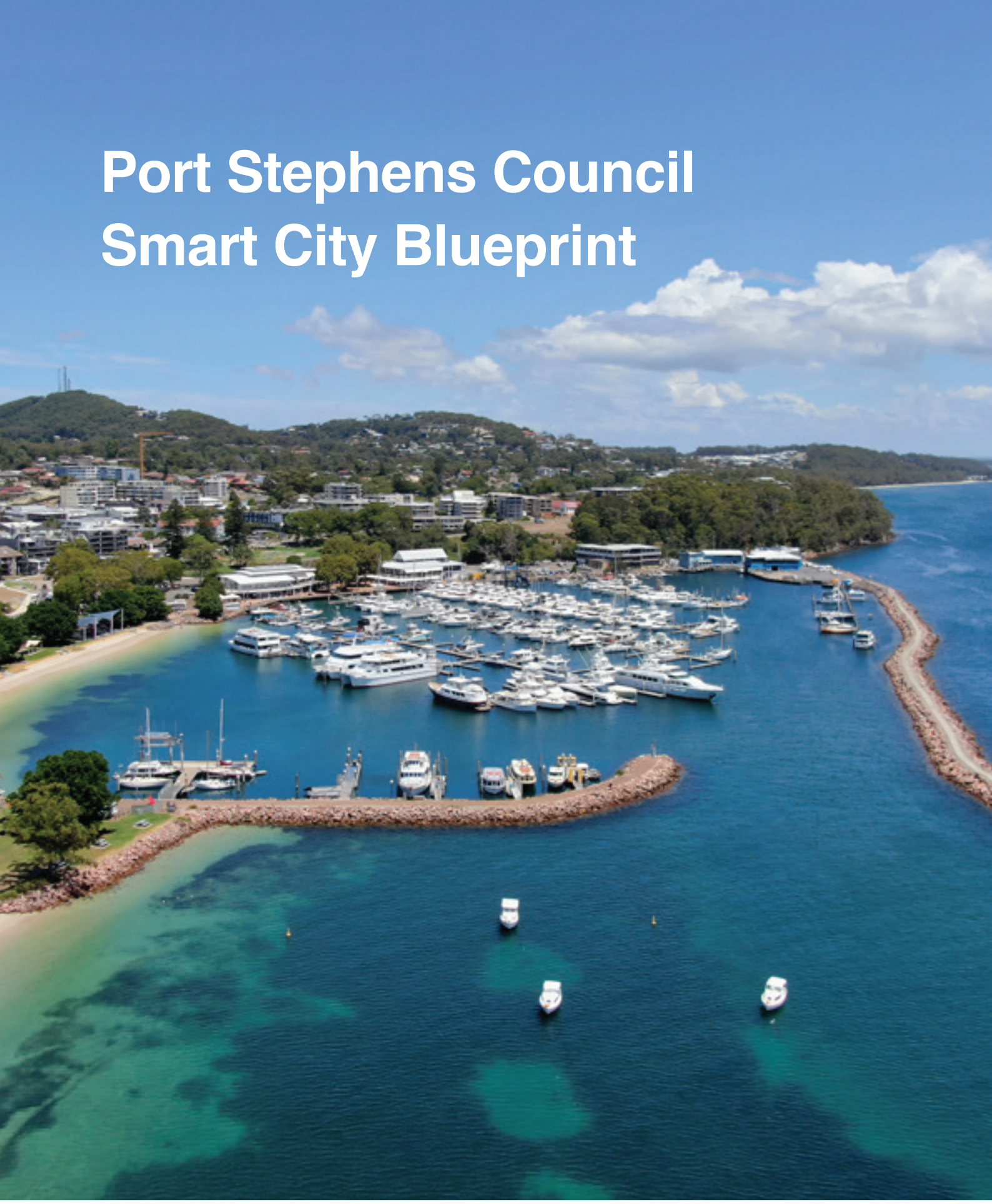
Port Stephens Council Smart City Blueprint



PORT STEPHENS
COUNCIL

Forward

Port Stephens is known for its stunning natural beauty, unique wildlife and strong community spirit. These characteristics make our place an ideal recreation, tourist and retirement destination as well as a great place to live, work and play.

As we prepare for our future and potential growth, it's important we are equipped to meet the needs of our community for many years to come.

We plan to establish Port Stephens as a smart region using the Smart City Blueprint capabilities — taking advantage of technology to collect data and using insights to manage assets, resources and services efficiently.

Our Smart City program objectives include:

1. improving the quality of our customer and community engagement
2. reducing operating costs of Council
3. gathering data for better informed decision making
4. building capacity for local business and improve liveability for our community
5. aligning our Smart City initiatives with wider initiatives within the Hunter region.

To meet these objectives, our Smart City Blueprint will work towards 4 focus areas:

- Customer first — invest in digital technologies that improve customer service and experiences.
- Connected community — improve community engagement with Council and each other, with ease of access to information.
- Data smart — use data to make better decisions and digital technology to create great places.
- Innovative leadership — invest in sustainable digital infrastructure and create partnerships to lead innovation.

Although our region has felt the effects of the COVID-19 global pandemic, the Smart City program will help to ensure we are firmly focused on the road ahead and help us plan for future of Port Stephens.

This document outlines our vision and the principles that will provide the framework for us to achieve a Smart City status. Using smart technology to capture new data on our built and natural environment and assets — and combining this with our existing data — will create new insights to help us deliver the goals of our strategic plans.

Our community is like no other — the Smart City program will ensure the focus on our community is at the forefront. It will be built on the needs of our community, and the benefits should be seen and felt by businesses, residents and visitors. We will continue to review the effectiveness of our program and introduce new measures to increase the smart capabilities of Port Stephens over time, so that we may solve our most complex issues and take advantage of our best opportunities.

This blueprint also aligns and supports Our place. Our plan — Community Strategic Plan 2020 and will ensure we continue to work towards delivering on our objectives.

Our smart journey is only beginning. We encourage you to join our journey and work collaboratively with us to identify the issues and find solutions to community problems and business growth opportunities.

Wayne Wallis

Wayne Wallis — General Manager
June 2020

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Acknowledgement

Port Stephens Council acknowledges the Worimi people as the traditional custodians of this land.

Glossary

Apps	Short for application programs, they are computer programs designed to perform a group of integrated activities for the benefit of the user.
Gamification	the application of typical elements of game playing (for example, point scoring, competition with others, rules of play) to other areas of activity, typically as an online marketing technique to encourage engagement with a product or service.
Internet of Things (IoT)	A system of computing devices connected via the internet enabling them to send and receive data without the need for human intervention.
Liveability	Similar to the quality of life, it is the general well-being of individuals, communities and societies related to a place.
Open Data	Data that is freely available to everyone to use and republish as they wish, without copyright, patent, or other restrictions.

ABBREVIATIONS

CSP	Community Strategic Plan
IoT	Internet of Things
PoV	Proof of Value
PSC	Port Stephens Council
ROI	Return on Investment
SAMP	Strategic Asset Management Plan

Background

Port Stephens Council (PSC) is committed to balancing growth with preservation of our rich history and treasured environment. We recognise the impact and importance that new technologies, infrastructure and collection of new smart data will have over the coming decade. We also understand the importance of gaining trust within the community on how these new smart technologies can benefit the community and improve both liveability and support economic growth within the region.

In 2019, Council engaged Datacom to undertake the design and compilation of a Smart City Blueprint and an accompanying Smart City research report. The process involved workshop interviews with every area of council, councillors, local business and community groups and leaders over a period of 3 days. The purpose of these interviews was for the participants to:

- Gain a common understanding of smart cities and how a smart cities approach relates to their own work and outcomes.
- Provide the Datacom consultants with example problems that could be solved through the collection of new data and the creation of new smart capabilities to achieve better outcomes for the community.

Once the interviews were complete, Datacom mapped the capabilities and supporting data identified within the workshops to Council's Community Strategic Plan (CSP) focus areas. This mapping forms the core of the Smart City Blueprint, as it aligns it with the existing key strategy documents of Council. The blueprint helps to 'digitalise' the implementation of the CSP and support the realisation of the Port Stephens Regional Economic Development Strategy 2018 to 2022. This approach ensures that the blueprint captures what Smart Cities means to the whole community.

The Port Stephens Smart City Blueprint outlines the capabilities needed to become a smart region, and example initiatives, gathered during the workshop interviews, that will create those capabilities.

It is important to note that the pace of technological change is incredibly rapid. As such, the initiatives provided within this blueprint are only examples and therefore should not suggest that Council will begin implementing these as actions. Instead, after approving the blueprint, we will look to prepare and implement a Smart City Roadmap, which will look at the actions of the Smart City program in greater detail.

Port Stephens Overview

Port Stephens Local Government Area (LGA) spans 860 square kilometres and forms part of the Hunter Region, the largest regional economy in Australia. It is bounded by Dungog Shire and Mid Coast Council to the north, Maitland City Council to the west, City of Newcastle to the south and the Pacific Ocean lies to the east.

The Port Stephens LGA is home to approximately 72,700 people[1], with a variety of housing and lifestyle options. From coastal town centre living in Nelson Bay to suburban family communities within Medowie and Raymond Terrace, to rural retreats in the western areas. Port Stephens attracts residents seeking homes with strong connections to the natural environment, including our beaches, sand dunes, rivers and waterways and forests.

Port Stephens is renowned for its scenic and natural beauty, with kilometres of coastal bushland and the largest mobile sand dunes in the southern hemisphere. Port Stephens LGA is also home to environmentally significant areas, such as portions of the Port Stephens – Great Lakes Marine Park, the regionally significant Watagans to Stockton Green Corridor, the Tomaree National Park and numerous state significant wetlands, all of which provide valuable habitat to some of Australia's most unique and endangered wildlife.

Economically Port Stephens has a Gross Regional Product (GRP) estimated at $5.16 billion[2] per annum and accounts for 8.94% of the overall Hunter GRP[3]. The major employment industries include manufacturing, public administration and safety, retail trade, and tourism (accommodation and food services), collectively employing 46.5% of the 27,346 people working in the area[4].

Location and access to transport infrastructure creates a strong competitive advantage for Port Stephens, with key linkages to national markets via the M1 Pacific Motorway, Pacific Highway Corridor and New England Highway. These transport networks support a robust manufacturing sector at Tomago leading in metals manufacturing, heavy engineering, and light industrial.

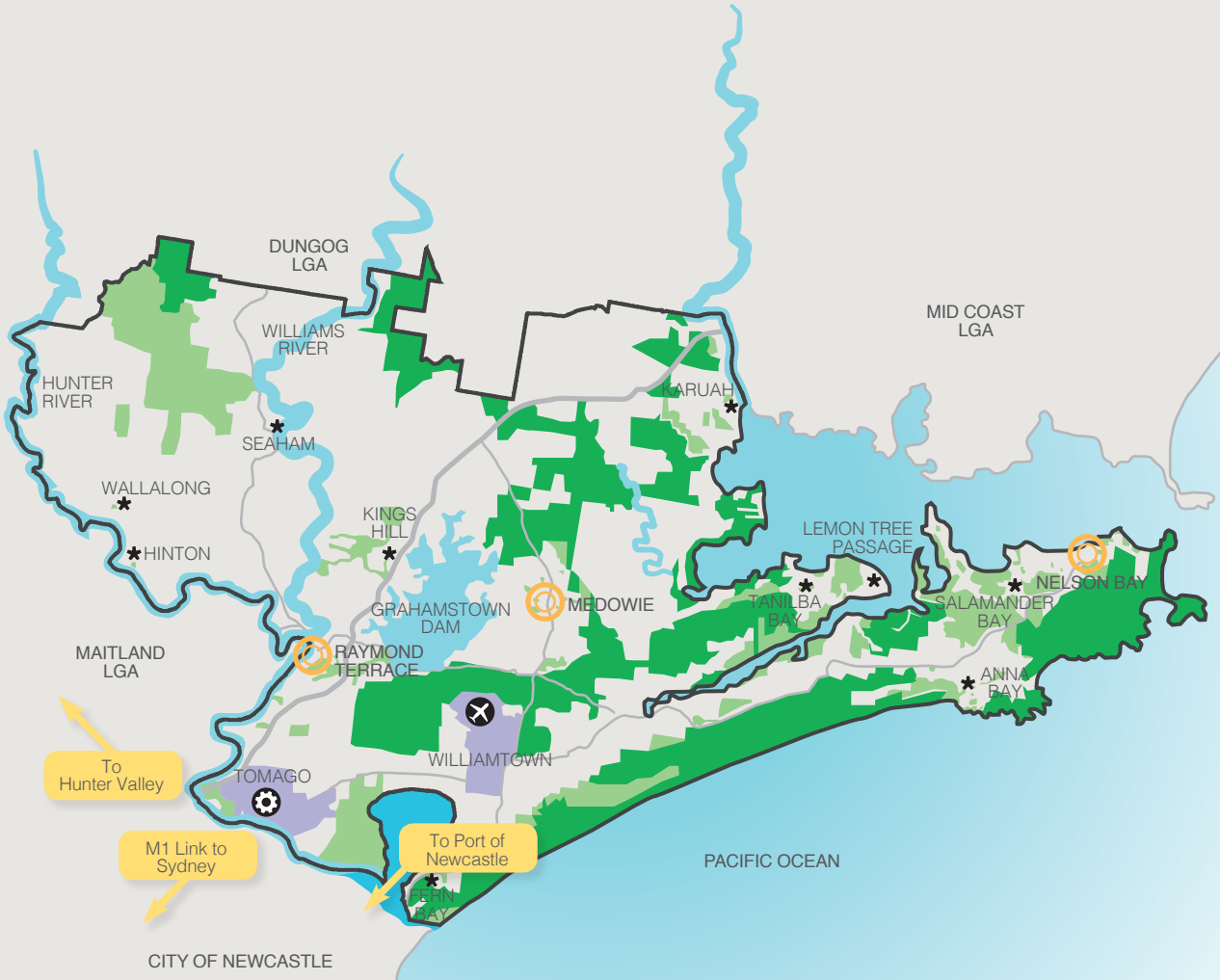
Newcastle Airport is located at Williamtown in Port Stephens and is well recognised as a major economic driver for the Hunter, with over 1.2 million passengers per year and potential international capability to increase visitation to the area. Williamtown is also home to the Royal Australian Air Force (RAAF) base and associated aviation and defence support services. The arrival of the Joint Strike Fighter is anticipated to create some 3000 direct and indirect jobs and the continuing expansion of the aerospace precinct is likely to have a significant impact on the growth of Port Stephens and the Greater Newcastle region generally.

[1] Port Stephens Council (2020)
Draft Local Strategic Planning Statement

[2] REMPLAN (August 2019)
Port Stephens 2018 Economy Profile

[3] REMPLAN (August 2019)
Hunter Region 2018 Economy Profile

[4] REMPLAN (August 2019)
Port Stephens 2018 Economy Profile



Port Stephens Map Key

- National Parks
- Environmental and Recreation Zones
- Waterways
- Local Centres
- Strategic Centres
- Regional Links
- Newcastle Airport
- Industrial Trading Hub

Snapshot

REMPLAN Community Profile
ABS 2016 census

72,695
Population (expected to increase to 88, 920 by 2040)

Population over 55
36.8%

Households without Internet access
16.6%
(14.1% Australia avg.)

55%
Households with children

2018/19 Annual Report
Recreation Strategy Volume 2

415 ha
Parks and sportsgrounds managed by Council

25,065
2018/19 Library members

$25.6 mil.
2018/19 major project improvements

$160 mil.
2018/19 Assets Expenditure

REMPLAN Economy and Community Profile

$3.52 bil.
Manufacturing revenue

$5 bil.+
Gross Regional Product

22%
technical equipment and appliance manufacturing

5.4%
Unemployment (Sep 2019)
(Hunter region 4.7%)

$680
Domestic

$299
International

Average Tourist Spend
$93
Day trip

2018/19 Annual Report

1.7%
Growth in website users in 2018/19

69%
resolution at first point of contact

76%
Community satisfaction (libraries 99%)

$25.4 mil
in grant funding in 2018/19

2018/19 Annual Report
Port Stephens LSPS

11 technical natural disasters since 2009

15 organisations cooperating on the Port Stephens Local Emergency Management Committee to prepare and protect the community from disasters

29 out of 37
Actions completed in the Hunter Strategic Weed Management Plan

32,156ha
of protected land (62ha of restored bushland in 2018/19)

33,341 tonnes
Roadside waste collection

28
Environmental education programs

2018/19 Annual Report
REMPLAN Community Profile
Local Housing Strategy

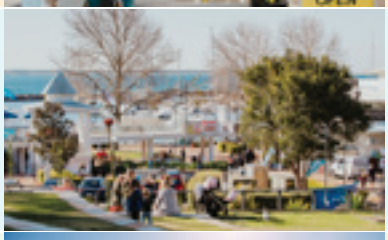
Three town centres
Raymond Terrance, Medowie and Nelson Bay
(10.9% 2016 pop.)

Completed town centre strategy actions
Raymond Terrance 4 out of 15,
Medowie 5 out of 10,
Nelson Bay 19 out of 27

14.1%
Proportion of households with rental stress (41.4% housing stress in rental dwellings)

Port Stephens Smart Region: Vision

PORT STEPHENS COMMUNITY STRATEGIC PLAN 2018-2028

Our Community	C.1 – Community diversity C.2 – Recognised traditions and lifestyles C.3 – Community partnerships	
Our Place	P.1 – Strong economy, vibrant local businesses, active investment	
	P.2 – Infrastructure and facilities	
	P.3 – Thriving and safe place to live	
Our Environment	E.1 - Ecosystem function E.2 – Environmental sustainability E.3 – Environmental resilience	
Our Council	L.1 – Governance L.2 – Financial management L.3 – Communication & engagement	

Port Stephens will seek to become an area that is a liveable, thriving, diverse, connected, sustainable, resilient and safe place for its community to live, work and play.

To achieve this we will invest in, and collaborate with partners to create smart digital capabilities and data that will enable us to make better decisions, support delivery of digital community services and create ongoing innovation. This will enhance economic growth, improve community wellbeing, and help us protect our environment.

PORT STEPHENS SMART CITY BLUEPRINT

COMMUNITY

- Support and facilitate ongoing community participation in the decision making process as the detail of the Smart City program is developed.
- Encourage equal and inclusive access to smart digital technologies.
- Support smart initiatives that improve the engagement between community and Council, including digitising access to services.

ECONOMY

- Encourages and supports improvements to the visitor experience through smart solutions.
- Reinforces a strong economy by:
  - Improving digital connectivity for local businesses.
  - Collaborating with key businesses and industries on smart initiatives, innovation and data sharing

INFRASTRUCTURE

- Encourages the use of existing and future data to improve the service of existing council-owned assets.
- Investigates new and emerging smart solutions as we undertake our major projects and works program.
- Encourage and support future trends in movement and community infrastructure.
- Utilises data and technology that addresses identified community problems.
- Prioritise investment in initiatives that build resilience and reliability in our asset base.

PLACE

- Encourages public safety through collaboration with emergency services, to use smart data and technology to improve emergency response and better protect people and assets from human and natural disasters.
- Encourages efficient planning of places to improve liveability and amenity for the community.
- Investigates smart solutions towards planning for housing and supporting infrastructure.
- Encourages community interaction as a means of improving social connection and health of the population.

ENVIRONMENT

- Create the infrastructure and technology foundations to monitor environmental conditions.
- Reduce energy use, for example through smart lighting of public spaces and buildings.
- Collect data to allow us to monitor and improve our wildlife and environment policies.
- Collect data and derive insights to inform our climate change adaptation planning.

GOVERNANCE

- Provide digital channels to allow the community to access and transact with council services and to improve asset management and planning.
- Provide secure, open access to data to foster innovation through engagement of businesses, schools and universities, other government agencies and individuals.
- Investigate a framework and platform for a regional analytics and intelligence capability to create insights from historical data, monitor current data and model future scenarios.

Guiding Principles

Guiding principles are provided to ensure stronger and better governance of the Smart City program. The guiding principles will be utilised by Council to ensure effective evaluation of smart projects, as well as provide effective risk management for the Smart City program in conjunction with our existing risk management.

We embrace the following guiding principles in the design of our Smart City program.

1. Strategy

Our smart initiatives will be guided by this strategic blueprint so that investments are aligned with our smart district vision, themes and goals.

2. Connectivity

Connecting people with each other and with their surroundings will be a key part in enabling our strategy and achieving our smart district goals. Initiatives should work towards ensuring our community can communicate with each other, with council and with businesses from anywhere.

3. Security and resilience

We will ensure security first and foremost. All smart initiatives must protect the security of our community, our services and our data. We will build our smart district to be resilient and ensure continuity of our smart services.

4. Community collaboration

Our smart district will be inclusive of the community. We will achieve this through facilitating collaboration across diverse stakeholders including universities, schools, businesses, community groups and governmental agencies. This will foster a culture of inclusiveness, creativity and innovation. We will ensure our smart district initiatives are recognised by the community as important, relevant and beneficial, and only use technology that creates value for the district.

5. Data as an asset

All incremental value from our smart district initiatives will come from transforming data into information and insights. We will manage our data as a primary council asset and build a 'data culture' across our community and stakeholders. We will aim to support externally driven, community-led innovation by citizens, businesses and others within our district by providing open access to data wherever appropriate. Council, and therefore the community, will be the owners of the data collected through Smart City initiatives. We will not engage with parties that look to withhold data from the community unnecessarily or look to unfairly profit from the collection of data.

6. Improving our lives

Initiatives will only utilise technology solutions that improve the lives of our community members, not just increase efficiency. Technology will be used to augment human capability rather than replace it, and give people improved control and choices in their lives.

7. Measurement and metrics

The success of our smart district initiatives will be monitored and measured so that we can ensure that the community benefits and goals are being achieved.

8. Governance

A governance framework, aligned with existing Council governance, will be put in place for all smart initiatives. Good governance is key to ensure these principles are followed and that the vision of this strategic blueprint is achieved.

FREE
SPIRIT
DENIM WEAR
ORIGINAL

Community

Port Stephens is vibrant and strong community respecting diversity and heritage

Overview

Community is about what matters to people, it is about relationships, participation, shared memories and experiences. It is also about identity, history and a sense of place.

At its heart, the Smart City program is not about technology or data for its own sake. It's about using data and technology to solve problems which improve the lives of the Port Stephens community.

The Smart City Blueprint will support smart initiatives that contribute to achieving the goals and aspirations of our community. This includes solutions and technology that improve community wellbeing, improve the ways people connect with each other and Council, and improve public services and amenities.

In the context of Smart Cities, this includes:

- Improving access to digital technologies for everyone, and improving digital literacy so that everyone can contribute to and benefit from smart initiatives.
- Enabling open access to data to the community to foster innovation and stimulate economic development.
- Digitalising Council services and providing access through multiple channels from anywhere.

Goals and next steps

Going forward, we will continue to support initiatives which foster a connected community. Through this Council will:

- Support and facilitate ongoing community participation in the decision making process as the detail of the Smart City program is developed.
- Encourage equal and inclusive access to smart digital technologies.
- Support smart initiatives that improve the engagement between community and Council, including digitising access to services.

Potential strategies and initiatives

Capability name	Capability description	Outcomes and value
Improve connectivity	Aim to investigate segments of the population that have reduced or insufficient internet accessibility and advocate for greater internet connectivity across the Port Stephens LGA.	Improved digital engagement within the local community.
Port Stephens Library as a central hub for the community	Explore ways of positioning libraries as a central part of the community — the hub that has access to technology and training for the community, as well as to create social cohesion by providing access to information and a safe place to be. Modern libraries are well situated in the community and are often a part of multi-purpose community centres.	Provision of a central community meeting place. The heart of the community. A central inclusive place of knowledge, information, training and digital capability of all of the Port Stephens community.
Enabling creativity	Consider ways for people to engage with public art. For example, through mobile apps to create augmented reality trails.	Better engagement with public art and collect visitation data.
Improving engagements	Look at ways to improve engagement between the community and Council using technology as a tool, including the collection of data to determine what engagement channels work best for which demographic and then potential pilot projects as a test. Some examples include the development of chat-bots, gamification to engage younger people, different channels for older demographic, and people living in rural areas rather than the towns.	Improve engagement with the council to better understand wants and needs of residents.

Economy

Our Community has an adaptable, sustainable and diverse economy

Overview

Port Stephens is home to one of the Australia's fastest-growing aviation and defence hubs — Newcastle Airport, RAAF Williamtown, and the recently announced Williamtown Special Activation Precinct are key strategic assets for Port Stephens and the broader Hunter Region.

A robust global manufacturing sector located at Tomago, alongside Heatherbrae's major bulky goods precinct, provides the major contribution to output and employment in Port Stephens.

Despite the effects of the COVID-19 global pandemic, which has significantly impacted the local tourism industry, Port Stephens remains a major regional visitor destination in NSW. Port Stephens attracted over 3 million visitors, including 198,600 international visitors, which collectively spent an estimated $534 million[5]. The tourism industry complements the business community with key commercial centres at Raymond Terrace, Nelson Bay and Salamander Bay.

In addition to these existing industries, the NSW Government has provided a list of industries driving the economic future of regional NSW, which includes emerging industries of advanced manufacturing, renewable energy and technology enabled primary industries[6]. Therefore, we should consider what opportunities are available, as well as what initiatives we can investigate, to leverage these existing and emerging industries.

Under this focus area, smart technology and data should look to drive an adaptable and diverse economy.

[5] Port Stephens Council (2017)
Economic Development and Tourism Strategy 2018-2020

[6] NSW Government (2018)
A 20-Year Economic Vision for Regional NSW

Goals and next steps

Going forward, we will continue to support smart initiatives that:

- Encourage and support improvements to the visitor experience through smart solutions.
- Reinforce a strong economy by:
  - improving digital connectivity for local businesses
  - collaborating with key businesses and industries on smart initiatives, innovation and data sharing.

Potential strategies and initiatives

Capability name	Capability description	Outcomes and value
Movement of people through a retail precinct	Consider ways to collect data about the movement of people through our key retail districts. This will help local businesses so that they can optimise their opening hours and times through the season to help them increase revenue.	More profitable businesses by optimising opening hours.
Economic hub support	There are a number of significant employment generating economic hubs in Port Stephens. Council can look to partner with landholders, business and government organisations to enhance the performance of these hubs.	Improved economic efficiency and output from major employment zones.
Training to help start-ups/small businesses	Encourage collaboration to collect data from businesses on what training they believe is required so that this information can be provided to TAFE and other local course providers.	Improve courses offered by providers such as TAFE and increase the availability of trained staff to go into local businesses.
Information kiosks for tourism	Examine technology to inform visitors via digital channels, such as smart kiosks and mobile apps. This includes information on local business and services, tourist attractions, and wayfinding information to guide tourists to businesses.	Increase tourist spend in Port Stephens and encourage diversification of visitation.

Infrastructure

Our community's infrastructure and facilities are safe, convenient, reliable and environmentally sustainable

Overview

Council's infrastructure and assets form a significant portion of our expenditure, with construction of the major projects and works program in the 2018 to 2019 financial year showing a total expenditure of $25.6 million[7].

Our asset base includes traditional asset infrastructure such as roads, footpaths, buildings and drainage, together with assets that are unique to coastal councils, such as seawalls, surf clubs, lifeguard towers, wharves and jetties. Council has a legal and ethical obligation to effectively plan, account and manage the assets we are responsible for, and this is outlined through the Strategic Asset Management Plan (SAMP).

The Smart City Blueprint is intended to support us in the delivery and maintenance of valuable infrastructure and facilities that support the community. Through this, we will aim to implement Smart City initiatives that are specific to an identified issue and look to improve the efficiency and delivery of public infrastructure and assets.

[7] Port Stephens Council (2019) *Yabang Gumba-Gu: 2018 to 2019 Annual report – Volume 1*

Goals and next steps

Going forwards, we will continue to support smart initiatives that:

- Encourages the use of existing and future data to improve the service of existing Council-owned assets.
- Investigates new and emerging smart solutions as we undertake our major projects and works program.
- Encourage and support future trends in movement and community infrastructure.
- Utilises data and technology that addresses identified community problems.
- Prioritise investment in initiatives that build resilience and reliability in our asset base.

Potential strategies and initiatives

Capability name	Capability description	Outcomes and value
Usage of parks and reserves	Collaborate with other agencies to collect data on the number of people using our assets, including beaches, reserves, marine parks and national parks, and whether they are visitors or residents.	Better planning of where to invest in visitor infrastructure.
Parking usage data	Council is implementing Smart Parking, with the potential to study the collection of empirical data on parking usage in key areas that are subject to seasonal congestion to better plan parking management.	Data to inform changes to parking zones and investment in future additional parking facilities.
Protect infrastructure	Aim to research ways of reducing vandalism in our public assets through the collection of data on behaviour that can allow us to act quickly to prevent costly damage.	Reduce the cost of vandalisms increased perception of safety.
Monitoring assets in general	Look into the collection of data to monitor council assets to effectively measure ROI, as well as better plan maintenance schedules.	Improve ROI measurements to allow efficient infrastructure investment and maintenance planning.

Place

Our community supports a healthy, happy and safe place

Overview

Port Stephens offers a variety of diverse places that connect residents, visitors and workers within their community and their environment. We aim to encourage these places to become hubs of life through incentivising activation including improved walking and cycling links to retail areas, schools and parks, as well as ensuring well-planned places for people to gather, celebrate and explore.

Port Stephens is growing. We aim to ensure this growth is in an orderly manner, supported by land use plans to facilitate housing, jobs and community wellbeing, together with the infrastructure that links these elements.

Through the Smart City Blueprint, we will aim to improve the existing role we play in planning for enhanced places, ensuring public safety and improving liveability and amenity for the community. This will include supporting smart city capabilities that improve our public spaces to help the community feel healthy, happy and safe.

Goals and next steps

Going forward, we will continue to support smart initiatives that:

- Encourage public safety through collaboration with emergency services, to use smart data and technology to improve emergency response and better protect people and assets from human and natural disasters.
- Encourage efficient planning of places to improve liveability and amenity for the community.
- Investigate smart solutions towards planning for housing and supporting infrastructure.
- Encourage community interaction as a means of improving social connection and health of the population.

Potential strategies and initiatives

Capability name	Capability description	Outcomes and value
Electronic public notice board	Research digital channels for getting emergency information and alerts out to residents and visitors to our region.	Enhance public safety, health and liveability.
Asset value from liveability and wellbeing	Investigate the collection of data to measure the impact our investments in the community have made on the liveability and the wellbeing of our residents.	Improved planning and measuring of initiatives.
Data to build predictive analytic models for emergency response	Collaborate with emergency services to pool and map data and investigate predictive modelling for emergency response scenario, such as power outage, flood, bushfire or a major accident, to allow better response planning.	Enhance public safety, health and liveability.
Weather warnings	Aim to work with existing agencies, such as BoM, to capture existing data related to severe weather warnings and publish information on digital channels such as mobile apps, social media and kiosks/information panels.	Enhance public safety, health and liveability.

Environment

Port Stephens' treasured environment is clean and green, protected and enhanced

Overview

The natural environment of Port Stephens is treasured as a valuable natural asset that provides significant value to local residents, businesses and visitors. The natural wonders of Port Stephens are a large part of what makes the area such a desirable place to live, work, play and grow.

Through implementation of Smart City initiatives, we can better manage, reduce or remove the impacts of human activity on the natural environment and help plan for green connections that promote and protect biodiversity, natural habitat and cultural heritage. This will have further positive effects, such as reducing the impact of, and increasing resilience to, natural hazards exacerbated by climate change, contributing towards economic development and tourism, and enhancing community health and wellbeing.

In the context of Smart Cities, this includes:

- Improving the resilience of our community to environmental risks, natural hazards and climate change.
- Maintaining healthy and dynamic environmental ecosystems that support biodiversity conservation.
- Ensuring that the community uses resources sustainably, efficiently and equitably.

Smart City initiatives can also focus the reduction of energy consumption, enhance sustainability across and urban and rural landscapes, measure and enhance the effectiveness of our wildlife protection policies and inform our planning for climate change adaptation.

Goals and next steps

Going forward, we will continue to support smart initiatives that:

- Create the infrastructure and technology foundations to monitor environmental conditions.
- Reduce energy use, for example through smart lighting of public spaces and buildings.
- Collect data to allow us to monitor and improve our wildlife and environment policies.
- Collect data and derive insights to inform our climate change adaptation planning.

Potential strategies and initiatives

Capability name	Capability description	Outcomes and value
Gather data on koala movements	Investigate crowdsourcing data on koala movement, and combine this data with other data sources, such as monitoring by national parks and private reserves. This will build a better picture of koala movements and numbers, and paint a more accurate picture of koala populations to help us formulate strategy and policy improvements to protect them.	Build a more accurate picture of what is happening to koala populations in our region, and formulate better strategy and policy to protect them.
Smart lighting in parks, reserves and pathways	Look into the replacement of pathway lighting at seafront and parks reserves with smart LED lighting, which turns on and off and dims automatically when nobody is in the area.	Reduces energy use, light pollution.
Environment and wildlife policy	Research initiatives that utilise data to formulate an evidence base for effective environmental and wildlife policies. For example, map key connective corridors for wildlife and identify the quality and status of bushland in those corridors to inform development decisions.	Increased data to improve our ability to develop policies on balancing development needs with the environment.
Local data around the effects of climate change	Investigate the collection of data to determine indicators related to climate change, such as rainfall data, sea-level rise, and flooding data, to analyse local climate change impacts.	More accurate relative data feeding into planning decisions.

Governance

Lead, manage and deliver valued services in a responsible way

Overview

Local government is concerned with matters close to our community, such as development and implementation of land use planning, building regulations and development, public health and safety, local roads and footpaths, managing public land such as parks and playing fields, libraries, local environmental issues, waste disposal and community services. Local governments also handle community needs like waste collection, public recreation facilities and land use planning.

In the context of the creation of a smart region, our role is to:

- Define and execute a Smart City Blueprint, as well as next steps (this document).
- Provide governance for smart initiatives, including setting and executing policy and program and project management.
- Define and execute a funding strategy and plan for smart initiatives.
- Facilitate communication, engagement and collaboration with the whole community, including citizens, visitors, businesses and government agencies.
- Securely manage, and, where appropriate provide open access to, the data collected as a result of smart initiatives.
- Use technology to improve the efficiency of, and community access to, council services and processes.

Goals and next steps

Going forward, we will continue to support smart initiatives that:

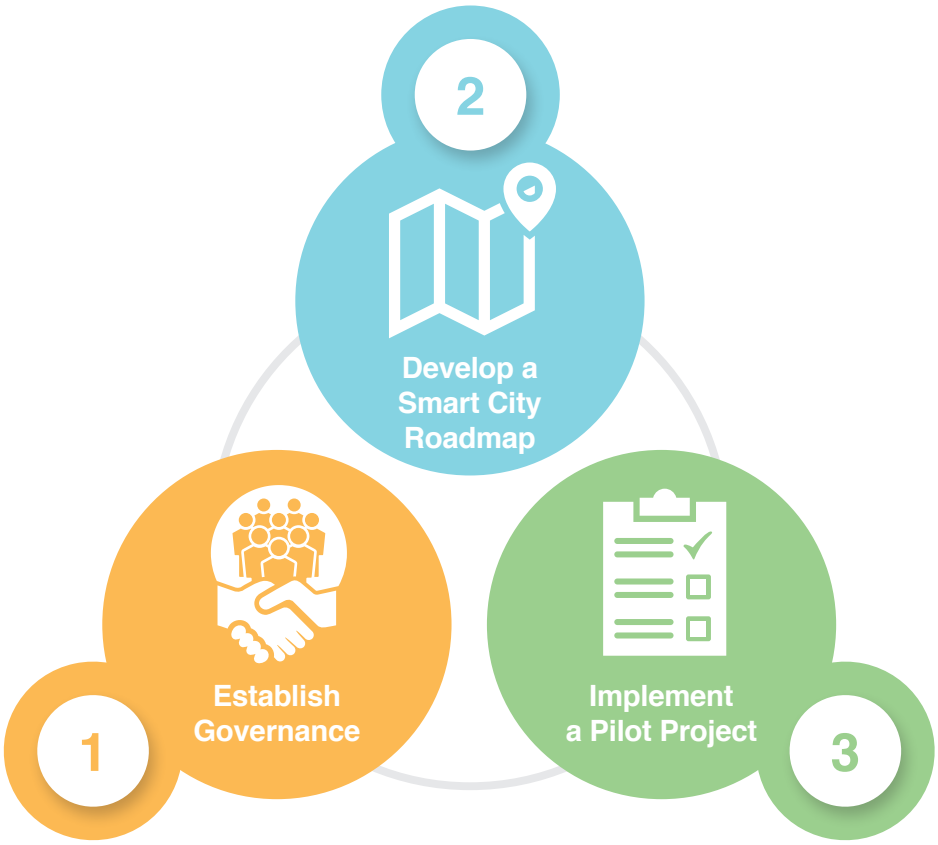
- Provide digital channels to allow the community to access and transact with council services and to improve asset management and planning.
- Provide secure, open access to data to foster innovation through engagement of businesses, schools and universities, other government agencies and individuals.
- Investigate a framework and platform for a regional analytics and intelligence capability to create insights from historical data, monitor current data and model future scenarios.

Potential strategies and initiatives

Capability name	Capability description	Outcomes and value
Create a data platform for Smart Cities	Investigate a modern Smart City data and intelligence platform that can store and provide access to the data that Council gathers.	Improve council efficiency, provide open data access
Creating insight from data	Investigate a Smart City data and intelligence platform that will enable us to search, correlate across and analyse our 3 sources of data (existing internal, external and new smart data) so we can create insight across our data.	Improved planning, improved council efficiency of operations.
Alignment and validation of external data sets	External data comes in multiple different formats, with different metadata, scales, validity. We may investigate ways to combine external data sets in a meaningful way that also maintains consistency.	Ability to leverage existing external data.
Seamless transactions with council	We may investigate options that improves customer transaction, such as automation or improved customer service processes.	Improve staff efficiency.

Port Stephens Smart City Next Steps

Council will explore the following next steps on our Smart City journey:



Smart City Governance

We believe that transparency is key to build trust and accountability and we are committed to an open and transparent governance process. This is core to our smart projects plan and we will aim to ensure that it provides openness and collaboration with interested parties by adopting an effective Smart City governance model.

Our Smart City governance model:

- adopts the vision within this blueprint
- aims to make this blueprint publicly available, as well as names and contact details of the PSC program officers
- ensures collaboration, both within council and external
- encompasses regular reviews and updates to the guidelines and key focus areas
- agrees to publish regular updates of performance and delivery against the proposed Smart City Roadmap. This should include progress reporting against commitments in the roadmap on collaborative engagement and digital inclusion and channel management.

We will aim to establish leadership and governance arrangements that ensure:

- alignment with existing policies and procedures relating to privacy and access to public information
- a clear focus of accountability within council
- a broad-based leadership team with the right skills mix and cross-sectional experience
- deployment of formal programme management disciplines
- an ability to manage organisational evolution among our partner organisations
- openness and transparency in the governance process, including through digitally-enabled models of public participation.

Good governance is key to the success of any Smart City initiative. We will ensure that the Smart City governance model is established and implemented within a few months of the adoption of the Smart City Blueprint, and before the detailed scoping or initiation of any Smart City initiatives.

Smart City Roadmap

We will develop a Smart City Roadmap that is practically deliverable. The roadmap will be the first step towards a detailed, pragmatic program looking at a phased and incremental approach to implementation of the Smart City Blueprint. The roadmap will look to take an organic, market-based process of change to deliver the vision over time however will be restricted to a 5 to 10 year program in line with the SAMP.

The process to develop the roadmap will be as follows:

1. Scope initiatives
   Refine the initiative descriptions as defined in the blueprint to provide more detailed description, problems solved and benefits realised.
2. Rank initiatives
   Using a basket of weighted assessment criteria, such as benefit, cost and complexity, score each initiative.
3. Divide initiatives into time horizons
   Based on the scores, divide initiatives into short-term, medium-term and long-term time horizons.
4. Select 1 or more candidate pilot projects
   From the short-term time horizon select 1 to 3 initiatives to be candidates for a pilot project. Further develop the scope of each of these into an outline business case.

Smart City Pilot Project

As part of the Smart City governance and roadmap process above, we will establish an internal team to identify, plan and design a pilot project. The process will involve external collaboration and guidance, where necessary.

We will select an initiative that will begin to incrementally establish some of the foundational capabilities needed for a Smart City (for example, connectivity, network and data platform), and that will also provide Proof of Value (PoV) in terms of building towards achieving one or more of the goals in the Smart City Blueprint. Unlike a proof of concept project, the technology solution must be architected so that the initial capabilities can be scaled up and incrementally built on rather that discarded.

To ensure the success of the Smart City program, it is important we start with a manageable initiative that is not too wide in scope or long in timescale so we can become familiar with the process of implementing a Smart City Project, and can minimise the level of risk.

Once the pilot project has been implemented, and PoV has been established, the roadmap will be used to guide the scoping of further projects to deliver the capability on a wider scale, and build on the foundational capabilities.

PORT STEPHENS
COUNCIL

Smart Port Stephens
A smart regional journey

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