaders
- Effective networks of people and organisations—where well established relationships can support collaboration, development and innovation. For example logistics, packaging, distribution and software businesses often develop around airports or other transport nodes
- Active participation of research institutions—through business partnerships with leading research institutions, including universities, health facilities and government bodies such as the CSIRO
- Access to a skilled workforce—where clusters can draw on a deep pool of skilled labour."

These principles and characteristics are relevant considerations when undertaking the SELS.

The concept of City Deals are provided for within the Smart Cities Plan, which will be structured around nationally and locally informed objectives. The primary focus will be on economic growth, jobs creation, housing affordability, and environmental outcomes. A number of City Deals have already been announced for Western Sydney, Launceston, Townsville, Darwin, Hobart and Geelong.

The preparation of a ELS for Shellharbour broadly aligns with the national agenda for Smart Cities.

### STATE AND REGIONAL POLICIES

A number of State and Regional Policies are also applicable to the preparation of the SELS for Shellharbour and these can be outlined as follows:

#### *State Environmental Planning Policies*

State Environmental Planning Policies (SEPPs) address matters of State or regional environmental planning significance. There are a range of SEPPs which apply across NSW, addressing a variety of issues. Several may have relevance for the SELS as follows:

- SEPP No 1 – Development Standards
- SEPP No 65 – Design Quality of Residential Apartment Development
- SEPP (Exempt and Complying Development Codes ) 2008
- SEPP (Infrastructure) 2007



- SEPP (State and Regional Development) 2011
- SEPP (Urban Renewal) 2010
- SEPP (State Significant Precincts) 2005

To the extent relevant, appropriate consideration has been given to all applicable SEPPs when preparing the SELS.

### ***Illawarra and Shoalhaven Regional Plan 2015***

The Illawarra and Shoalhaven Regional Plan provides the strategic policy, planning and decision-making framework to guide 20 year sustainable regional growth for the region, which incorporates the LGA's of Kiama, Shoalhaven, Shellharbour and Wollongong.

The following key principles underpin the Regional Plan:

- identify and protect land with high environmental value and recognise cultural heritage values;
- support the sustainable use of land and water resources and build resilience to natural hazards and climate change;
- support a strong, resilient and diversified economy that will enable the community to respond to environmental, economic and social challenges;
- integrate transport and land use planning, and support improvements in active transport (walking and cycling), public transport and transport infrastructure (including freight);
- take a balanced approach to housing that provides choice, affordability, and supports the orderly supply of land for development;
- increase housing density around centres that have access to jobs and transport and are already appealing to residents;
- encourage urban design that reduces car dependency, improves the public domain, promotes energy efficiency and supports healthier environments; and
- improve infrastructure coordination.

The Regional Plan states that the population will change over the next 20 years, with growth anticipated to be moderate in most age groups, except in the 65-and-over group, particularly in Kiama and Shoalhaven. More one- and two-person households are predicted, with growth in the region leading to a need for at least 35,400 additional homes, of which 9,350 additional dwellings are predicted to be required within Shellharbour to 2036.

The Regional Plan furthermore states that:

“Evidence from the Urban Feasibility Model, Illawarra Urban Development Program and Shoalhaven Growth Management Strategy show there is enough potential for the market to supply housing across a range of locations and housing types for the long term. Therefore, no new release areas are required for Wollongong, Shellharbour and Shoalhaven beyond those already identified under the Illawarra Urban Development Program and Shoalhaven Growth Management Strategy.”

It further states:

“Councils are to plan for the mix of housing that suits the projected growth, changing demographics (such as an ageing population) and market demand particular to their area. This means that zonings and planning controls maintain, or in some cases, increase capacity for housing, as well as other Council activities (such as streamlining assessment processes and planning for local infrastructure and town centre revitalisation) to promote development opportunities.”

The Regional Plan therefore places an expectation on both Shellharbour City Council (and the other councils within the region) to plan for the particular growth and mix of housing that is projected for the LGA.

There are a number of Directions and associated Actions within the ISRP that are especially relevant to the study, which are as follows:

**Action 2.2.1** *Investigate the policies, plans and investments that would support greater housing diversity in centres*

#### ***The NSW Government will:***

*Investigate any barriers that may be preventing development by:*

- *Exploring the types of infrastructure and public domain investments that would increase the capacity for growth*

- Identifying policies and more detailed planning that would improve certainty and streamline development processes ; and
- Identifying urban design outcomes that support active and vital communities once development occurs; and
- Work with Councils to review planning controls in existing urban areas to identify opportunities to increase the range of housing types

**Direction 3.1 Grow the opportunities for investment and activity in the region's network of centres.**

**The NSW Government's preference is to put retail activity into centres. Proposals for new retail centres (including retail proposals) will be assessed against the region's network of centres. These proposals should demonstrate how they:**

- Respond to retail supply and demand;
- Respond to innovations in the retail sector;
- Maximise the use of existing infrastructure (including public transport and community facilities) commensurate with the scale of the proposal; and
- Enhance the value of the public realm

The net community benefit should be a factor when assessing these proposals.

**Action 3.3.2 Support Council-led revitalisation of centres**

**The NSW Government will:**

- Improve coordination between State agencies, Councils and the private sector to support council-led revitalisation projects

**Action 1.4.3 Support growth in the priority growth sectors through flexible employment lands guidelines for the Illawarra-Shoalhaven**

**The NSW Government will:**

Review and update the Employment Lands Guidelines for the Illawarra and Shoalhaven

The ISRP builds on the region's existing economic strengths, and identifies the following priority growth sectors:

- tourism;
- health, disability and aged care;
- ICT/knowledge services;
- education and training;
- aviation, defence and advanced manufacturing; and
- freight and logistics.

## LOCAL PLANNING POLICIES

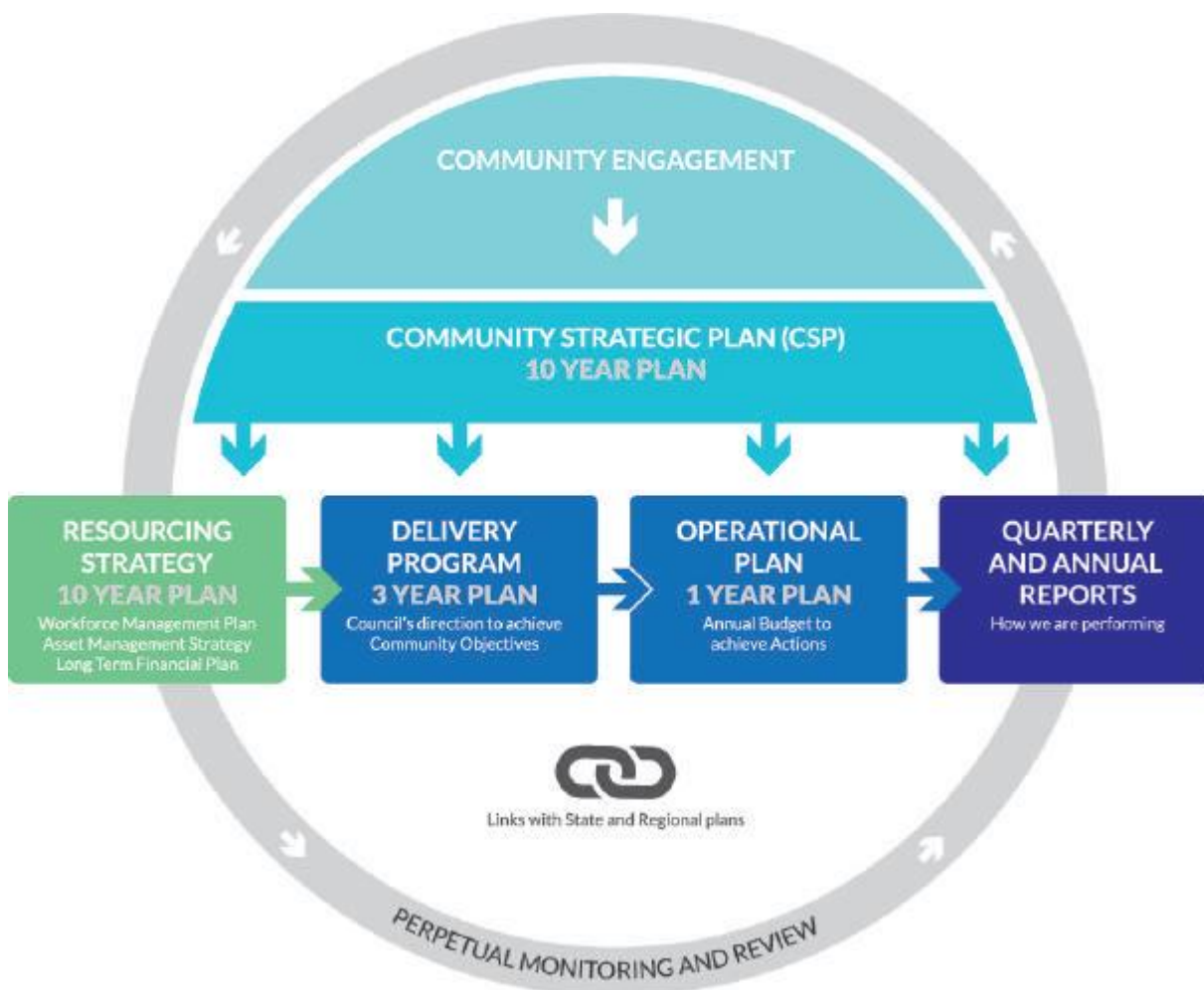
There are a suite of local planning plans, policies and strategies which exist for Shellharbour. Many of these will not be overly relevant or applicable to the preparation of the LHS, however the Community Strategic Plan, applicable LEPs and DCP have been broadly reviewed and are summarised below:

### **Shellharbour Community Strategic Plan**

Shellharbour City Council's Community Strategic Plan 2018-2028 (CSP) is a long term plan, which is within the Integrated Planning and Reporting Framework. The CSP focusses on four key areas known as the Quadruple Bottom Line (QBL) being Community, Environment, Economy and Leadership.

the SELS will also respond to the specific Shellharbour Vision contained in Council's Community Strategic Plan 2018-2028 (CSP), by planning for employment opportunities which respond to the needs of existing and future populations, by creating a *dynamic* city, being *connected* to community to create a *safe and sustainable* future, and providing *opportunities* for people to both live and work within Shellharbour.

The SELS will respond to the four key areas of the Quadruple Bottom Line (QBL) as contained within the CSP, in particular the Economy Objectives which seek to support and increase employment and business opportunities within a strong local economy.



## Community Strategic Plan – Integrated Planning and Reporting Framework

### *Shellharbour Local Housing Strategy*

The Shellharbour Local Housing Strategy provides for the appropriate provision of all forms of housing for Shellharbour over the next 25 years. It does this by analysing and responding to demographic changes, housing preferences and housing supply/demand issues, including community engagement outcomes. The SLHS also addresses policy implications arising from this analysis and these outcomes.

The key findings and recommendations for the SLHS are:

The demand for housing in Shellharbour over the next 25 years can be met by existing residential zoned land through infill and greenfield development.

There is a need for greater housing diversity and choice.

There is a need for more affordable housing

There is a need for more public housing

Our Local Environmental Plans and Development Control Plan should be reviewed taking into consideration the more detailed findings of the SLHS.

Prepare for consideration a range of non-planning mechanisms to facilitate housing diversity and affordability.

Consideration should be given to limiting any future application of the Low Rise Housing Diversity Code to existing R3 Medium Density zoned areas (excluding the Shell Cove Boat harbour Precinct) and possible future additional R3 zoned areas and to parts of the greenfield areas of Tullimbar and Calderwood; to help increase housing diversity.

### *Shellharbour Local Environmental Plans*

Local Environmental Plans (LEPs) are an important component of the NSW planning system, with each local government having an LEP to guide development and planning decisions. Whilst the SEPPs outline the rules and guidelines for land use, councils can

nominate more specific rules about land use through their Local Environmental Plans, as well as provide additional guidance in their Development Control Plans (DCPs).

There are currently three LEPs which apply to Shellharbour. These are the Shellharbour LEP 2013, Shellharbour Rural LEP 2004 and the Shellharbour LEP 2000.

The Shellharbour LEP 2013 contains development standards for floor space ratio, height, minimum lot size and other provisions which affect most Development Applications made in Shellharbour. It does not apply to land identified as a Deferred Matter on the Land Application Map. The specific provisions of the LEP with respect to the FSR, heights, minimum lot size and other provisions (including relevant constraints mapping) have been considered when preparing the SELS.

The Shellharbour Rural LEP 2004 applies to all land identified as such on the Land Application Map within that LEP. This generally relates to the Illawarra Regional Business Park site to the immediate west of the Illawarra Regional Airport; land on the Illawarra Highway to the west of Yellow Rock Road; and land on the Princes Highway to the north west of Shellharbour Road. The Rural LEP 2004 is applicable to the preparation of the SELS insofar as it relates to the Airport and will be considered to the extent relevant when preparing the SELS.

The Shellharbour LEP 2000 also applies to other land identified as a Deferred Matter on the Land Application Map contained within the Shellharbour LEP 2013. For example, the 2000 LEP is applicable to the emerging residential area of Tullimbar. It also applies to other areas within the LGA, such as land south of Shell Cove.

### **Shellharbour DCP**

The Shellharbour Development Control Plan (DCP) applies to Shellharbour except for the Calderwood area which is approved for development by the State government under Part 3a of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and has its own development guidelines under that legislation. No LEPs apply to Calderwood.

Unlike the SEPPs and LEPs, DCP provisions are not statutory requirements but can provide guidance on certain development matters. The primary purpose of a DCP is to provide guidance to applicants on:

- a) Giving the effect to the aims of any environmental planning instrument that applies to the development;
- b) Facilitating development that is permissible under any such instrument; and
- c) Achieving the objectives of land zones under any such instrument.

The implications of the SELS on any applicable DCP provisions have been considered.

## **OTHER INFORMATION**

### **Healthy Ageing Strategy for Shellharbour 2015-2017**

The Shellharbour Healthy Ageing Strategy 2015-2017 provides an opportunity to plan, provide and advocate for improved health and well-being of older people in the community. This Strategy aligns with Council's Delivery Program with the intention that the 'big ideas' outlined in the Strategy be incorporated in Shellharbour City Council's Operational Plan each year, based on funding and resourcing capacity.

The Strategy comprises a range of measures and ideas, however of most relevance to the preparation of the SELS is the ability to allow residents to age in place and to ensure that access to appropriate housing is facilitated, which combined with a range of other factors related to access to community and social services, transport, can influence the independence and quality of life of older people. When preparing the SELS, consideration must be given to facilitating the development of a diverse range of housing products which allows for flexibility and adaptability within centres (i.e. employment areas), to ensure that the needs of the ageing population can be met, which allows residents to stay within Shellharbour and to age in place.

### **Shellharbour Disability Access and Inclusion Plan 2017-2021**

The Shellharbour Disability Access and Inclusion Plan 2017 - 2021 focuses on how Shellharbour City can be a more inclusive and accessible city and sets the direction on how this can be achieved. It covers all aspects of Council services, making Shellharbour City a place where people want to live, work and play. The Plan also links to the Community Strategic Plan's Delivery Program and Operational Plan and will make creating a more inclusive City everyone's responsibility, increasing the effectiveness of the Plan (Shellharbour City Council Disability Access and Inclusion Plan 2017-2021). The SELS should encourage any new development within employment areas to be cognisant of ensuring that accessibility and inclusivity are core considerations when determining appropriate locations and design outcomes for further employment development within the region.

### **Shellharbour Youth Plan 2018-2021**

The Shellharbour Youth Plan 2018-2021 has been informed by policy, best practice, local support services and community Consultations and is targeted at young people aged 12-24 across all sections of society, including Aboriginal and Torres Strait Islander people, multicultural groups, people with disabilities and LGBTQI people.

The Youth Plan contains an action plan which seeks to achieve the young people's vision for Shellharbour, with longer term goals and targets, plus the actions that will help them to achieve them. Goal 1 – Family and Community Support and Housing states:

*Young people in Shellharbour have a safe place to live and are socially and culturally connected and supported. Having positive relationships with family, carers and friends while being able to access support services provides a strong platform for young people to grow up in Shellharbour. It is also important for young people to connect across cultures, so they can develop a good understanding of their whole community and the strengths of others.*

*Growing up in a family or care environment that provides them safety, shelter and love is very important to young people. Parents, carers, siblings, extended family and friends are key to helping young people learn, develop and grow while providing positive role models for young people during their developmental years.*

*To improve family unity and positive home environments, young people encouraged the Shellharbour community to hold family-friendly events and activities. Young people highlighted the need for local services that are useful, approachable and available to support families achieve positive outcomes. Young people said that family-friendly and youth-friendly venues locally would encourage more people to access support, and that buildings and outdoor spaces should be designed with this in mind.*

*Young people growing up in Shellharbour are particularly concerned about issues like domestic violence and safe, affordable housing. The Youth Plan provides local groups a basis to work together with young people to advocate for improved awareness and services focussing on these issues over the coming years.*

The Shellharbour Employment Lands Study will seek to ensure that the aspirations of the Shellharbour youth for safe and affordable housing can be facilitated.

### **Shellharbour Safety Strategy 2016-2021**

The 'Shellharbour Safety Strategy' creates a shared vision for a safe Shellharbour. It builds upon Shellharbour's achievements to date as well as providing new opportunities and will be used to inform Council's planning, programming and funding priorities over the next five years. Extensive stakeholder and community engagement was conducted as part of the preparation of the strategy, including taking a closer look at local demographic data, current crime data and background research.

The ambition within the Safety Strategy is that *Shellharbour continues to be a friendly environment where people feel safe.*

This is intended to be achieved by Council:

- Taking a lead role in responding to local safety issues
- Reducing the fear of crime
- Working in partnership with all levels of Government, community and businesses to develop programs that increase awareness and reduce crime in Shellharbour.
- Celebrating our safe and connected neighbourhoods
- Supporting community safety activities and events in Shellharbour and the Illawarra Region.
- Creating safer public places through planning practises
- Increasing awareness of crime prevention, domestic violence and community safety through the provision of information.
- Reducing the rates of domestic violence in Shellharbour
- Minimising graffiti in the city.

The Strategy outlines five priorities, with Priority Four being of direct relevance to the preparation of the SELS, as follows:

#### ***Priority Four: A City that plans for and maintains safe public places***

Built environments and the way neighbourhoods are designed and maintained impact on the community's perception of safety. Creating safe public places encourages health and wellbeing in the community.

The SELS will need to be cognisant of this priority, to ensure that neighbourhoods are designed and maintained to be safe.

### **Shellharbour Local Infrastructure Contributions Plan (9th review)**

The Objectives of the Shellharbour Local Infrastructure Contributions Plan are to ensure that:

- 1) Community Infrastructure meets the needs of a growing population; and
- 2) Developers contribute towards cost of infrastructure.

Section 3 provides some context in terms of the anticipated population growth of the area.

The population of the City of Shellharbour is anticipated to grow to approximately 74,750 people by the year 2023 and approximately 79,000 by the year 2028. This population growth will result in the need for additional infrastructure and services to those that exist at present. The key areas of growth in Shellharbour City are anticipated to be Shell Cove, Tullimbar, Calderwood and the City Centre.

Section 4 discusses the land dedication and the provision of open space with new greenfield development.

Section 7 identifies that non residential development charges will be capped to encourage growth.

Sections 16 - 24: The majority of the document identifies precincts and the need for new infrastructure in these areas based on the level of development which has occurred. It provides key information about the type of development in each precinct and the infrastructure required to be provided to encourage future development.

The Local Infrastructure Contributions Plan provides some important contextual information around growth of the Shellharbour population and the need for additional infrastructure and services to be provided in the key growth areas. The SELS will need to ensure that it acknowledges the Local Infrastructure Contributions Plan and that any policy decisions made with respect to future housing provision, do not undermine this plan.

### **Town Centre Plans**

Shellharbour City has adopted town centre plans for Albion Park, Shellharbour Village Centre, Oak Flats and Warilla, which generally identify little future supply deficits of retail and commercial floor space. The town centre LEP recommendations account for this, whilst also encouraging greater density and critical mass of people through various measures such as height controls to promote a sense of enclosure and connected and vibrant mixes of uses. It is noted that any recommendations arising from the SELS will need to be cognisant of these town centre LEP recommendations and must provide sufficient justification if they are to override or be inconsistent with these current recommendations.

#### Council's adopted town centre plans

Generally the town centre plans identify little or only modest future supply deficits of retail and commercial floor space.

Town centre plan LEP recommendations account for this, but are also driven variously by objectives to for instance encourage greater density and critical mass of people, height controls to promote a sense of enclosure and connected and vibrant mixes of uses.

The town centre plans also contain residential market appraisals which reference demographic and housing trends and, both discussions with local agents and sales data regarding market activity. This is valuable information that has fed into the town centre plan LEP recommendations.

#### The Albion Park Town Centre Plan (APTCP)

The APTCP was endorsed by Council on 8 April 2014 as a basis for the review of relevant Council policy including Shellharbour Local Environmental Plan 2013, Shellharbour Development Control Plan, Shellharbour City Council Development Contributions Plan 2013 and future capital works programs.

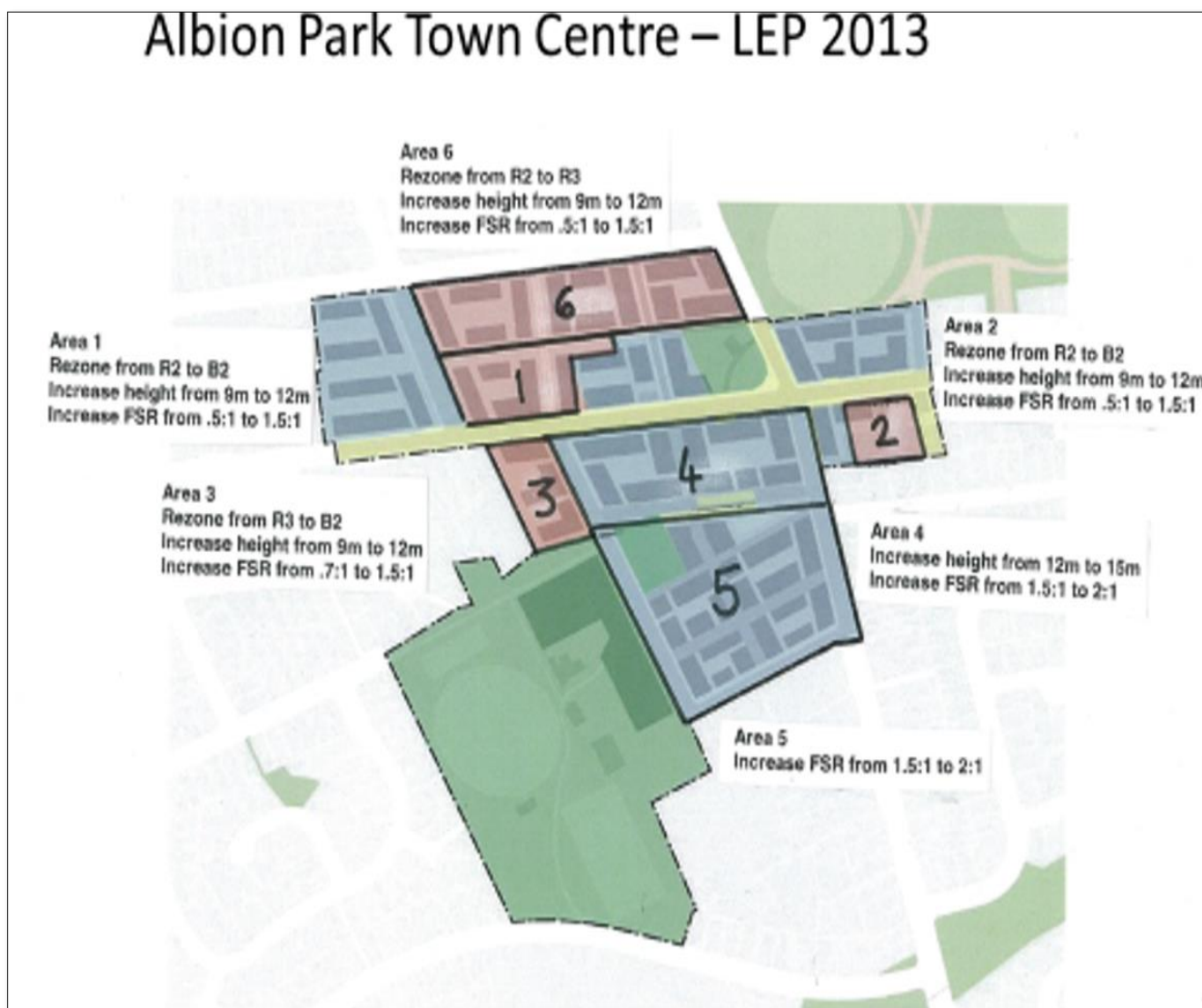
Key outcomes of the Albion Park Town Centre Plan as recommended by McGregor Coxall include:

- Recommendations to amend Local Environmental Plan 2013 by:
  - increasing the Albion Park business zone footprint by rezoning 3 residential parcels to B2 Local Centre;
  - increasing the floor space ratio for existing Albion Park business zoned land on the south side of Tongarra Road and increasing the height for some of this land;
  - rezoning low density residential land to medium density residential, on the south side of Taylor Road.



- Provisions that can become place making and capital works type initiatives to improve the functioning, appeal and vitality of the centres such as:
  - improving facades, activating laneways, improving pedestrian links, encouraging art, music and markets;
  - the potential for a new community, cultural and leisure facility on the edge of Con O'Keefe Park, Albion Park;
  - a proposed shared street for Russell Lane, Albion Park.
- Provisions that can inform town centre review aspects of the Shellharbour Development Control Plan, such as building design and usage, public domain treatment, transport and parking.

Recommended LEP 2013 changes from the APTCP are as per the following map and table:



Area	Existing Planning Controls				Proposed Planning Controls			
	Zone	Floor-Space-Ratio	Height-of-Building	Lot-Size	Zone	Floor-Space-Ratio	Height-of-Building	Lot-Size
Area-1	R2-Low-Density-Residential	.5:1	9m	450m <sup>2</sup>	B2-Local-Centre	1.5:1	12m	NIL
Area-2	R2-Low-Density-Residential	.5:1	9m	450m <sup>2</sup>	B2-Local-Centre	1.5:1	12m	NIL
Area-3	R3-Medium-Density-Residential	.7:1	9m	450m <sup>2</sup>	B2-Local-Centre	1.5:1	12m	NIL
Area-4	B2-Local-Centre	1.5:1	12m	NIL	B2-Local-Centre	2:1	15m	NIL
Area-5	B2-Local-Centre	1.5:1	12m	NIL	B2-Local-Centre	2:1	12m	NIL
Area-6	R2-Low-Density-Residential	.5:1	9m	450m <sup>2</sup>	R3-Medium-Density-Residential	1.5:1	12m	450m <sup>2</sup>

### The Shellharbour Village Centre Plan (SVCP)

The SVCP was endorsed by Council on 18 March 2014 as a basis for the review of relevant Council policy including Shellharbour Local Environmental Plan 2013, Shellharbour Development Control Plan, Shellharbour City Council Development Contributions Plan 2013 and future capital works programs.

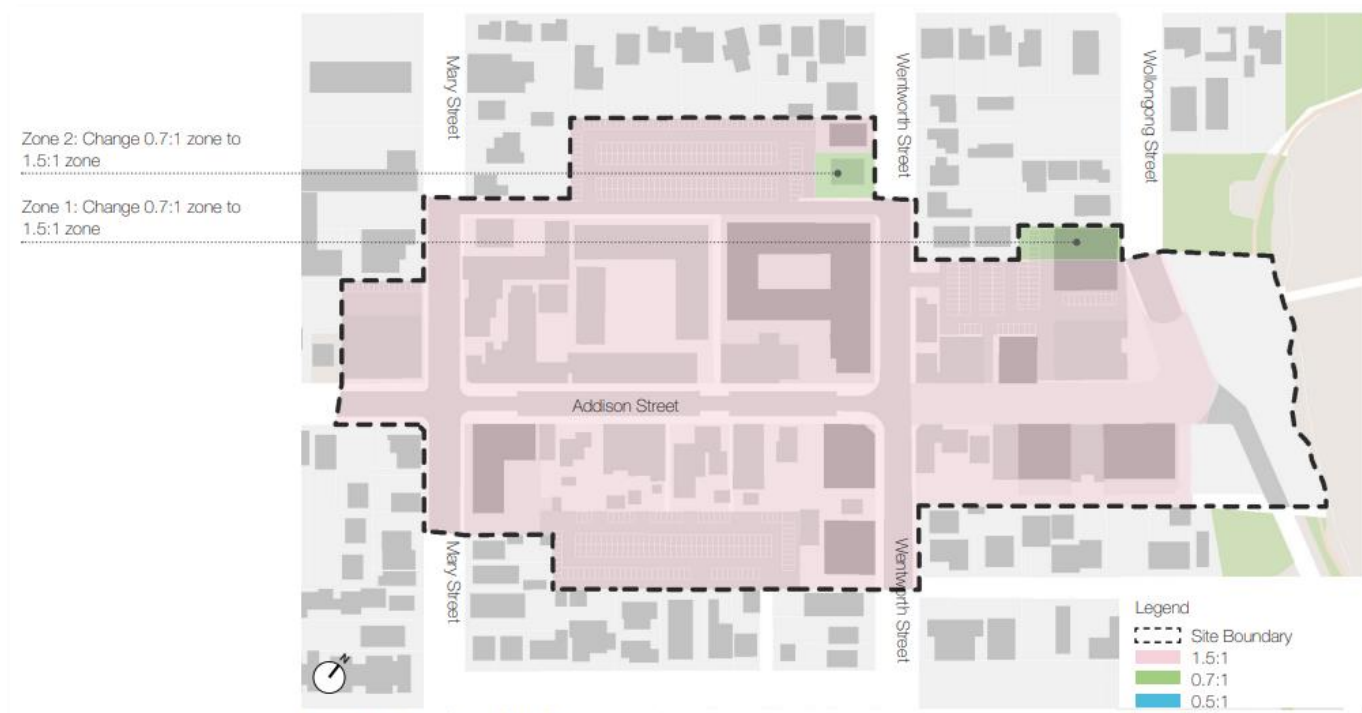
Key outcomes of the Shellharbour Village Centre Plan include:

- Recommendations to amend Local Environmental Plan 2013 by:
  - increasing the Shellharbour Village business zone footprint by rezoning 2 residential lots to B2 Local Centre.
- Provisions that can become place making/capital works type initiatives to improve the functioning, appeal and vitality of the centre such as:
  - improving facades, activating laneways, improving pedestrian links, encouraging art, music and markets;
  - a proposed shared street on Addison Street between Wentworth and Wollongong Streets;
  - removing car spaces on the northern end of the Shellharbour Village foreshore reserve to open it up for open space/recreation and link it to the shared street;
  - increasing the capacity of existing car parks within Shellharbour Village.
- Provisions that can inform centre review aspects of the Shellharbour Development Control Plan, such as building design/usage, public domain treatment, transport/parking.

Recommended LEP 2013 changes from the SVCP are as per the following table:

Property and land-area	Existing Planning Controls				Proposed Planning Controls			
	Zone	Lot-Size	Floor-Space-Ratio	Height-of-Building	Zone	Lot-Size	Floor-Space-Ratio	Height-of-Building
1- Wollongong Street 835m <sup>2</sup>	R3-Medium-Density-Residential	450m <sup>2</sup>	.7:1	9m	B2-Local-Centre	NIL	1.5:1	15m
39- Wentworth Street 651m <sup>2</sup>	R3-Medium-Density-Residential	450m <sup>2</sup>	.7:1	9m	B2-Local-Centre	NIL	1.5:1	15m





The Oak Flats Town Centre Plan (OFTCP)

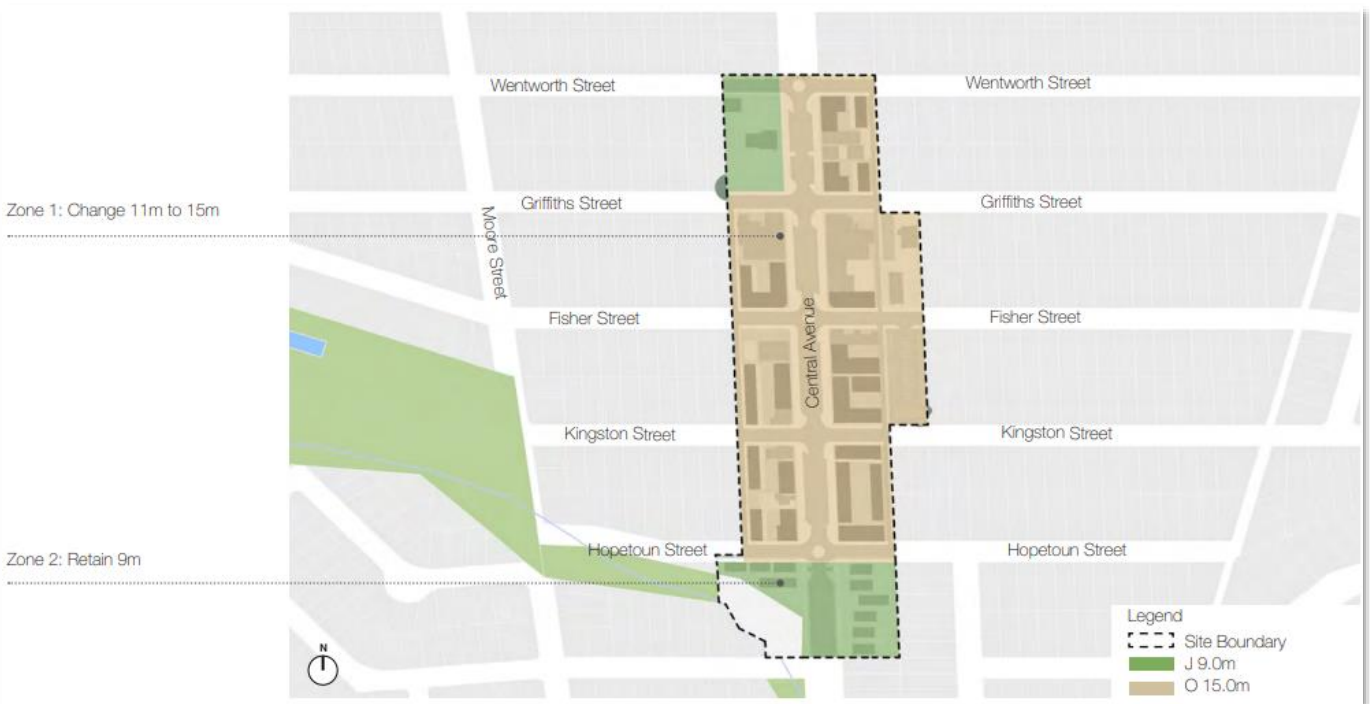
The OFTCP was endorsed by Council on 3 February 2015 as a basis for the review of relevant Council policy including Shellharbour Local Environmental Plan 2013, Shellharbour Development Control Plan, Shellharbour City Council Development Contributions Plan 2013 and future capital works programs.

Key outcomes of the Oak Flats Town Centre Plan include:

- Recommendations to amend Council's planning provisions to increase height, floor space ratio and reduce higher density residential parking requirements.
- Provisions that can become capital works type initiatives to improve the functioning, appeal and vitality of the centre including removing the ex-baby health centre on the south-west corner of Central Avenue & Fisher Street and establishing a public space on the northern edge of the Oak Flats Library.
- Other provisions that can inform town centre review aspects of the Shellharbour Development Control Plan, such as building design and usage, public domain treatment, transport and parking.
- The Plan relates principally to business zoned area, but includes the front part of the Oak Flats Public School to the north west of the centre and an area of creek reserve to the south of the centre.
- The Plan proposes an enhanced school fence to complement future Central Avenue character.
- The Plan proposes an enhanced pedestrian link along the creek corridor.

Recommended LEP 2013 changes from the OFTCP are as per the following table:

Property <sup>a</sup>	Existing Planning Controls <sup>a</sup>			Proposed Planning Controls <sup>a</sup>		
	Zone <sup>a</sup>	Floor Space Ratio <sup>a</sup>	Height of Buildings <sup>a</sup>	Zone <sup>a</sup>	Floor Space Ratio <sup>a</sup>	Height of Buildings <sup>a</sup>
B2 Local Centre zoned land between Wentworth Street and Hopetoun Street Oak Flats <sup>a</sup>	B2 Local Centre <sup>a</sup>	1.5:1 <sup>a</sup>	11m <sup>a</sup>	B2 Local Centre <sup>a</sup>	2:1 <sup>a</sup>	15m <sup>a</sup>







### The Warilla Town Centres Plan (WTCP)

The WTCP was endorsed by Council on 15 December 2015 as a basis for the review of relevant Council policy including Shellharbour Local Environmental Plan 2013, Shellharbour Development Control Plan, Shellharbour City Council Development Contributions Plan 2013 and future capital works programs.

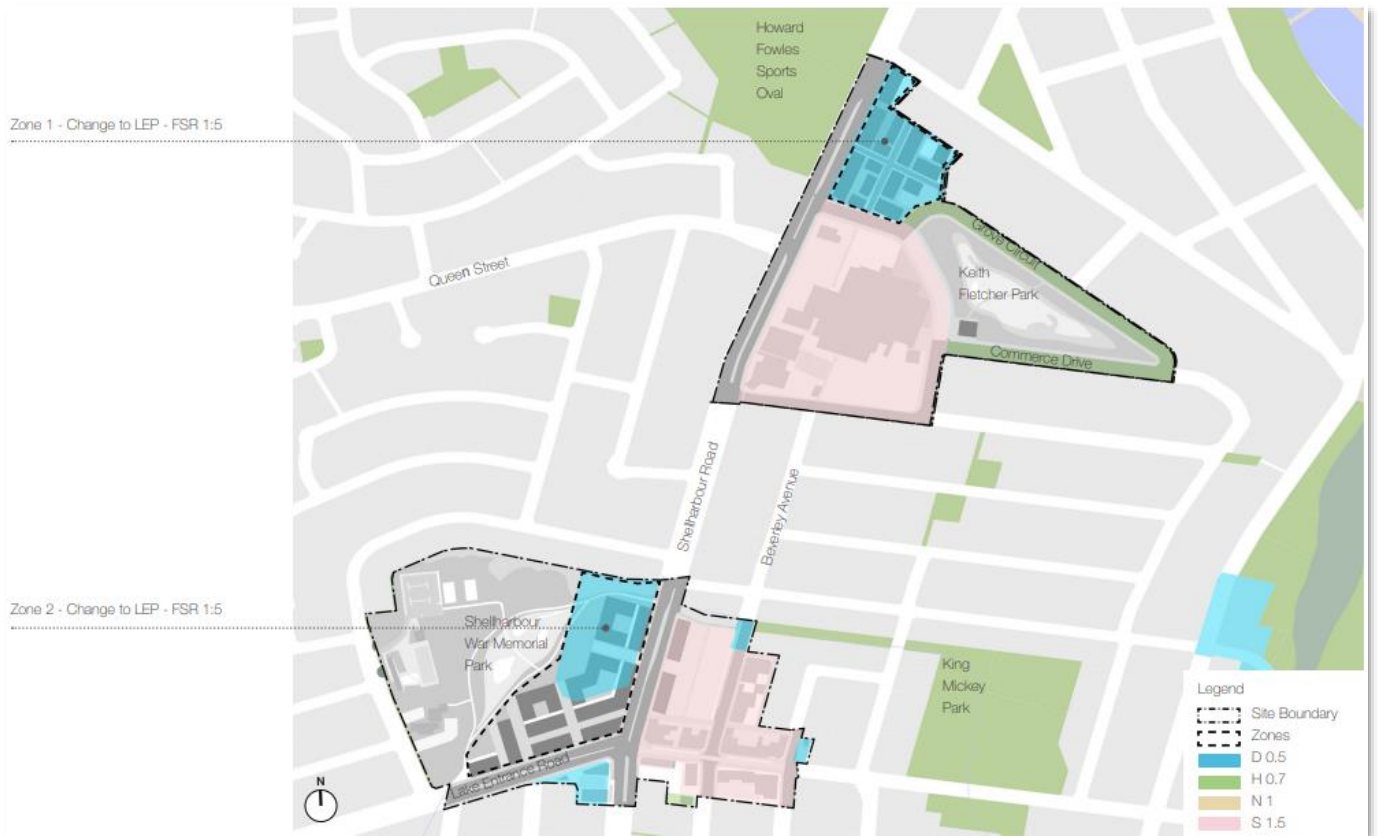
Key outcomes of the Warilla Town Centres Plan include:

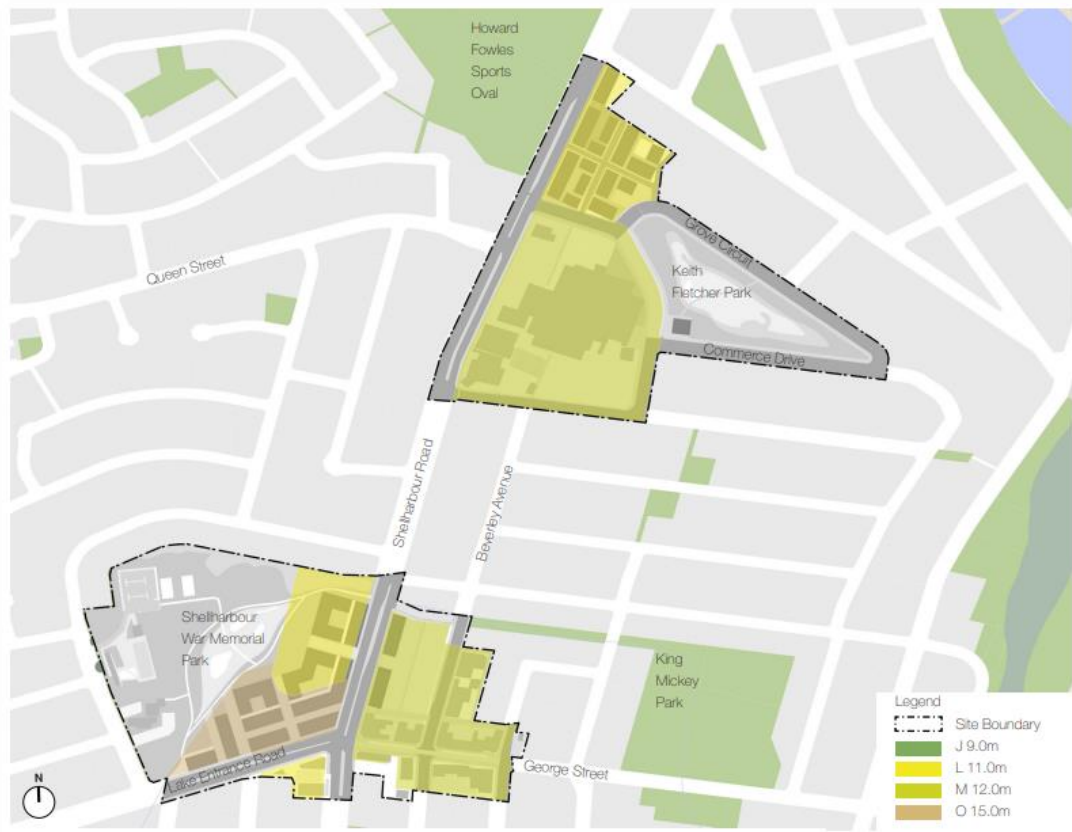
- Recommendations to amend Council's planning provisions for parts of the study area by increasing floor space ratio, reducing higher density residential parking requirements and rezoning land from B5 Business Development to B4 Mixed Use.
- Provisions that can inform town centre review aspects of the Shellharbour Development Control Plan, such as building design and usage, public domain treatment, transport and parking.
- Provisions that can become capital works type initiatives including the establishment of shared zones or pedestrian prioritised areas, enhanced creek and drainage lines and parklands, better physical connections between the two centres and bicycle/pedestrian facilities.

Recommended LEP 2013 changes from the WTCP are as per the following table and maps:

Property <sup>a</sup>	Existing Planning Controls <sup>a</sup>			Proposed Planning Controls <sup>a</sup>		
	Zone <sup>a</sup>	Floor Space Ratio <sup>a</sup>	Height of Building <sup>a</sup>	Zone <sup>a</sup>	Floor Space Ratio <sup>a</sup>	Height of Building <sup>a</sup>
Warilla-Grove B5-Business-Development zoned-area <sup>a</sup>	B5-Business-Development <sup>a</sup>	.5:1 <sup>a</sup>	11m <sup>a</sup>	B4-Mixed-Use <sup>a</sup>	1.5:1 <sup>a</sup>	11m <sup>a</sup>
Warilla B5-Business-Development zoned-area <sup>a</sup>	B5-Business-Development <sup>a</sup>	.5:1 <sup>a</sup>	11m <sup>a</sup>	B4-Mixed-Use <sup>a</sup>	1.5:1 <sup>a</sup>	11m <sup>a</sup>







### ***Floodplain Risk Management***

The Lake Illawarra Floodplain Risk Management Study 2012 was prepared by Cardno for the Lake Illawarra Authority, Wollongong City Council and Shellharbour City Council to review flood risks and to examine floodplain management options and to prioritise identified strategies for implementation within a Floodplain Risk Management Plan.

The Shellharbour LEP and DCP contain provisions for guiding development within flood affected areas. To the extent relevant, the flood risk management for Shellharbour's employment lands will need to be acknowledged as part of the preparation of the SELS.

### ***Id Profile Suite Population and Housing Forecasts***

This information has been utilised in the preparation of the SELS. Section 3 of this report in particular, addresses the use of the information in more detail.

### ***Shellharbour Community Engagement Council Policy***

The Shellharbour Community Engagement Council Policy provides a framework that underpins Council's engagement activities. It outlines the roles and responsibilities of engaging with the community and suggests the mechanisms for engagement. The most appropriate level of participation will need to be determined and will depend on the nature and complexity of the project/issue. In preparing the SELS, a series of community engagement processes have been scheduled throughout the course of the engagement. This includes engagement prior to the drafting of the SELS and upon release of the draft SELS document. The exact nature and format of the community engagement will be worked through with Council but will adhere to Council's Community Engagement Policy.

### ***Shellharbour Community Engagement Toolkit***

The Community Engagement Toolkit is referred to within the Community Engagement Council Policy and provides a best practice approach for community engagement.

The toolkit aims to:

- Deliver a variety of community engagement opportunities that meet the principles of social justice and according

to the requirements of Council's Community Engagement Policy.

- Undertake a range of engagement activities that build upon previous engagement and that recognise the diversity of the Shellharbour Community
- Meet the requirements of the Local Government Act, 1993

It is supported by Council's online presence, community engagement branding, staff and councillor training and a range of resources.

### **Mapping**

A range of mapping exists for Shellharbour, which addresses a number of issues. Of greatest relevance to employment lands are the following layers:

- Floor space ratio;
- Height of buildings;
- Heritage;
- Land application;
- Land reservation acquisition;
- Zoning;
- Lot size;
- Acid sulfate soils;
- Active street frontages;
- Significant extractive resources;
- Terrestrial biodiversity;
- Mineral resource and transitional areas;
- Development areas;
- Local clauses; and
- Land reclassification.

Where this mapping impacts on any areas that are to potentially be identified within the SELS, appropriate acknowledgement and consideration of these areas is given, to ensure that there is alignment and consistency with the SELS and the LEP mapping. Where SELS warrants potential amendments to the LEP, then this has been mentioned for Council's consideration.

In addition to the LEP mapping, other miscellaneous constraints mapping also exists for Shellharbour, which has been considered when preparing the SELS (to the extent relevant). This covers a range of matters such as:

- Flooding;
- Catchments and drainage;
- Threatened species;
- Railway buffers;
- Visual management;
- Coastal hazards;
- Coastal zones (SEPPs);
- Airport;
- Fish habitat;
- Vegetation;
- Bushfire prone land; and
- Aboriginal heritage.

### **Development Data**

A range of development data has been provided by Council to assist with the preparation of the SELS. This has included development application, construction certificate and complying development approval statistics. This data has been used to assist with the preparation of the model to determine housing supply and demand, which is addressed in section 4 of this report.

### **Current Land Use Patterns**

The current land use patterns within Shellharbour have been considered when preparing the SELS, as this has helped to set the scene and inform the development of recommendations arising from the SELS.

### Shellharbour Retail and Commercial Centres Study 2008

Hill PDA was commissioned to do a Retail/Commercial Centres Study in 2008. The purpose of the study was to inform the review of the LEP and to aim to accommodate the retail and commercial facility needs of the LGA's residents, visitors, workers and business.

The study identified several key drivers of change in the retail and commercial activity at Shellharbour, including the following:

- *Population and household growth*
- *Declining average household size*
- *An ageing population*
- *Increasing part time employment*
- *Longer working hours*
- *Increasing workforce participation rate*
- *Household income*
- *Employment levels*

To effectively manage the different centres within Shellharbour City, the study recommended a retail hierarchy as shown below.

Centre Typology	Retail Centre
Major Regional Centre	Shellharbour City Centre
Major Town	Warilla Grove, Albion Park
Village	Albion Park Rail, Oak Flats, Shellharbour Village, Warilla, Barrack Heights, Lake Illawarra, Albion Park South, Tullimbar Village (as proposed), Shell Cove (as proposed)
Neighbourhood Centre	Karoo Street, Albion Park Rail Pine Street & Ash Avenue, Albion Park Rail Sophia Street, Albion Park Cnr Tongarra/Calderwood Roads, Albion Park Darley Street, Shellharbour Village Baragoot Road, Flinders Reddall Parade, Lake Illawarra Lagoon Street, Barrack Heights McKenzie Avenue, Mt Warrigal Jones Avenue, Mt Warrigal Queen Street, Warilla Ulster Avenue, Warilla
Major Peripheral Retail >22,000sqm	Shellharbour City Centre Out-of-Centre
Minor Peripheral Retail < 22,000sqm	Albion Park Rail Out-of-Centre (north and south)

The study also recommended that the selection of zones should reflect the retail hierarchy as follows:

Zone	Centres
B3 – Commercial Core	Shellharbour City Centre (including Shellharbour City Out of Centre)
B2 – Local Centre	Warilla Grove, Warilla, Oak Flats, Albion Park, Albion Park Rail, Shell Cove (as proposed), Shellharbour Village, Tullimbar Village (as proposed), Lake Illawarra, Albion Park South, Barrack Heights
B1 – Neighbourhood Centre	Neighbourhood Centres as identified in the hierarchy
B6 – Enterprise Corridor	Albion Park Rail – Princes Highway as identified in Section 22.7 of this report.
B7 – Business Park	Parts of Illawarra Regional Airport locality (as appropriate)
SP3 – Tourist	Parts of boat harbour at Shell Cove and Shellharbour Village (as appropriate)

These recommendations, where appropriate, were implemented as part of the commencement of the LEP 2013 and have been considered to the extent relevant within the preparation of the SELS.

### Shellharbour Regional Economic Development Strategy 2019-2022

The Shellharbour Regional Economic Development Strategy 2019-2022 is a long term economic strategy for economic development within Shellharbour City, created in collaboration between the Shellharbour City Council and the NSW Government's Centre for Economic and Regional Development (CERD). The strategy involves the economic focus of continuing

to attract new residents and the development of regionally significant assets. It also investigates opportunities that will assist to leverage endowments involving location, infrastructure, lifestyle and amenity, and affordable housing.

Natural endowments play a key role in economic development of a regional economy with the CERD Regional Economic Enablers Report (2016) states *“the future of individual regional economies is inexorably linked to their natural endowments and attempts to retain or establish industries without an underpinning endowment are unlikely to succeed”*.

The three core strategies have been developed to advise investment and other actions for the next four years:

- Continue to improve services and infrastructure to support population and business growth and enhance the overall amenity of the Region
- Improve education outcomes and workforce skills to support business growth, economic, inclusiveness and life outcomes
- Unlock potential opportunities in the tourism sector

### **Local Strategic Planning Statement**

The Local Strategic Planning Statement (LSPS) builds upon the community’s goals and aspirations that were reflected in the Community Strategic Plan 2018-2028 (CSP). The LSPS brings attention to jobs, homes, services and community infrastructure that is suited to the demand of the community for the next 20 years. The basis of these deliverables are from the Illawarra Shoalhaven Regional Plan, and other council and NSW planning priorities for Shellharbour.

The LSPS brings together and builds on the planning work found in Council’s plans, studies and strategies and will be used to update key components of these plans. It also gives effect to a number of strategic plans prepared by the NSW Government, including the directions and actions contained in the Illawarra Shoalhaven Regional Plan. The LSPS outlines how these State plans will result in changes at the local level.

The four focus areas are aligned to the CSP and also include Community, Environment, Economy and Leadership, with associated planning priorities. The LSPS planning priorities of most relevance to the SELS relate to “Economy” (i.e. P18 – refer Table 1 in main body of this report).

### **Shellharbour Make Play Grow 2015-2019**

The Shellharbour Make Play Grow 2015-2019 strategy aligns with Council’s vision for a dynamic, vibrant and liveable city and looks at the programming and funding priorities surrounding the arts. The Strategy seeks to enhance the creative culture of Shellharbour through building on existing cultural assets and resources and introducing new initiatives. The scope of the strategy covers traditional arts, for example, visual arts, theatre, literature and music; and also considers design, filmmaking, architecture and placemaking. Shellharbour Make Play Grow aligns with Council’s Delivery Program and will record the Strategy’s progress through assessment against key indicators and measurements.

### **Shellharbour Open Space and Recreation Needs Study and Strategy**

To guide Shellharbour City Council’s decision making in regards to open space and recreational needs, Shellharbour City Council engaged the Institute for Public Policy and Governance at the University of Technology Sydney to develop an Open Space and Recreation Needs Study and an Open Space and Recreation Needs Strategy for 2020-2030.

The study includes evidence and analysis that shapes the strategy containing an assessment of specific sites through implementing an 8 point open space design review framework. The sites were filtered, and identified activities and precincts that would benefit from further consideration by Council. In summary, it was concluded that within the Shellharbour Local Government Area, there is an adequate supply of open space that supports a wide range of passive and active participation, varying in size and location.

The Study included a summary of government policy, active open space planning, demographics of Shellharbour including trends and key findings; in-depth research into the Shellharbour area focusing on passive open space provision, active open space provision and demand and community feedback. And finally, the study provides analysis on the demand and community feedback of Shellharbour’s aquatic facilities.

The Shellharbour Open Space and Recreation Needs Strategy includes a set of strategy direction followed by a list of actions:

- *Shape open spaces to encourage public recreation and relaxation*
- *Ensure sports ground and facilities support active participation*
- *Improve access to aquatic facilities and activities*
- *Encourage sustainable enjoyment of the natural environment*
- *Active open spaces and facilities to broaden public participation*
- *Work in collaboration with stakeholders to achieve our Strategy*



- Provide effective management maintenance and monitoring

### Shellharbour Communication Strategy 2016-2019

The Shellharbour Communication Strategy provides a framework for how Council communicates with its audiences aligning with the Community Engagement Policy and Toolkit and is annually reviewed. The audience being the community, businesses, visitors, staff, future staff, government agencies / MPS, non-residential ratepayers and suppliers. The Plan has the following objectives:

- Council actively shares information about all key decisions, projects, events and issues
- Information links to the CSP and community priorities
- Councillors and staff have the information, tools and skills they need to be Council's "reputation ambassadors"

### Shellharbour LGA Employment Lands Study 2009

The Shellharbour Employment Lands Study 2009 was also prepared by Hill PDA and informed the preparation of the LEP 2013. It identified guiding principles for Shellharbour employment lands and that there was no need for increasing the area of employment lands in Shellharbour.

The study also took into account land zoned special uses, specifically used for employment purposes. The study found that there was 151.3 ha of industrial zoned land, 313.3 ha of special uses zoned land and 53 ha of business zoned land.

The Shellharbour Retail and Commercial Centres Study 2008 had already examined the business zones, therefore, the business zones were excluded from this study. The findings and recommendations of the study are summarised in the table below:

	Precinct	Total Precinct Area (ha)	Estimated Vacant (ha)	Lots	Est. Workers	Est. Businesses	Employment Land Assessment Score	Current Employment Zones	Proposed Employment Zones
1	Albion Park Rail	37.1	16.0	77	395	68	41/50	4(a) Light Industrial	B6 Enterprise Corridor
								4(a3) Airport Light Industrial	B6 Enterprise Corridor
2	Illawarra Regional Airport	245.8*	45.7	138	352	25	30/50	5(a) Special Use	SP1 Special Activities
								4(a3) Airport Light Industrial	B6 Enterprise Corridor
								78 Tongarra Road – IN2 Light Industrial under Major Projects SEPP	IN2 Light Industrial
3	Oak Flats	28.1	3.6	121	451	143	31/50	4(a) Light Industrial	IN2 Light Industrial
								4(a) Light Industrial	IN2 Light Industrial
								5(a) Special Use	IN2 Light Industrial
4	Central Business Park, Albion Pk Rail	14.8	7.6	81	272	66	39/50	4(a) Light Industrial	B6 Enterprise Corridor
								9(b) Arterial Road Reservation	SP2 Infrastructure
5	Warilla	8.1*	1.5	57	400	45	43/50	4(a) Light Industrial	IN2 Light Industrial
								2(e) Mixed Use Residential	B4 Mixed Use
								9(b) Arterial Road Reservation	SP2 Infrastructure
								2(b2) Residential	B6 Enterprise Corridor
								Princes Highway 4(a) Light Industrial	B6 Enterprise Corridor
6	Barrack Heights	9.2	3.2	57	236	56	43/50	4(a) Light Industrial	IN2 Light Industrial
								Princes Highway 4(a) Light Industrial	B6 Enterprise Corridor
<b>TOTAL</b>		<b>343.1</b>	<b>77.6</b>	<b>531</b>	<b>2,106</b>	<b>403</b>			

\* Area includes land not currently zoned for employment uses. See Chapter 5 Assessment of Industrial Precincts.

These recommendations where appropriate, were implemented as part of the commencement of the LEP 2013.

The purpose of this SELS is to provide an updated Employment Lands Study which provides a more up-to-date analysis of the factors contributing to the provision of employment within Shellharbour. Consideration of the current zoning and land use permissibility has been undertaken as part of this SELS.



### **Shellharbour LGA Employment Land Forecasts – Demand / Supply Analyses 2009**

There were two methods used for the Shellharbour City Employment Land Forecasts. The first one is as what is within the *Shellharbour LGA Employment Lands Study* which uses the population projects and current trends for workforce projections. The second method is the preferred method which identifies a “20 minute job zone” through using the NSW Government Transport Data Centre figures. The preferred method has an assumed zero unemployment rate, and assumes that residents will only drive a maximum of 20 minutes for work.

The “20 minute job zone” method is the preferred method as it is the sustainable and conservative option. This identifies that the job supply surpasses demand within Shellharbour in 2031. As mentioned in the *Shellharbour LGA Employment Lands Study*, there are three land use zones identified as employment land: business zone, industrial zone and special use zone. For all three categories, it is forecast that there will be a surplus in all categories, in total there is an estimate of 172,031 jobs and 124,222 workers.

### **Illawarra and South Coast ELS 2006 (focuses on the final stage – Hill PDA)**

The Illawarra and South Coast ELS is part of a 3 stage strategy conducted by the NSW Department of Planning, Department of State and Regional Development, Premiers Department and Southern Group of Councils – with the final stage engaging Hill PDA. This ELS has the goal to ensure that there is sufficient jobs for the future work population through supporting economic and employment opportunities. The strategy includes the following stages:

- *Stage 1 – employment Lands audit*
- *Stage 2 – economic and employment opportunities*
- *Stage 3 – implications for Regional Planning*

The ELS concluded that in Shellharbour City there is a total of 984.4 ha of employment land available, of which 940 ha is developed, and 44.4 ha is undeveloped. Major classes of employment include:

- *Production industries (agriculture, mining, manufacturing) 16.8%*
- *Services to industry (Construction, transport and storage, wholesale trade) 16.7%*
- *Business services (finance and insurance, property and business services) 12.3%*
- *Services to consumers (retail trade, accommodation and cafes, electricity gas and water, communications, cultural and recreational, personal services) 30.3%*
- *Community services (Government admin, education, health and community services) 23.3%*

The study also contains a review and analysis of Stage 1 and Stage 2; a review of the planning and policy provisions on a local, regional and state level; and includes a revised set of guiding employment land principles. The ELS concludes on recommended changes to the LEP, particularly in regards to the business, industrial and special uses zoning.

The study also includes a revised set of guiding employment land principles. The ELS provided recommended changes to LEPs across the region, particularly in regards to the business, industrial and special uses zoning.

### **The Shell Cove Boat Harbour Concept Plan approval and associated Urban Design Guidelines (UDGs)**

The purpose of the Urban Design Guidelines is to support the Shell Cove Concept Approval in guiding development of land for all precincts including the town centre precinct (Precinct D). The Urban Design Guidelines have been prepared as required by Schedule 3 Part D Further Environmental Assessment Requirements under the Concept Approval which states that:

“The proponent must submit detailed urban design guidelines for the project prepared by a suitably qualified architect or urban designer, for each stage. The guidelines must establish design controls which achieve the following where relevant to the particular stage:

- Architectural diversity within all stages which complements the site’s coastal context;
- A variety of detailed designs which avoids monotones and repetition;
- Design of the mixed use landmark (hotel) building and public square in the commercial precinct which define street and water edges, and create visual interest;
- A mixed use landmark (hotel) building with a slender tower angled to maximise views to the coast to the north and south, reduce impacts on the boat harbour, and relate well to the area’s existing urban form and which may comprise a 3-4 storey high podium;

- Demonstration of a mix of dwelling types and sizes for each residential precinct, including consideration of affordable and adaptable housing;
- Building separation, setbacks, solar access, visual and acoustic privacy, view corridors and an adequate level of environmental amenity;
- The location and distribution of car parks;
- Where applicable, that SEPP 65 principles and the Residential Flat Design Code (now ADG) can be achieved;
- Appropriate density, bulk, scale, textures and colours in relation to surrounding development, topography and streetscape;
- Consistency with the NSW Coastal Policy 1997 and Coastal Design Guidelines NSW in terms of visual impact, bulk, scale and amenity;
- Layout and design which satisfies the design considerations in Healthy by Design: A Planners Guide to Environment's for Active Living, National Heart Foundation of Australia;
- Clear addresses for buildings fronting public walkways along the harbour and direct access from walkways where possible;
- An indicative staging plan identifying the likely timing and sequence for each stage;
- Buildings which address main avenues or boulevards and serviced by rear laneways/access ways to improve legibility and prevent gated communities;
- Design and layout to minimise noise impacts to sensitive residential areas near the quarry boundary; and
- Demonstrate adequate on-site parking is provided for the mixed-use landmark (hotel) building, to not adversely impact on-street parking in the town centre and surrounding precincts."

The concept approval for the site applies to the entire Shell Cove Boat Harbour Precinct and was modified in 2019 without any substantial affectation on the B7 Business Park zoned site which is the subject of the SELS. The land use intent for this parcel of land is outlined within the EA as follows:

### **Shell Cove Quarry Buffer Zone Precinct**

*The SLEP zones the QBZ as Residential 2(f) Mixed Use (now B7 Business Park). However, there are restrictions stemming from the Quarry operations that control permissible development, in particular, residential development is prohibited. This has resulted in the precinct being allocated to Business Park uses. It is proposed that multiple individual buildings are placed on the site and that their scale, form and function are developed to provide a suitable interface between the activities of the quarry and those of the residential areas within the Boat Harbour Precinct. The total floor area is approximately 30,000m<sup>2</sup> spread over 2 storeys. Parking for approximately 800 vehicles is also proposed.*

*Employment opportunities within the precinct may be provided by a university and/or marine research and marine biology units. The likely employment potential is in the order of 1,000 jobs.*

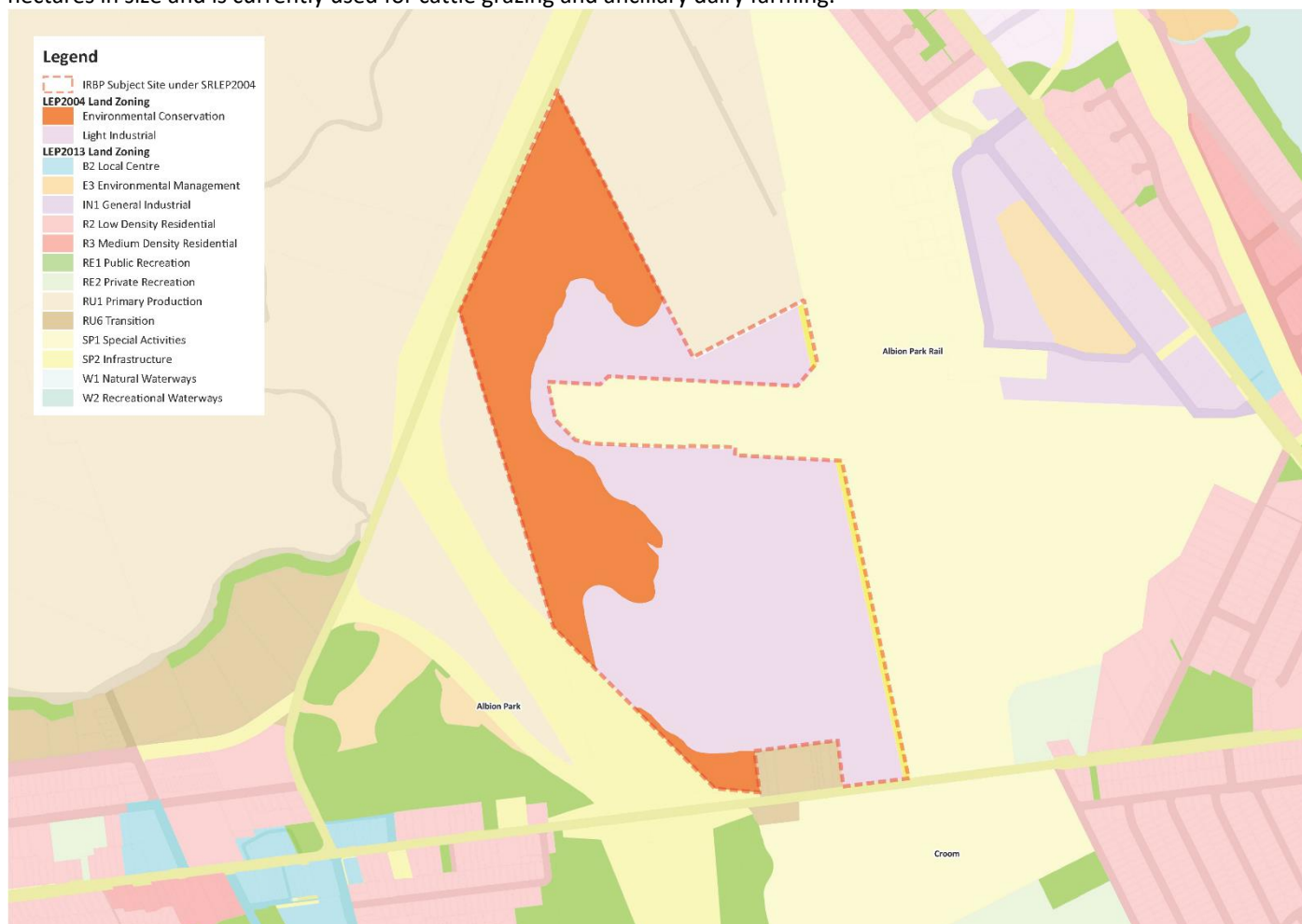
### **The Calderwood Concept Plan approval**

In January 2011 the Calderwood Urban Development Site was declared as a State Significant Site and was gazetted in the *State Environmental Planning Policy (State Significant Precincts) 2005*. The site is included within both the Wollongong and Shellharbour City Council areas, presenting cross-boundary issues for the delivery of housing for the approximately 700ha area, which is located to the north west of Albion Park. The project is a Part 3A Approved development and is excluded from the Shellharbour Local Environmental Plan (LEP) 2013 due to its State Significant Site listing. Schedule 3 of the *State Environmental Planning Policy 2005 (State Significant Precincts)* stipulates the development controls for this area.

With an aim of delivering 4,800 residential dwellings, 50 hectares of mixed use land, open space, environmental lands, internal roads, service infrastructure and community facilities, the SELS has factored this in the modelling and projections and taken this into consideration in determining the implications for employment for Shellharbour City.

## The Illawarra Regional Business Park

The land dedicated to the Illawarra Regional Business Park (IRBP) is located immediately adjacent to the Shellharbour Airport, as illustrated below. Shellharbour Rural Local Environmental Plan (2004) applies to most of the IRBP. This land is approximately 66 hectares in size and is currently used for cattle grazing and ancillary dairy farming.



### IRBP Subject Site

Source: Shellharbour Rural Local Environmental Plan (2004)

It is understood that approximately 40 hectares of the site is zoned IN2 Light Industrial with the remainder being E2 Environmental Conservation zoning. A sliver of the south western part of the site is reserved under Local Environmental Plan 2013 for works associated with the Albion Park Rail bypass.

According to the Shellharbour Rural Local Environmental Plan (2004) there are a number of provisions for this parcel of land, for the development of the IRBP. Some of these provisions include:

- Land use within the business park must be light industrial, infrastructure or environmental conservation;
- Land within the Illawarra Regional Business Park site may be subdivided, but only with development consent;
- Maximum building height of 7 metres at the southern end of the subject land, and 15 metres elsewhere;
- The floor space ratio for a building on any land in the Illawarra Regional Business Park site is not to exceed 1:1;
- Industrial retail outlets: if development for the purposes of an industrial retail outlet is permitted on any land within the Illawarra Regional Business Park site, the retail floor area must not exceed:
  - 40% of the combined gross floor area of the industrial retail outlet and the building or place on which the relevant industry is carried out, or
  - 400 square metres.
- Development for office premises on land within the Illawarra Regional Business Park site must satisfy:

- the office premises are ancillary to another use of the land, and
- the gross floor area of the office premises will not exceed 25% of the gross floor area of all of the buildings on the land.

The Albion Park Rail Bypass, upon completion, will run along the western perimeter of the subject land for the IRBP, which would therefore provide opportunities for business to benefit from being aligned with the road network, providing direct exposure to a higher proportion of the subject site than in the absence of the Albion Park Rail Bypass.

The IRBP represents an ideal location to expand industrial activity within Shellharbour, given its proximity to both the airport and the road network. The landholding is of sufficient size to accommodate industrial land demand to 2041, with the additional ability to also accommodate aviation related uses, should they wish to locate in Shellharbour City. The industrial inventory identified that business activity was typically of a population serving nature as opposed to directly related to the airport, likely due to the limited RPT services to the airport and the absence of significant freight transported via air.

### ***Illawarra Regional Airport (Shellharbour Airport) Strategic and Business Plan***

The Shellharbour Airport is located along Airport Road in the suburb of Albion Park Rail within Shellharbour City. This airport is the Illawarra regional airport and therefore services any tourists or freight being brought into the region. Onsite at the Shellharbour Airport there is both short and long-term parking facilities (currently available for free) (Shellharbour Airport, 2020).

The Illawarra Regional Airport Strategic and Business Plan includes several key strategy recommendations:

- *Development of an airport management structure to accommodate the delivery of plan strategies, including effectively resourcing the operations and maintenance requirements of the airport (Sections 4.1 and 5.1).*
- *Review the zoning of the airport precinct and adjacent land to ensure it encourages potential long term aviation related development (Section 4.5).*
- *Develop a revised master land development plan based on the strategies recommended in this plan, including formalising of specific precincts (Section 5.2.1).*
- *Identify and participate in grant funding opportunities to assist with financing infrastructure requirements (Section 5.2.1).*
- *Review Council's standard leasing arrangements to ensure future agreements are attractive for business development and on a commercial footing to Council. (Section 5.2.1)*
- *Develop the airport in a staged manner that will consistently enable the long term objectives recommended in this plan (Section 5.2.2).*
- *Encourage the development of an airpark, hangar homes, freight operations and other aeronautical related industries (Section 5.2.2).*
- *Reinstatement of core infrastructure to the base level requirements needed to operate a Code 2 compliant airport. (Section 5.3)*
- *Conduct a market study and implement a marketing plan to attract Regular Passenger Transport (RPT) and other aviation related industry and services to the airport (Section 5.4).*
- *Develop closer partnerships with large regional employers, tourism bodies and government (Section 5.5).*
- *Review the branding and identity of the Illawarra Regional Airport (Section 5.6).*
- *Encourage the development of additional events at the Illawarra Regional Airport to supplement the success of Wings over Illawarra, the HARS (Historical Aviation Restoration Society) open days and the recent addition of the Qantas 747-400. (Section 5.6).*

The Shellharbour Airport upgrade has the potential to link the existing industrial areas more closely with activity at the airport, potentially attracting airport related industry activity. However to date, this industrial land precinct has predominately accommodated population serving industry as opposed to airport related industry, but opportunity exists for this to evolve over time, particularly if there is growth in RPT services to Shellharbour in the medium to long term.

### ***Employment Lands Adjoining the Airport***

Currently, the land adjacent to the Shellharbour Airport, bound by the Illawarra Highway to the north and the IRBP to the south is zoned as RU1 which represents primary production. This land is zoned to permit extensive agriculture and home occupations without consent, however also allows a range of additional uses under Council's consent, including:

- Airstrips;

- Heli-pads;
- Eco-tourist facilities; and
- Environmental facilities.

The Illawarra Regional Airport Business Plan talks extensively about plans to expand the airport to cover 155.53 hectares of land, which would involve the acquisition of some of the above-mentioned parcel of land. In doing so the airport would have the capacity to meet the requirements for a Code 3C Aircraft, which would increase the ability to attract and retain RPT services to the airport.

Additional land which is currently zoned as RE2 proximate to the Shellharbour Airport is the Calderwood Golf Course, located approximately 10 kilometres from the airport. This was the subject of a planning proposal (PP14 - Calderwood Golf Course - RU1 to RE2 Amendment No. 9) which rezoned the existing Calderwood Golf Course and surrounding land from RU1 Primary Production to RE2 Private Recreation to reflect existing and approved uses on the site. However, the rezoning of this land to RE2 may complicate the long-term process of acquisition for the purpose of expanding the existing aviation facilities.

With respect to land zoned IN1 General Industrial at 9 Illawarra Highway, Albion Park Rail, it is recognized that the strengths of this land are the fact that it is immediately adjacent to the airport and is both zoned and development ready. However, activity within this zone has likely been limited to some extent by the presence of significant remnant housing, requiring land assembly to achieve the necessary allotment size to allow for feasible industrial developments to proceed. In addition, the probable limits on the impacts of the uses that are acceptable despite the zoning due to proximity to existing housing may also be an impediment to the take up of industrial development. Council may consider opportunities to offer incentives for redevelopment of this land for industrial purposes, such as relaxation of the height and FSR limits, which will help increase intensity and improve development feasibility. Despite the current IN1 zoning, it is considered that the area is more likely to accommodate light industrial uses due to the factors mentioned above. It is considered that the IRBP likely represents the more realistic opportunity to accommodate medium/high impact industry uses, however this would require appropriate servicing and access to be made available first.

#### ***The Department of Planning Industry and Environment's Employment Lands Development Monitor***

The Employment Lands Development Monitor (ELDM) developed by the NSW Government, is a research tool outputting an annual snapshot of the employment lands (industrial lands and business parks) across Greater Sydney, Central Coast, Hunter and Illawarra-Shoalhaven Regions. Employment lands are imperative to a functioning city as they support job growth and development.

In relation to the Illawarra-Shoalhaven Regions, there is a total of 3060 ha of employment land supply, with 2405 ha developed and zoned employment land and 664 ha undeveloped. Of the 664 ha of undeveloped land 348 ha is not yet serviced and 316 ha already serviced. The Illawarra-Shoalhaven Region includes industrial, B5, B6 and B7 zoned land and Special Uses zones which includes the Wollongong Innovation Campus and the Shellharbour Air Transport Facility.

## APPENDIX 3: Socio-Economic Profile

AP03



## Appendix A Socio-Economic Profile

Table 11-1 Socio-Economic Profile, Shellharbour City Sub-Areas Part 1 of 2, 2006 to 2016

	Albion Park - Rural West			Albion Park Rail - Croom			Barrack Heights			Blackbutt - Shellharbour City Centre			Flinders		
	2006	2011	2016	2006	2011	2016	2006	2011	2016	2006	2011	2016	2006	2011	2016
Population	12,668	13,616	14,350	7,028	7,055	6,976	5,884	6,010	5,870	3,106	3,177	3,564	4,153	5,198	6,642
Age Distribution															
0-14 years	27.0%	24.5%	22.3%	22.8%	20.5%	18.8%	20.5%	19.6%	19.3%	22.3%	18.7%	16.8%	28.3%	26.7%	23.6%
15-24 years	13.9%	14.6%	14.4%	13.6%	13.7%	12.6%	14.4%	13.6%	12.6%	14.2%	13.7%	13.6%	11.5%	11.5%	13.3%
25-34 years	14.0%	12.4%	12.1%	13.0%	12.2%	13.4%	12.0%	12.4%	12.3%	12.4%	12.8%	12.3%	15.6%	13.0%	13.7%
35-44 years	17.5%	15.1%	13.8%	14.0%	12.1%	10.9%	12.8%	12.7%	11.5%	16.8%	15.0%	11.3%	17.6%	16.9%	16.1%
45-54 years	13.0%	14.1%	13.7%	13.7%	13.6%	12.4%	14.1%	12.6%	12.2%	13.8%	14.6%	14.3%	10.9%	13.5%	14.2%
55-64 years	7.2%	9.6%	11.0%	10.2%	12.4%	13.0%	12.6%	12.5%	13.3%	9.7%	13.4%	13.8%	7.8%	9.3%	9.1%
65+ years	7.5%	9.7%	12.6%	12.5%	15.3%	18.6%	13.5%	16.5%	18.7%	10.8%	11.8%	17.9%	8.3%	9.0%	10.1%
Average age (years)	32	34	37	36	39	40	38	39	40	36	38	41	32	34	35
Household Type (% of dwellings)															
Couple families with children	48.5%	45.4%	44.0%	35.8%	32.2%	28.9%	34.8%	30.5%	28.7%	39.9%	39.3%	35.0%	48.2%	45.2%	46.5%
Couple families without children	23.4%	25.1%	25.6%	23.8%	25.5%	26.8%	25.0%	25.8%	24.6%	23.2%	24.3%	25.5%	22.3%	24.7%	23.1%
Single parent family	12.0%	12.2%	12.7%	14.7%	15.7%	16.2%	16.8%	16.9%	17.0%	11.2%	11.8%	12.9%	10.7%	10.2%	10.6%
Lone person households	12.3%	13.4%	13.7%	19.5%	21.5%	21.0%	18.1%	20.2%	22.5%	19.8%	21.1%	20.6%	14.5%	15.7%	14.3%
Average household size	3.1	3.1	3.1	2.8	2.8	2.8	2.7	2.7	2.6	2.8	2.7	2.8	3.0	3.0	3.0
Household Finances															
% of households fully owning home	26.9%	28.2%	30.9%	31.5%	31.7%	31.7%	38.9%	35.7%	35.6%	32.0%	34.4%	36.6%	22.2%	26.0%	26.6%
% of households purchasing home	53.1%	51.6%	48.6%	36.8%	37.0%	35.1%	26.6%	28.2%	26.7%	32.0%	32.4%	28.0%	45.4%	48.6%	45.2%
% of households renting	15.9%	16.5%	15.9%	25.5%	25.7%	24.1%	29.3%	29.1%	30.5%	28.4%	29.7%	28.0%	27.6%	22.1%	23.2%
Average weekly household income	-	-	\$1,811	-	-	\$1,389	-	-	\$1,370	-	-	\$1,701	-	-	\$1,937
Average monthly housing loan repayment	-	-	\$1,980	-	-	\$1,561	-	-	\$1,693	-	-	\$1,809	-	-	\$2,344
Average weekly rent payment	-	-	\$374	-	-	\$316	-	-	\$303	-	-	\$343	-	-	\$413
Average housing costs (as a % of income)	-	-	15.6%	-	-	14.6%	-	-	14.4%	-	-	12.5%	-	-	17.6%

## Section 11 References

	Albion Park - Rural West			Albion Park Rail - Croom			Barrack Heights			Blackbutt - Shellharbour City Centre			Flinders		
Labour Market															
Full-time employment (% labour force)	59.5%	59.7%	57.5%	58.6%	56.6%	54.9%	54.9%	53.5%	53.4%	57.9%	56.7%	53.6%	56.3%	60.2%	58.8%
Part-time employment (% labour force)	32.9%	33.2%	35.6%	32.7%	33.7%	36.0%	31.8%	33.5%	36.1%	32.0%	32.7%	38.6%	32.8%	32.2%	34.9%
Total employment (% labour force)	94.9%	95.0%	94.3%	93.6%	91.5%	92.8%	90.1%	90.3%	91.6%	94.6%	92.4%	93.8%	93.1%	95.2%	94.8%
Unemployment rate (% labour force)	5.1%	5.0%	5.7%	6.4%	8.5%	7.1%	9.9%	9.7%	8.4%	5.4%	7.6%	6.2%	6.9%	4.8%	5.2%
Participation rate (% of population > 15 years)	66.8%	67.5%	65.7%	58.2%	57.8%	56.0%	53.6%	51.5%	52.9%	60.4%	62.8%	58.9%	65.1%	67.4%	67.1%
Qualifications															
% of persons with a non-school qualification	40.8%	45.0%	50.0%	34.2%	37.8%	43.0%	30.4%	33.3%	40.6%	36.1%	43.1%	47.1%	39.0%	45.1%	52.9%
% of persons with Bachelor or higher	8.5%	8.5%	10.8%	4.2%	4.6%	6.5%	4.4%	4.3%	7.2%	9.2%	8.5%	12.2%	8.1%	10.4%	14.5%
% of persons with Diploma	6.9%	8.2%	9.2%	5.2%	6.4%	7.5%	4.4%	5.0%	7.7%	5.9%	9.1%	8.5%	7.9%	8.8%	10.6%
% of persons with Certificate	25.4%	28.3%	29.9%	24.7%	26.9%	29.0%	21.6%	24.0%	25.8%	21.0%	25.5%	26.5%	23.0%	25.9%	27.8%
Occupation															
Upper White Collar															
Managers	9.6%	9.5%	9.9%	7.1%	7.8%	7.9%	7.4%	6.8%	7.1%	9.7%	10.4%	8.9%	9.9%	10.6%	9.4%
Professionals	14.5%	14.1%	13.4%	11.3%	9.9%	10.8%	10.1%	11.8%	11.2%	13.3%	16.5%	16.3%	13.5%	16.8%	16.5%
Subtotal	24.1%	23.6%	23.3%	18.3%	17.7%	18.6%	17.5%	18.6%	18.3%	22.9%	26.9%	25.3%	23.4%	27.4%	25.8%
Lower White Collar															
Community & Personal Service Workers	9.8%	11.7%	13.3%	11.5%	12.1%	14.0%	10.1%	13.2%	14.4%	9.7%	9.8%	11.7%	9.5%	10.0%	12.1%
Clerical and Admin Workers	14.8%	15.5%	13.9%	13.7%	14.0%	12.3%	13.9%	13.1%	12.1%	15.3%	14.6%	15.3%	15.4%	15.1%	15.4%
Sales Workers	11.2%	10.8%	10.3%	10.5%	11.4%	11.3%	11.6%	13.2%	11.7%	13.1%	12.0%	14.0%	11.9%	10.8%	11.2%
Subtotal	35.8%	38.0%	37.4%	35.7%	37.5%	37.6%	35.5%	39.5%	38.2%	38.1%	36.5%	41.1%	36.7%	35.9%	38.7%
Upper Blue Collar															
Technicians & Trades Workers	17.8%	17.5%	19.2%	19.0%	18.3%	17.5%	19.1%	18.8%	19.5%	15.7%	15.1%	16.4%	16.2%	16.3%	17.0%
Subtotal	17.8%	17.5%	19.2%	19.0%	18.3%	17.5%	19.1%	18.8%	19.5%	15.7%	15.1%	16.4%	16.2%	16.3%	17.0%
Lower Blue Collar															
Machinery Operators & Drivers	10.8%	10.3%	9.6%	12.3%	12.5%	11.4%	11.0%	10.3%	9.4%	10.3%	7.8%	6.7%	12.3%	10.0%	7.9%
Labourers	10.1%	9.7%	9.3%	12.8%	12.8%	13.5%	14.3%	11.9%	12.3%	10.5%	11.2%	9.6%	9.9%	9.3%	9.5%
Subtotal	20.9%	20.0%	18.9%	25.1%	25.2%	25.0%	25.3%	22.2%	21.7%	20.8%	19.0%	16.3%	22.2%	19.2%	17.4%

## Section 11 References

	Albion Park - Rural West			Albion Park Rail - Croom			Barrack Heights			Blackbutt - Shellharbour City Centre			Flinders		
Employment by Industry (% of employees)															
Agriculture, forestry & fishing	0.9%	0.6%	0.4%	0.2%	0.1%	0.2%	0.1%	0.0%	0.3%	0.2%	0.0%	0.2%	0.0%	0.2%	0.1%
Mining	2.6%	3.2%	2.5%	2.4%	2.1%	1.6%	1.1%	1.5%	1.0%	1.5%	2.4%	1.2%	1.7%	3.1%	2.9%
Manufacturing	14.3%	11.3%	6.8%	14.1%	11.5%	6.5%	15.1%	11.9%	6.9%	16.5%	12.5%	8.3%	16.8%	12.2%	7.2%
Electricity, gas, water & waste services	1.4%	1.2%	1.2%	1.0%	1.2%	1.2%	1.1%	1.0%	0.9%	1.1%	1.4%	0.9%	1.1%	1.5%	1.4%
Construction	8.9%	8.9%	11.2%	8.7%	9.3%	10.9%	9.8%	10.5%	11.8%	9.4%	9.0%	9.1%	9.6%	9.4%	10.6%
Wholesale trade	3.0%	2.7%	2.0%	3.2%	2.9%	2.1%	3.1%	2.5%	1.8%	2.2%	3.4%	2.3%	2.0%	2.8%	1.5%
Retail trade	14.0%	13.0%	11.7%	12.7%	14.6%	13.2%	14.9%	14.7%	14.0%	15.4%	12.2%	12.4%	14.2%	12.1%	13.4%
Accommodation & food services	5.8%	6.2%	7.1%	7.6%	7.6%	7.2%	5.7%	6.0%	8.2%	6.8%	6.8%	8.3%	6.4%	6.4%	6.6%
Transport, postal & warehousing	5.8%	6.2%	6.2%	6.5%	6.4%	6.6%	4.8%	5.9%	6.0%	4.7%	4.5%	4.8%	5.0%	5.4%	4.4%
Information media & telecommunications	0.8%	0.4%	0.6%	0.5%	0.3%	0.6%	1.0%	0.6%	0.5%	1.3%	0.5%	1.2%	0.8%	0.5%	1.2%
Financial & insurance services	3.3%	3.2%	2.5%	3.3%	2.5%	3.4%	2.1%	2.7%	3.2%	3.5%	5.2%	4.1%	3.8%	4.6%	4.1%
Rental, hiring & real estate services	1.5%	1.6%	1.5%	1.8%	1.2%	0.8%	1.3%	1.7%	1.5%	1.2%	1.2%	1.4%	3.0%	2.2%	1.7%
Professional, scientific & technical services	4.0%	3.9%	3.6%	3.1%	3.1%	2.8%	3.7%	3.2%	3.6%	4.7%	4.3%	3.7%	3.3%	4.1%	4.2%
Administrative & support services	2.4%	2.7%	3.4%	2.6%	3.4%	3.9%	3.8%	4.2%	3.9%	2.8%	3.8%	4.1%	2.8%	2.5%	3.3%
Public administration & safety	6.8%	8.0%	7.5%	6.0%	6.2%	5.6%	5.1%	6.5%	5.6%	4.9%	6.2%	5.7%	5.9%	6.5%	7.9%
Education & training	7.9%	7.7%	8.0%	5.7%	5.4%	7.1%	5.3%	6.1%	6.9%	5.9%	7.8%	7.7%	5.1%	6.9%	8.0%
Health care & social assistance	10.0%	12.7%	13.9%	12.0%	15.0%	15.7%	12.2%	14.0%	15.8%	10.0%	11.8%	15.5%	11.0%	13.1%	13.7%
Arts & recreation services	1.5%	0.7%	1.0%	1.4%	0.9%	1.3%	1.6%	1.9%	0.5%	1.6%	1.2%	0.7%	0.9%	0.7%	1.1%
Other services	4.0%	4.8%	5.0%	5.0%	5.2%	5.0%	4.3%	3.5%	4.4%	4.0%	3.8%	5.2%	4.0%	4.5%	4.0%

Source: Community ID, Shellharbour, Illawarra SA4 and NSW Data Exporter (2006, 2011 and 2016)

Table 11-2 Socio-Economic Profile, Shellharbour City Sub-areas Part 2 of 2, 2006 to 2016

	Lake Illawarra			Mount Warrigal			Oak Flats			Shell Cove - Dunmore			Shellharbour - Barrack Point			Warilla		
	2006	2011	2016	2006	2011	2016	2006	2011	2016	2006	2011	2016	2006	2011	2016	2006	2011	2016
Population	3,142	3,137	3,225	4949	4,679	4,817	6,395	6,301	6,427	3,057	4,232	5,858	3,852	3,945	4,207	6096	6,222	6,548
Age Distribution																		
0-14 years	18.9%	16.9%	15.9%	20.2%	18.7%	18.8%	20.2%	18.9%	17.3%	29.2%	27.2%	25.6%	19.0%	17.4%	17.1%	19.4%	18.2%	17.6%
15-24 years	12.1%	12.5%	12.1%	13.7%	13.3%	12.7%	14.0%	12.6%	12.8%	9.1%	11.8%	12.9%	13.7%	14.1%	12.0%	11.6%	13.8%	12.9%
25-34 years	10.6%	10.1%	12.7%	11.3%	10.2%	9.9%	10.9%	10.2%	11.6%	13.1%	9.5%	9.0%	10.3%	9.3%	9.4%	10.7%	9.6%	10.4%
35-44 years	13.0%	11.9%	10.5%	12.5%	11.2%	11.7%	13.0%	13.1%	11.2%	19.0%	18.1%	16.7%	14.6%	13.5%	12.1%	12.8%	12.5%	9.9%
45-54 years	15.3%	15.3%	14.0%	14.2%	14.1%	12.1%	16.2%	15.5%	12.8%	12.0%	14.3%	14.5%	16.3%	17.1%	14.4%	12.4%	13.3%	13.5%
55-64 years	9.8%	12.4%	13.5%	15.2%	14.1%	13.1%	11.1%	12.8%	15.5%	9.7%	8.9%	9.8%	11.8%	13.5%	15.9%	12.3%	11.1%	12.6%
65+ years	20.1%	20.7%	21.1%	12.8%	18.2%	21.6%	14.7%	16.9%	18.7%	7.6%	9.9%	11.4%	14.3%	15.1%	19.1%	20.6%	21.6%	23.0%
Average age (years)	41	42	43	38	41	42	39	40	42	33	34	35	39	40	43	41	42	43
Household Type (% of dwellings)																		
Couple families with children	19.5%	19.5%	18.6%	36.8%	31.6%	30.9%	36.7%	33.8%	29.9%	51.9%	53.4%	52.4%	31.5%	32.1%	30.7%	25.2%	23.2%	21.8%
Couple families without children	21.9%	20.2%	20.5%	29.6%	31.7%	30.7%	26.8%	25.3%	27.5%	30.6%	28.3%	28.1%	25.8%	26.1%	27.3%	24.2%	21.9%	21.5%
Single parent family	17.3%	17.0%	16.7%	14.0%	16.1%	16.0%	12.2%	14.2%	14.8%	7.2%	7.1%	8.5%	10.3%	12.9%	11.2%	16.5%	16.4%	16.5%
Lone person households	33.6%	36.0%	35.1%	15.0%	16.8%	17.0%	17.9%	21.7%	21.5%	6.5%	8.2%	8.0%	21.4%	22.1%	21.1%	26.9%	30.5%	29.1%
Average household size	2.3	2.2	2.2	2.8	2.7	2.8	2.7	2.7	2.7	3.2	3.3	3.2	2.6	2.6	2.6	2.5	2.5	2.5
Household Finances																		
% of households fully owning home	29.9%	25.7%	24.5%	43.0%	42.2%	40.5%	42.6%	42.1%	41.0%	29.4%	30.0%	31.6%	39.9%	39.0%	37.5%	34.2%	32.9%	32.0%
% of households purchasing home	20.1%	19.1%	20.6%	31.5%	31.2%	28.5%	31.8%	33.5%	32.1%	50.2%	51.7%	50.2%	26.3%	28.8%	24.9%	20.6%	21.1%	20.6%
% of households renting	41.8%	48.6%	45.4%	22.3%	22.8%	25.2%	19.3%	20.3%	20.5%	16.6%	16.4%	15.5%	23.8%	27.1%	28.4%	37.3%	38.8%	36.0%
Average weekly household income	-	-	\$1,147	-	-	\$1,385	-	-	\$1,517	-	-	\$2,337	-	-	\$1,721	-	-	\$1,154
Average monthly housing loan repayment	-	-	\$1,676	-	-	\$1,832	-	-	\$1,767	-	-	\$2,678	-	-	\$2,035	-	-	\$1,676
Average weekly rent payment	-	-	\$263	-	-	\$315	-	-	\$347	-	-	\$544	-	-	\$345	-	-	\$265
Average housing costs (as a % of income)	-	-	17.4%	-	-	14.4%	-	-	13.3%	-	-	16.9%	-	-	12.5%	-	-	15.2%
Labour Market																		
Full-time employment (% labour force)	55.6%	52.4%	53.6%	55.2%	53.9%	52.9%	56.9%	56.2%	54.6%	62.2%	58.1%	56.7%	58.2%	56.3%	56.8%	49.3%	53.1%	50.1%

## Section 11 References

	Lake Illawarra			Mount Warrigal			Oak Flats			Shell Cove - Dunmore			Shellharbour - Barrack Point			Warilla		
Part-time employment (% labour force)	30.5%	36.2%	36.5%	32.9%	35.3%	36.4%	32.9%	35.1%	36.8%	30.6%	34.9%	36.5%	32.3%	35.6%	37.1%	34.9%	33.8%	35.7%
Total employment (% labour force)	89.8%	90.0%	91.0%	90.7%	93.3%	90.6%	92.5%	92.9%	93.3%	95.6%	95.1%	94.3%	93.8%	94.4%	95.4%	87.2%	88.8%	89.2%
Unemployment rate (% labour force)	10.2%	10.0%	9.0%	9.2%	6.7%	9.4%	7.5%	7.1%	6.7%	4.4%	4.9%	5.7%	6.2%	5.6%	4.6%	12.8%	11.1%	10.8%
Participation rate (% of population > 15 years)	46.0%	47.9%	48.2%	57.1%	53.8%	49.9%	58.7%	59.2%	57.1%	67.9%	68.2%	69.3%	57.8%	61.5%	57.8%	43.7%	44.0%	43.7%
Qualifications																		
% of persons with a non-school qualification	26.0%	32.6%	39.7%	36.5%	39.3%	42.6%	35.2%	40.4%	46.0%	48.1%	52.5%	56.5%	39.1%	44.8%	48.8%	24.4%	28.7%	34.2%
% of persons with Bachelor or higher	4.0%	5.3%	8.3%	6.5%	7.1%	8.5%	5.6%	5.8%	9.4%	13.6%	15.1%	19.4%	11.0%	12.2%	14.1%	3.4%	3.0%	6.0%
% of persons with Diploma	3.0%	4.8%	6.3%	6.2%	7.2%	8.0%	5.4%	7.3%	9.6%	9.5%	11.4%	11.7%	6.3%	6.6%	9.1%	3.4%	4.4%	5.9%
% of persons with Certificate	19.1%	22.5%	25.1%	23.8%	25.0%	26.1%	24.2%	27.4%	27.0%	24.9%	26.0%	25.5%	21.8%	26.0%	25.6%	17.6%	21.2%	22.2%
Occupation																		
Upper White Collar																		
Managers	8.4%	7.3%	7.0%	7.4%	7.0%	8.8%	7.8%	7.2%	8.5%	13.8%	13.3%	13.6%	11.6%	10.4%	10.9%	6.4%	6.2%	6.7%
Professionals	10.9%	10.6%	11.3%	12.4%	11.3%	12.6%	10.9%	12.5%	12.3%	16.9%	20.1%	21.3%	17.1%	17.3%	18.8%	9.3%	10.1%	10.7%
Subtotal	19.3%	18.0%	18.3%	19.8%	18.3%	21.4%	18.7%	19.6%	20.8%	30.7%	33.3%	34.9%	28.7%	27.7%	29.7%	15.7%	16.3%	17.4%
Lower White Collar																		
Community & Personal Service Workers	12.4%	14.2%	14.9%	10.5%	12.9%	12.0%	11.5%	12.4%	14.9%	9.9%	8.8%	11.5%	9.9%	11.8%	12.4%	11.4%	12.1%	14.2%
Clerical and Admin Workers	11.2%	13.3%	13.4%	14.2%	13.8%	13.9%	13.2%	14.3%	13.4%	16.1%	15.4%	13.1%	13.3%	13.9%	12.3%	11.7%	12.5%	11.8%
Sales Workers	12.9%	10.2%	10.7%	12.8%	10.9%	11.9%	11.6%	12.0%	12.1%	9.6%	11.3%	11.2%	10.9%	11.5%	10.1%	12.0%	10.9%	12.2%
Subtotal	36.6%	37.7%	39.0%	37.4%	37.6%	37.8%	36.3%	38.7%	40.4%	35.6%	35.5%	35.7%	34.0%	37.2%	34.9%	35.2%	35.6%	38.2%
Upper Blue Collar																		
Technicians & Trades Workers	15.8%	18.3%	17.0%	19.0%	19.1%	18.9%	19.9%	18.7%	17.9%	17.1%	15.1%	14.7%	17.7%	16.5%	16.7%	17.1%	18.3%	16.9%
Subtotal	15.8%	18.3%	17.0%	19.0%	19.1%	18.9%	19.9%	18.7%	17.9%	17.1%	15.1%	14.7%	17.7%	16.5%	16.7%	17.1%	18.3%	16.9%
Lower Blue Collar																		
Machinery Operators & Drivers	12.0%	8.6%	10.4%	9.5%	9.9%	8.6%	10.1%	10.1%	8.7%	8.3%	7.3%	6.6%	7.1%	7.4%	8.3%	12.5%	12.3%	10.0%
Labourers	14.8%	14.4%	13.6%	12.7%	13.8%	12.3%	13.1%	11.9%	10.8%	5.9%	7.1%	6.6%	9.8%	8.7%	9.6%	16.8%	15.1%	15.5%
Subtotal	26.8%	23.0%	24.0%	22.1%	23.7%	21.0%	23.2%	21.9%	19.5%	14.1%	14.5%	13.3%	16.8%	16.1%	17.9%	29.3%	27.4%	25.5%
Employment by Industry (% of employees)																		

## Section 11 References

	Lake Illawarra			Mount Warrigal			Oak Flats			Shell Cove - Dunmore			Shellharbour - Barrack Point			Warilla		
Agriculture, forestry & fishing	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.0%	0.1%	0.5%	0.4%	0.8%	0.3%	0.0%	0.0%	0.0%	0.2%	0.0%
Mining	0.2%	0.3%	0.9%	1.3%	1.7%	1.2%	2.3%	2.6%	2.2%	2.6%	3.5%	4.2%	1.5%	2.9%	1.6%	0.6%	1.8%	1.8%
Manufacturing	13.9%	11.7%	6.2%	16.4%	13.1%	7.4%	14.0%	12.2%	7.0%	15.8%	13.5%	7.4%	12.4%	11.3%	7.2%	13.9%	11.3%	6.9%
Electricity, gas, water & waste services	0.4%	1.0%	1.2%	1.1%	1.4%	1.0%	1.0%	1.0%	1.0%	1.4%	1.3%	1.1%	1.1%	2.0%	0.9%	0.8%	0.5%	0.7%
Construction	8.7%	9.1%	12.2%	8.8%	9.1%	11.8%	10.6%	9.1%	12.0%	9.5%	8.1%	10.8%	10.0%	10.2%	11.8%	10.0%	10.0%	12.3%
Wholesale trade	1.9%	2.2%	1.3%	2.7%	2.3%	2.5%	2.5%	2.2%	1.8%	3.4%	3.0%	2.1%	2.5%	2.7%	2.1%	3.2%	2.4%	1.9%
Retail trade	14.6%	13.4%	14.0%	14.2%	12.2%	11.9%	13.4%	13.0%	13.9%	10.5%	11.6%	10.4%	11.8%	11.2%	9.2%	14.8%	13.7%	13.9%
Accommodation & food services	7.2%	7.5%	8.4%	6.2%	8.1%	7.0%	7.1%	7.3%	7.1%	4.6%	5.1%	6.7%	8.1%	7.0%	7.2%	7.8%	8.9%	9.5%
Transport, postal & warehousing	7.0%	6.4%	5.9%	4.6%	5.7%	4.8%	6.0%	6.4%	5.3%	4.8%	4.2%	4.0%	4.0%	4.0%	4.8%	7.0%	7.3%	5.1%
Information media & telecommunications	1.5%	1.1%	0.5%	0.9%	1.0%	0.7%	1.2%	0.6%	0.3%	0.7%	0.9%	0.8%	1.1%	0.7%	0.3%	0.6%	0.4%	0.5%
Financial & insurance services	3.5%	2.0%	2.1%	3.0%	3.0%	3.3%	2.4%	2.4%	2.1%	3.3%	4.0%	3.0%	2.1%	2.8%	2.9%	1.0%	2.0%	2.1%
Rental, hiring & real estate services	0.9%	1.5%	0.7%	2.0%	1.8%	2.2%	1.7%	1.4%	1.4%	3.0%	2.0%	2.3%	2.6%	2.0%	1.9%	1.2%	1.5%	0.5%
Professional, scientific & technical services	2.7%	3.2%	2.6%	4.3%	4.0%	3.5%	2.5%	3.6%	3.4%	4.9%	5.3%	4.8%	4.1%	4.3%	3.5%	2.5%	2.5%	3.3%
Administrative & support services	5.3%	3.8%	4.6%	4.1%	3.4%	4.1%	3.4%	2.6%	2.8%	2.9%	3.0%	2.9%	4.0%	3.3%	3.7%	3.9%	3.9%	4.5%
Public administration & safety	6.4%	6.4%	7.9%	5.8%	6.2%	7.1%	5.8%	7.3%	7.4%	7.7%	7.6%	7.6%	7.1%	7.0%	7.0%	6.1%	6.2%	6.3%
Education & training	3.3%	5.7%	6.1%	5.9%	6.3%	6.3%	6.4%	7.7%	8.4%	7.7%	9.8%	10.5%	10.0%	9.5%	11.0%	4.5%	3.9%	5.1%
Health care & social assistance	11.9%	14.3%	16.9%	11.7%	13.1%	15.7%	11.6%	13.5%	16.0%	10.1%	11.1%	12.9%	9.8%	12.4%	14.6%	12.5%	13.9%	14.7%
Arts & recreation services	2.1%	2.0%	0.7%	0.5%	0.6%	0.9%	1.1%	0.7%	1.0%	1.0%	0.6%	0.7%	2.5%	1.5%	1.7%	1.2%	1.7%	0.6%
Other services	5.4%	5.0%	4.0%	3.4%	4.6%	4.5%	4.5%	4.5%	4.0%	3.2%	3.8%	3.9%	3.0%	3.8%	3.7%	4.1%	5.3%	4.0%

Source: Community ID, Shellharbour, Illawarra SA4 and NSW Data Exporter (2006, 2011 and 2016)



## APPENDIX 4: Two-Digit ANZSIC Employment Projections

AP04

## Appendix B Two-Digit ANZSIC Employment Projections

**Table 11-3 Total Employment Projections by Two Digit ANZSIC, Scenario One and Scenario Two, Shellharbour City, 2020 to 2041**

	Scenario One						Scenario Two					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Agriculture	83	82	81	81	81	80	75	73	72	72	72	71
Aquaculture	0	0	0	0	0	0	0	0	0	0	0	0
Forestry and Logging	0	0	0	0	0	0	0	0	0	0	0	0
Fishing, Hunting and Trapping	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture, Forestry and Fishing Support Services	4	3	3	3	3	3	3	3	3	3	3	3
Coal Mining	3	3	3	3	3	3	3	3	3	3	3	3
Oil and Gas Extraction	0	0	0	0	0	0	0	0	0	0	0	0
Metal Ore Mining	15	15	15	15	15	15	13	13	13	13	13	13
Non-Metallic Mineral Mining and Quarrying	196	199	199	201	203	207	168	172	172	174	176	179
Exploration and Other Mining Support Services	3	3	3	3	3	3	3	3	3	3	3	3
Food Product Manufacturing	56	54	44	40	39	40	44	41	41	37	36	37
Beverage and Tobacco Product Manufacturing	3	3	3	3	3	3	3	3	3	3	3	3
Textile, Leather, Clothing and Footwear Manufacturing	11	10	5	3	2	1	9	9	9	6	4	3
Wood Product Manufacturing	52	52	48	47	47	48	45	45	45	44	44	45
Pulp, Paper and Converted Paper Product Manufacturing	3	3	3	3	3	3	3	3	3	3	3	3
Printing (including the Reproduction of Recorded Media)	6	6	4	4	3	3	5	5	5	4	4	4
Petroleum and Coal Product Manufacturing	7	8	9	9	11	13	10	12	12	13	15	18
Basic Chemical and Chemical Product Manufacturing	18	18	20	21	23	24	18	18	18	20	21	23
Polymer Product and Rubber Product Manufacturing	19	20	21	22	23	26	19	20	20	21	23	25
Non-Metallic Mineral Product Manufacturing	65	64	55	54	53	55	56	55	55	54	54	55
Primary Metal and Metal Product Manufacturing	25	25	23	23	23	23	22	22	22	21	21	21
Fabricated Metal Product Manufacturing	45	45	41	39	39	41	40	41	41	39	39	40
Transport Equipment Manufacturing	31	31	32	34	36	40	30	31	31	32	35	38

## Section 11 References

	Scenario One						Scenario Two					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Machinery and Equipment Manufacturing	24	24	22	22	21	22	22	23	23	22	22	23
Furniture and Other Manufacturing	92	90	79	75	76	79	76	73	73	70	71	74
Electricity Supply	63	61	64	67	70	72	64	62	65	68	71	73
Gas Supply	0	0	0	0	0	0	0	0	0	0	0	0
Water Supply, Sewerage and Drainage Services	8	7	7	7	7	7	8	7	7	7	7	7
Waste Collection, Treatment and Disposal Services	36	40	47	52	58	63	37	40	48	53	59	64
Building Construction	706	708	758	811	869	926	648	653	699	747	801	854
Heavy and Civil Engineering Construction	147	148	159	170	182	194	135	136	146	157	168	179
Construction Services	1,419	1,425	1,527	1,633	1,752	1,867	1,302	1,313	1,407	1,505	1,615	1,721
Basic Material Wholesaling	135	137	138	139	142	143	133	136	138	138	142	142
Machinery and Equipment Wholesaling	36	37	37	37	38	37	36	37	37	37	37	37
Motor Vehicle and Motor Vehicle Parts Wholesaling	27	27	28	28	29	29	26	27	28	28	29	29
Grocery, Liquor and Tobacco Product Wholesaling	125	128	131	131	135	136	124	128	130	131	135	136
Other Goods Wholesaling	38	37	36	36	36	36	37	37	36	36	36	36
Commission-Based Wholesaling	0	0	0	0	0	0	0	0	0	0	0	0
Motor Vehicle and Motor Vehicle Parts Retailing	263	251	235	245	255	260	203	195	217	227	236	240
Fuel Retailing	83	83	82	88	94	99	64	65	76	81	87	91
Food Retailing	1,061	1,076	1,077	1,162	1,249	1,321	822	839	996	1,075	1,155	1,221
Other Store-Based Retailing	1,966	1,988	1,984	2,138	2,296	2,424	1,522	1,550	1,835	1,977	2,123	2,241
Non-Store Retailing and Retail Commission-Based Buying and/or Selling	8	8	8	8	9	9	6	6	7	8	8	9
Accommodation	86	86	91	99	106	114	59	61	80	87	94	100
Food and Beverage Services	1,747	1,769	1,874	2,038	2,192	2,351	1,212	1,242	1,652	1,797	1,933	2,073
Road Transport	338	343	327	287	300	303	272	280	267	234	245	247
Rail Transport	21	22	20	18	19	19	17	18	17	15	15	15
Water Transport	8	8	8	7	7	7	6	7	6	6	6	6
Air and Space Transport	37	37	35	31	32	32	29	30	29	25	26	26

## Section 11 References

	Scenario One						Scenario Two					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Other Transport	4	4	4	3	3	3	3	3	3	3	3	3
Postal and Courier Pick-up and Delivery Services	134	136	129	114	119	120	107	111	106	93	97	98
Transport Support Services	16	16	16	14	14	14	13	13	13	11	12	12
Warehousing and Storage Services	28	29	28	24	25	26	23	24	23	20	21	21
Publishing (except Internet and Music Publishing)	0	0	0	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities	33	33	33	33	32	32	34	35	35	35	35	34
Broadcasting (except Internet)	7	7	8	8	8	9	7	8	8	9	9	9
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0
Telecommunications Services	47	49	51	53	53	54	49	53	55	57	57	58
Internet Service Providers, Web Search Portals and Data Processing Services	7	7	8	8	8	9	7	8	8	9	9	9
Library and Other Information Services	0	0	0	0	0	0	0	0	0	0	0	0
Finance	159	163	178	189	202	215	168	175	191	204	218	232
Insurance and Superannuation Funds	48	49	54	57	61	65	50	53	58	62	66	70
Auxiliary Finance and Insurance Services	131	133	146	156	166	177	138	144	157	168	179	190
Rental and Hiring Services (except Real Estate)	69	69	84	88	93	98	61	61	73	77	81	86
Property Operators and Real Estate Services	199	199	241	254	268	283	174	174	211	223	235	248
Professional, Scientific and Technical Services (except Computer System Design and Related Services)	537	546	668	742	823	910	556	576	705	782	867	959
Computer System Design and Related Services	52	53	65	73	81	90	54	56	69	77	85	95
Administrative Services	235	235	250	263	275	289	216	215	228	240	251	264
Building Cleaning, Pest Control and Other Support Services	373	369	387	405	422	441	342	336	353	370	385	402
Public Administration	753	772	876	950	1,027	1,105	814	853	904	980	1,060	1,140
Defence	4	4	5	5	6	6	4	5	5	5	6	7
Public Order, Safety and Regulatory Services	520	530	597	645	695	744	562	585	616	665	717	768
Preschool and School Education	2,066	2,099	2,406	2,611	2,815	3,019	1,905	1,966	2,253	2,445	2,636	2,828
Tertiary Education	154	157	180	195	210	225	142	147	168	182	197	211
Adult, Community and Other Education	186	187	212	229	245	262	171	175	198	214	230	245

## Section 11 References

	Scenario One						Scenario Two					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Hospitals	789	789	910	984	1,061	1,136	727	732	845	913	984	1,054
Medical and Other Health Care Services	864	871	1,012	1,097	1,187	1,276	797	808	938	1,018	1,101	1,184
Residential Care Services	742	751	877	953	1,034	1,113	684	697	813	884	959	1,033
Social Assistance Services	811	816	947	1,027	1,111	1,193	747	757	879	953	1,030	1,107
Heritage Activities	16	16	19	20	22	24	11	12	13	15	16	17
Creative and Performing Arts Activities	17	17	19	21	23	24	12	12	14	15	16	17
Sports and Recreation Activities	184	187	214	234	254	276	130	134	153	167	182	198
Gambling Activities	18	18	21	22	24	26	13	13	15	16	17	19
Repair and Maintenance	447	444	461	483	505	529	374	378	392	411	429	450
Personal and Other Services	497	518	563	604	647	695	415	440	479	514	550	591
Private Households Employing Staff and Undifferentiated Goods and Service-Producing Activities of Households for Own Use	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>19,263</b>	<b>19,460</b>	<b>21,052</b>	<b>22,499</b>	<b>24,108</b>	<b>25,670</b>	<b>16,940</b>	<b>17,295</b>	<b>19,573</b>	<b>20,930</b>	<b>22,431</b>	<b>23,890</b>

Source: CDM Smith Estimates

## Section 11 References

**Table 11-4 Employment Projections by Status of Employment, Two Digit ANZSIC, Scenario One, Shellharbour City, 2020 to 2041**

	Scenario One - Full-time						Scenario One - Part-time					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Agriculture	43	43	42	42	42	41	40	39	39	39	39	39
Aquaculture	0	0	0	0	0	0	0	0	0	0	0	0
Forestry and Logging	0	0	0	0	0	0	0	0	0	0	0	0
Fishing, Hunting and Trapping	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture, Forestry and Fishing Support Services	4	3	3	3	3	3	0	0	0	0	0	0
Coal Mining	3	3	3	3	3	3	0	0	0	0	0	0
Oil and Gas Extraction	0	0	0	0	0	0	0	0	0	0	0	0
Metal Ore Mining	15	15	15	15	15	15	0	0	0	0	0	0
Non-Metallic Mineral Mining and Quarrying	181	179	175	174	174	174	15	20	24	27	29	32
Exploration and Other Mining Support Services	3	3	3	3	3	3	0	0	0	0	0	0
Food Product Manufacturing	23	21	17	15	14	14	33	33	27	25	25	25
Beverage and Tobacco Product Manufacturing	3	3	3	3	3	3	0	0	0	0	0	0
Textile, Leather, Clothing and Footwear Manufacturing	5	6	3	2	1	1	6	5	2	1	1	0
Wood Product Manufacturing	49	49	46	45	46	47	3	3	2	2	1	1
Pulp, Paper and Converted Paper Product Manufacturing	3	3	3	3	3	3	0	0	0	0	0	0
Printing (including the Reproduction of Recorded Media)	3	3	2	2	2	2	3	3	2	2	2	2
Petroleum and Coal Product Manufacturing	7	8	9	9	11	13	0	0	0	0	0	0
Basic Chemical and Chemical Product Manufacturing	18	18	20	21	23	24	0	0	0	0	0	0
Polymer Product and Rubber Product Manufacturing	16	15	14	14	14	14	3	5	7	8	10	12
Non-Metallic Mineral Product Manufacturing	61	62	53	52	52	54	3	3	2	1	1	1
Primary Metal and Metal Product Manufacturing	21	21	20	19	19	20	4	4	3	3	3	3
Fabricated Metal Product Manufacturing	40	40	38	36	36	38	5	4	4	3	3	3
Transport Equipment Manufacturing	27	28	29	31	34	37	3	3	3	3	3	3
Machinery and Equipment Manufacturing	21	21	19	19	19	20	3	3	3	3	2	2
Furniture and Other Manufacturing	54	53	47	45	46	48	38	37	32	30	30	31



## Section 11 References

	Scenario One - Full-time						Scenario One - Part-time					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Electricity Supply	57	52	51	51	51	50	6	9	14	16	19	22
Gas Supply	0	0	0	0	0	0	0	0	0	0	0	0
Water Supply, Sewerage and Drainage Services	8	7	7	7	7	7	0	0	0	0	0	0
Waste Collection, Treatment and Disposal Services	25	23	22	22	22	22	11	17	25	30	35	41
Building Construction	563	558	589	626	667	706	143	150	169	185	202	220
Heavy and Civil Engineering Construction	115	114	120	128	136	144	33	34	39	42	46	51
Construction Services	1,114	1,104	1,166	1,239	1,319	1,397	305	321	360	394	432	471
Basic Material Wholesaling	104	108	112	114	118	120	32	29	26	25	24	23
Machinery and Equipment Wholesaling	26	27	28	28	29	30	11	10	9	9	8	8
Motor Vehicle and Motor Vehicle Parts Wholesaling	22	23	24	24	25	25	5	4	4	4	4	3
Grocery, Liquor and Tobacco Product Wholesaling	105	109	113	115	120	122	21	19	17	16	16	15
Other Goods Wholesaling	19	20	21	21	22	23	18	17	15	14	14	13
Commission-Based Wholesaling	0	0	0	0	0	0	0	0	0	0	0	0
Motor Vehicle and Motor Vehicle Parts Retailing	222	207	190	196	201	202	41	43	45	49	54	58
Fuel Retailing	37	35	32	33	34	34	46	48	50	55	60	65
Food Retailing	360	337	309	318	326	327	701	740	769	844	924	993
Other Store-Based Retailing	711	664	609	628	643	646	1,255	1,324	1,375	1,511	1,653	1,777
Non-Store Retailing and Retail Commission-Based Buying and/or Selling	5	4	4	4	4	4	4	4	4	4	5	5
Accommodation	32	32	33	35	37	39	53	55	59	64	69	75
Food and Beverage Services	499	490	504	540	572	604	1,248	1,278	1,369	1,498	1,621	1,747
Road Transport	231	233	221	193	201	203	107	110	106	94	98	100
Rail Transport	21	22	20	18	19	19	0	0	0	0	0	0
Water Transport	0	0	0	0	0	0	8	8	8	7	7	7
Air and Space Transport	33	33	31	27	28	29	4	4	4	3	4	4
Other Transport	4	4	4	3	3	3	0	0	0	0	0	0
Postal and Courier Pick-up and Delivery Services	85	86	82	71	74	75	48	50	48	42	44	45

## Section 11 References

	Scenario One - Full-time						Scenario One - Part-time					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Transport Support Services	16	16	16	14	14	14	0	0	0	0	0	0
Warehousing and Storage Services	11	11	11	9	10	10	17	17	17	15	16	16
Publishing (except Internet and Music Publishing)	0	0	0	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities	4	4	5	5	5	5	29	29	28	28	27	27
Broadcasting (except Internet)	7	7	8	8	8	9	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0
Telecommunications Services	33	35	38	39	40	42	14	14	13	13	13	13
Internet Service Providers, Web Search Portals and Data Processing Services	7	7	8	8	8	9	0	0	0	0	0	0
Library and Other Information Services	0	0	0	0	0	0	0	0	0	0	0	0
Finance	90	92	102	109	116	124	69	70	76	81	86	91
Insurance and Superannuation Funds	39	40	44	47	50	53	9	9	10	11	11	12
Auxiliary Finance and Insurance Services	79	81	88	95	101	108	52	53	57	61	65	69
Rental and Hiring Services (except Real Estate)	41	41	50	52	55	58	28	28	34	36	38	40
Property Operators and Real Estate Services	130	130	157	165	173	183	69	69	84	89	94	100
Professional, Scientific and Technical Services (except Computer System Design and Related Services)	321	335	419	470	527	590	215	211	249	272	295	320
Computer System Design and Related Services	36	37	46	52	58	65	16	16	19	21	23	24
Administrative Services	146	149	162	172	181	192	89	86	88	91	94	97
Building Cleaning, Pest Control and Other Support Services	157	161	174	185	196	208	215	208	213	220	226	233
Public Administration	522	526	587	631	677	721	231	246	289	319	351	383
Defence	0	0	0	0	0	0	4	4	5	5	6	6
Public Order, Safety and Regulatory Services	431	434	484	521	558	595	90	96	112	124	136	149
Preschool and School Education	1,207	1,240	1,438	1,568	1,700	1,834	859	859	969	1,042	1,115	1,186
Tertiary Education	89	91	106	115	125	135	65	65	74	79	85	90
Adult, Community and Other Education	38	39	45	49	53	57	148	148	167	180	192	204
Hospitals	499	489	553	591	631	668	290	300	358	393	430	468
Medical and Other Health Care Services	433	425	480	514	548	581	431	446	531	583	639	695

## Section 11 References

	Scenario One - Full-time						Scenario One - Part-time					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Residential Care Services	304	298	336	360	384	407	438	453	540	593	650	707
Social Assistance Services	419	411	464	497	530	561	392	405	483	530	581	632
Heritage Activities	4	3	4	4	4	4	12	13	15	17	18	20
Creative and Performing Arts Activities	9	9	10	10	11	12	8	8	10	11	12	13
Sports and Recreation Activities	64	61	66	70	74	78	120	126	148	164	180	198
Gambling Activities	9	9	10	10	11	12	9	9	11	12	13	15
Repair and Maintenance	364	354	358	370	382	394	83	91	103	113	123	134
Personal and Other Services	200	194	196	203	210	217	297	323	367	401	438	478
Private Households Employing Staff and Undifferentiated Goods and Service-Producing Activities of Households for Own Use	0	0	0	0	0	0	0	0	0	0	0	0
Total	10,705	10,622	11,320	11,943	12,664	13,352	8,558	8,838	9,733	10,556	11,444	12,318

Source: CDM Smith Estimates

**Table 11-5 Employment Projections by Status of Employment, Two Digit ANZSIC, Scenario Two, Shellharbour City, 2020 to 2041**

	Scenario Two - Full-time						Scenario Two - Part-time					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Agriculture	39	38	37	37	37	37	36	35	35	35	35	34
Aquaculture	0	0	0	0	0	0	0	0	0	0	0	0
Forestry and Logging	0	0	0	0	0	0	0	0	0	0	0	0
Fishing, Hunting and Trapping	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture, Forestry and Fishing Support Services	3	3	3	3	3	3	0	0	0	0	0	0
Coal Mining	3	3	3	3	3	3	0	0	0	0	0	0
Oil and Gas Extraction	0	0	0	0	0	0	0	0	0	0	0	0
Metal Ore Mining	13	13	13	13	13	13	0	0	0	0	0	0
Non-Metallic Mineral Mining and Quarrying	155	155	151	151	150	151	13	17	21	23	25	28
Exploration and Other Mining Support Services	3	3	3	3	3	3	0	0	0	0	0	0
Food Product Manufacturing	18	16	16	14	13	13	26	25	26	23	23	24

## Section 11 References

	Scenario Two - Full-time						Scenario Two - Part-time					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Beverage and Tobacco Product Manufacturing	3	3	3	3	3	3	0	0	0	0	0	0
Textile, Leather, Clothing and Footwear Manufacturing	4	5	5	4	3	2	5	4	3	2	1	1
Wood Product Manufacturing	42	42	43	42	43	44	3	2	2	1	1	1
Pulp, Paper and Converted Paper Product Manufacturing	3	3	3	3	3	3	0	0	0	0	0	0
Printing (including the Reproduction of Recorded Media)	3	3	3	2	2	2	2	2	2	2	2	2
Petroleum and Coal Product Manufacturing	10	12	12	13	15	18	0	0	0	0	0	0
Basic Chemical and Chemical Product Manufacturing	18	18	18	20	21	23	0	0	0	0	0	0
Polymer Product and Rubber Product Manufacturing	16	15	14	13	13	14	3	5	7	8	10	12
Non-Metallic Mineral Product Manufacturing	53	53	54	53	53	54	3	2	2	1	1	1
Primary Metal and Metal Product Manufacturing	18	18	18	18	18	18	3	3	3	3	3	3
Fabricated Metal Product Manufacturing	36	37	37	35	36	37	4	4	3	3	3	3
Transport Equipment Manufacturing	26	28	28	30	32	35	3	3	3	3	3	3
Machinery and Equipment Manufacturing	19	20	20	20	20	20	3	3	3	3	2	2
Furniture and Other Manufacturing	45	43	44	42	43	44	32	30	30	28	28	29
Electricity Supply	58	53	51	52	52	51	6	9	14	16	20	23
Gas Supply	0	0	0	0	0	0	0	0	0	0	0	0
Water Supply, Sewerage and Drainage Services	8	7	7	7	7	7	0	0	0	0	0	0
Waste Collection, Treatment and Disposal Services	25	23	23	23	23	22	11	17	25	30	36	42
Building Construction	517	514	543	577	615	651	131	139	156	170	187	203
Heavy and Civil Engineering Construction	105	105	111	118	125	133	30	32	36	39	43	47
Construction Services	1,022	1,017	1,075	1,142	1,216	1,287	280	296	332	363	398	434
Basic Material Wholesaling	102	108	112	114	118	120	31	29	26	25	24	22
Machinery and Equipment Wholesaling	25	27	28	28	29	30	11	10	9	9	8	8
Motor Vehicle and Motor Vehicle Parts Wholesaling	22	23	24	24	25	25	5	4	4	4	4	3
Grocery, Liquor and Tobacco Product Wholesaling	103	109	113	115	119	121	20	19	17	16	16	15
Other Goods Wholesaling	19	20	21	21	22	23	18	17	15	14	14	13

## Section 11 References

	Scenario Two - Full-time						Scenario Two - Part-time					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Commission-Based Wholesaling	0	0	0	0	0	0	0	0	0	0	0	0
Motor Vehicle and Motor Vehicle Parts Retailing	172	162	176	181	186	187	32	34	42	46	50	54
Fuel Retailing	29	27	29	30	31	31	35	38	46	51	56	60
Food Retailing	279	262	285	294	301	303	543	577	711	781	854	918
Other Store-Based Retailing	550	518	563	581	595	598	972	1,032	1,272	1,397	1,528	1,643
Non-Store Retailing and Retail Commission-Based Buying and/or Selling	4	3	4	4	4	4	3	3	4	4	4	5
Accommodation	22	22	29	31	33	34	37	38	52	57	61	66
Food and Beverage Services	346	344	444	476	504	532	866	898	1,207	1,321	1,429	1,541
Road Transport	186	190	180	158	164	166	86	90	87	76	80	82
Rail Transport	17	18	17	15	15	15	0	0	0	0	0	0
Water Transport	0	0	0	0	0	0	6	7	6	6	6	6
Air and Space Transport	26	27	25	22	23	23	3	3	3	3	3	3
Other Transport	3	3	3	3	3	3	0	0	0	0	0	0
Postal and Courier Pick-up and Delivery Services	69	70	67	58	61	61	39	41	39	35	36	37
Transport Support Services	13	13	13	11	12	12	0	0	0	0	0	0
Warehousing and Storage Services	9	9	9	8	8	8	14	14	14	12	13	13
Publishing (except Internet and Music Publishing)	0	0	0	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities	4	5	5	5	5	6	30	31	30	30	29	29
Broadcasting (except Internet)	7	8	8	9	9	9	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0
Telecommunications Services	34	38	41	42	43	45	14	15	14	14	14	14
Internet Service Providers, Web Search Portals and Data Processing Services	7	8	8	9	9	9	0	0	0	0	0	0
Library and Other Information Services	0	0	0	0	0	0	0	0	0	0	0	0
Finance	95	100	109	117	125	133	73	75	82	87	93	98
Insurance and Superannuation Funds	41	43	47	50	54	57	10	10	11	12	12	13
Auxiliary Finance and Insurance Services	83	87	95	102	109	116	55	57	62	66	70	74

## Section 11 References

	Scenario Two - Full-time						Scenario Two - Part-time					
	2020	2021	2026	2031	2036	2041	2020	2021	2026	2031	2036	2041
Rental and Hiring Services (except Real Estate)	36	36	44	46	48	51	24	24	30	31	33	35
Property Operators and Real Estate Services	114	114	137	144	152	161	61	61	74	78	83	87
Professional, Scientific and Technical Services (except Computer System Design and Related Services)	333	353	442	496	556	622	223	223	263	286	311	338
Computer System Design and Related Services	37	39	49	55	62	69	17	17	20	22	24	26
Administrative Services	134	136	147	157	166	176	82	79	81	83	85	88
Building Cleaning, Pest Control and Other Support Services	144	147	159	169	178	189	198	190	194	201	206	213
Public Administration	564	582	606	651	698	745	250	272	298	329	362	396
Defence	0	0	0	0	0	0	4	5	5	5	6	7
Public Order, Safety and Regulatory Services	465	480	500	537	576	614	97	106	116	128	141	154
Preschool and School Education	1,113	1,162	1,346	1,469	1,592	1,717	792	804	907	976	1,044	1,110
Tertiary Education	82	85	99	108	117	126	60	61	69	74	80	85
Adult, Community and Other Education	35	36	42	46	50	54	136	139	156	168	180	191
Hospitals	460	454	513	549	585	620	267	278	332	364	399	434
Medical and Other Health Care Services	399	394	446	477	508	539	397	414	493	541	593	645
Residential Care Services	280	276	312	334	356	377	404	420	501	550	603	656
Social Assistance Services	386	381	431	461	492	521	361	376	448	492	539	586
Heritage Activities	2	2	3	3	3	3	9	9	11	12	13	14
Creative and Performing Arts Activities	7	6	7	7	8	8	5	6	7	8	8	9
Sports and Recreation Activities	45	44	47	50	53	56	85	90	106	117	129	142
Gambling Activities	7	6	7	7	8	8	6	7	8	9	9	10
Repair and Maintenance	304	301	304	315	325	335	70	77	88	96	105	114
Personal and Other Services	167	165	167	173	178	184	248	275	312	341	372	406
Private Households Employing Staff and Undifferentiated Goods and Service-Producing Activities of Households for Own Use	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>9,647</b>	<b>9,694</b>	<b>10,602</b>	<b>11,199</b>	<b>11,882</b>	<b>12,537</b>	<b>7,293</b>	<b>7,601</b>	<b>8,971</b>	<b>9,730</b>	<b>10,549</b>	<b>11,353</b>

Source: CDM Smith estimates



## APPENDIX 5: Assumed Employment Densities for Industrial Sectors

AP05

## Appendix C Assumed Employment Densities for Industrial Sectors

**Table 11-6 Assumed Employment Densities by Industry Sector, Shellharbour City, 2020-2041**

Industrial Use Category	Employment / hectare assumption
<b>Large Footprint and General Industry</b>	
Beverage and Tobacco Product Manufacturing	40
Food Product Manufacturing	40
Wood Product Manufacturing	35
Pulp, Paper and Converted Paper Product Manufacturing	40
Petroleum and Coal Product Manufacturing	35
Basic Chemical and Chemical Product Manufacturing	35
Polymer Product and Rubber Product Manufacturing	30
Non-Metallic Mineral Product Manufacturing	20
Primary Metal and Metal Product Manufacturing	25
Machinery and Equipment Manufacturing	45
Fabricated Metal Product Manufacturing	35
Transport Equipment Manufacturing	45
Furniture and Other Manufacturing	35
<b>Service Industry</b>	
Textile, Leather, Clothing and Footwear Manufacturing	45
Printing (including the Reproduction of Recorded Media)	40
Publishing (except Internet and Music Publishing)	40
Construction Services	30
Repair and Maintenance	35
<b>Warehousing and Storage</b>	
Wholesale Trade	20
<b>Transport Uses</b>	
Motor Vehicle and Motor Vehicle Parts Retailing	30
Road Transport	25
Rail Transport	10
Transport Support Services and Storage	30
Postal and Courier Pick-up and Delivery Services	35

Source: CDM Smith estimates

## APPENDIX 6: Consultation Report

AP06

# Shellharbour Employment Lands Study

## Initial Stakeholder Engagement Summary



**1 June 2020**

## Document Control

**Document:** Project Name: Shellharbour Employment Lands Study  
Report Name: Initial Stakeholder Engagement Summary

**This document has been prepared for:**




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## Revision History

VERSION	DATE	DETAILS	AUTHOR	AUTHORISATION
V2	1 June 2020	FINAL	Kate Burke	Malcolm Griffin 

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## LIST OF APPENDICES

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<b>APPENDIX 1 – WORKSHOP PRESENTATION AND STAKEHOLDER FEEDBACK</b>
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# 1 INTRODUCTION

The Shellharbour Employment Lands Study (SELS) will analyse all employment lands within Shellharbour and provide an evidence-base to inform any potential changes to the Shellharbour LEPs, DCP, corporate policy and other high-level policy. The study will also be developed through effective and targeted stakeholder engagement, thereby building transparency and community awareness of the strategic directions associated with the provision of employment lands in Shellharbour. The SELS responds to a well-established policy framework led by the Community Strategic Plan (CSP) and will be a key long-term policy document for Council and stakeholders.

The aims of the SELS are to:

- Provide a basis to facilitate a suitable contribution by the Shellharbour LGA towards regional employment needs and employment opportunity, through land use policy;
- Provide a basis to enhance employment opportunities for the Shellharbour community; and
- Address the implications of the Covid 19 pandemic and how the City can recover and increase its resilience, in terms of employment lands/business centres.

As part of the preparation of the SELS, PSA Consulting and Shellharbour City Council recently undertook initial stakeholder engagement on 21<sup>st</sup> May 2020, to gauge initial views and inputs to inform the preparation of the draft SELS.

## 1.1 Purpose

The purpose of this document is to provide a brief summary and record of the issues raised within the initial consultation conducted on 21<sup>st</sup> May 2020 in relation to the preparation of the Shellharbour SELS.

## 1.2 Agency/Industry Workshop

PSA Consulting, in conjunction with Shellharbour City Council, recently undertook a consultation workshop with agencies/industry, to determine what specific issues potentially needed to be addressed in the preparation of the SELS. The workshop was conducted on Wednesday 21<sup>st</sup> May 2020 from 1-2:30 pm and was conducted via Zoom. A total of 15 attendees participated in the workshop, which comprised a mixture of local and state agencies, industry representatives and developers.

After providing a PowerPoint presentation on the purpose and context of the project and providing a brief analysis of the current state of employment for Shellharbour, four focus questions were posed to the group for feedback. These questions were:

1. What are some of the current issues regarding the provision of employment within Shellharbour?

The general feedback received indicated that more flexible land use provisions should be provided, in encouraging employment opportunities for Shellharbour.

Creating a sense of community and ownership within places also discourages crime and other anti-social behaviour and more should be done to create that sense of community within Shellharbour's centres as there is good potential for this. This then leads to more activated centres which encourages greater employment.

Comments were also made that due to time delays in the processing of development applications (primarily for residential estates), that this is also having an effect on the creation of jobs in relation to construction within Shellharbour.

It was also acknowledged that due to the evolution and change in job types, there may be a need to move away from a reliance on retail. There is also a need to address what can be delivered in Shellharbour, which might be better than what is being delivered in Wollongong.

Further comments were made around specific DCP controls making development unviable – e.g. for Albion Park, where the main street is not being utilised and property owners are not upgrading. Provisions related to car parking, open space

and setbacks are too onerous and lacks development incentives. Taylor Road (Tripoli Way) bypass would help by reducing main street traffic. Streetscape improvements are also needed.

2. Are there any specific areas identified for employment purposes in Shellharbour which have not been taken up? What are some of the reasons for this?

Mention was made of the Illawarra Regional Business Park having employment potential, however this is unlikely to come to fruition while it is still being used for grazing.

The potential of the Shellharbour City Centre was also raised and the need for a different approach. It is in a great spot and well located and has good bones to encourage more activity, including shop top housing.

3. Are specific incentives needed to encourage employment in Shellharbour? If so, what could these incentives include?

The issue of branding for Shellharbour was raised, as it was felt that Shellharbour struggles to have a unique identity. When asked for suggestions about how Shellharbour should brand itself, comments were made around lifestyle, tourism and capitalising on the marina and marine tourism at Shell Cove, as well as the natural bushland escarpment areas. The commute time to Sydney was also raised as appealing to people wanting to live outside Sydney, but who may be willing to commute to work 2 days a week and work from home for the remaining 3.

The activation of rail and the three rail stations for commuting from Shellharbour was also raised as an important issue in providing better access to employment opportunities.

Suggestions were made to increase densities and allow smaller housing products, such as 1 bedders in town centres with minimal parking requirements. The current developer charges can influence viability and should be scaled to respond to the number of bedrooms being provided when developing dwellings.

Council needs to get the message across that smaller sized housing is not necessarily bad. Industry would like to see formal messaging from Council that they support certain development types in certain locations as a precursor for lodging development applications, prior to being advertised, as this could assist with community attitudes towards these areas.

4. In light of the current COVID-19 pandemic, what measures could be implemented to assist Shellharbour City in recovering and increasing its resilience, in terms of employment opportunities?

The need for start-up spaces and/or co-location of shared facilities to assist new businesses was raised as a possible measure that Shellharbour could consider in encouraging new businesses. These types of spaces are currently offered in Kiama and Wollongong but do not appear to be offered in Shellharbour.

*Appendix 1* contains a copy of the feedback provided at the workshop, as well as a copy of the presentation that was presented to the workshop. The feedback will be considered through the preparation of the SELS.

## 2 Next Steps

The results of the stakeholder feedback will be utilised to inform the preparation of the draft SELS. Upon completion of the draft SELS document, further consultation will be conducted, to seek further feedback on the SELS before it is finalised.

## APPENDIX 1: WORKSHOP PRESENTATION AND FEEDBACK

AP01



# Shellharbour Employment Lands Study

## Agency and Industry Workshop

21st May 2020



Brisbane | Gold Coast | Sydney | Toowoomba | Townsville

TRANSPORT ENGINEERING | TOWN PLANNING | PROGRAM MANAGEMENT

# EMPLOYMENT LANDS STUDY

## OVERVIEW OF AGENCY AND INDUSTRY WORKSHOP

- Context and Objectives
- Overview of Preliminary Analysis
- Workshop Discussion
- Next Steps

# SELS

## PURPOSE OF AGENCY AND INDUSTRY WORKSHOP

To obtain an “on the ground” understanding of the key strengths, weaknesses, challenges and opportunities within Shellharbour City in relation to employment lands by sub-sector



# CONTEXT

- Shellharbour Community Strategic Plan 2018-2028
- Quadruple Bottom Line:
  - Community
  - Environment
  - Economy
  - Leadership



# CONTEXT

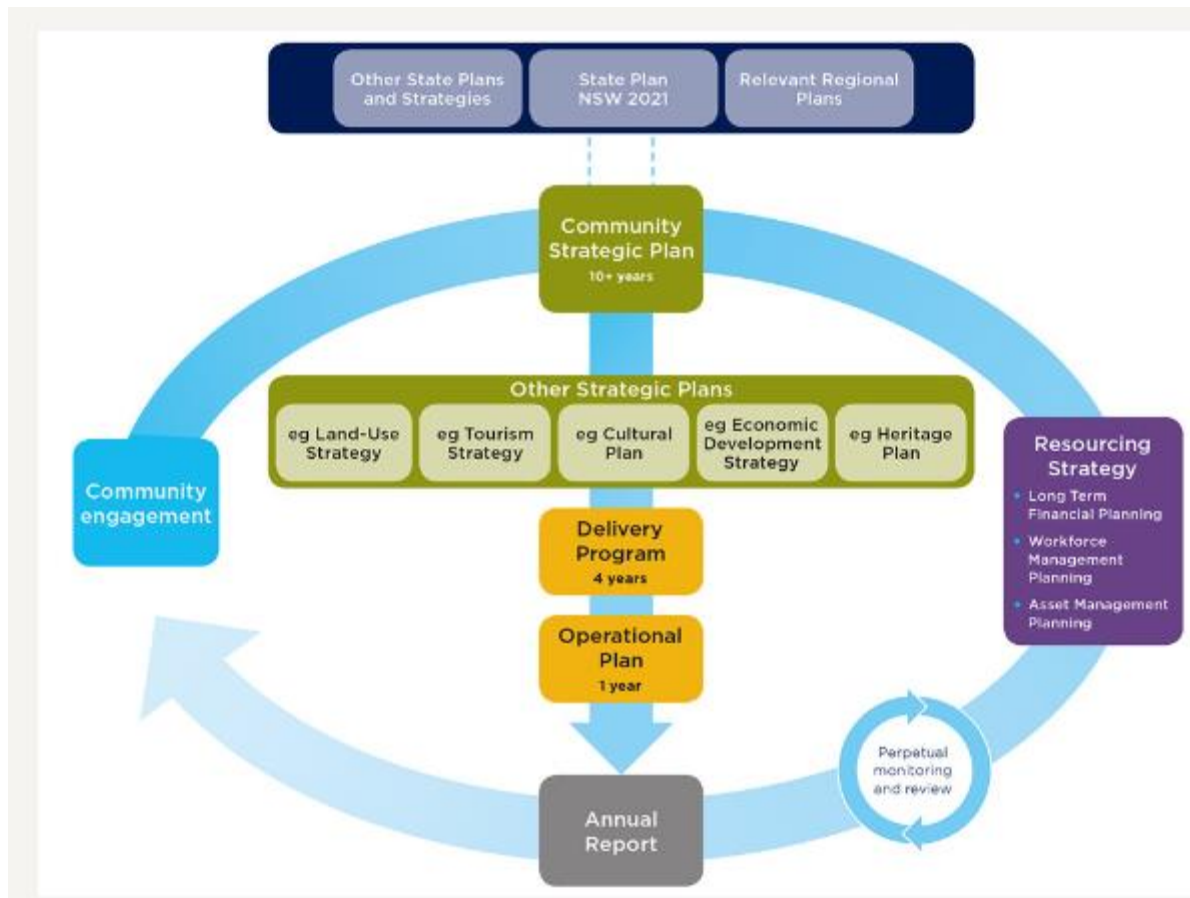


Figure 1 – The Integrated Planning and Reporting Framework (Source: Shellharbour Community Strategic Plan 2018-2028)

# STUDY OBJECTIVES

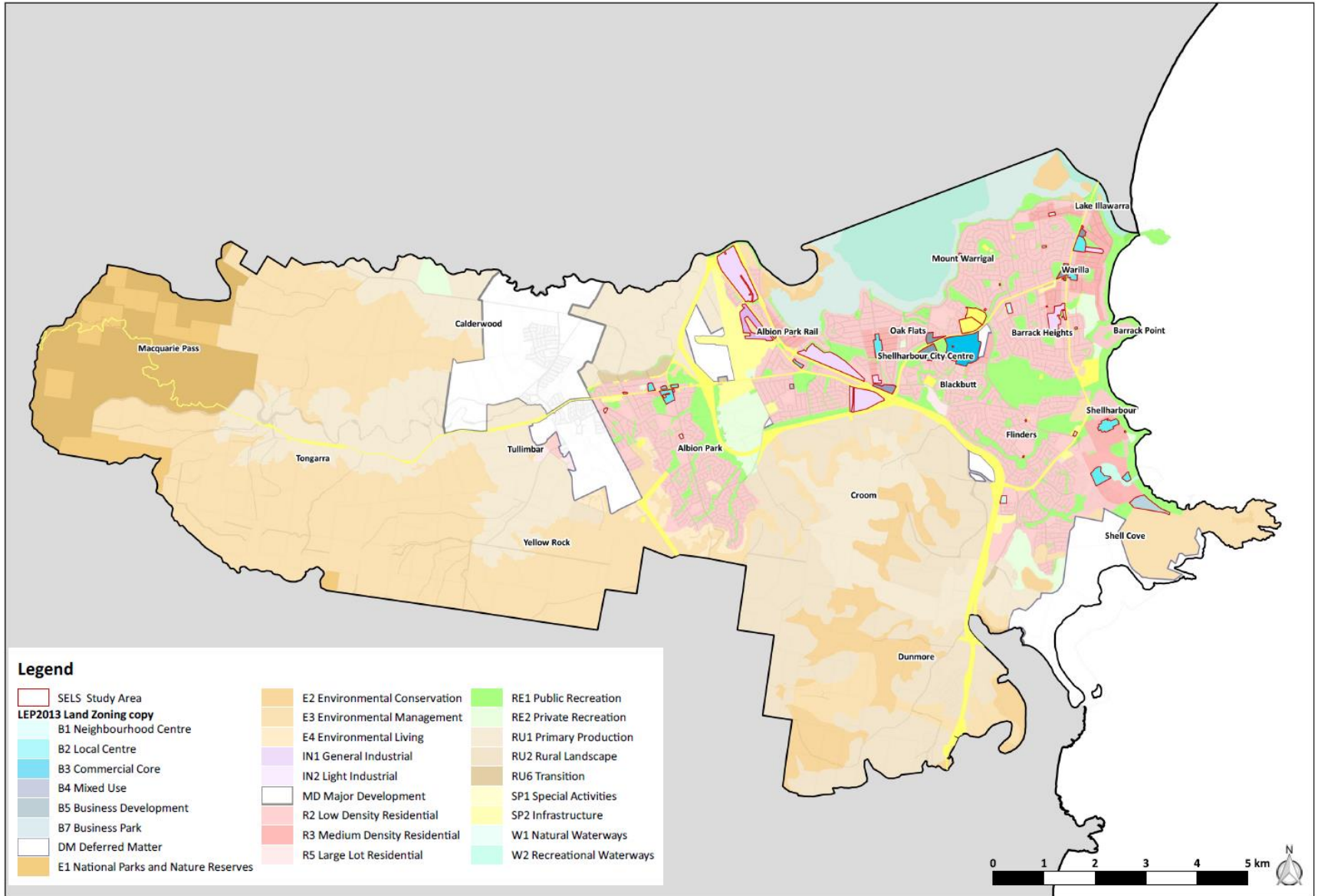
- Facilitate contribution towards regional employment needs
- Enhance employment opportunities for the Shellharbour community
- Address Covid 19 pandemic and how City can recover and increase its resilience

# SUBJECT LAND

The SELS will consider the following zones:

- B1 Neighbourhood Business zoned land
- B2 Local Centre zoned land
- B3 Commercial Core zoned land
- B4 Mixed Use zoned land
- B5 Business Development zoned land
- B7 Business Park zoned land
- IN1 General Industrial zoned land
- IN2 Light Industrial zoned land
- SP2 Educational Establishment (Shellharbour TAFE)
- SP2 Health Services Facility (Shellharbour Hospital)

# MAP OF SUBJECT LAND



PSA Reference: 1049 SSC - Employment Lands Study: Map 1 Context Map 21.05.2020 V1

# SCOPE

- Planning/economic context for employment and employment growth and development
- Identify required number of full and part time jobs to 2041
- Compare 2041 resident working population with the number and type of jobs' potential which can be facilitated via current LEP provisions



# SCOPE

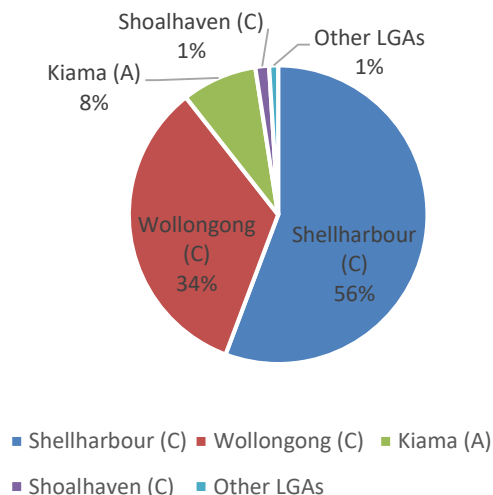
- Review employment lands potential of Illawarra Regional Business Park (IRBP)
- Review employment lands potential of employment lands adjoining Airport
- Robotics, automation and artificial intelligence
- Other employment megatrends

# PRELIMINARY ANALYSIS

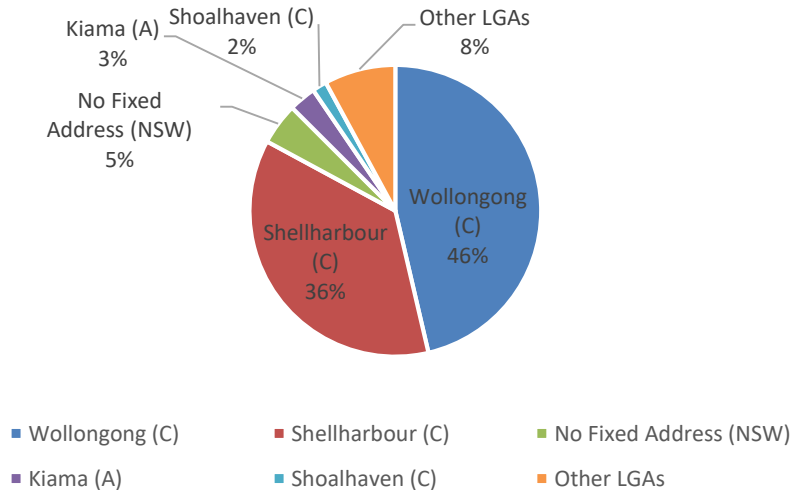
## Working Population

- 18,509 persons in Shellharbour in 2016
- Employment highest in Shellharbour – Oak Flats and Warilla SA2s
- Just over half of all workers in Shellharbour also live in Shellharbour
- Most common place of work for Shellharbour City residents was Wollongong

Where do people who work in Shellharbour reside?



Where do people who reside in Shellharbour work?

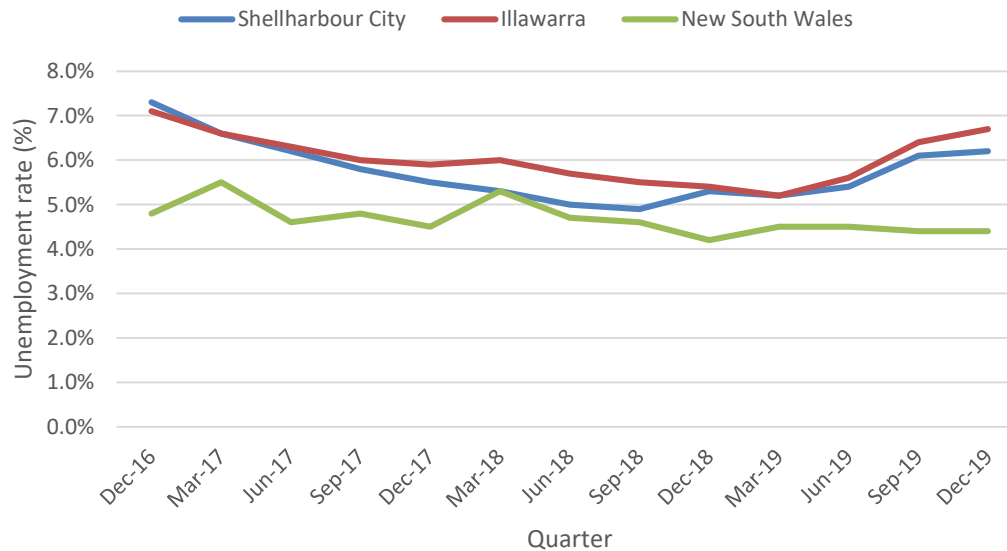


# PRELIMINARY ANALYSIS

- Key sectors of employment in Shellharbour as of 2016 were:
  - Retail trade
  - Health care and social assistance
  - Education and training
  - Construction
- Incidence of employment in these sectors is about regional (Illawarra SA4) and state averages
- Employment in these sectors is concentrated as follows:
  - Retail trade: Shellharbour – Oak Flats SA2
    - Shellharbour City Centre
  - Health care and social assistance: Warilla SA2
    - Shellharbour Private Hospital
    - Warrigal Warilla Nursing Home
  - Education and training: Albion Park – Macquarie Pass SA2 and Warilla SA2 – concentration of schools in these SA2s
  - Construction: Shellharbour – Oak Flats SA2

# PRELIMINARY ANALYSIS

- Unemployment rates in Shellharbour and the broader Illawarra SA4 have historically exceeded the NSW average
- Both Shellharbour and Illawarra region have historically had a higher incidence of part time employment
- Unemployment rate in Shellharbour and Illawarra region trended upwards in 2019, prior to COVID19



# PRELIMINARY ANALYSIS

- Official employment projections by industry published by Transport NSW for each LGA – prior to COVID-19
- These projections anticipate employment to increase from 20,276 persons in 2016 to 28,703 persons in 2041 (1.4% per annum)
- Key sectors of change (in terms of employed persons) in the 2016 to 2041 period are summarised below

Significant Employment Growth	Decline in Employment
Health Care and Social Assistance (~1,700 persons)	Agriculture, Forestry and Fishing (-15 persons)
Education and Training (~1,400 persons)	Manufacturing (-36 persons), with most significant declines in
Retail Trade (~1,100 persons)	Food Product Manufacturing (-32 persons)
Construction (~800 persons)	Furniture and Other Manufacturing (-30 persons)
Public Administration and Safety (~800 persons)	

- Employment projections suggest continued growth in existing dominant sectors

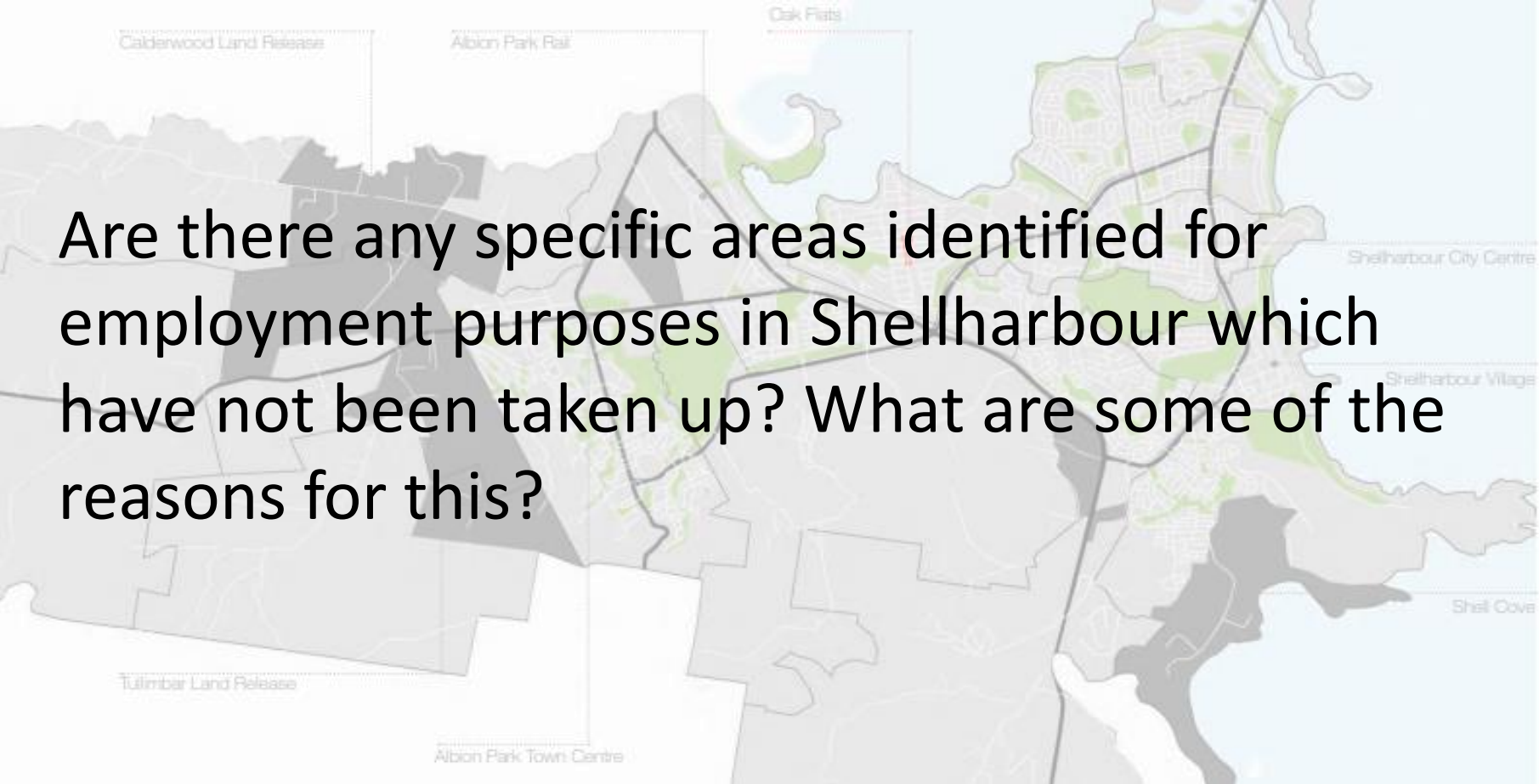
# WORKSHOP DISCUSSION



What are some of the current issues regarding the provision of employment within Shellharbour?



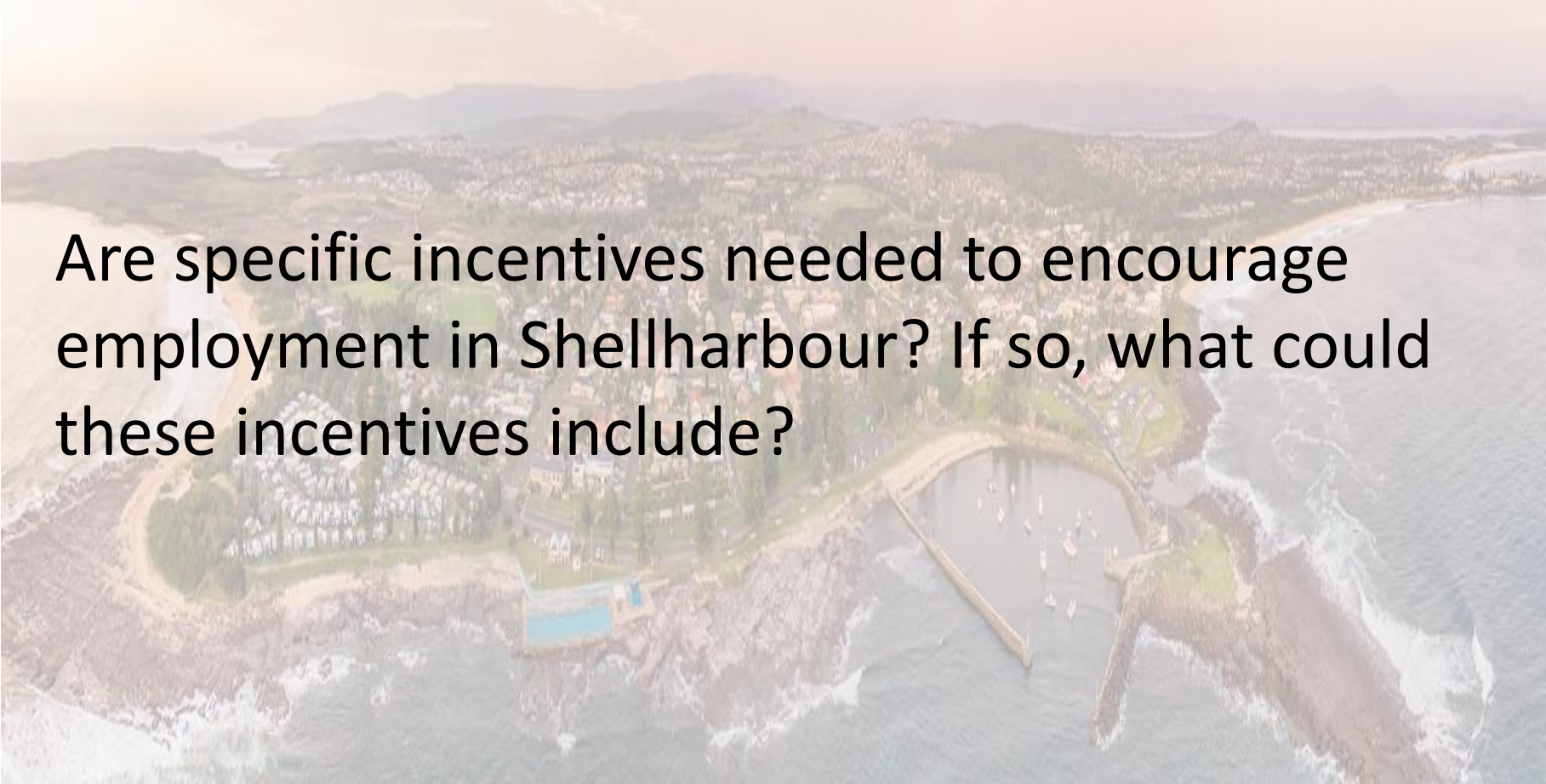
# WORKSHOP DISCUSSION



Are there any specific areas identified for employment purposes in Shellharbour which have not been taken up? What are some of the reasons for this?

The map shows several labeled areas: Calderwood Land Release, Albion Park Rail, Oak Flats, Shellharbour City Centre, Shellharbour Village, Shell Cove, Tullimbar Land Release, and Albion Park Town Centre.

# WORKSHOP DISCUSSION



Are specific incentives needed to encourage employment in Shellharbour? If so, what could these incentives include?

# WORKSHOP DISCUSSION

In light of the current COVID-19 pandemic, what measures could be implemented to assist Shellharbour City in recovering and increasing its resilience, in terms of employment opportunities?

## NEXT STEPS

- Prepare draft Employment Lands Study – June/July 2020
- Public exhibition – July/August 2020
- Finalise Employment Lands Study – September 2020
- Consideration by Council – October 2020

# QUESTIONS?

**SHELLHARBOUR EMPLOYMENT LANDS STUDY  
AGENCY/INDUSTRY WORKSHOP  
21<sup>ST</sup> MAY 2020**

1. What are some of the current issues regarding the provision of employment within Shellharbour?
  - Covid-19 recovery estimated to be 2021 to 2026, after an initial decline, may see work floor space requirements being less as more people work from home.
  - At Warilla, no development and no ability to create new businesses. Could have had more of a village atmosphere. There are lost opportunities as there are no trade programs.
  - Forced to move car sale franchise, Warilla Grove was the last business left on Shellharbour Road and more flexible land use provisions such as mixed use/ability to have cafes would have helped the area.
  - If lake fringe had cafes instead of houses, this would generate employment.
  - There is no central sense of community or sense of different environments and there is a need to have more facilities and green space to support. When places lose their identity/sense of community/sense of belonging, there is more anti social crime.
  - There is more of a social conscience when people own an area. Need to have pride of place and place making principles.
  - Would like to see success of Kiama town centre duplicated in Albion Park, Warilla, Oak Flats town centres.
  - Calderwood has been experiencing bottlenecks with getting DA consents from Council for Calderwood, so the associated jobs/employment growth are not being generated. Full time equivalent 1600 jobs on hold due to delays, plus holding costs.
  - Housing brings in population. Good opportunity to generate employment and more jobs close to homes. Allow for flexibility and innovation.
  - Acknowledge Shellharbour Housing Strategy's provisions on housing supply, population growth. Indicated jobs here today, may not be here tomorrow. There may be a need to move away from a reliance on retail. What things can be delivered in Shellharbour, better than what they are in Wollongong?
  - DCP controls make development at Albion Park unviable. Main street not being utilised. Property owners are not upgrading. Car parking, open space, setbacks are too onerous and there lacks development incentives. Taylor Road (Tripoli Way) bypass would help by reducing main street traffic. Streetscape improvements are needed. These sorts of issues were prevalent with the draft housing strategy's public exhibition/community engagement. Council is undertaking a DCP review once details of the standard DCP template are known, and will work with private sector (and other) stakeholders when the review occurs.
  - Needs to be a focus on neighbourhood and community centres. Some opportunities in Oak Flats and Albion Park to being life into centres.
  - Retail and trade – a lot of changes coming. Flexibility in use and capitalise on tourism focus.
  
2. Are there any specific areas identified for employment purposes in Shellharbour which have not been taken up? What are some of the reasons for this?
  - Illawarra Regional Business Park has employment potential, but not while it's used for grazing.
  - Significant upgrades to service the land makes it difficult to take up.



- Shellharbour City Centre – area needs a different tact. Try to get buzzing as in a great spot and well located. More shop top housing.
- 3. Are specific incentives needed to encourage employment in Shellharbour? If so, what could these incentives include?
  - Consider formulating a brand for Shellharbour to stimulate investment – e.g. lifestyle; marina at Shell Cove and marine tourism, bush, escarpment, commutable via Zoom. Branding could stimulate local investment.
  - Potential to live in Shellharbour and use airport to commute to work.
  - Activating rail is important – looking at improving train services for the 3 Shellharbour stations.
  - Increase densities – need to fit more parking in on site. Would like to see more small sized housing, such as 1 bedders in town centres with minimal parking requirements. Housing strategy recognises need for more small sized housing. Developer charges can influence viability.
  - Look at densities and car parking hand-in-hand. Trade off reduced developer charges. Incentives for 1 bedroom units.
  - More affordable housing typologies – 1 bedrooms, studios, new generation.
  - From George Street Warilla to the north and to lake – there should be more housing where private yards are not needed.
  - Need to address community expectations. Get message across that smaller sized housing is not necessarily bad. Would like to see formal messaging from Council that supports certain development types in certain locations as a precursor for lodging development applications.
  - Council rules choke the life out of everything. People want to go where cheaper to be. Less \$/m<sup>2</sup>. Industrial areas cheaper but not enough parking.
  - Regulations too restrictive. Faster approvals needed. Need acceptance small businesses are changing so rapidly due to technology.
- 4. In light of the current COVID-19 pandemic, what measures could be implemented to assist Shellharbour City in recovering and increasing its resilience, in terms of employment opportunities?
  - Appetite for start up spaces? Flexibility of uses and spaces to respond to retail failings.
  - Creative sectors – reactivation in town centres.
  - In Albion Park there's no office space that could be utilised for shared meeting spaces – for use for say 1 day a week. Could build into DCP home based development – where it can be a live/work from home facility or rent out separately. Transition from retail strip to residential at rear.
  - In Tullimbar there are various examples of businesses being run at home, e.g. hairdressers, massage. Obviating the business' presence from the street would help businesses. But garages tend to take up those frontages. Older suburbs at Warilla, oak Flats have the potential for this.
  - Increase densities and terrace arrangements – garages to rear, offices to front.
  - Promoting airport, marina, marine based tourism.

- Council described the changing nature of industrial zones with uses such as churches, children’s play centres, gyms and a decline in manufacturing premises. Asked for group’s thoughts on what these areas should be and planning for them.
- Need holistic approach. Demand for what Council had in mind changes and different uses move in, retail finds it difficult on industrial sites because on – site parking is not enough.
- Sentiment coming out of Covid-19 experience is to manufacture more goods in Australia. It will be interesting to see how this filters through different layers of government.
- Arts and industry estate at Byron Bay as something to consider. Creates flexibility in land use provisions and allowances which has seen the state thrive. Comprises a mix of industrial, commercial, arts spaces and even some residential. Need to be innovative in approaches.

## APPENDIX 7: Reference List

AP07

- Arcadis. (2020). *Moorebank Logistics Park*. Retrieved from Arcadis Design and Consultancy:  
<https://www.arcadis.com/en/australia/what-we-do/our-projects/australia/moorebank-logistics-park/>
- Bartholomeusz, S. (2020, April 29). A retail property apocalypse is unfolding - and it's going to be unpleasant. *The Sydney Morning Herald*.
- Bokor Architecture and Interiors. (n.d.). *Illawarra Regional Business Park, NSW*. Retrieved from Bokor Architecture and Interiors: <https://bokor.com.au/shop/item/illawarra-regional-business-park>
- Bowery. (2020, April 27). *How it Works*. Retrieved from The Bowery Farm: <https://boweryfarming.com/how-it-works>
- Cohen, J. (2020, April 2). *COVID-19: Retail's survival and revival*. Retrieved from KPMG:  
<https://home.kpmg/au/en/home/insights/2020/04/coronavirus-covid-19-retail-survival-and-revival.html>
- Hajkowicz, S., Reeson, A., Rudd, L., Bratanova, A., Hodgers, L., Mason, C., & Boughen, N. (2016). *Tomorrow's Digitally Enabled Workforce: Megatrends and scenarios for jobs and employment*. CSIRO.
- ID Community. (2019, May). *Population Forecast Shellharbour City Council*. Retrieved from Forecast ID:  
<https://forecast.id.com.au/shellharbour/population-summary>
- Illawarra Mercury. (2019, September 21). *Shellharbour Airport is taking off*. Retrieved from Illawarra Mercury:  
<https://www.illawarramercury.com.au/story/6397947/shellharbour-airport-is-taking-off/>
- McIlwain, K. (2020, March 2). *Construction to start on Shellharbour's \$20 million airport upgrade*. Retrieved from Mercury Illawarra: <https://www.illawarramercury.com.au/story/6657401/construction-to-start-on-shellharbours-20-million-airport-upgrade/>
- Miller, T. (2019). *Online Shopping in Australia*. IBIS World.
- NSW Government Health. (2019). *Shellharbour Hospital Redevelopment*. Retrieved from NSW Government Health Illawarra Shoalhaven Health District: <https://www.islhd.health.nsw.gov.au/about-us/hospital-and-facility-upgrades/shellharbour-hospital-redevelopment>
- NSW Government Health. (2020). *Shellharbour Hospital*. Retrieved from NSW Government Health Illawarra Shoalhaven Health District: <https://www.islhd.health.nsw.gov.au/hospitals/shellharbour-hospital>
- NSW Government Planning . (2004). *Shellharbour Rural Local Environmental Plan*. Retrieved from NSW Government|NSW Legislation: <https://www.legislation.nsw.gov.au/#/view/EPI/2004/818/maps>
- NSW TAFE. (2018, October 31). *TAFE NSW Annual Report 2017-18*. Retrieved from NSW TAFE:  
<https://www.tafensw.edu.au/documents/60140/283797/TAFE+NSW+2017-18+Annual+Report.pdf/14fb6103-0b12-3fbe-3bb6-ed57112b6f49>
- NSW TAFE. (2020). *Qualifications - Shellharbour* . Retrieved from NSW TAFE:  
<https://www.tafensw.edu.au/search?q=&qualification-level=diploma&radius=1&latlong=-34.560538,150.838393&locationName=Shellharbour&disableFilters=qualification>
- NSW TAFE. (2020). *Shellharbour Campus Guide*. Retrieved from NSW TAFE:  
<https://www.tafensw.edu.au/documents/60140/294864/TAFE-NSW-Shellharbour-campus-map.pdf/33a60524-9f1e-00fa-fa77-4b2afd9e1d9f?t=1557283041845>
- Oxford Economics - Maria Lee. (2020, April 24). *Relative Winners and Losers Across Australia's Property Markets*. Australia.
- Remplan. (2016). *Remplan Economy, Jobs and Business Insights*. Retrieved from Remplan:  
<https://app.remplan.com.au/shellharbour/economy/industries/employment?state=7vBAUQ!b67mCZXRvSXLqXRf r20EEhZukhAhoAvUgWEWMcDgOgYHLHWKhVHahppkQhEYv>
- Remplan. (2016). *Remplan Shellharbour City Council*. Retrieved from Remplan Economy Profile :  
<https://app.remplan.com.au/shellharbour/economy/trends/jobs?state=g1bc6!R6xZCdPj2C04zXJSm0VjjC1urH0y MCJH5H9LI7HOhNNWxF730>
- Remplan. (2016). *Shellharbour*. Retrieved from Remplan Economy Profile:  
<https://app.remplan.com.au/shellharbour/economy/workers/place-of-usual-residence?state=qKx4FN!2WNJFW19kFeB2Z5smNdXXC2u4H6j5u1HVHL4Cvho8phPhww5kiZWp>
- Shellharbour Airport. (2020). *Shellharbour Airport*. Retrieved from <https://www.shellharbourairport.com.au/>
- Shellharbour South Coast, NSW. (2020). *Shellharbour Airport*. Retrieved from Shellharbour South Coast, NSW:  
<https://www.visitshellharbour.com.au/about-shellharbour/general-information/illawarra-regional-airport>
- Transport for NSW. (2020, May). *Albion Park Rail bypass - Princes Highway upgrade*. Retrieved from Transport for NSW:  
<https://www.rms.nsw.gov.au/projects/albion-park-rail-bypass/index.html>
- Wachsmuth, L. (2019, September 16). *Shellharbour Hospital's redevelopment grinds to a virtual halt pending decision*. Retrieved from Illawarra Mercury: [illawarramercury.com.au/story/6386951/work-stalls-at-shellharbour-hospital-pending-vital-decision-on-site/](https://www.illawarramercury.com.au/story/6386951/work-stalls-at-shellharbour-hospital-pending-vital-decision-on-site/)
- William, C. (2018, October 23). *The Nature Of Leadership In A Flat Organization*. Retrieved from Forbes:  
<https://www.forbes.com/sites/williamcraig/2018/10/23/the-nature-of-leadership-in-a-flat-organization/#188911835fe1>

Witt, U., & Gross, C. (2019). The rise of the “service economy” in the second half of the twentieth century and its energetic contingencies. *Journal of Evolutionary Economics*.