



PORT STEPHENS
COUNCIL



**Port Stephens
Local Emergency
Management Plan
(EMPLAN)
2022**

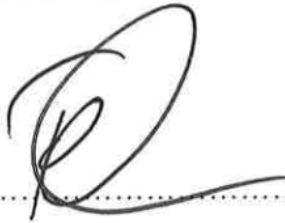


Part 1 – Administration

Authority

The Ideal Local Emergency Management Plan (EMPLAN) has been prepared by the Ideal Local Emergency Management Committee in compliance with the State Emergency & Rescue Management Act 1989.

APPROVED



Chair

Port Stephens Local Emergency Management Committee

Dated: 27 OCTOBER 2022

ENDORSED



Chair

Regional Emergency Management Committee

Peter McKenna APM
Assistant Commissioner

Dated: 08/11/2022

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Purpose

Details arrangements for, prevention of, preparation for, response to and recovery from emergencies within the Local Government Area(s) covered by this plan.

It encompasses arrangements for:

- emergencies controlled by combat agencies;
- emergencies controlled by combat agencies and supported by the Local Emergency Operations Controller (LEOCON);
- emergency operations for which there is no combat agency; and
- circumstances where a combat agency has passed control to the LEOCON.

Objectives

The objectives of this plan are to:

- define participating organisation and Functional Area roles and responsibilities in preparation for, response to and recovery from emergencies;
- set out the control, co-ordination and liaison arrangements at the Local level;
- detail activation and alerting arrangements for involved agencies; and
- detail arrangements for the acquisition and co-ordination of resources.

Scope

The plan describes the arrangements at Local level to prevent, prepare for, respond to, recover from emergencies, and provide policy direction for the preparation of Sub Plans and Supporting Plans:

- Arrangements detailed in this plan are based on the assumption that the resources upon which the plan relies are available when required; and
- The effectiveness of arrangements detailed in this plan are dependent upon all involved agencies preparing, testing and maintaining appropriate internal instructions, and/or standing operating procedures.

Principles

The following principles are applied in this plan:

- a) The Emergency Risk Management (ERM) process is to be used as the basis for emergency planning in New South Wales. This methodical approach to the planning process is to be applied by Emergency Management Committees at all levels.
- b) Responsibility for preparation, response and recovery rests initially at Local level. If Local agencies and available resources are not sufficient they are augmented by those at Regional level.
- c) Control of emergency response and recovery operations is conducted at the lowest effective level.
- d) Agencies may deploy their own resources from their own service from outside the affected Local area or Region if they are needed.
- e) The Local Emergency Operations Controller (LEOCON) is responsible, when requested by a combat agency, to co-ordinate the provision of resources support. EOCs would not normally assume control from a combat agency unless the situation can no longer be contained. Where necessary, this should only be done after consultation with the Regional Emergency Operations Controller (REOCON) and agreement of the combat agency and the appropriate level of control.
- f) Emergency preparation, response and recovery operations should be conducted with all agencies carrying out their normal functions wherever possible.
- g) Prevention measures remain the responsibility of authorities/agencies charged by statute with the responsibility.

Test and Review Process

The Ideal Local Emergency Management Committee (LEMC) will review this Plan every three (3) years, or following any:

- activation of the Plan in response to an emergency;
- legislative changes affecting the Plan; and
- exercises conducted to test all or part of the Plan.

List of Abbreviations

The following abbreviations have been used within this plan:

ABS	Australia Bureau of Statistics
BOM	Bureau of Meteorology
CMG	Consequence Management Guide
DISPLAN	Disaster Plan
DPI	Department of Primary Industries
DSEP	Dam Safety Emergency Plan
EMPLAN	Emergency Management Plan
ECL	East Coast Low
EM	Emergency Management
EOC	Emergency Operations Centre
ERM	Emergency Risk Management
FRNSW	Fire and Rescue New South Wales
GRP	Gross Regional Product
HV	High Voltage
JATWC	Joint Australian Tsunami Warning Centre
LEMC	Local Emergency Management Committee
LEMO	Local Emergency Management Officer
LEOCON	Local Emergency Operations Controller
LEP	Local Environmental Plan
LGA	Local Government Area
LLS	Local Land Services
LNG	Liquid Natural Gas
LV	Low Voltage
MHF	Mass Hazard Facility

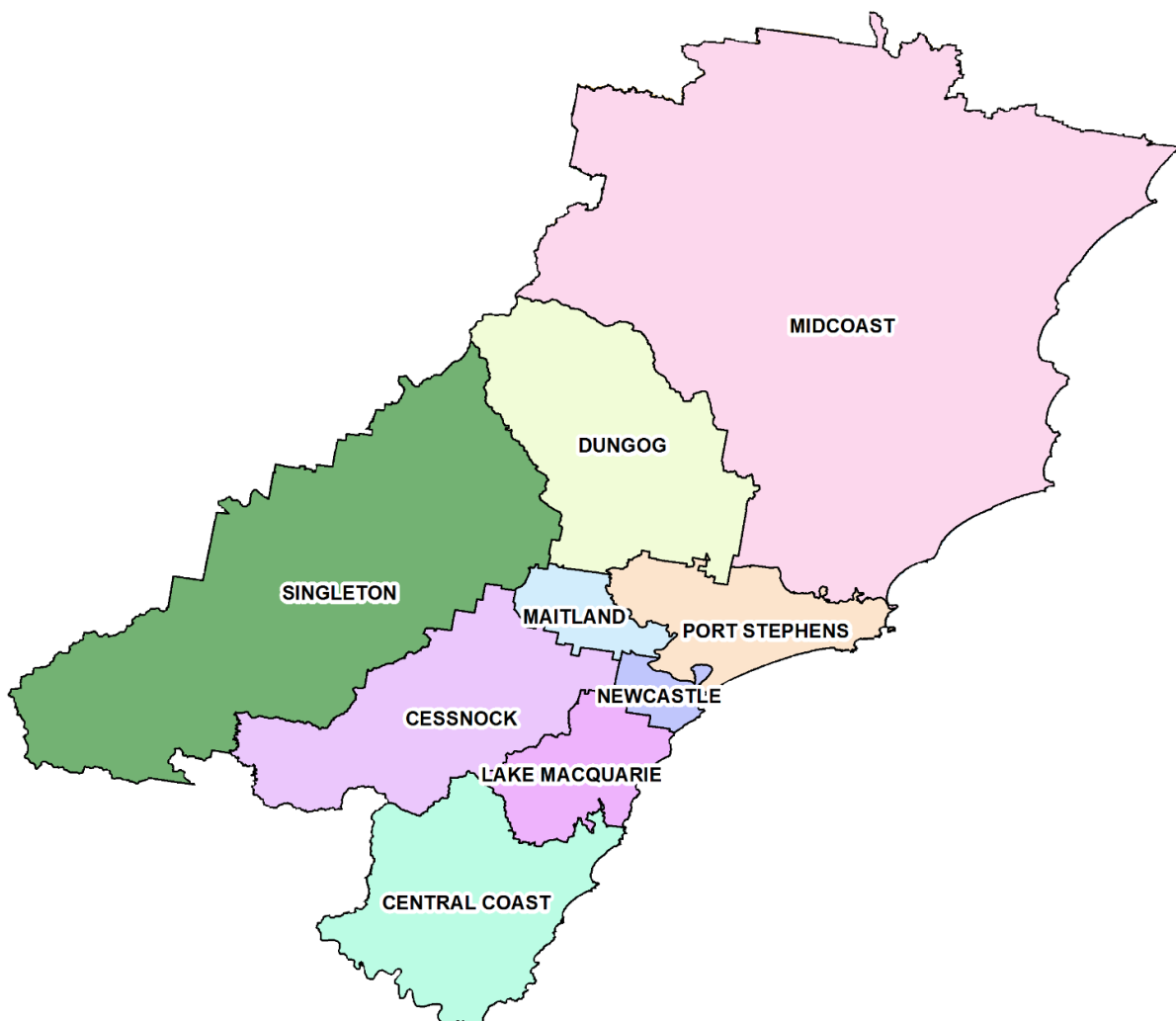
NBN	National Broadband Network
NSW SES	New South Wales State Emergency Service
NSW RFS	New South Wales Rural Fire Service
RAAF	Royal Australian Air Force
REOCON	Regional Emergency Operations Controller
RFC	Region Forecast Centre
SEOCON	State Emergency Operations Controller
SERCON	State Emergency Recovery Controller
SERM Act	State Emergency and Rescue Management Act 1989
USAR	Urban Search and Rescue

Part 2 – Community Context

Annexure A – Community Profile

General

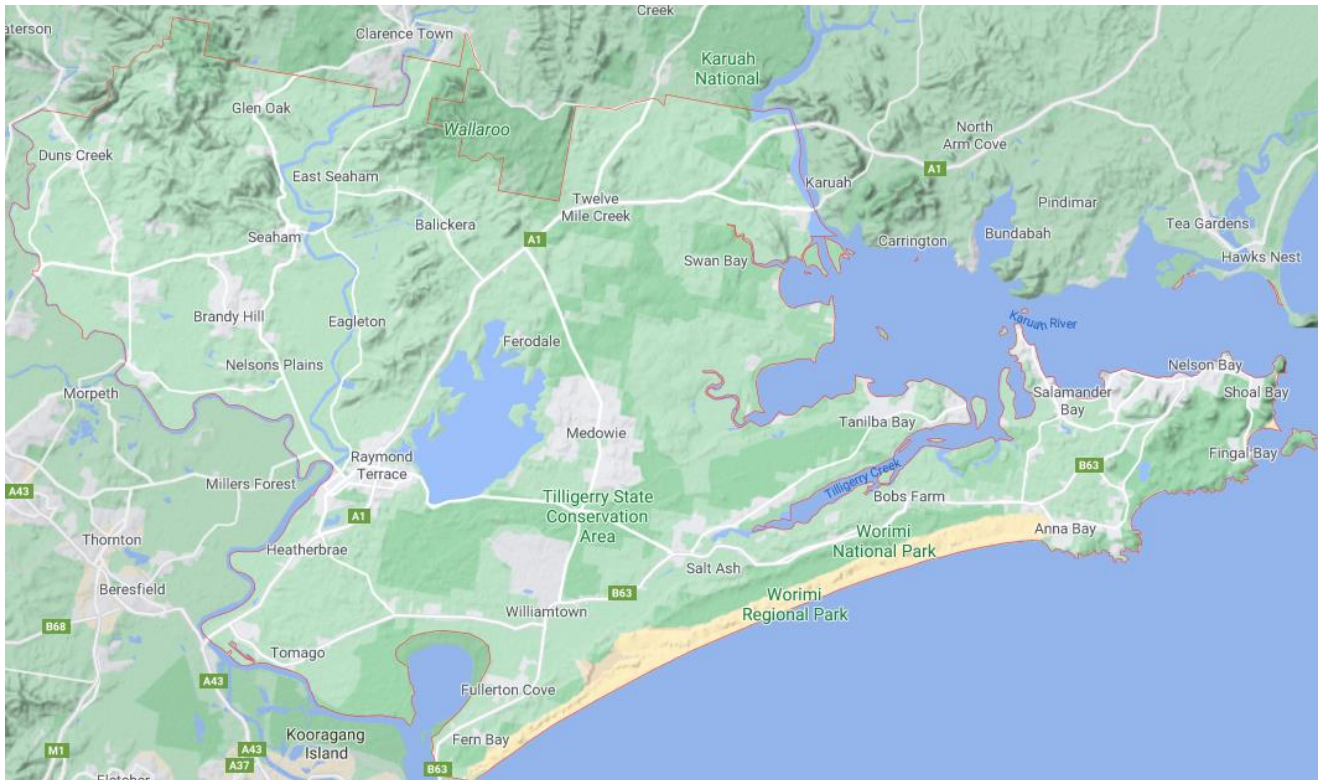
Port Stephens is a coastal Local Government Area (LGA) in the Hunter Region of New South Wales. Located just north of Newcastle, Port Stephens is approximately 200 kilometres north of Sydney. Dungog Shire and the Mid Coast Council area in the north, the City of Newcastle across the Hunter River in the south and Maitland City in the west, bound the Port Stephens LGA. Port Stephens with a land area of almost 86,000 hectares is approximately 55 kilometres from east to west and 30 kilometres from north to south.



Map 1.0 Port Stephens LGA and surrounding LGA's

To the North West lies the harbour of Port Stephens, with an area of approximately 134 square kilometres it's larger than Sydney Harbour. It extends generally from the Hunter

River in the south, to near Clarence Town in the north, and from the Tasman Sea in the east, to just south of Paterson in the west. The area is bisected by the Pacific Highway, which runs near Raymond Terrace, the largest township in the local government area.



Map 2.0 Port Stephens LGA and the location of its settlements

The LGA contains major service centres at Raymond Terrace (regional centre), and Nelson Bay/Salamander Bay. A major industrial area is located at Tomago, which is adjacent to the Port of Newcastle, and the regional civilian airport is located at Williamtown. A large defence facility, RAAF Base Williamtown, is located adjacent to the airport.

There are a number of smaller rural communities such as Karuah, Seaham and Wallalong dispersed throughout other less populated planning districts to the north and west of Raymond Terrace and Medowie.

Port Stephens has a population of 74506 people ¹ and supports 27,346 jobs. Its annual economic output of \$13.523 billion. Port Stephens has an ageing population with high growth rates of people aged 65 years and over. The 20-34 age group is small and decreases as people leave for higher education and employment.

¹ - REMPLAN ABS 2020 Estimated Residential Population

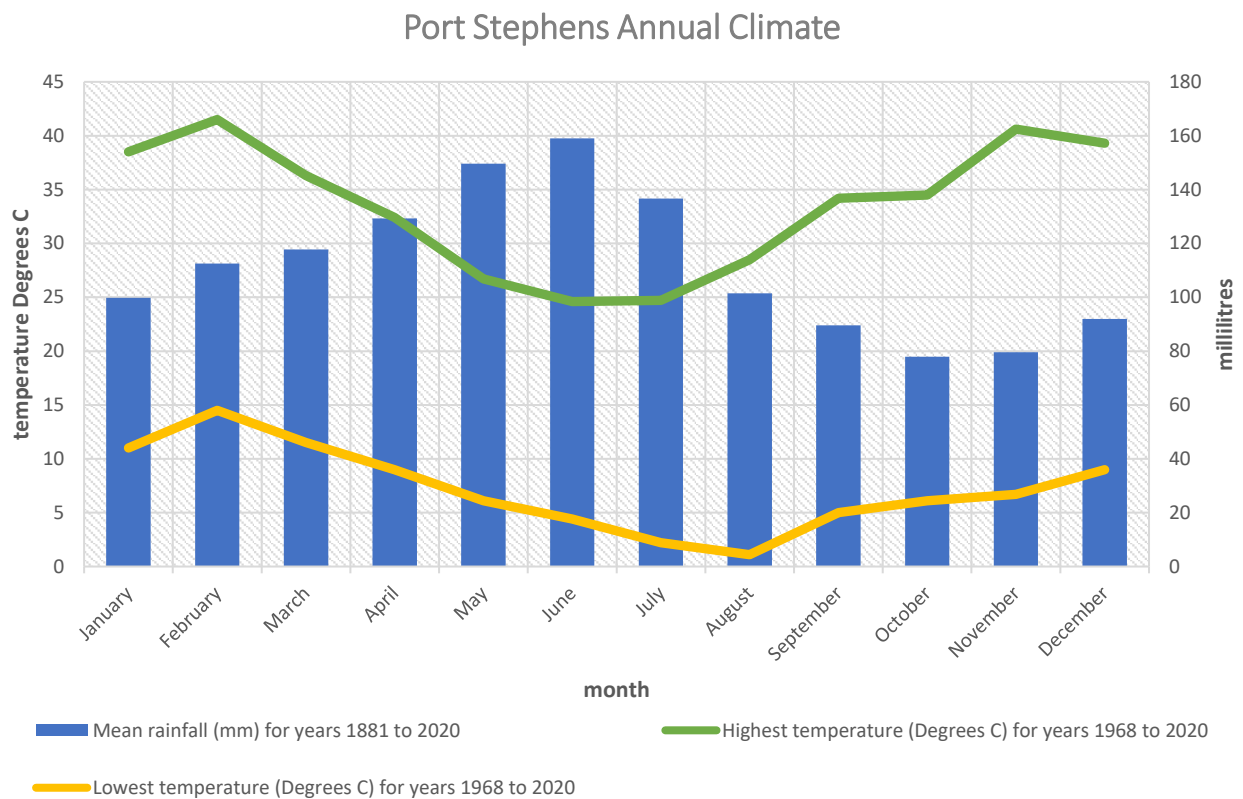
Climate

Port Stephens enjoys a temperate year round climate without the high humidity and seasonal temperature extremes.

The Port Stephens area has moderate summer temperatures. The average summer high temperature for Port Stephens Area is approximately 26 °C. The average summer low temperature is approximately 17 °C.

The Port Stephens area has mild winter temperatures. The average winter high temperature for Port Stephens area is approximately 18 °C. The average winter low temperature is approximately 8 °C.

Rainfall is evenly distributed throughout the year with around 11 days per month of rainfall. The annual average is 1,347mm of rain.



Graph 1.0 Port Stephens Annual Climate

Landform and Topography

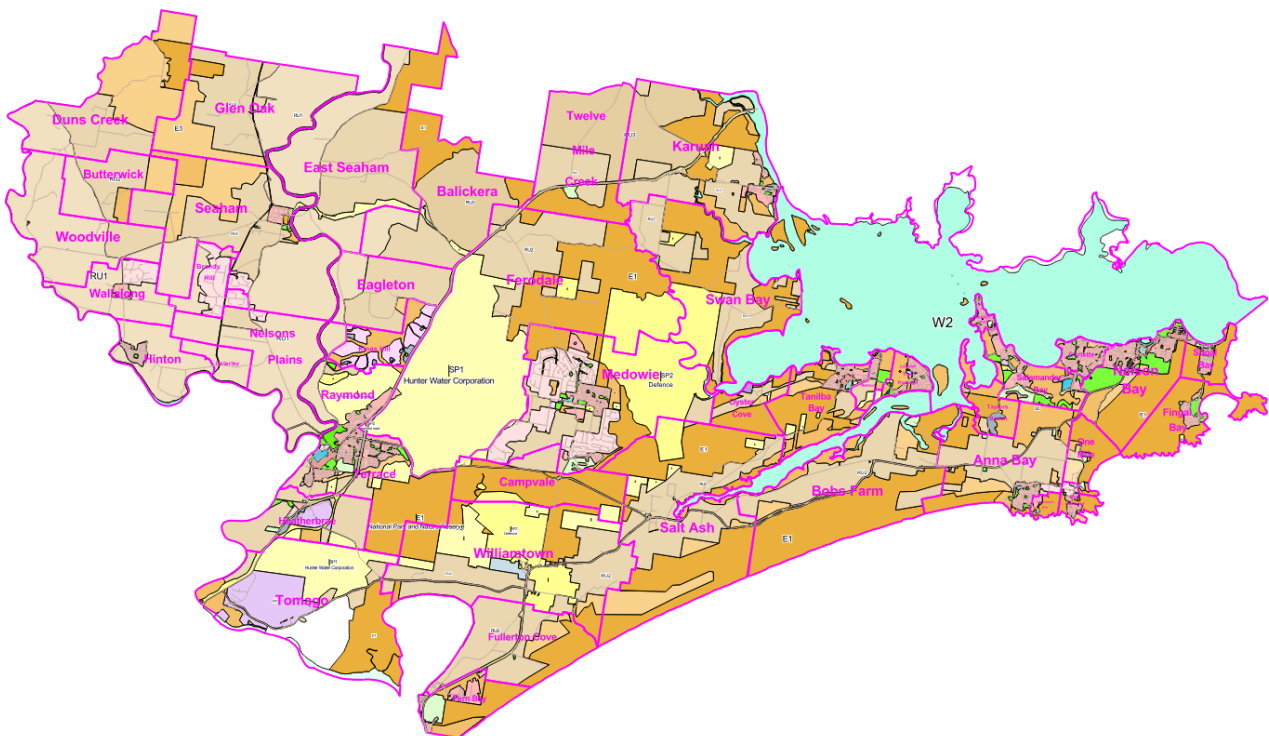
The Port Stephens LGA enjoys substantial biodiversity due to the variety of ecosystems it contains. These include open forest, rainforest, riparian forest, coastal swamp forests, woodland, and heath and sedge land.

Port Stephens has a unique coastal zone from its sandy beaches and rocky headlands to its mangroves, salt marshes and wetlands. It stretches from Fern Bay in the south to Yaccaba Headland in the north, including the estuary of Port Stephens. The coastal zone covers areas of both Port Stephens Council and Mid Coast Council.

A number of vegetation communities in Port Stephens are classified as nationally, state or regionally significant with around 32,156 hectares (37%) of protected land in the LGA that support biodiversity conservation.

Land Use

The Port Stephens Local Environmental Plan 2013 provides a range of land use zones. RU2 - Rural Production represents (22.17%) E1 - National Parks Natural Reserves (19.6%) W2 - Recreational Waterways (13.14%) and RU1 - Primary Production (11.91%) represent two-thirds (66.82%) of land zoned in Port Stephens.



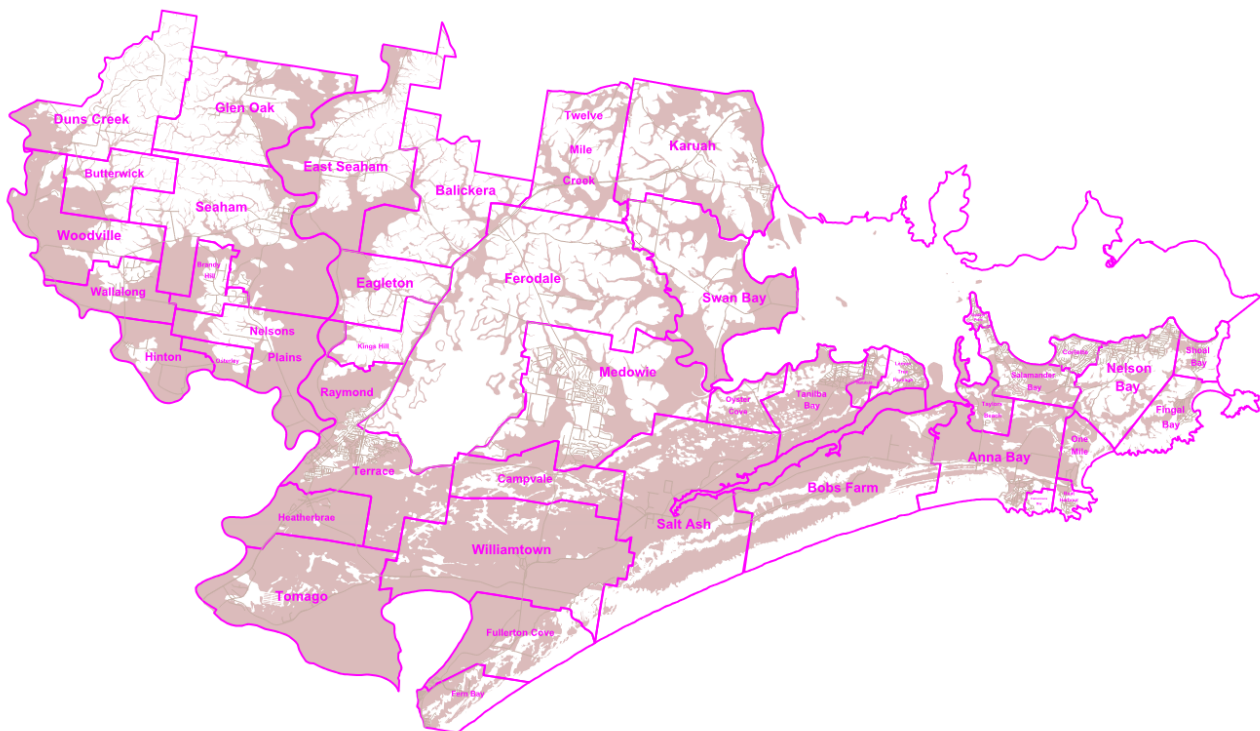
Map 3.0 Land Zoning Map for Port Stephens

Land Zoning	Area (Ha)	Land Zoning	Area (Ha)
RU2 Rural Production	21,465.13	R1 General Residential	411.08
E1 National Parks & Nature Reserves	18,979.13	RE2 Private Recreation	390.61
W2 Recreational Waterways	12,718.89	R3 Medium Density Residential	165.56
RU1 Primary Production	11,527.85	E4 Environmental Living	114.9
SP1 Special Activities	7,169.61	B7 Business Park	89.77
SP2 Infrastructure	5,049.42	RU5 Village	78.47
E3 Environmental Management	4,309.07	B5 Business Development	76.12
E2 Environmental Conservation	3,731.87	B2 Local Centre	47.95
RU3 Forestry	3,503.90	B3 Commercial Core	47.47
R2 Low Density Residential	2,512.71	B4 Mixed Use	47.18
R5 Large Lot Residential	1,908.15	IN2 Light Industrial	33.84
RE1 Public Recreation	956.34	IN4 Working Waterfront	30.38
IN1 Industrial General Industrial	927.79	B1 Neighbourhood Centre	11.63
W1 Natural Waterways	513.19		

Table 1.0 Land Zoning by area (Ha) of Port Stephens LGA

Flood Prone Land

Port Stephens is a relatively flat and has low lying topography. 46% of the Local Government Area is Flood Prone Land. Arterial roads that connect Nelson Bay peninsula with Williamstown and the rest of the LGA are predominantly low lying and susceptible to flood. Port Stephens has two critical risk sections of flood on Tomaree Peninsula where Nelson Bay Road is subject to flooding and would provide no alternate route if cut off or closed.

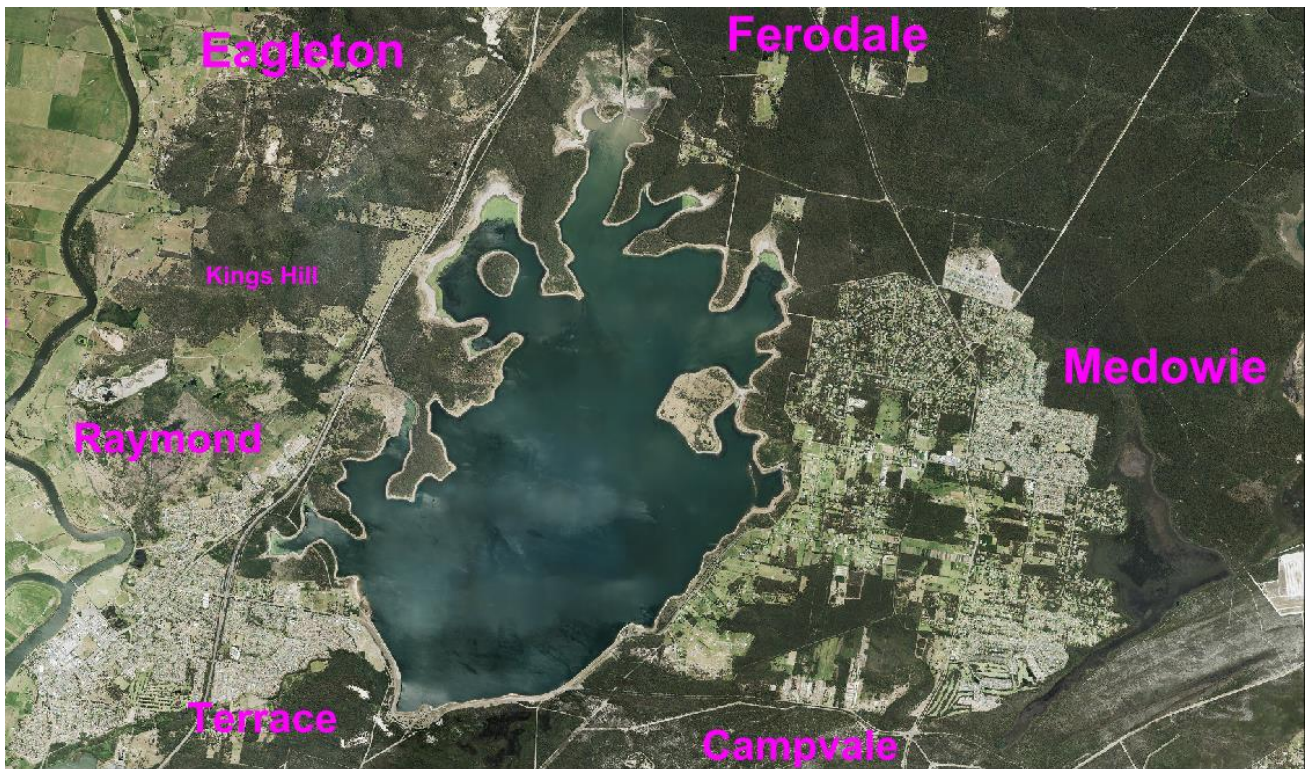


Map 4.0 Port Stephens Flood Prone Land

Grahamstown Dam

Constructed between 1955 and 1965, Grahamstown Dam is the Hunter's largest drinking water supply dam, providing 40% of water to our region and meeting up to 75 % of the daily supply requirements. The dam has a catchment area of 115km², and a volume of approximately 182,305ML (million litres) with an average depth of 9 metres. The water surface area is 2800 hectares.

Grahamstown Dam is classified as an off-river storage facility, storing raw water that's pumped from the Williams River at Seaham Weir through the Balickera Canal, which flows into the northern end of Grahamstown Dam. On average, 50% of inflow to Grahamstown Dam is pumped from the Williams River.



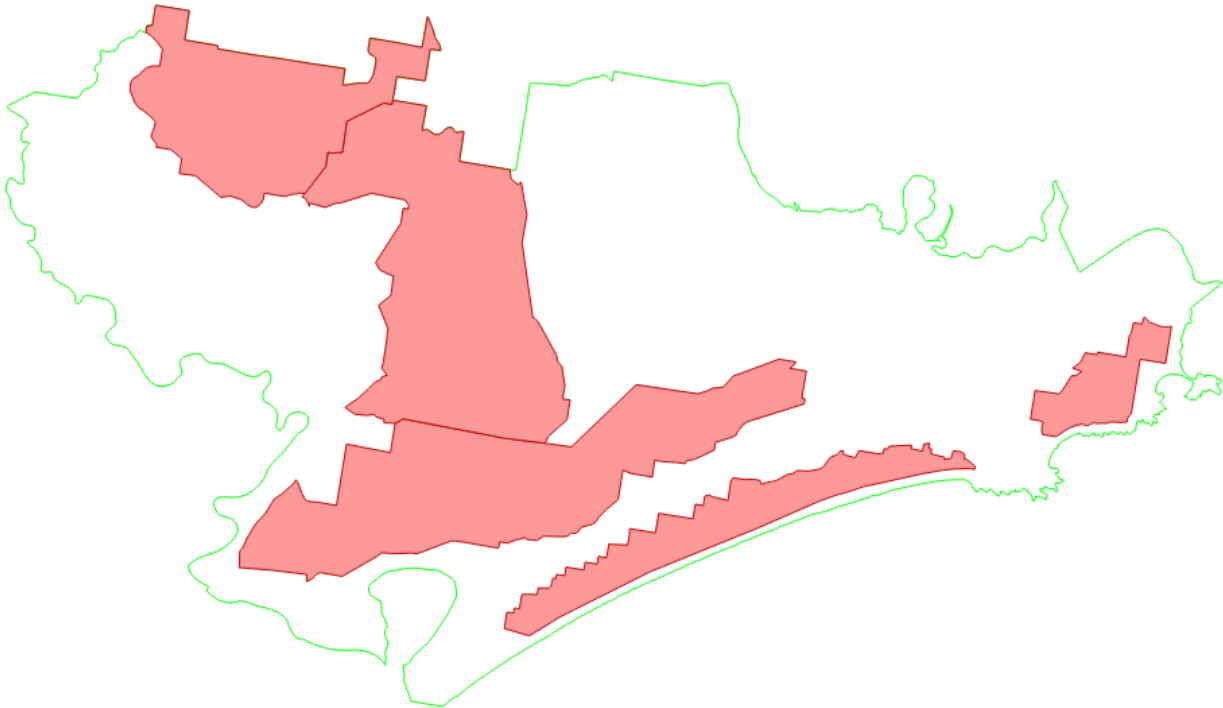
Map 5.0 Grahamstown Dam and the surrounding town centres of Raymond Terrace and Medowie

Water stored in Grahamstown Dam is accessed for supply to customers at George Schroder Pump Station. This pump station delivers water through twin parallel mains to the Grahamstown Water Treatment Plant at Tomago. All water from Grahamstown Dam is fully treated before distribution to customers.

Drinking Water Catchment

The catchment is primarily located on the northern and eastern shores of the dam. To the north of the catchment, Seven Mile Creek fills the dam with run-off from small farms and other minor developments. Approximately 75 per cent of total catchment run-off comes from the northern part of the catchment.

Run-off from the east comes directly from the urban settlement of Medowie through the Campvale Swamps. Water is pumped into the dam via the Campvale Pump Station and finally spills into the Irrawang Spillway. Hunter Water works closely with landowners and residents in the Grahamstown catchment area to improve the quality of water draining into Grahamstown Dam.



Map 6.0 Hunter Water catchment areas

Grahamstown Dam is classified as an off-river storage facility, storing raw water that is pumped from the Williams River at Seaham Weir through the Balickera Canal, raised approximately 15m at the Balickera Pump Station and then flows through the Balickera Canal and Tunnel into the northern end of Grahamstown Dam. On average, 50 per cent of inflow to Grahamstown Dam is pumped from the Williams.

Hunter Water monitors water quality in the Williams River for nutrients before transferring water to Grahamstown Dam. Like most Australian rivers, the Williams is highly influenced by climatic conditions and is consequently highly variable in flow and water quality. Flow and water quality are assessed against pumping rules to minimise the nutrient load transferred to the dam.

Seaham Weir is used to separate the downstream tidal estuarine salt water from the upstream fresh water.

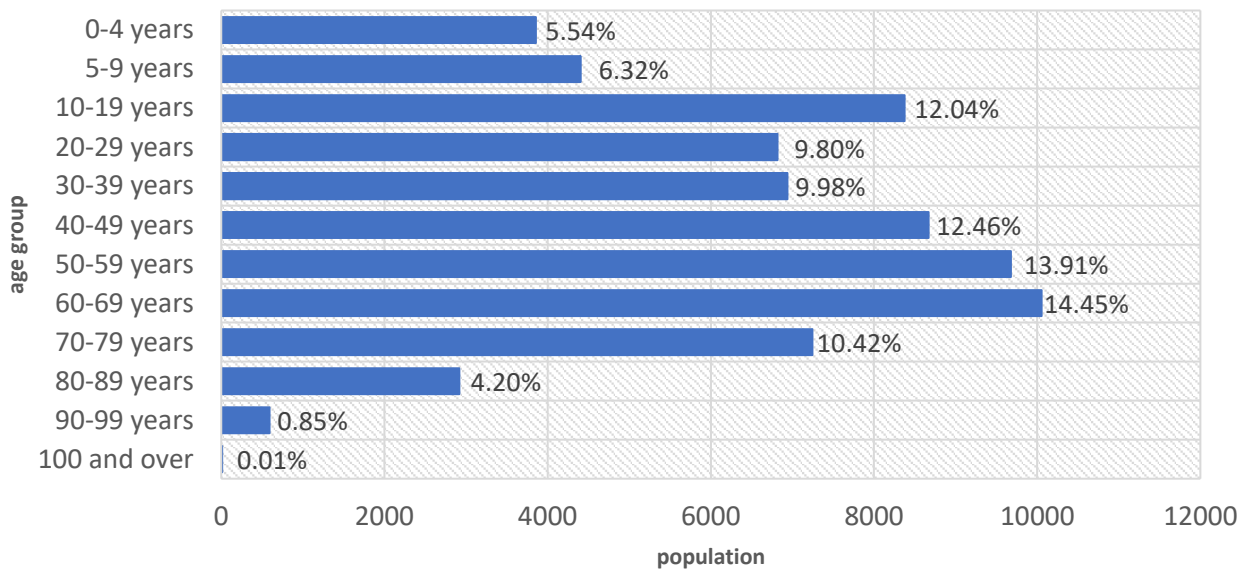
Balickera Pump Station and Canal are used to transfer water from the Williams River to Grahamstown Dam. The station is designed to transfer flows from the very high flow periods that would otherwise just make their way out to sea.

Population and People

The total population of the Port Stephens in 2020 was 74,506. The population at the ABS 2016 Census was 69,556. This represents an annualised growth rate of 1.15 percent.

Port Stephens has an aged and ageing population with 42% of the LGA 50 years and older, much higher than the 34% average for NSW. 24% of the population is aged 65 years and over compared to the state average of 16%. The single largest age cohort in Port Stephens is “65-69 years” with 5,184 people representing 7.45 percent of the population.

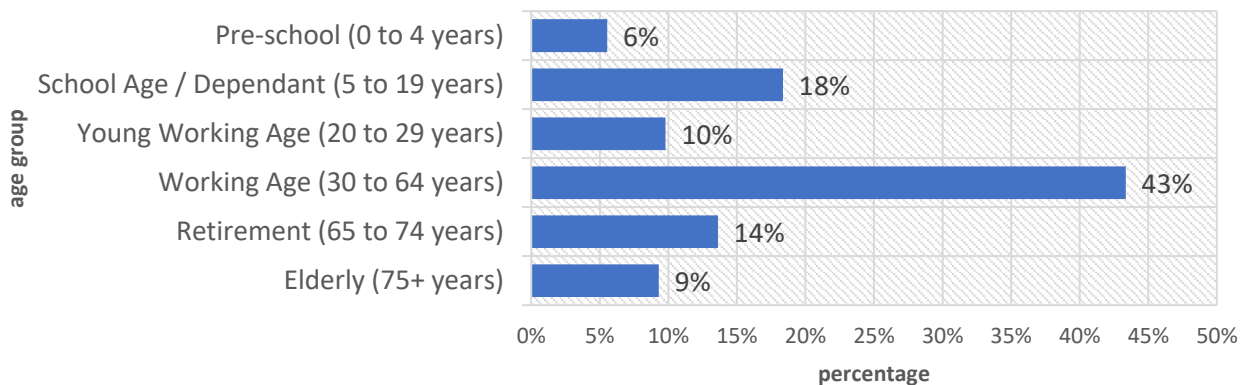
Population age of Port Stephens



Graph 2.0 Port Stephens population by age

The median age is 45 years and the overall ratio of males to females is 1 to 1.023. 6.8% of the population (4,398 people) have a profound or severe disability (NSW 5.6%).

Population by lifestyle age

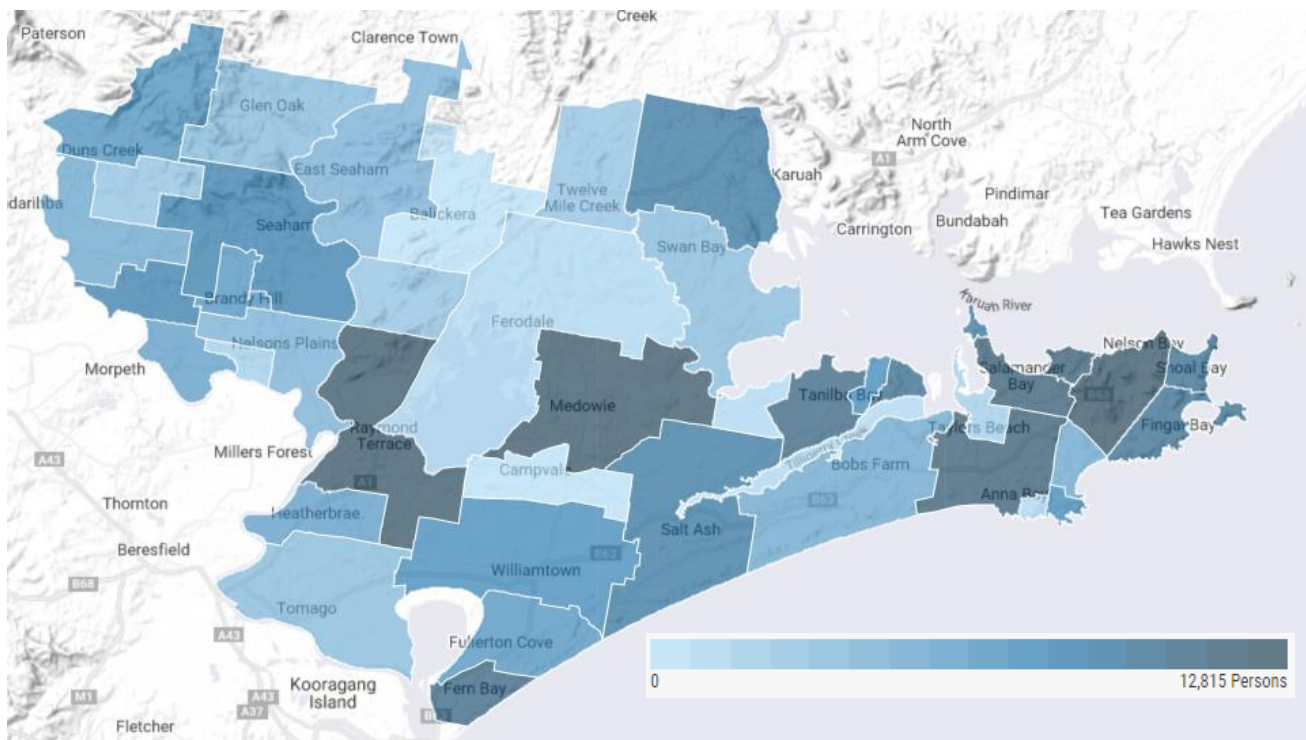


Graph 3.0 Port Stephens Population by lifestyle age

The Port Stephens LGA has varying community demographics with a dispersed and fragmented settlement pattern. The majority (55%) of Port Stephens residents live in Raymond Terrace, Medowie and the Tomaree (Nelson Bay, Corlette and Salamander Bay) planning districts. 86% of the population of Port Stephens live in the following 10 suburbs across the LGA.

Suburb	Population	Area (ha)	Persons / ha
Raymond Terrace	12652	4077.12	3.1
Medowie	9320	4254.22	2.19
Nelson Bay	6172	1565.64	3.94
Corlette	5180	305.87	16.94
Salamander Bay	4805	856.47	5.61
Anna Bay	3721	2225.02	1.67
Tanilba Bay	3104	1303.29	2.38
Fern Bay	2660	835.32	3.18
Lemon Tree Passage	2564	297.25	8.63
Shoal Bay	1974	401.88	4.91

Table 2.0 Port Stephens population top 10 suburbs

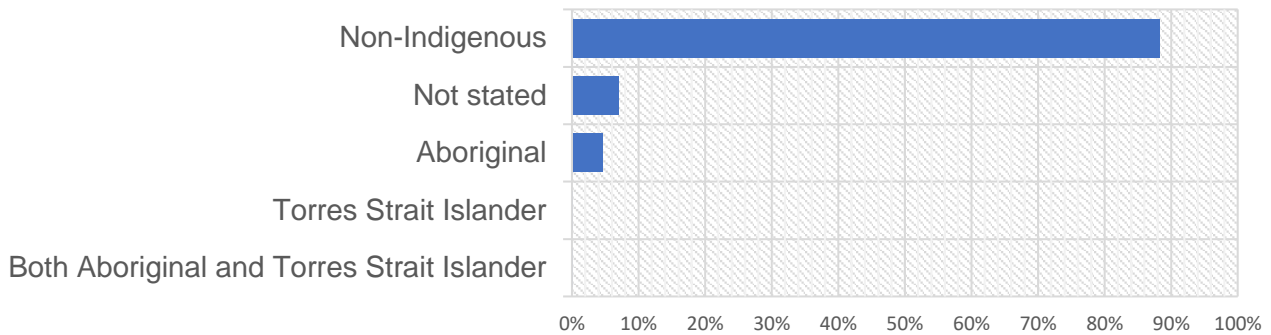


Map 7.0 Port Stephens by population density

The Port Stephens population includes 3,325 Aboriginal and Torres Strait Islander people, who make up 4.8% of the population (NSW 2.9%). The Worimi people are the traditional owners of the land of Port Stephens.

83.1% of residents in Port Stephens were born in Australia where English is the language spoken (92.2% of households).

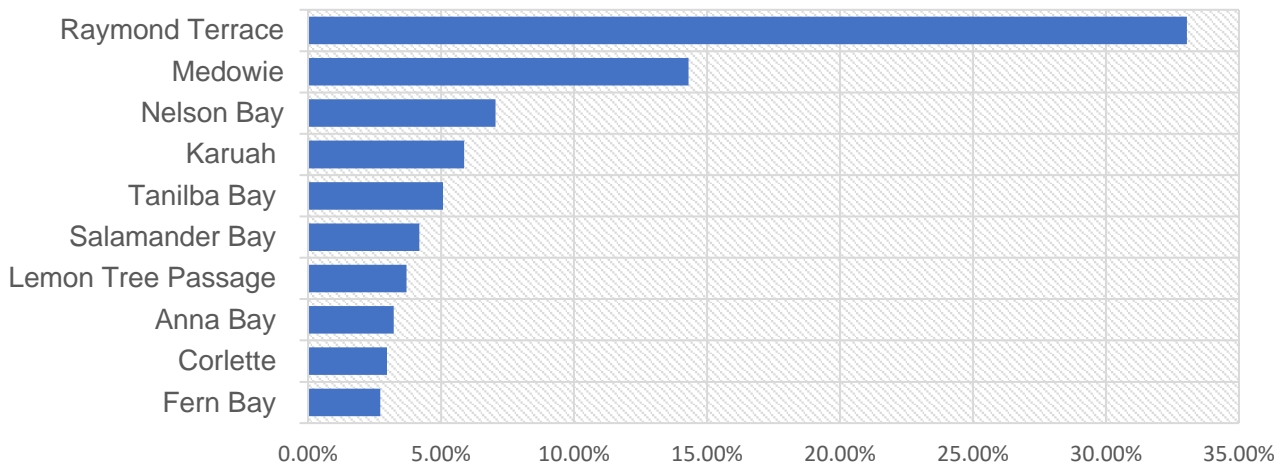
Aboriginal and Torres Strait Islander population



Graph 4.0 Port Stephens Indigenous and Torres Strait Islander population proportion

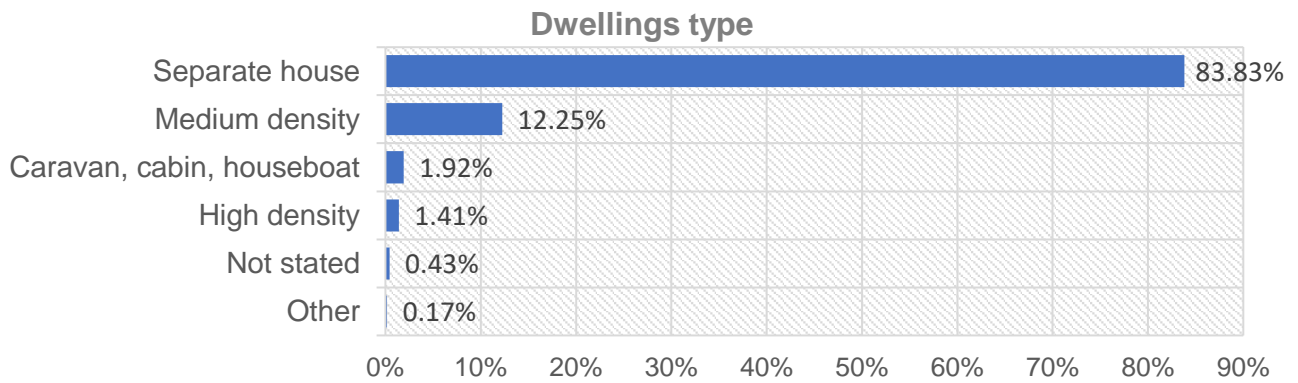
The largest population (1035 of 3133) of the Port Stephens Indigenous and Torres Strait Islander population reside in Raymond Terrace. Medowie, Nelson Bay, Karuah and Tanilba Bay make up the next 1012 Indigenous and Torres Strait Islander residents

Indigenous and Torres Strait Islander population by suburb



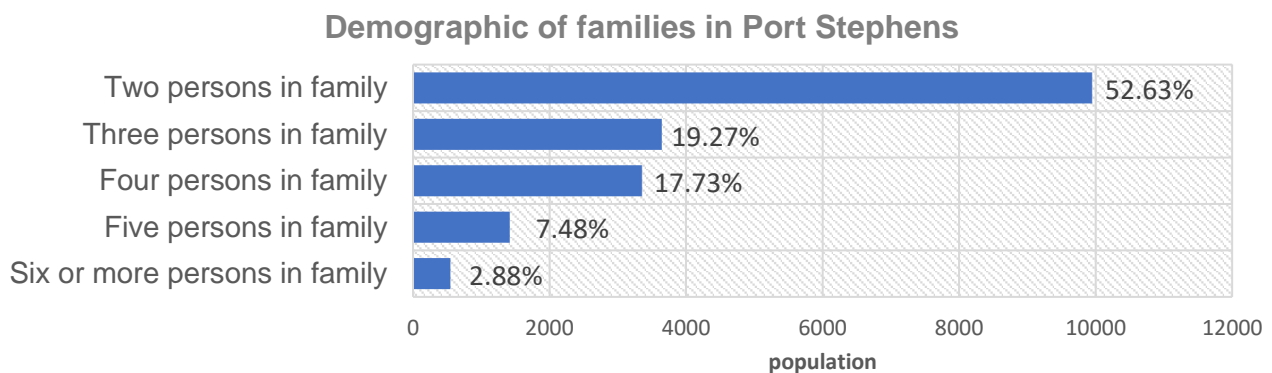
Graph 5.0 Port Stephens Indigenous and Torres Strait Islander population by suburb

The dominant dwelling type in the Port Stephens LGA are separate housing at 83.83%. This is much higher than the NSW average of approximately 71%. High-density housing only represents 1.14% whereas the NSW average is 12.32%. This aligns with the population density for the LGA.



Graph 6.0 Port Stephens dwelling type

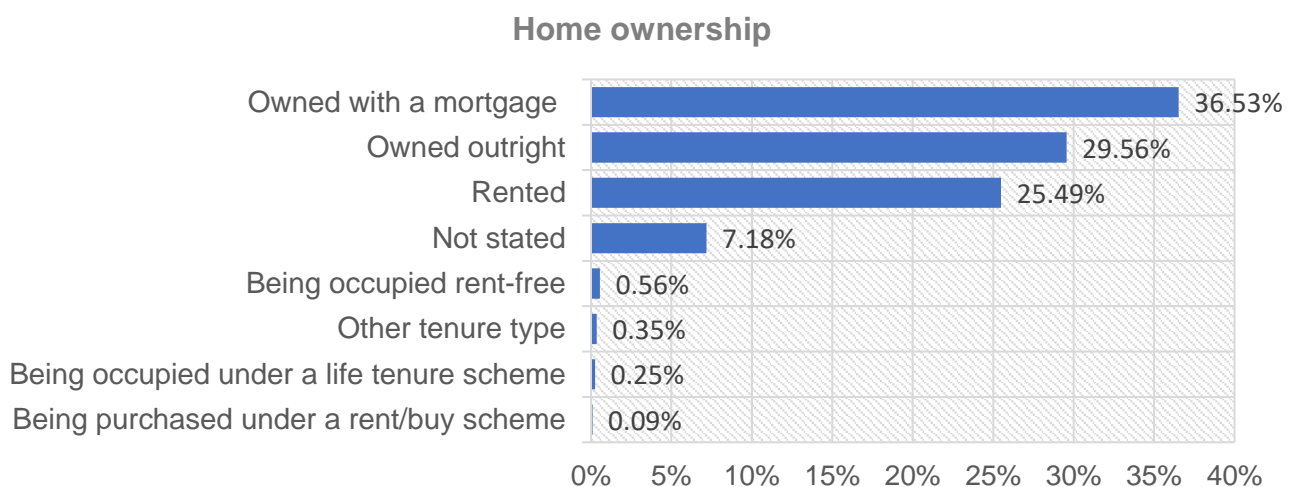
The average number of people per household is 2.5 people.



Graph 7.0 Port Stephens demographic of families

An average number of motor vehicles per dwelling is 1.8.

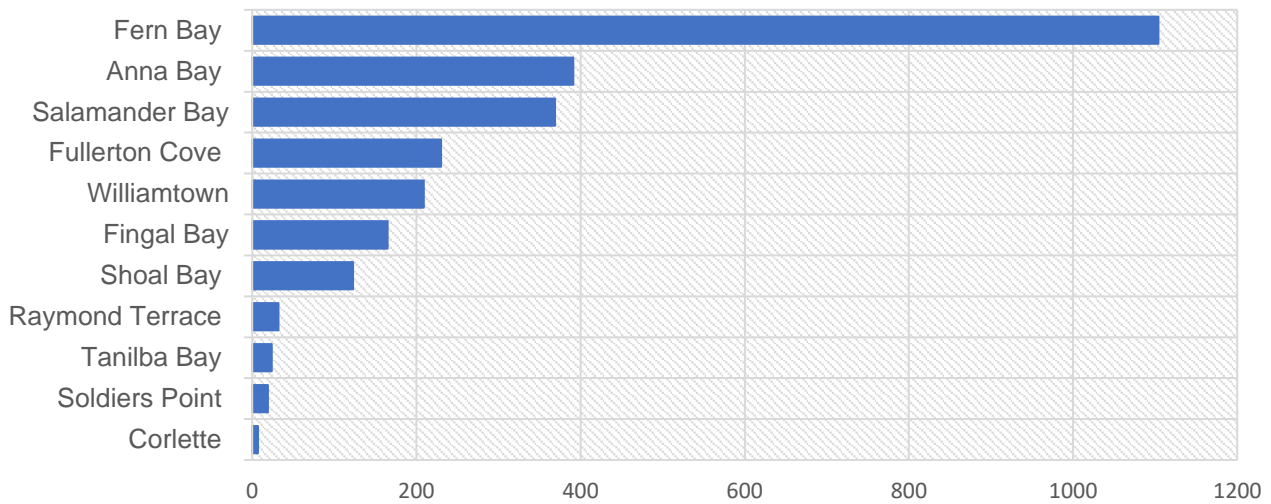
Home ownership is higher than the state average (approx. 30% compared to 25% for NSW). This could be contributed to the higher population of those entering or in retirement. Homes owned with a mortgage and rented dwellings are on par with the NSW average.



Graph 8.0 Port Stephens home ownership

The total number of people in Port Stephens in the Retirement village (self-contained) dwelling in 2016 was 2,673. The majority of the are located in the Fern Bay area to the south of Port Stephens

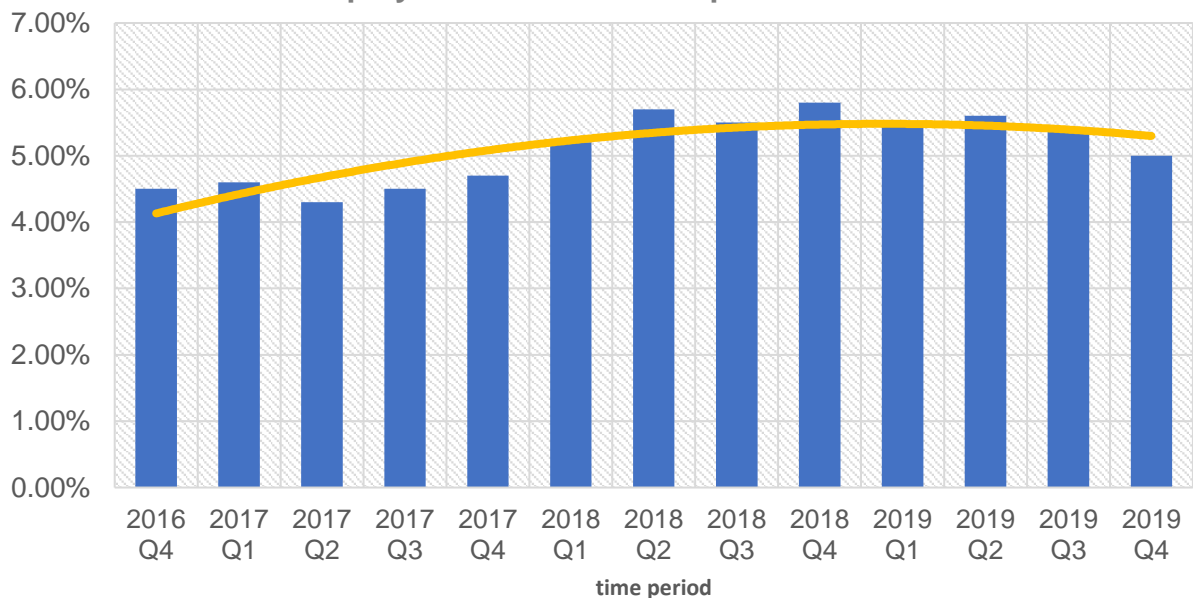
Population in Retirement Villages by location



Graph 9.0 Port Stephens population in retirement villages by location

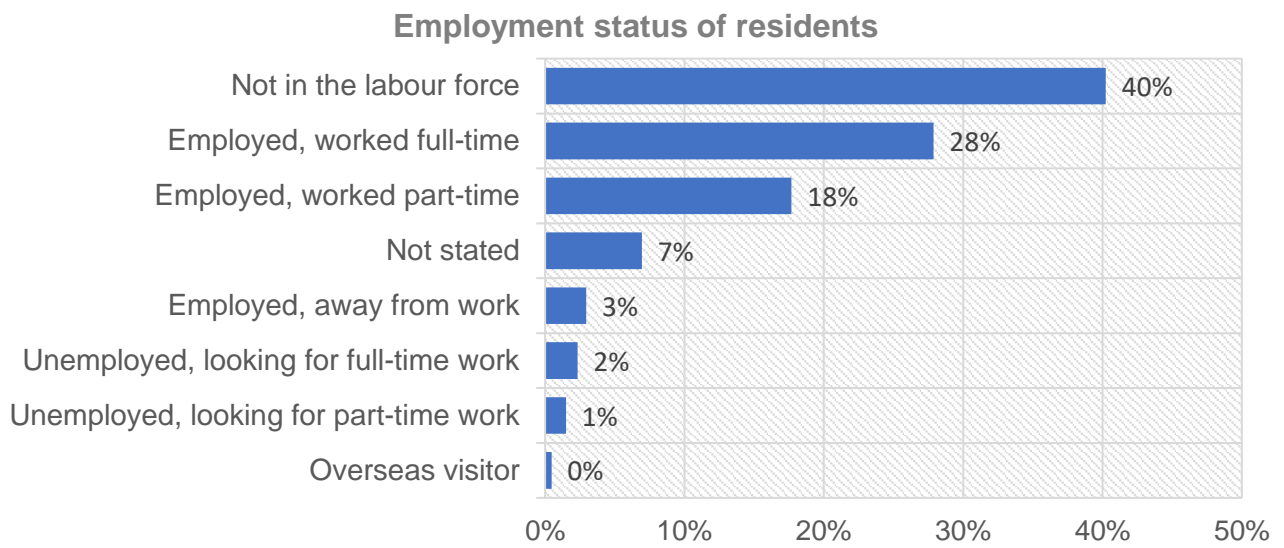
This represents 3.97% of the total number of applicable people enumerated in Port Stephens Unemployment in Port Stephens is at 3.76% however, the total jobless population is 51.6% for people aged 15 and above.

Unemployment trend Port Stephens residents



Graph 10.0 Unemployment trend for Port Stephens residents

Those 'Not in the labour force' is the most common employment status with 22,997 people represented. The unemployed and looking for part-time work cohort recorded the largest change in Port Stephens, showing a 26.5% increase from 2011.



Graph 11.0 Port Stephens employment status of residents

Transport Routes and Facilities

Port Stephens Council is located on the NSW lower North coast. The LGA is bisected and serviced by the Pacific Highway, the major interstate highway linking Sydney and Brisbane. Nelson Bay Road connects the Tomaree Peninsula with Newcastle. The main arterial roads in the area carry significant volumes of heavy vehicles carrying freight and servicing the local heavy industrial operations.

Public transport is provided by Port Stephens Coaches and Hunter Valley Buses who operate bus services in the main centres and across the LGA.

Port Stephens Ferry Service provides a ferry link between Nelson Bay and Tea Gardens.

There are no rail services within the Local Government Area.

Newcastle Airport

Newcastle Airport is located in Williamtown, 15 kilometers north of Newcastle and 16 kilometers South East of Raymond Terrace, New South Wales. The airport occupies a 28 ha (69-acre) site on the southern border of RAAF Base Williamtown.

The airport runway is shared with the RAAF Base Williamtown. Even though this base is a military airfield, civilian operations are permitted. The airport is leased from the Federal Government for civilian air travel until 2045. The airport is jointly owned by Newcastle City Council and Port Stephens Council, and managed by Newcastle Airport Limited.

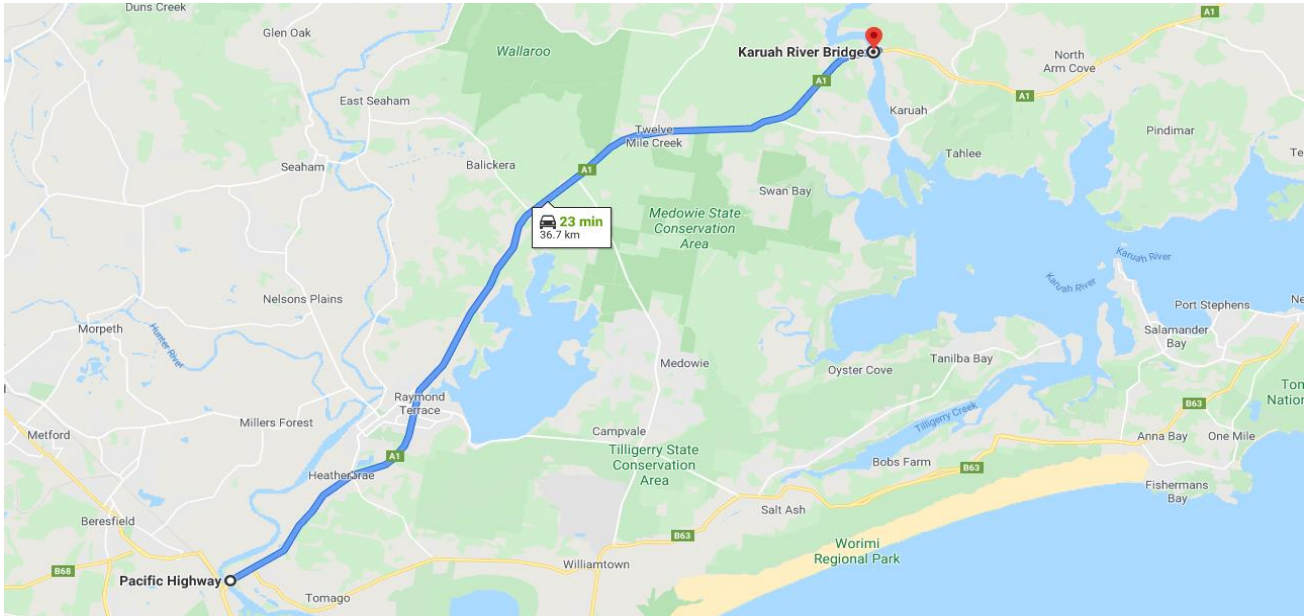
Approximately 185 domestic flights depart from Newcastle Airport on a weekly basis. It is estimated that the Airport generates \$633.5 million to the local economy annually.



Map 7.0 map of Newcastle Airport, Williamtown

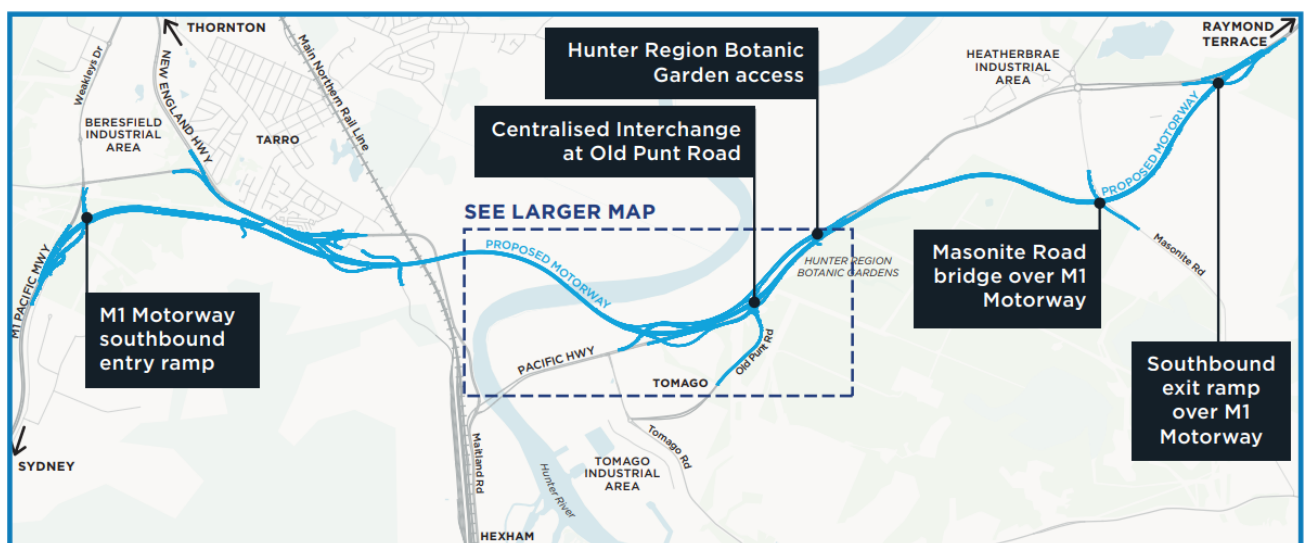
Pacific Highway

The Pacific Highway is a 790-kilometre-long national highway and major transport route along the central east coast of Australia. It dissects the Port Stephens LGA at Hexham to the South through to Karuah in the North. The Pacific Highway North of the Hexham Bridge has an average daily traffic count in excess of 47,000 vehicles a day.



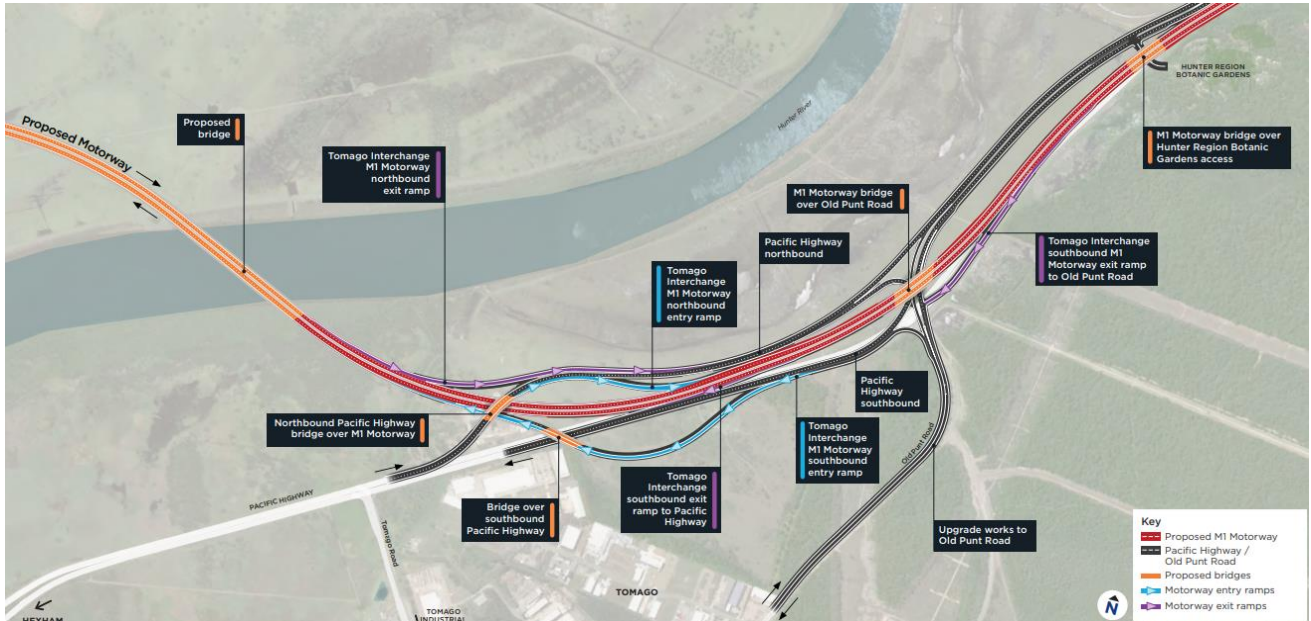
Map 8.0 map of Pacific Highway from Hexham to Karuah

The federal government has committed \$2 billion to build the M1 Pacific Motorway extension to Raymond Terrace. It includes 15 kilometers of dual carriageway around Hexham and Heatherbrae; interchanges at Black Hill, Tarro, Tomago and Raymond Terrace; and a 2.6km bridge over Woodlands Close, the Main Northern Railway, New England Highway and Hunter River.



Map 9.0 Proposed Pacific Highway bypass extension from Black Hill to past Heatherbrae

The proposal includes a 2.6 kilometer viaduct crossing the Hunter River, substantially reducing upstream flooding impacts and improving flood immunity and accessibility along the National Land Transport Network. The completed project will be built to withstand a minimum one-in-20 year flood event and provides an alternative flood emergency and evacuation route to the existing road network.



Map 10.0 Proposed Pacific Highway bypass extension from Black Hill to past Heatherbrae

The M1 Pacific Motorway extension is expected to take around four years to build and open to traffic in 2028.

Key Bridges

Name	Crossing	Location	Owner	Significance
Pacific Highway Tomago Bridge	Hunter River	Tomago	Transport for NSW	National transport route Two dual lane bridges (northbound and southbound) of Pacific Highway
Pacific Highway Karuah Bridge	Karuah River	Tarean Road, Karuah	Transport for NSW	National transport route Two dual lane bridges (northbound and southbound) of Pacific Highway
Fitzgerald Bridge	Williams River	Seaham Rd, Raymond Terrace	Transport for NSW	2 lane bridge east and west over the Williams River
Windeyers Creek	Windeyers Creek	Raymond Terrace	Transport for NSW	2 lane bridge east and west over the Windeyers Creek
Pacific Highway Grahamstown Drain	Grahamstown Drain	Ferodale	Transport for NSW	National transport route Two dual lane bridges (northbound and southbound) of Pacific Highway
Pacific Highway Mount Hall Road	Mount Hall Road	Raymond Terrace	Transport for NSW	National transport route Two dual lane bridges (northbound and southbound) of Pacific Highway
Pacific Highway Richardson Road	Richardson Road	Raymond Terrace	Transport for NSW	National transport route Two dual lane bridges (northbound and southbound) of Pacific Highway

Pacific Highway Grahamstown Dam Spillway	Grahamstown Dam Spillway	Raymond Terrace	Transport for NSW	National transport route Two dual lane bridges (northbound and southbound) of Pacific Highway
Pacific Highway Balikera Canal	Balikera Canal	Raymond Terrace	Transport for NSW	National transport route Two dual lane bridges (northbound and southbound) of Pacific Highway
Pacific Highway Limeburners Creek overflow	Limeburners Creek	Karuah	Transport for NSW	National transport route Two dual lane bridges (northbound and southbound) of Pacific Highway
Balikera Canal	East Seaham Road	Seaham	Hunter Water	Blocking access to East Seaham Road north and south bound.
Tilligerry Creek	Nelson Bay Road	Salt Ash	Transport for NSW	Main and ONLY access road to Tomaree Peninsula. (Approximately 40% of the LGA reside). Single dual lane bridge
James Scott Bridge	East Seaham Road,	Seaham	PSC	Connects Seaham to East Seaham Road and New Line Road
Tumbledown Creek Bridge	Clarence Town Road	Glen Oak	PSC	Single dual lane bridge Clarence Town Road, the main access road to Clarence Town and Dungog.

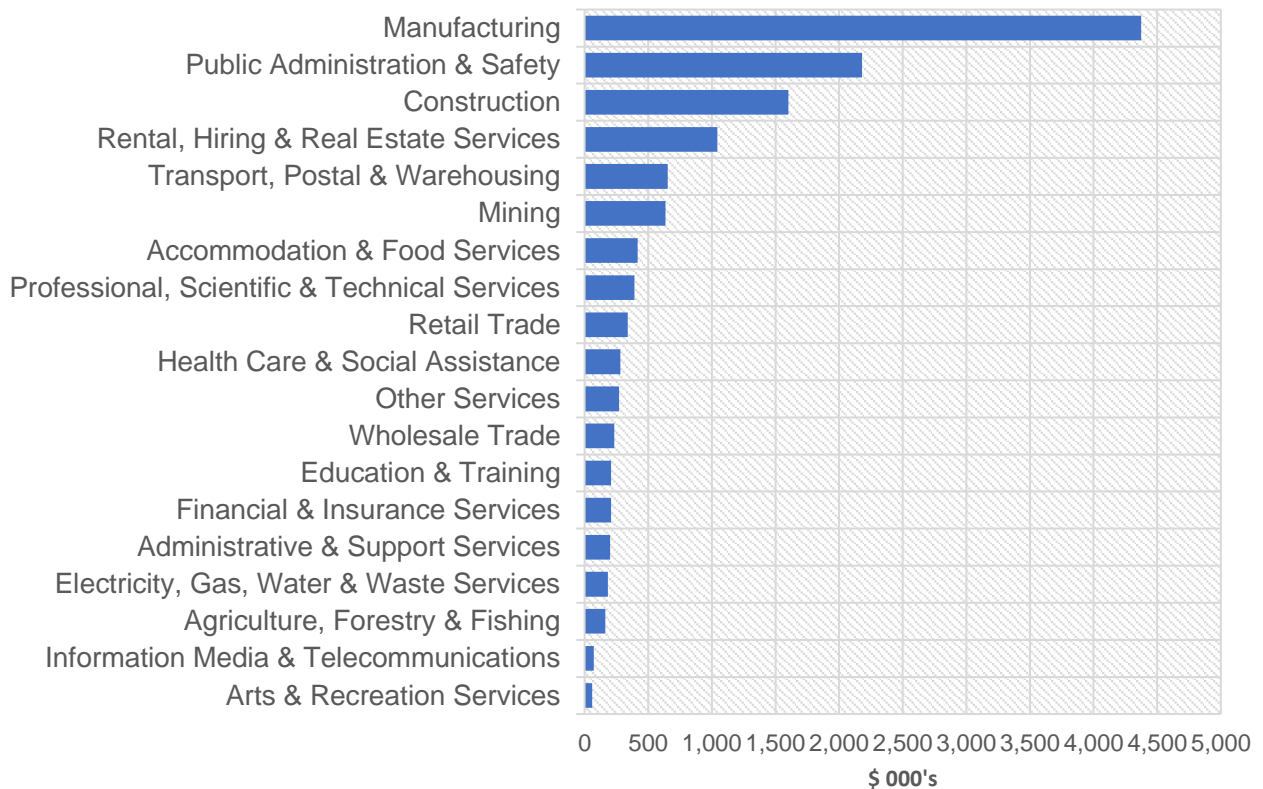
Table 3.0 Port Stephens key bridges

Economy and Industry

Port Stephens boasts both rural and coastal environments and a rapidly growing population base supporting a range of industries and businesses. Port Stephens has an annual economic output of \$11.914 billion. The total number of jobs in Port Stephens in 2016 was 27,346. Port Stephens' Gross Regional Product (GRP) is estimated at \$5.155 billion. Port Stephens represents 9.4% of Hunter Region's GRP and 0.9% of New South Wales Gross State Product (GSP).

Manufacturing, Construction and Public Administration and Safety are key economic drivers for Port Stephens and the wider Hunter Valley. The 3 sectors account for 59.3% of total economic output and 38% employment. Manufacturing alone accounts for 29.5% of total economic output and 11.8% of total employment. The total number of jobs in Port Stephens in 2016 was 27,346.

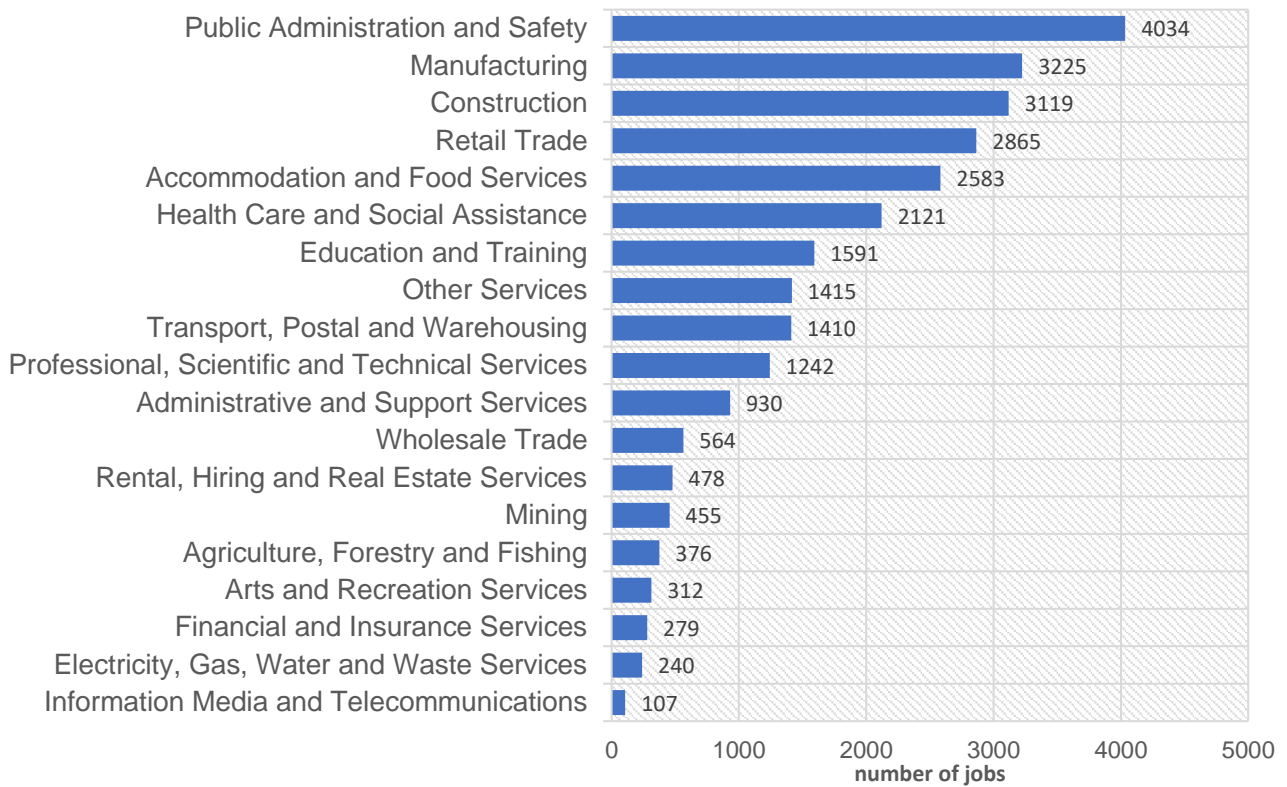
Port Stephens Economic Output by Industry



Graph 12.0 Port Stephens Economic Output by Industry

Williamstown RAAF Base, Tomago Aluminium, Newcastle Airport, AGL and Westrac are key employers within the LGA along with state and local government. Other major employment industries include tourism, transport and logistics, construction and retail.

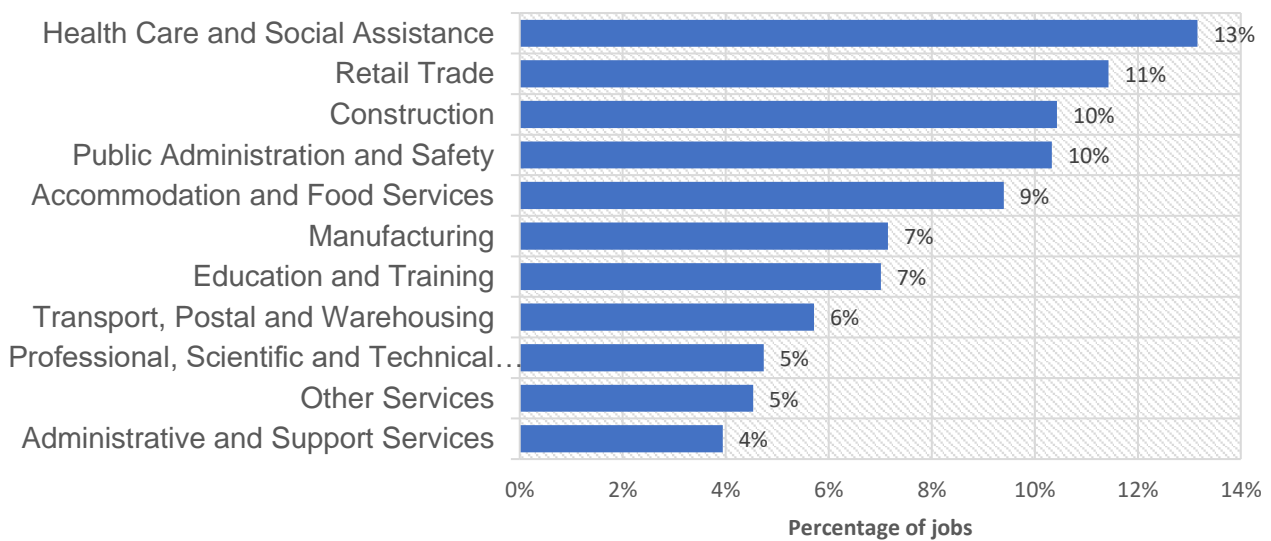
Employment by Industry Sector



Graph 13.0 Port Stephens Employment by Industry Sector

Employment for Port Stephens residents with the LGA are retail trade and construction, although the highest employment is in Health Care and Social Assistance, these jobs are mostly outside of the LGA.

Employment for Port Stephens Residents by Industry



Graph 14.0 Employment for Residents by Industry

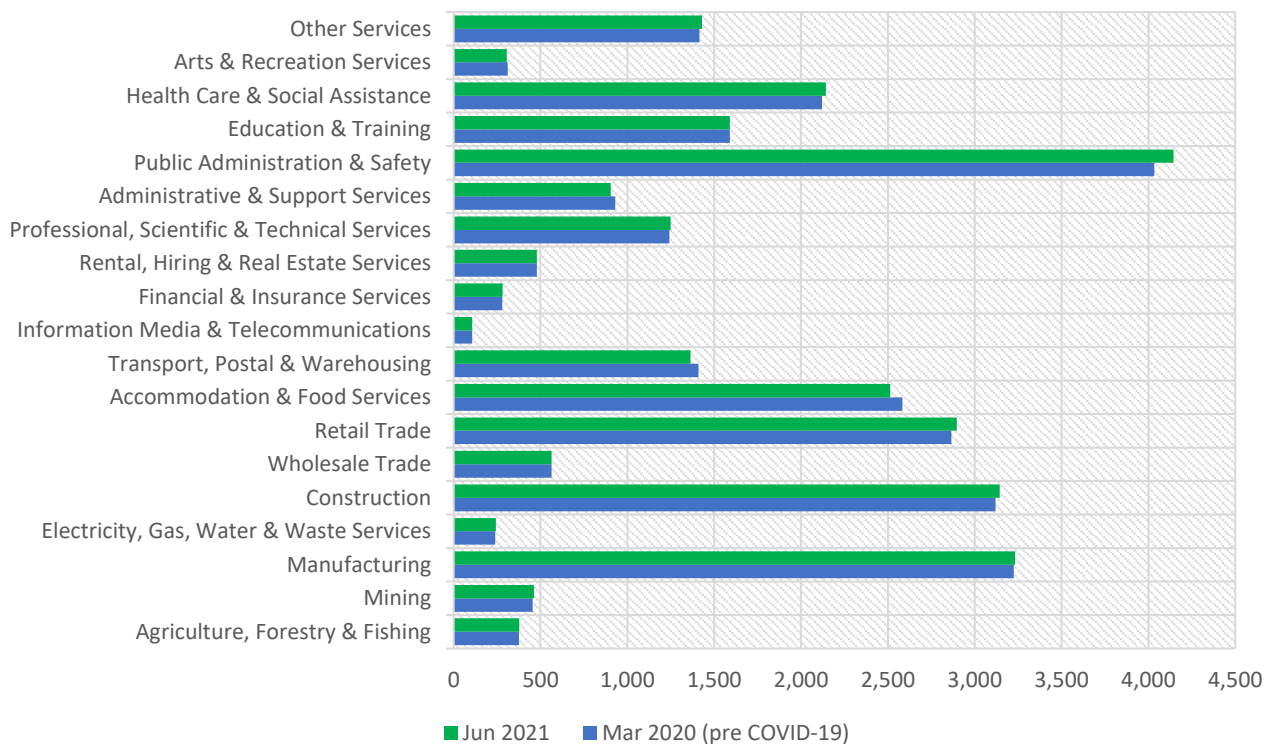
Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census. The SEIFA score for Port Stephens in 2016 was 980. The SEIFA scores across Australia's local government areas range from 188 (most disadvantaged) to 1186 (least disadvantaged). Port Stephens: Ranks 286 out of 544 local government areas with SEIFA scores in Australia.

COVID 19 impact

As of June 2021, the impact of on employment due to the COVID 19 pandemic saw an increase of 0.3%. Wages and salaries rose 0.8%, Port Stephens economic output increased by 1.6% and the value added impact was up 3.6%. Overall, the impact on the economy was minimal and positive for the LGA as a whole however the initial impact was negative and the economy and community saw positive changes at the start of 2021.

Administration and Support Services, Transport Postal and Warehousing, and Accommodation and Food Services were amongst the few that saw a negative long-term impact due to the COVID 19 pandemic.

COVID-19 Impact on Employment



Graph 15.0 COVID 19 Impact on employment

In the Port Stephens LGA there are four main economies;

Defence and Aviation Economy

The Defence sector contributes 2,876 jobs (10.5%) to total employment. There is a large cluster of high skill and well-paid jobs in the RAAF, defence support and in aviation services. Defence is being driven by government policy, defence spending and the aviation sector by the expansion of the airport due to business and passenger growth.

\$274.0 million has been budgeted for a redevelopment project, which will sustain and improve the functionality and capability of RAAF Base Williamtown (NSW), including upgrades or replacement of critical ageing infrastructure to meet future requirements.

Global Manufacturing and Logistics Economy

This sector is driven by global market growth and regional supply chains that are supporting mining and heavy engineering activities. Tomago is a strategic location for these activities. Westrac, which is located in Tomago, is a key business providing mining servicing and support.

Services Economy

The local services economy (retail and services) are largely based at Raymond Terrace, which is the service and administrative centre for the LGA.

Tourism Economy

The services and tourism economy is based around Nelson Bay and Salamander Bay. It is servicing both the local resident population and the strategically important tourism industry, which sees close to 1.5 million people visit the LGA annually. Tourism accounts for approximately \$641 million annually, which is 5.6% of total economic output.

In Port Stephens, tourism supports an estimated 2,059 jobs, which is 7.5% of total employment. The Accommodation & Food Services sub-sector supports 1,348 jobs. By comparison 17,097 jobs are supported by tourism in Hunter Region from a total of 280,855 jobs (6.1%) and 204,972 jobs are supported by tourism in New South Wales from a total of 3,358,119 jobs (6.1%).

Tomago Aluminium



Map 11.0 Tomago Aluminium, Tomago

Tomago Aluminium is one of Australasia's largest aluminium smelters and has been operating 24 hours a day since 1983.

The company contributes \$1.5 billion annually to the Australian economy, of which \$800 million is spent locally. The smelter produces 585,000 tonnes of aluminium every year, which is 25% of Australia's primary aluminium. 90% of the product is exported to the Asia-Pacific region.

Aluminium production relies on electricity to power the process 24 hours a day, 365 days a year. The production chain never stops. Tomago Aluminium uses around 10% of the New South Wales power supply to produce 580,000 tonnes of aluminium per year.

Newcastle Gas Storage Facility

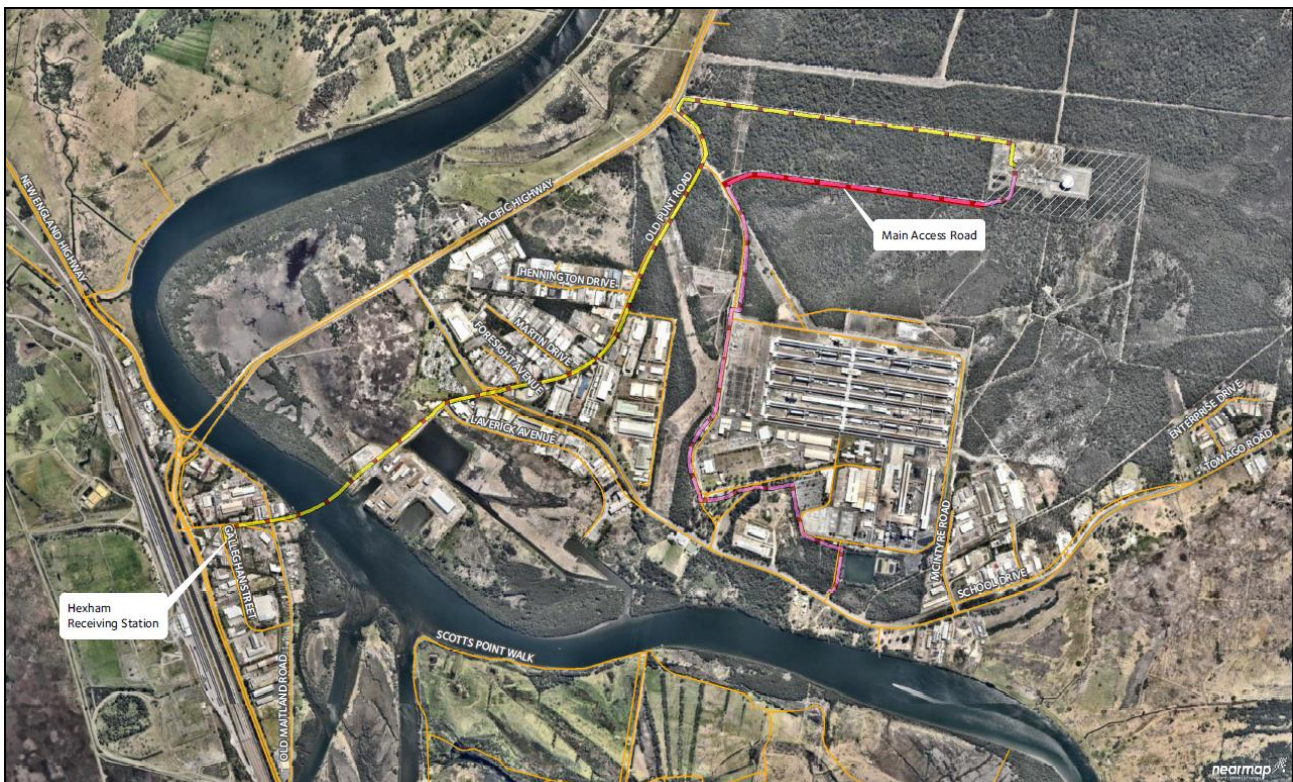
The NGSF stores and handles very large quantities of liquefied natural gas (LNG). Pipeline natural gas is converted to LNG by cooling it to -162°C and is then stored to meet peak domestic gas market requirements over winter and provides additional security of gas supply during supply disruption events. The plant is capable of processing up to 66,500 tonnes of LNG per year.

It includes an insulated, non-pressurised LNG storage tank capable of containing 30,000 tonnes or 63,000 m³ of LNG, equivalent to 1.5 petajoules (PJ) of natural gas, and an associated containment area.

The NGSF stores and handles very large quantities of liquefied natural gas (LNG). As the quantity of natural gas to be stored is above threshold amounts, it has been classified as a Major Hazard Facility (MHF) by the NSW Government.

Major hazard facilities include sites like oil refineries, chemical manufacturing plants, LPG facilities, and gas-processing plants and the NGSF is one of 39 major hazard facilities in NSW.

To ensure that safety is managed to the highest standard, the NSW Government has a regulatory framework for the control of MHFs. Under this regulatory framework, AGL has had to prepare and submit to Government a formally documented Safety Case, before it gained its MHF license. AGL's Safety Case demonstrates how we safely manage and operate the site. It demonstrates the measures we have taken to minimise the likelihood of a major accident occurring, and documents the measures taken to minimise the consequences of any major accident in the unlikely event that it does occur.



Map 12.0 Newcastle AGL Gas Storage Facility, Tomago

AGL Power Plant

AGL has put forward plans for its proposed \$400 million Newcastle gas-fired power station at Tomago to be located between the Pacific Highway and Old Punt Road on a site previously permitted for a power plant. If approved, the project, which is an integral part of the company's strategy to offset the shutdown of Liddell power station between 2022 and 2023.



Map 13.0 Proposed Gas Powered Plant, Tomago

The proposed power station has a capacity of 250 megawatts and will allow for a fast start operation using either reciprocating engines or gas turbines. The plant will deliver rapidly dispatchable power during periods of high demand.

Newcastle Airport Business Park

The airport is jointly owned by Newcastle City Council and Port Stephens Council, and managed by Newcastle Airport Limited. The airport and associated developments support over 3,300 jobs and contributed \$1.19 billion to the economy of the lower Hunter Region in 2015.

Annexure B – Hazards and Risks Summary

A Local Emergency Risk Management (ERM) Study has been undertaken by the Port Stephens Local Emergency Management Committee identifying the following hazards as having risk of causing loss of life, property, utilities, services and/or the community's ability to function within its normal capacity. These hazards have been identified as having the potential to create an emergency. The Port Stephens Emergency Risk Management Study should be referenced to identify the complete list of consequences and risk descriptions.

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Agricultural Disease (Animal/Animal)	An agriculture/horticulture incident that results, or has potential to result, in the spread of a communicable disease or infestation.	Likely	Major	Extreme	Department of Primary Industries
Bridge Collapse	Failure of a major bridge structure with or without warning owing to structural failure or as a result of external/ internal events or other hazards/ incidents.	Rare	Moderate	Medium	FRNSW (USAR) LEOCON
Building Collapse	Collapse of building owing to structural failure or impact from external/internal event of other hazards /incidents.	Rare	Moderate	Medium	FRNSW (USAR) LEOCON
Communicable Disease (Human/Animal)	Pandemic illness that affects, or has potential to affect, large portions of the human or animal population	Unlikely	Major	High	Department of Health

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Dam Failure	A dam is compromised that results in localised or widespread flooding.	Rare	Major	High	Dam Owners NSW SES
Earthquake	Earthquake of significant strength that results in localised or widespread damage.	Rare	Catastrophic	High	LEOCON
Explosion	Explosion caused because of an incident or accident.	Possible	Major	High	LEOCON
Fire (Bush or Grass)	Major fires in areas of bush or grasslands.	Almost Certain	Major	Extreme	NSW RFS FRNSW
Fire (Industrial)	Serious industrial fire in office complexes and/or warehouses within industrial estates.	Possible	Moderate	High	FRNSW NSW RFS
Fire (Commercial)	Serious commercial fires in shopping centres, aged persons units, nursing homes and hospitals.	Possible	Major	Extreme	FRNSW NSW RFS
Fire (Residential)	Serious residential fire in medium/high rise apartments.	Possible	Minor	Medium	FRNSW NSW RFS

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Flood (Flash)	Heavy rainfall causes excessive localised flooding with minimal warning time.	Almost Certain	Major	Extreme	NSW SES
Flood (Riverine)	River flows exceed the capacity of normal river systems resulting in flood waters escaping and inundating river plains.	Almost Certain	Major	Extreme	NSW SES
Hazardous Release	Hazardous material released because of an incident.	Almost Certain	Moderate	Extreme	FRNSW
Heatwave	A sequence of abnormally hot conditions having the potential to affect a community adversely.	Almost Certain	Major	Extreme	SEOCON
Landslip / Subsidence / Rock fall	Landslip/landslide resulting in localised or widespread damage.	Possible	Minor	Medium	LEOCON
Storm	Severe storm with accompanying lightning, hail, wind, and/or rain that causes severe damage and/or localised flooding.(includes tornado)	Almost Certain	Major	Extreme	NSW SES
Transport Emergency (Air)	Aircraft crashes in LGA resulting in large number of fatalities, injuries and/or damage to property.	Rare	Catastrophic	Extreme	LEOCON

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Transport Emergency (Road)	A major vehicle accident that disrupts one or more major transport routes that can result in risk to people trapped in traffic jams, restrict supply routes and/or protracted loss of access to or from the area.	Almost Certain	Minor	High	LEOCON
Transport Emergency (Sea)	A major accident that results in environmental damage and major recovery operation	Rare	Major	High	Relevant Port / Maritime
Tsunami	A tsunami wave of magnitude that presents a risk to land and marine elements.	Rare	Catastrophic	High	NSW SES
Utilities Failure	Major failure of essential utility for unreasonable periods of time as a result of a natural or man-made occurrence.	Possible	Major	Extreme	LEOCON

Annexure C – Local Sub Plans, Supporting Plans and Policies

Responsibility for the preparation and maintenance of appropriate sub and supporting plans rest with the relevant Combat Agency Controller or the relevant Functional Area Coordinator.

The sub/supporting plans are developed in consultation with the port Stephens LEMC and the community.

The plans listed below are supplementary to this EMPLAN. The sub/supporting plans have been endorsed by the LEMC and are determined as compliant and complimentary to the arrangements listed in this EMPLAN.

These plans are retained by the LEMO on behalf of the LEMC and public release versions are available on the Council Website.

Plan/Policy	Purpose	Combat / Responsible Agency
Bush Fire Risk Management Plan	A strategic document that identifies assets at risk and sets out a program of coordinated, multi-agency treatments to reduce the risk of bushfire to key assets.	NSW Rural Fire Service
Port Stephens Flood Emergency Sub Plan	This plan covers preparedness measures, the conduct of response operations and the coordination of immediate recovery measures from flooding within the Port Stephens Council area. It covers operations for all levels of flooding within the LGA.	NSW State Emergency Service
Dam Safety Emergency Plan	A Dam Safety Emergency Plan outlines roles and responsibilities for monitoring and responding to incidents relating to the Bagnall Beach Road Detention Basin.	Port Stephens Council

Plan/Policy	Purpose	Combat / Responsible Agency
<p>Hunter Valley Flood Mitigation Scheme – Flood Emergency Response Plan (Lower Hunter Valley)</p>	<p>The purpose of this Flood Emergency Response Plan is to detail arrangements for preparedness, response and recovery of the Hunter Valley Flood Mitigation Scheme (HVFMS). The scope of the plan is to:</p> <ul style="list-style-type: none"> • Outline the HVFMS • Outline emergency management arrangements to operate the scheme • Identify linkages with other organisations <p>This document is an internal document to guide DPIE HVFMS operations and does not form part of broader NSW emergency management planning arrangements. Arrangements for the emergency management of floods and flood intelligence are outlined in the State Flood Plan and relevant Local Flood Plans.</p>	<p>DPIE – Hunter Valley Flood Mitigation Scheme</p>
<p>Newcastle Airport Aerodrome Emergency Plan</p>	<p>The Aerodrome Emergency Plan covers the roles and responsibilities for a number of possible scenarios at the airport.</p>	<p>Newcastle Airport</p>
<p>Port Stephens Tsunami Plan</p>	<p>The Port Stephens Tsunami Plan identifies emergency management arrangements for the management of a tsunami in the LGA.</p>	<p>NSW State Emergency Service</p>
<p>RAAF Williamtown Airfield Emergency Plan</p>	<p>The RAAF Williamtown Airfield Emergency Plan covers the roles and responsibilities of a number of Military and Civilian aircraft incident scenarios for RAAF Williamtown Airfield and areas of operation.</p>	<p>Royal Australian Air Force</p>

Plan/Policy	Purpose	Combat / Responsible Agency
AGL Newcastle Gas Storage Facility Emergency Response Plan	The AGL Newcastle Gas Storage Facility Emergency Response Plan identifies emergency management arrangements for the management of the Major Hazard Facility	AGL
Thales Group Emergency Plan	The Thales Group Emergency Plan identifies emergency management arrangements for the management of the Major Hazard Facility at Williamtown RAAF base	Thales Group
Coastal Waters Marine Pollution Plan	The NSW State Marine Pollution Contingency Plan has been prepared in support of the New South Wales State Emergency Plan (EMPLAN) and the National Plan for Maritime Environmental Emergencies (National Plan) to outline arrangements for dealing with marine oil or chemical spills and maritime incidents such as groundings, collisions, disabled vessel or fire on a vessel that could result in an oil or chemical spill into State waters of NSW.	Transport NSW – NSW Maritime

Annexure F – Vulnerable Facilities List

The Vulnerable Communities list will be provided as an appendix to this document.

Annexure G – Consequence Management Guides

The following consequence management guides relate to hazards that are rated Moderate or require significant coordination (Delete as appropriate).

Agricultural Disease	Hazardous Materials
Bridge Collapse	Heat Wave
Building Collapse	Landslip
Dam Failure	Pandemic
Earthquake	Storm
Evacuations	Transport Emergency – Air
Fire – Bush/Grass	Transport Emergency – Road
Fire – Commercial	Transport Emergency – Sea
Fire – Residential	Tsunami
Flood – Flash	Utilities Failure
Flood – Riverine	

Document Control

Version	Date	Author	Details
1.0	October 2016	Cameron Donaldson	First endorsed by the LEMC 14 November 2016
2.0	December 2021	Charles Rodgers	Review of document