



Burnett Heads Town Centre Local Plan

September 2017

Final Adopted Version

Prepared by: Strategic Planning Team

Document Control

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Burnett Heads Town Centre Local Plan

1.0 Executive Summary

The Burnett Heads Town Centre Local Plan focuses on Zunker Street (between Moss and Paul Mittelheuser Streets) and its immediate surrounds. This section of Zunker Street is the traditional economic and social centre of Burnett Heads with numerous commercial premises established. While the local plan proposes outcomes that have implications that reach outside the local plan area these outcomes are intended to ensure the surrounding areas continue to support the Town Centre and it continues in its role as a primary location for shopping and social interaction.

Burnett Heads and the Port of Bundaberg are expected to experience significant growth over the next 10-20 years as the potential of the locality becomes a reality. This growth will be instigated by investment in regional infrastructure, including infrastructure to service the Bundaberg Port and the servicing with wastewater infrastructure.

The local plan recommends infrastructure and land use planning outcomes to ensure infrastructure delivery matches the intended land uses, and ensures the Town Centre area is not negatively impacted by nearby regionally significant developments. This includes prioritising the Town Centre with wastewater infrastructure, streetscape upgrades to Zunker Street, and amendments to the Planning Scheme to support development of private land holdings.

2.0 Introduction

This Local Plan provides strategic recommendations for the future development of the Burnett Heads Town Centre and its immediate surrounds. It recommends policy direction for Council with its land use and settlement pattern, and infrastructure delivery. The plan also provides concept plans for a mainstreet streetscape plan and wastewater infrastructure plan. These recommendations and concept plans are designed to work in conjunction to ensure maximum return on infrastructure investment while retaining and building upon the character and needs of the local community.

Map 1 within **Appendix 1** identifies the land to which this local plan applies. The Burnett Heads Town Centre Local Plan comprises of approximately 61.63 hectares of land, of which approximately 44.6 hectares is freehold land in private ownership. 4.37 hectares is used for community uses such as parks or other community purposes.

3.0 Vision

In 2036 the Burnett Heads Town Centre is a thriving coastal town that services the broader Burnett Heads community through shopping, dining, and entertainment. The urban form reflects its coastal location with mainly low to medium rise buildings that address and interact with the street, particularly along Zunker Street. However, in appropriate locations, namely the Town Centre and the Marina development area, well designed medium rise buildings are accommodated to promote growth and provide an immediate resident population to support the commercial centre. Buildings within the Zunker St, Moss St, and Hermans Rd vicinity are built to the street frontages and are provided with wide awnings to promote activity within the street and provide pedestrians with all-weather protection.

The Burnett Heads Town Centre and its immediate surrounds promote active transport, particularly walking. Through well design public spaces that are safe, shaded, and are provided with comfort

facilities to encourage all ages and abilities to choose to walk or use alternative transport rather than a car throughout the locality.

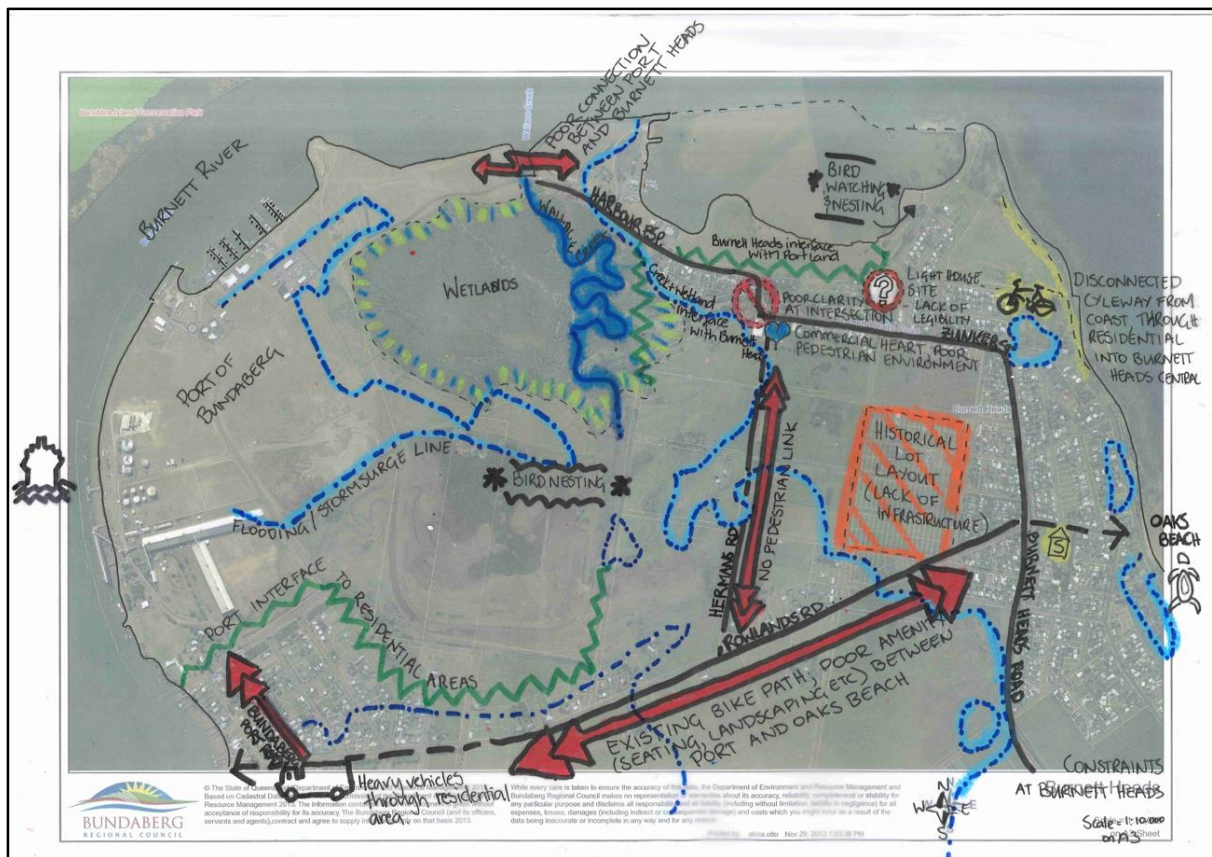
4.0 Methodology

The methodology for the development of the local plan has been as follows:-

Stage A – an initial desktop analysis was undertaken followed by a number of site inspections to identify opportunities and constraints within and adjacent to the development site.

Stage B – using the information gathered in stage A, an Initial Constraints Map was developed (see **Figure 1 - Initial Constraints Map**).

Figure 1 - Initial Constraints Map



Stage C – the Initial Constraints Map was used in consultation meetings and discussions with key Council stakeholders and a number of targeted stakeholders. Stakeholders that were engaged include:-

- Parks and Gardens section of Council;
- Roads and Drainage section of Council;
- Water and Wastewater section of Council;
- Commercial Business and Economic Development section of Council;
- Natural Resources Management section of Council;
- Burnett Heads Lighthouse Holiday Park;

- Medicare Local (Medicare Local has since been disbanded. However the feedback received still has relevance. The Public Health Network – Wide Bay Community Advisory Council now fulfils these roles); and
- Port of Bundaberg.

Stage D – the Initial Constraints Map was edited to include feedback provided by the consulted stakeholders.

Stage E – initial public consultation was undertaken with key community groups and individual land owners. Using the edited Constraints Map and existing land use planning maps, the opportunity, constraints, and wants of the local community were discussed.

Stage F – information gathered from internal and external stakeholders was fed into the preparation of draft plans which were used to inform discussions with Councillors.

Stage G – preparation of the draft Local Plan document (with the inclusion of any changes resulting from discussions with Council).

Stage H – public notification of the draft Local Plan enabling members of the public to make formal submissions about the Local Plan.

Final Document – preparation of the final Local Plan for adoption with changes made as a result of submissions.

4.1. Background

The background material is the accumulation of the information gathered throughout the plan’s preparation combined into a concise format that informs the recommendations of the report.

4.1.1. Projected population

Table 1 outlines the projected population growth of the study area (and surrounding areas of influence) from 2011-2031.

Table 1 - OSER Projections from 2011 census

Population	2011	2016	2021	2026	2031	Ultimate
PIP Only	2590	3087	3268	3646	3690	6886
Port Development	0	217	825	1558	1833	1833
TOTAL	2590	3304	4093	5204	5523	8719

Note: The local plan area is significantly smaller than that of the areas used in Table 1. As an example the current population of the local plan area is calculated to be approximately between 115-150 people.

The population projections to 2031 contained within Table 1 (PIP only) are derived from the Priority Infrastructure Plan (PIP) in the Bundaberg Regional Council Planning Scheme and are based on historical growth figures (which are traditionally low for Burnett Heads) rather than the capacity for growth under the planning scheme zones. The Port Development population projections are based on the land use designations contained within the Port of Bundaberg Land Use Plan.

Despite the above, Council expects the projected population of the Burnett Heads locality, particularly the area encompassed by this Local Plan, to be significantly higher than that detailed above. Council believes the population will be boosted as a result of Government investment in

infrastructure and the realisation of regionally significant tourism and job creating industries at the port and marina. This plan utilises the densities identified within **Map 4 – Ultimate Densities** within **Appendix 1**.

4.1.2. Planning Scheme

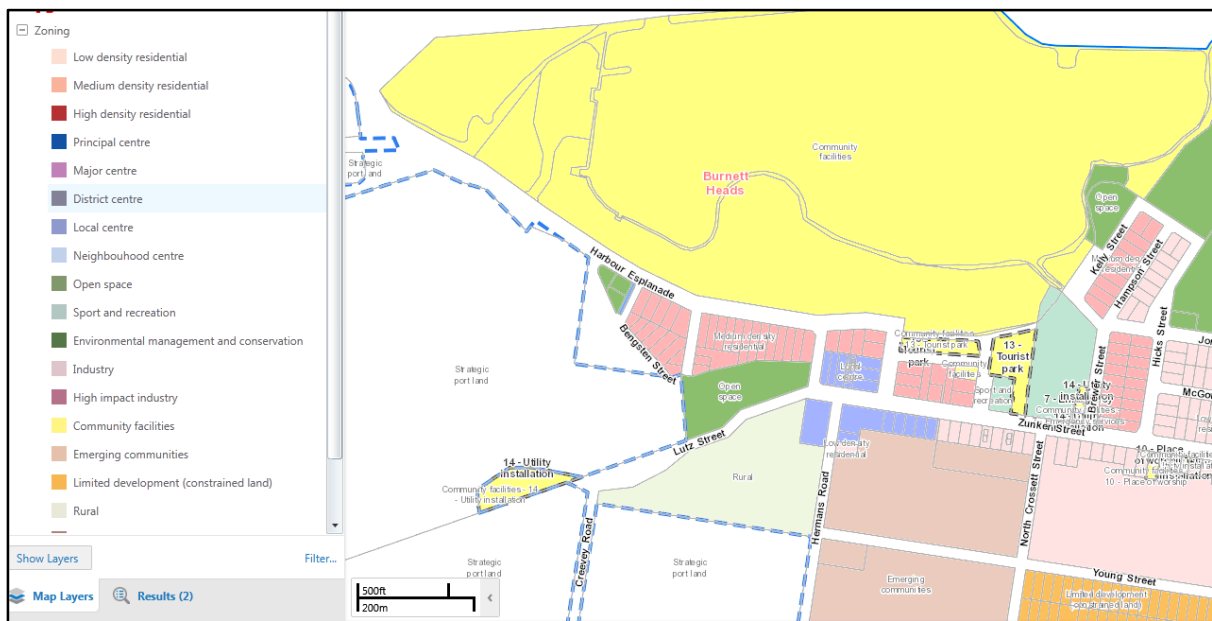
The planning scheme was adopted in October 2015 and superseded the Burnett Shire Planning Scheme. The desirable land use outcomes of the current planning scheme do not differ significantly from the outcomes sought by the previous Burnett Shire Planning Scheme (May 2006). This is mostly due to the limited development that has occurred within the local plan area and the limited development opportunities because of the lack of wastewater infrastructure. The new planning scheme could do little to promote development and there was little need to investigate further development opportunities as the opportunities nominated by the previous scheme had not yet been taken up.

The Local Centre zoning is centred in and around the IGA shopping centre and Lighthouse Hotel (on the corner of Zunker Street and Hermans Road), with smaller strip shopping on the northern side of Zunker Street, in a number of tenancies. There are additional centre zoned properties along the southern side of Zunker Street with only one house converted for an office with all other properties still used for residential purposes.

Surrounding residential areas are predominately within the Medium Density Residential zone. These Medium Density Residential zoned properties are yet to act upon their development rights mainly due to the lack of wastewater infrastructure. Additionally, there is extensive parkland and open space land within the local plan area. Large parcels directly south of the town centre are within the Emerging Community zone. These lots are identified for future residential development within the Central Coastal Urban Growth Area Structure Plan. The parcel directly behind the IGA is within the Rural zone, this is due to the flooding constraints on the site.

Figure 2 - Existing Zonings below shows the zones within the town centre locality. **Appendix 1 Map 1** consolidates the zone and structure plan land use designations (and identifies the marina development site) into a single plan and demonstrates the possible land uses under the current planning instruments.

Figure 2 - Existing Zonings



The Flood Hazard Overlay contained within the planning scheme, identifies that localised, riverine, and stormtide flooding all impact on the town centre and surrounding area. **Figure 3 - Flood Hazard Area** shows the flood hazard within the project area and surrounding land.

Figure 3 - Flood Hazard Area



Other overlays that apply within the locality are Infrastructure (State Controlled Road and Buffer), Coastal Management District, Erosion Prone Area, Agricultural Land, and Coastal Protection (Sea Turtle Sensitive Area).

4.1.3. State Development Area

In February 2017 the Queensland Government declared the Bundaberg State Development Area (SDA), which is located at the Port of Bundaberg. The Port of Bundaberg is expected to play a significant role as a catalyst for the future growth of the Wide Bay Burnett region. The SDA is expected to provide a location for regionally significant economic activities and preserve strategic land for the long term to prevent encroachment from incompatible uses.

With the declaration of the SDA it is expected significant investment in infrastructure and industrial activities will occur fairly rapidly within the SDA. As a consequence the Burnett Heads locality can expect development pressure as the development industry looks to take advantage of the growth created by the port and marina developments.

Figure 4 - Bundaberg shows the extent of the proposed SDA and its proximity to the local plan area.

Figure 4 - Bundaberg SDA



4.1.4. Current Approvals

Outside of the port and marina area there are limited development approvals of note. A number of small to medium subdivision approvals are located just outside the local plan area and closer to Oaks Beach. The Burnett Heads Marina has an approval to relocate the Blue Water Club into a new commercial building that will also contain:-

- A marina reception and chandlery;
- Tourism office;
- Marina administration;
- Café/restaurant; and
- Associated administration, Caretaker’s dwelling, and other ancillary facilities.

The new commercial building is to support an expanded marina that is to contain 273 wet berths.

4.2. Community Consultation

Initial community consultation was undertaken in February 2016 where Council's Strategic Planning section presented and liaised with community groups established within the Burnett Heads community. Meetings were held with the Burnett Heads Business Network, Burnett Heads Neighbourhood Watch, and the Burnett Heads Sports and Progress Association. Both the Neighbourhood Watch and Progress Association had approximately 40 members each attend while the Business Network had 15 attendees.

Further to these public meetings, letters were sent to each land owner within the initial local plan area¹ inviting them to have a one-on-one meeting with Council officers regarding the local plan and any development ambitions they may have for their property. Of the 66 letters issued, 20 discussions or meetings were held with individual land owners.

Some of the reoccurring themes or unique ideas to come out of the initial public consultation process include:-

- The need for sewerage infrastructure;
- Streetscape works, particularly:-
 - Retain through traffic movements, including vehicles towing boats;
 - Don't bypass Zunker Street;
 - Themed works (e.g. lighthouse bollards?);
 - Trees to create shade;
 - Entry statements;
 - Design should consider accessibility standards;
- Extension of Zunker Street through to Harbour Esplanade via Lutz Street;
- Allow for different accommodation types (aging in place);
- Public access to the water through the marina;
- Controls on the marina development to fit in with Burnett Heads;
- Turtle trail completion around to the pedestrian links within the Port;
- Carparking within the main street, particularly:-
 - Need for parking that can cater for long vehicles;
 - Caution about loss of on-street parking;
- Building height should be kept to 3 and 5 storeys, depending on location.

Throughout April community consultation of the Draft Local Plan was undertaken. This consultation involved:-

- Meetings with community and business groups;
- Letters / emails to individual land owners within the proposed local plan area;
- Manned display at the local shopping centre;
- Material available via Council's website;
- Social media posts;
- Notice in the local paper; and

¹ The initial local plan area was smaller than the final local plan area. Through consultation it was recognised that the community felt it was necessary that the local plan influence development on nearby land, including the marina and the large parcels of land south of Zunker Street.

- Opportunity for members of the community to make a submission.

As a result of consultation 15 submissions were received. Overall, submissions for the proposed local plan were positive. However, a number of submissions raised concerns about the future development of the marina land, particularly the land east of Moss Street. As a result of these submissions the Local Plan has been amended to provide more guidance for a future planning scheme amendment.

4.3. BRC Internal Review

Meetings with Council staff were undertaken to provide a greater breadth of understanding of the opportunities and constraints for the Burnett Heads locality from a Council perspective. Meetings were held with representatives from Water and Wastewater, Roads and Drainage, Economic Development, Parks and Gardens, and Natural Resource Management. Additionally, early discussions were held with Councillor Danny Rowleson (the previous Councillor for the division that covers Burnett Heads) and his thoughts have been taken into consideration.

The matters raised with these stakeholders and the matters raised through the community consultation are included with Sections 4.4 and 4.5 of this local plan.

4.4. Identified Constraints

The following constraints were identified through site investigation, desktop analysis, and stakeholder engagement:-

- Flooding (stormtide, local and river);
- Wallace Creek environmental reserve and lack of pedestrian connection to the reserve from the Burnett Heads commercial area;
- Impact of Port activities and development on the existing Burnett Heads township;
- Disconnection of the Burnett Heads community (due to port and rural land) – one community faces the river and identifies themselves as ‘The Port’, the other faces the coast and identifies as ‘Burnett Heads’, and another community identifies as being from ‘Oaks Beach’;
- The existing commercial centre is on the edge of the community, only directly servicing the coastal community of Burnett Heads;
- Lack of services on the southern end of Burnett Heads, around Oaks Beach, pushes them towards Bargara or Bundaberg for shops and services;
- Highly constrained land immediately adjoining the town centre that without the physical constraints would be ideal urban growth areas;
- No pedestrian/cycle connectivity to the commercial centre along Hermans Rd;
- Moss Street/Zunker Street/Hermans Road intersection limitations;
 - Community health (low servicing);
 - Community aged care (low servicing);
- Lack of sewerage infrastructure limits the densities achievable despite the planning scheme allowing for higher densities;
- Zunker Street is under the control of the Department of Transport and Main Roads.

4.5. Identified Opportunities

The following opportunities were identified through site investigation, desktop analysis, and stakeholder engagement:-

Environmental – the town centre is in close proximity to a number of environmental assets, including:-

- Bird watching at key locations;
- Wallace Creek Wetlands;
- Existing Open Space;
- Proximity to Oaks Beach;
- Footpath between the Burnett River and Oaks Beach along Rowlands Rd;
- Proximity to Mon Repos and its 30,000 annual visitors;

Urban –

- An existing town centre with wide road reserves;
- Proximity to the port and marina developments;
- Generally well serviced with social services, considering larger community facilities are available in Bundaberg. Local services include:-
 - Burnett Heads State Primary School;
 - Early Learning (C & K Coral Coast Community Kindergarten);
 - Burnett Heads Progress Hall;
- Existing grid layout road network;
- Planning to service with sewerage infrastructure has already been undertaken;
- Port development:-
 - Employment during and post construction;
 - The ancillary port residential development stimulating growth;
- Walkable community, due to:-
 - Flat topography;
 - Well serviced by existing footpath infrastructure. Could be improved by making walking more enjoyable and incorporating points of interest, seating, and shade. New paths need to be destination based;
- The integration of a Wi-Fi network and other ‘Smart’ technology.

5.0 Recommendations

5.1. Public Consultation

Following the approval of this Local Plan and after more detailed planning and design of the streetscape plan is completed, Council should undertake further and more comprehensive public consultation of the local plan and its outcomes.

Recommendation – Council, at an appropriate time in the project’s progression, undertake further public consultation on the local plan and its outcomes.

5.2. Wastewater

Servicing the town centre area, particularly the existing commercial centre and its immediate surrounds, and community assets such as the caravan park and community hall, with wastewater

reticulation is the highest priority of the local plan. Without wastewater infrastructure, development cannot realise the desirable densities that make redevelopment profitable. At a minimum the provisions of wastewater infrastructure would enable the current allowable densities under the planning scheme to double. With slight changes to building heights and other minor alterations to the planning provisions, as identified within **Section 5.4 – Planning Scheme Changes** of this report development yields can be significantly increased. Higher development yields allows for infrastructure charges to provide returns that are more closely aligned with Council’s infrastructure investment.

Servicing the Town Centre area first, prior to the surrounding areas, will enable the Zunker Street area to realise development opportunities first. Enabling the Zunker Street area to develop before its surrounding area will provide the town centre with momentum which will ensure its role as a town centre will continue into the future.

Appendix 3 provides a concept plan of the wastewater infrastructure to service the town centre area and its surrounds.

Recommendation – Council provide wastewater infrastructure consistent with the concept plan contained within **Appendix 3**.

5.3. Zunker Street Streetscape

Appendix 2 provides a streetscape concept plan for Zunker Street that addresses many of the matters raised by the community and Council stakeholders. A more detailed streetscape plan is to be developed that includes the elements contained within the concept plan. Major elements within the concept plan that the detailed plan should reflect are:-

- A shared zone centrally located within the town centre area;
- Widened footpaths;
- Landscaping that includes significant shade trees;
- Project staging to allow works to be undertaken in affordable sections and as funding becomes available;
- Retention of on-street car parking;
- The use of parallel parking. This enables these parking spaces to be utilised by long vehicles or vehicles towing boats;
- Public art space/s;
- Furnishing and finishes that reflect the coastal location;
- Catering for through traffic (including long vehicles and vehicles towing boats), albeit at reduced speeds;
- Disabled parking car parking spaces, in a centrally located position that is easily accessible;
- Inclusion of water bubblers (with dog bowls), shaded seating, and bike racks; and
- Street lighting that limits its light spillage.

Recommendation – Council upgrade the Zunker Street streetscape consistent with the concept plan contained with **Appendix 2**.

5.3.1. De-maining of Zunker Street

For its full length Zunker Street is a State Controlled Road, which is regulated by the Department of Transport and Main Roads (DTMR). An initial meeting with DTMR representatives revealed that the streetscape works proposed are not consistent with the primary function of a state controlled road. Without significant changes to the streetscape design to enable unrestricted traffic flow through the town centre Council will need to commence the de-maining process with DTMR.

The DTMR representatives were not against the concept of de-maining a portion of Zunker Street to enable the construction of the streetscape. It is recommended Council consider de-maining Zunker Street from Moss Street in the west to Brewer Street in the east, being a distance of approximately 515 metres. De-maining to Brewer Street, which is beyond the streetscape works extent, will enable Council in the future to undertake works between the town centre and the community hall located on the corner of Zunker and Brewer Streets without having to seek DTMR approval.

Recommendation – Council commence the de-maining process of Zunker Street, from Moss Street to Brewer Street as soon as possible.

5.3.2. Landscaping outcomes

The landscaping within the streetscape is an important element of the overall works. It is the landscaping that will most determine the theme and usability of the road reserve for people. The following outcomes should be considered when designing the landscaping component of the streetscape:-

- Landscaping needs to provide significant shade for pedestrian and potential outdoor dining areas;
- The use of endemic species or species that were likely to be within the Zunker Street location prior to European settlement. Species that provide a connection to the Wallace Creek Wetlands or to their location will provide more points of interest within the streetscape;

Recommendation – Council ensure the detailed planning of the streetscape works investigates / includes the outcomes identified above.

5.3.3. Smart Technology Enabling Infrastructure

The streetscape design is to cater for and integrate 'smart' technology and design. This integration is to ensure the town centre area caters for remote access and control for infrastructure providers, and users that require connection to the internet through mobile and other devices. Smart technology that should be considered in the initial streetscape design include:-

- Smart Street Lighting. Smart street lighting also has the potential to limit light spillage from the town centre area, limiting the streetscape's impacts on the nearby Mon Repos Conservation Park and Oaks Beach which are turtle nesting areas. Further investigation should be undertaken to see whether these types of street lighting can be remotely controlled so lighting can be dimmed during turtle nesting and hatching season; and
- Smart infrastructure integration including metering.

Key to integrating these outcomes into the streetscape is the development of a high speed internet network that has the capacity to provide secure connections for infrastructure providers as well as meeting the broader communities' expectations regarding connection to the internet and availability

of information. The network should at a minimum be wireless, but may be supported or provided in combination with a wired network, with the capacity to be easily expanded.

Due to the evolving nature of new technology and Council's relative inexperience in implementing Smart technology into a main street environment, Council engaged Glentworth to prepare a strategy to provide further guidance to its integration. In January 2017 Glentworth delivered Council with their 'Smart Burnett Heads – A digitally enabled community roadmap' that contains recommendations about the integration of smart technology within the broader Burnett Heads community with an acknowledgement that the Zunker Street streetscape is the focus of the rollout.

Recommendation – Council ensure the detailed planning of the streetscape works includes infrastructure that enables the integration of smart technologies. The technology integrated is to be guided by the recommendations contained within the Glentworth study 'Smart Burnett Heads – A digitally enabled community roadmap' contained within **Appendix 4**.

5.4. Planning Scheme Changes

Minor changes to the planning scheme will further facilitate development within the town centre and its immediate surrounds. Development and its associated infrastructure charges are the best way for Council to recoup the costs associated with the provision of wastewater and streetscape infrastructure. The changes identified are below:-

- Increase the allowable building height within particular areas (as identified within **Map 6, Appendix 1**) of the town centre and marina;
- Alter the nominated setbacks to allow redeveloped sites within Zunker Street to address the streetscape area and encourage footpath dining and other interaction with the street;
- Alter the allowable densities, including within the Local Government Infrastructure Plan (LGIP), to reflect the changed building heights and zones;
- Alter the zoning for the block bounded by Zunker, Moss, Harbour Esplanade, and Sommerville Street to make the entire block Local centre. This will enable a better mix of land uses to establish within the central block of the town centre area, and linking with marina-front land to the north;
- Expand the Local centre zoning of Lot 1 on RP204901 (IGA Shopping Centre) onto part of Lot 2 on RP204901 to enable the complex to expand;
- Identify the long term goal of extending Zunker Street via Lutz Street to connect with Harbour Esplanade at or near Finucane Street. This would remove the existing dog-leg in the link between Zunker Street and Harbour Esplanade (via Moss Street);
- Protect the Young Street extension corridor as a potential longer-term by-pass of the town centre, connecting with the Zunker Street extension;
- Identify the continuation of a grid network for local roads, albeit with local streets strategically cul-de-saced to restrict vehicle movement while still allowing for pedestrian thoroughfare and active transport options;
- Consider identifying Hermans Road as a Trunk collector within the LGIP. Not for the purpose of traffic volume but because of its important link function to the river side of Burnett Heads;
- Identify the pedestrian pathway network as shown on **Map 4 (Appendix 1)** within the LGIP; and

- Identify the marina site as a key development site with provisions to encourage a well-designed mixed-use development that is integrated into the broader Burnett Heads community. **Appendix 5 – Burnett Heads Marina Commentary**

These proposed planning scheme changes identified above are supported by **Maps 1 to 6** in **Appendix 1**.

Recommendation – Council commence the amendment of the planning scheme to reflect the desired outcomes identified above.

6.0 Conclusion

The Burnett Heads Town Centre Local Plan provides recommended outcomes that are designed to work in conjunction with each other to deliver a town centre that is well serviced and is a thriving hub of activity. The local plan recognises that the provision of wastewater infrastructure is critical to the town centre’s development and should be the first piece of infrastructure to be delivered.

The streetscape upgrade to Zunker Street and its individual components will provide an amenity and level of service that will boost the locality’s desirability to be a destination in its own right. The recommended planning scheme amendments are designed to complement the infrastructure investment of wastewater and streetscape works and ensure development of freehold land within and near the town centre delivers on Council’s investment and protects the community’s interests that were identified through the public consultation process.

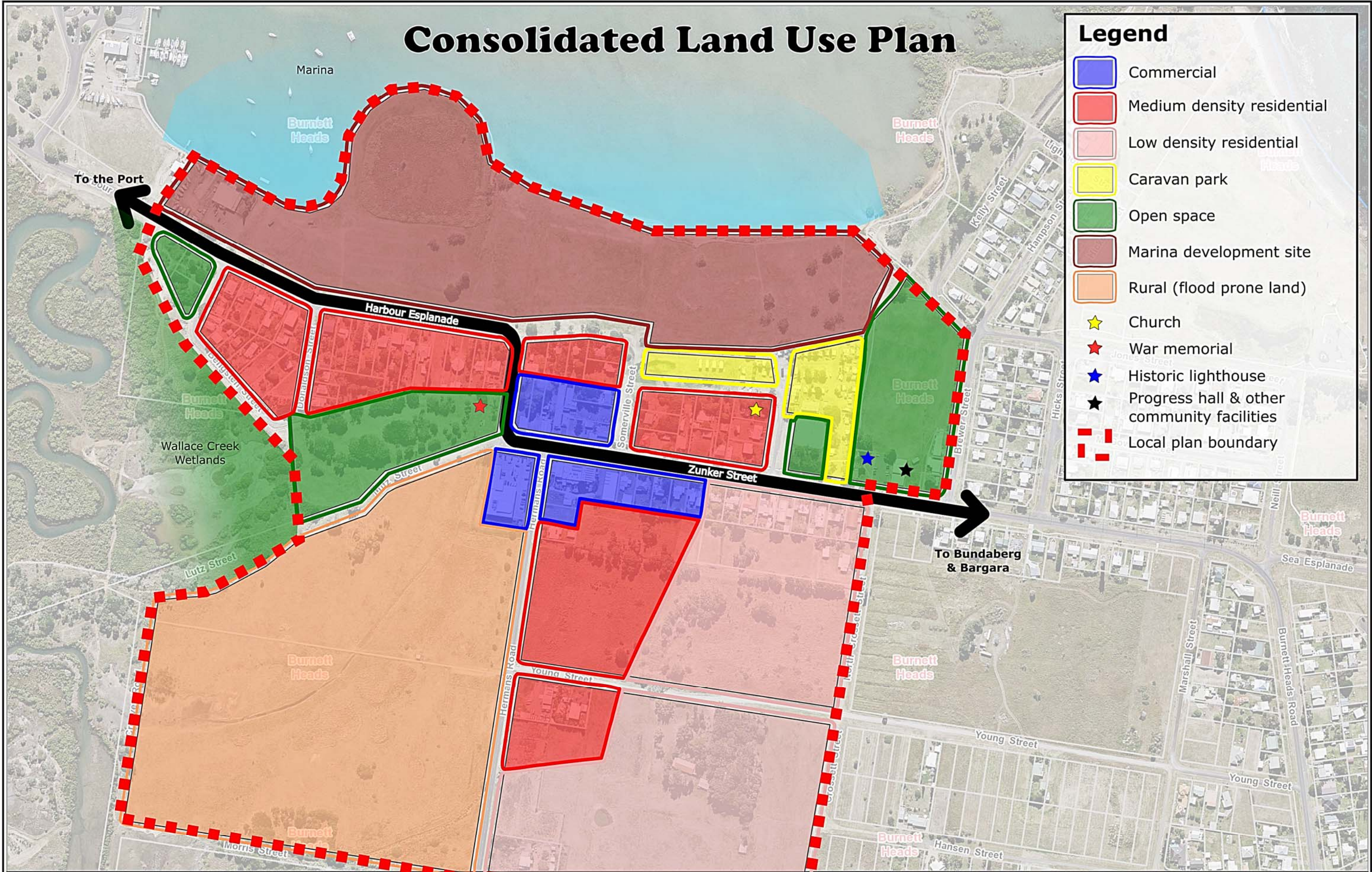
Appendix 1 – Local Plan Mapping

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Consolidated Land Use Plan

Legend

- Commercial
- Medium density residential
- Low density residential
- Caravan park
- Open space
- Marina development site
- Rural (flood prone land)
- ★ Church
- ★ War memorial
- ★ Historic lighthouse
- ★ Progress hall & other community facilities
- Local plan boundary



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0 0.02 0.04 0.08 Kilometers

Author:

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Map 1

Short / Medium Term Land Use Plan

Legend

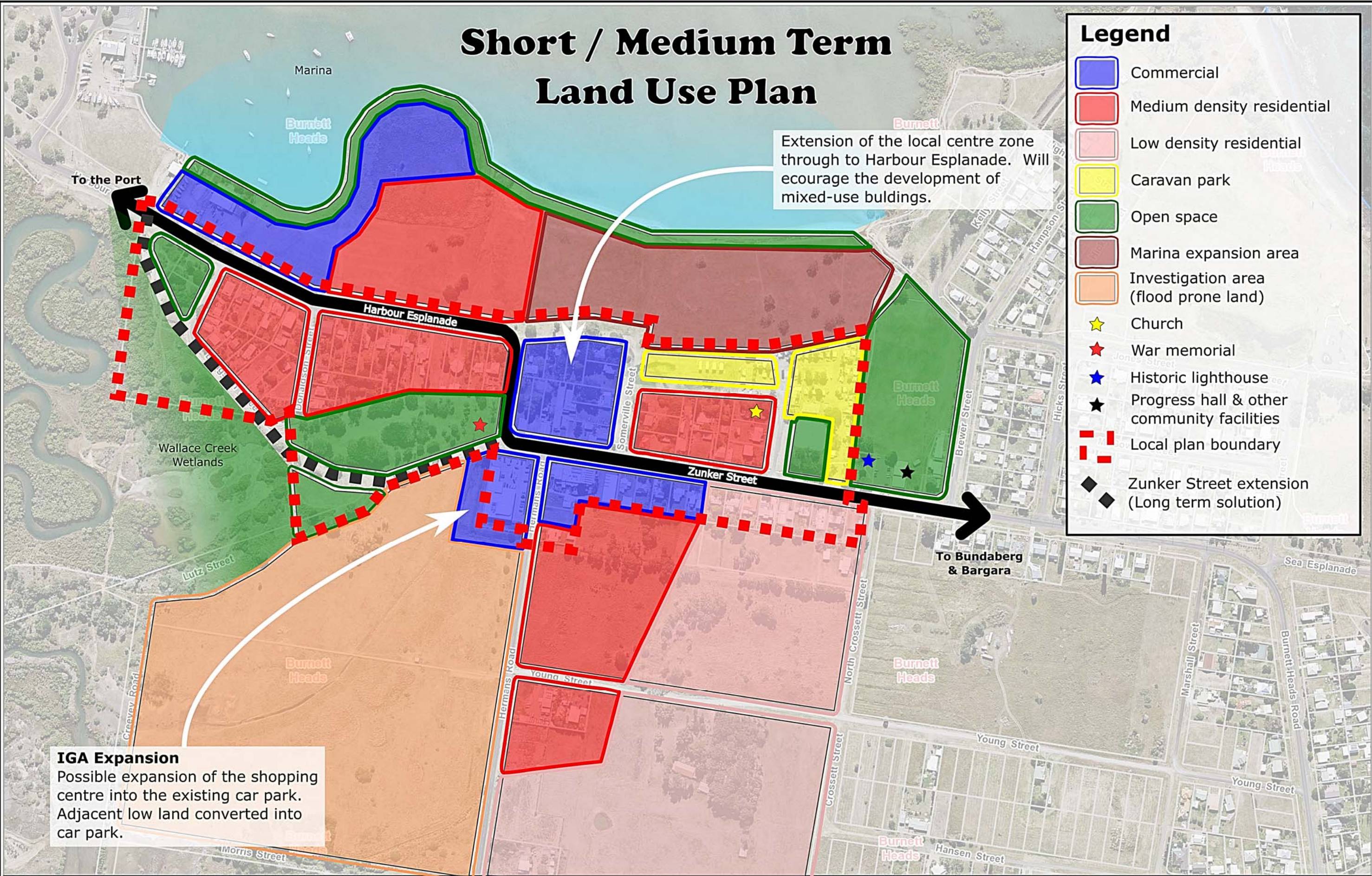
- Commercial
- Medium density residential
- Low density residential
- Caravan park
- Open space
- Marina expansion area
- Investigation area (flood prone land)
- ★ Church
- ★ War memorial
- ★ Historic lighthouse
- ★ Progress hall & other community facilities
- Local plan boundary
- Zunker Street extension (Long term solution)

Extension of the local centre zone through to Harbour Esplanade. Will encourage the development of mixed-use buildings.

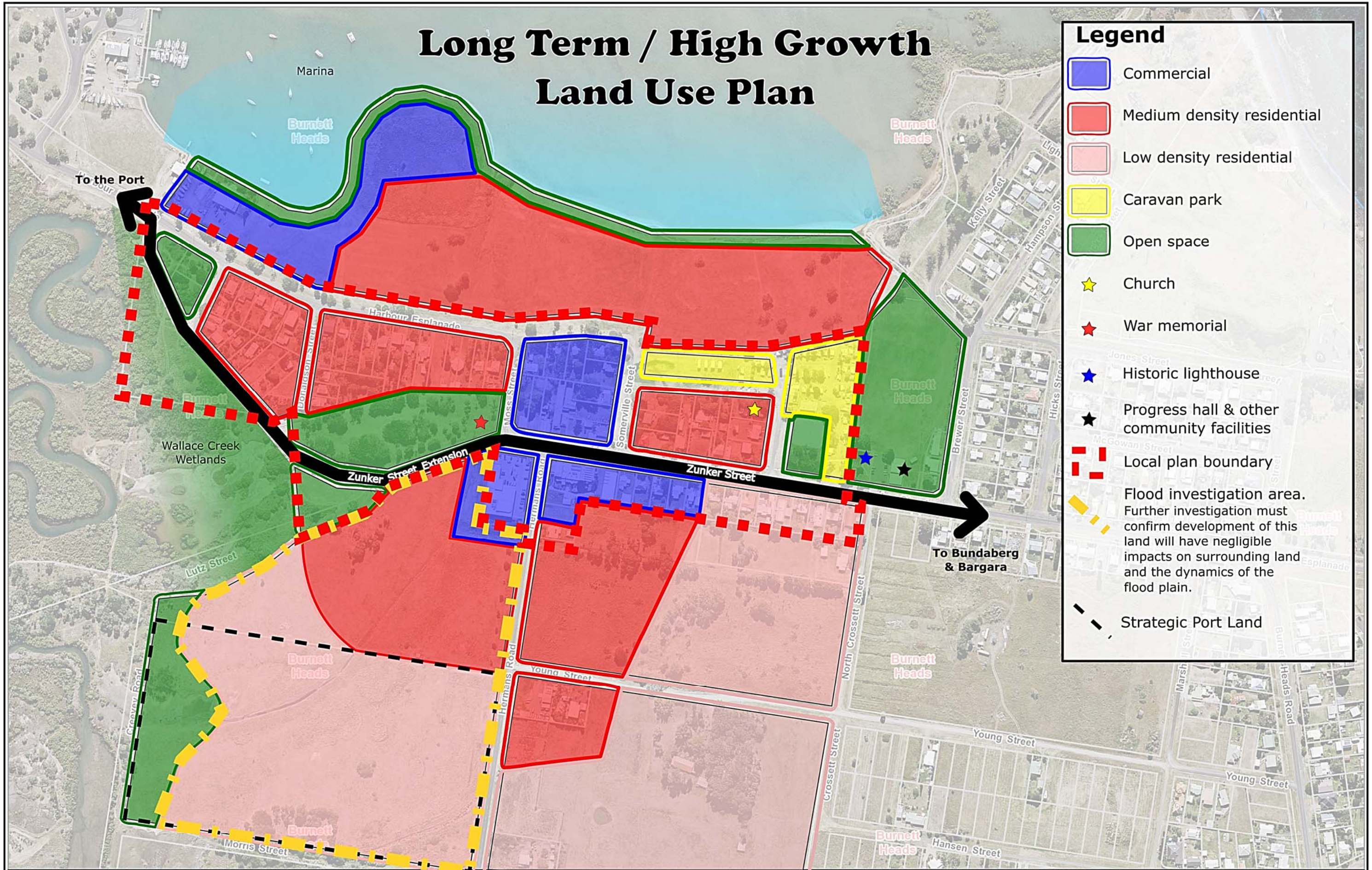
To the Port

To Bundaberg & Bargara

IGA Expansion
Possible expansion of the shopping centre into the existing car park. Adjacent low land converted into car park.

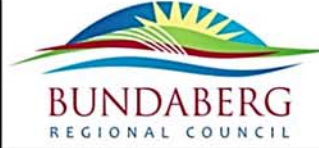


Long Term / High Growth Land Use Plan



Legend

- Commercial
- Medium density residential
- Low density residential
- Caravan park
- Open space
- ★ Church
- ★ War memorial
- ★ Historic lighthouse
- ★ Progress hall & other community facilities
- Local plan boundary
- Flood investigation area. Further investigation must confirm development of this land will have negligible impacts on surrounding land and the dynamics of the flood plain.
- Strategic Port Land



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Ultimate Densities

Legend

- Commercial
- Medium density residential
- Low density residential
- Caravan park
- Open space
- Longer term developable land

Density & Populations

Short to medium term densities

No. of dwellings: 1,140
 Population: 1,687
 Commercial Floor Area: 20,550m²

Long term densities

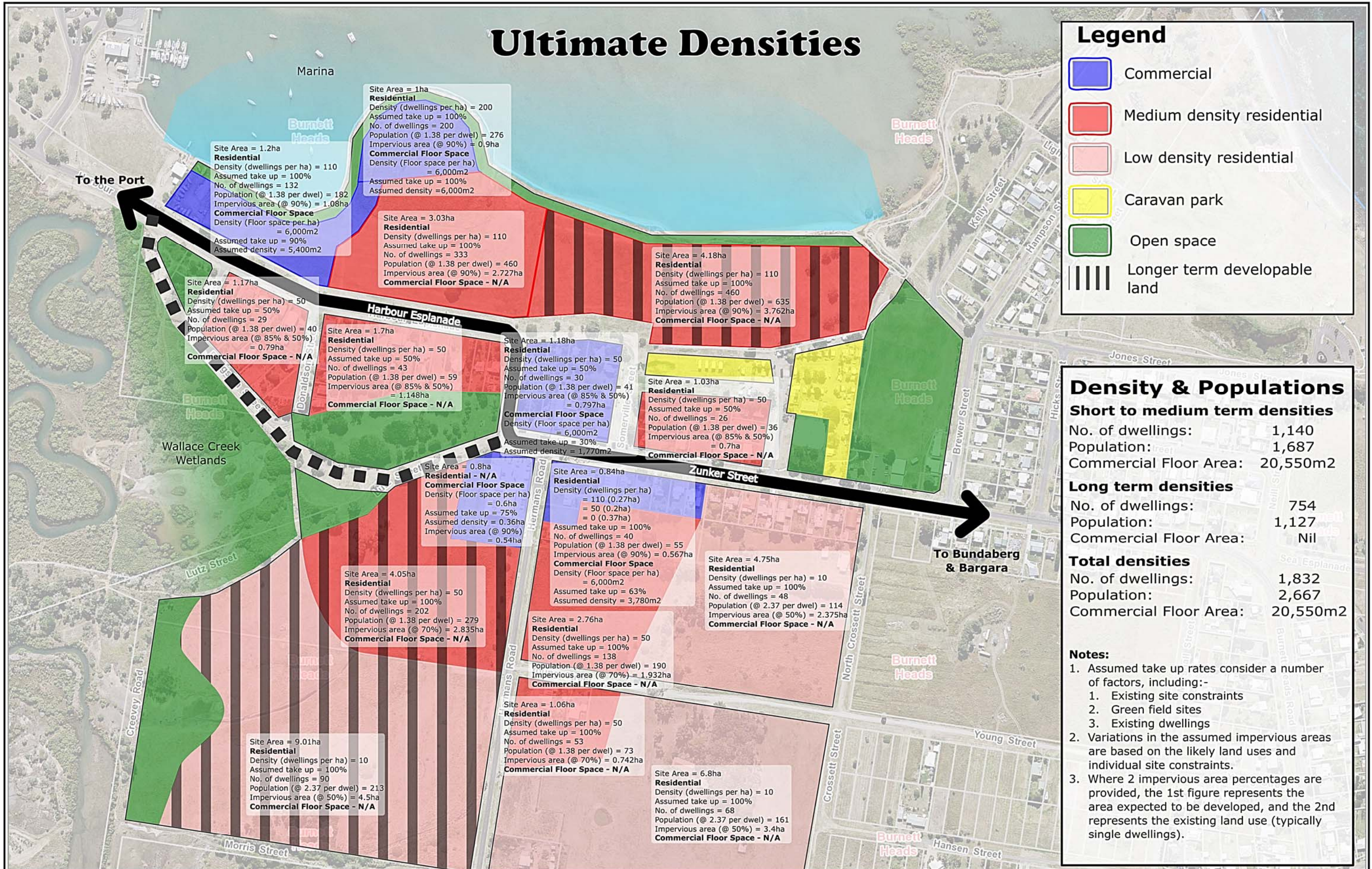
No. of dwellings: 754
 Population: 1,127
 Commercial Floor Area: Nil

Total densities

No. of dwellings: 1,832
 Population: 2,667
 Commercial Floor Area: 20,550m²

Notes:

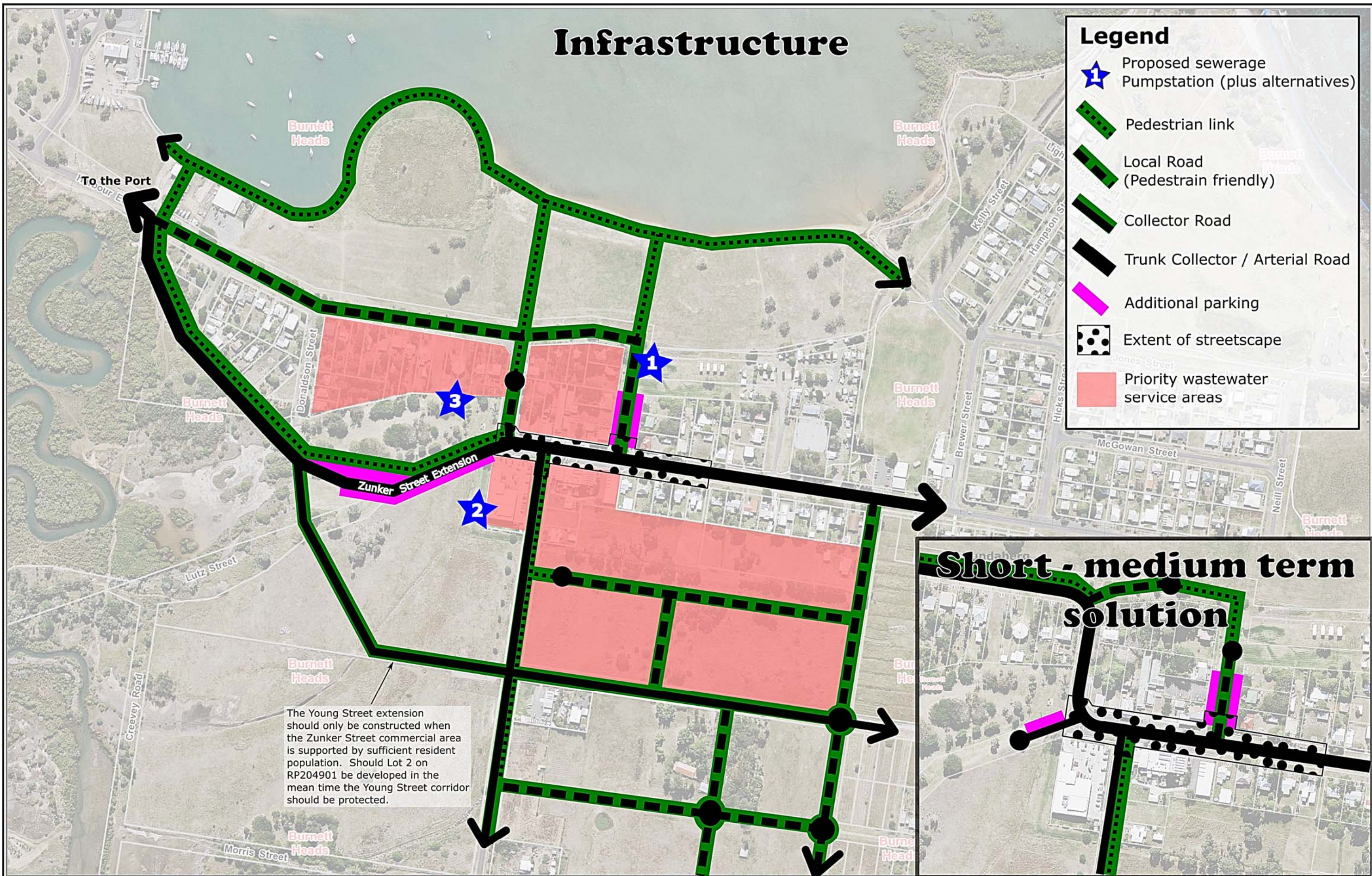
1. Assumed take up rates consider a number of factors, including:-
 1. Existing site constraints
 2. Green field sites
 3. Existing dwellings
2. Variations in the assumed impervious areas are based on the likely land uses and individual site constraints.
3. Where 2 impervious area percentages are provided, the 1st figure represents the area expected to be developed, and the 2nd represents the existing land use (typically single dwellings).



Infrastructure

Legend

-  Proposed sewerage Pumpstation (plus alternatives)
-  Pedestrian link
-  Local Road (Pedestrian friendly)
-  Collector Road
-  Trunk Collector / Arterial Road
-  Additional parking
-  Extent of streetscape
-  Priority wastewater service areas








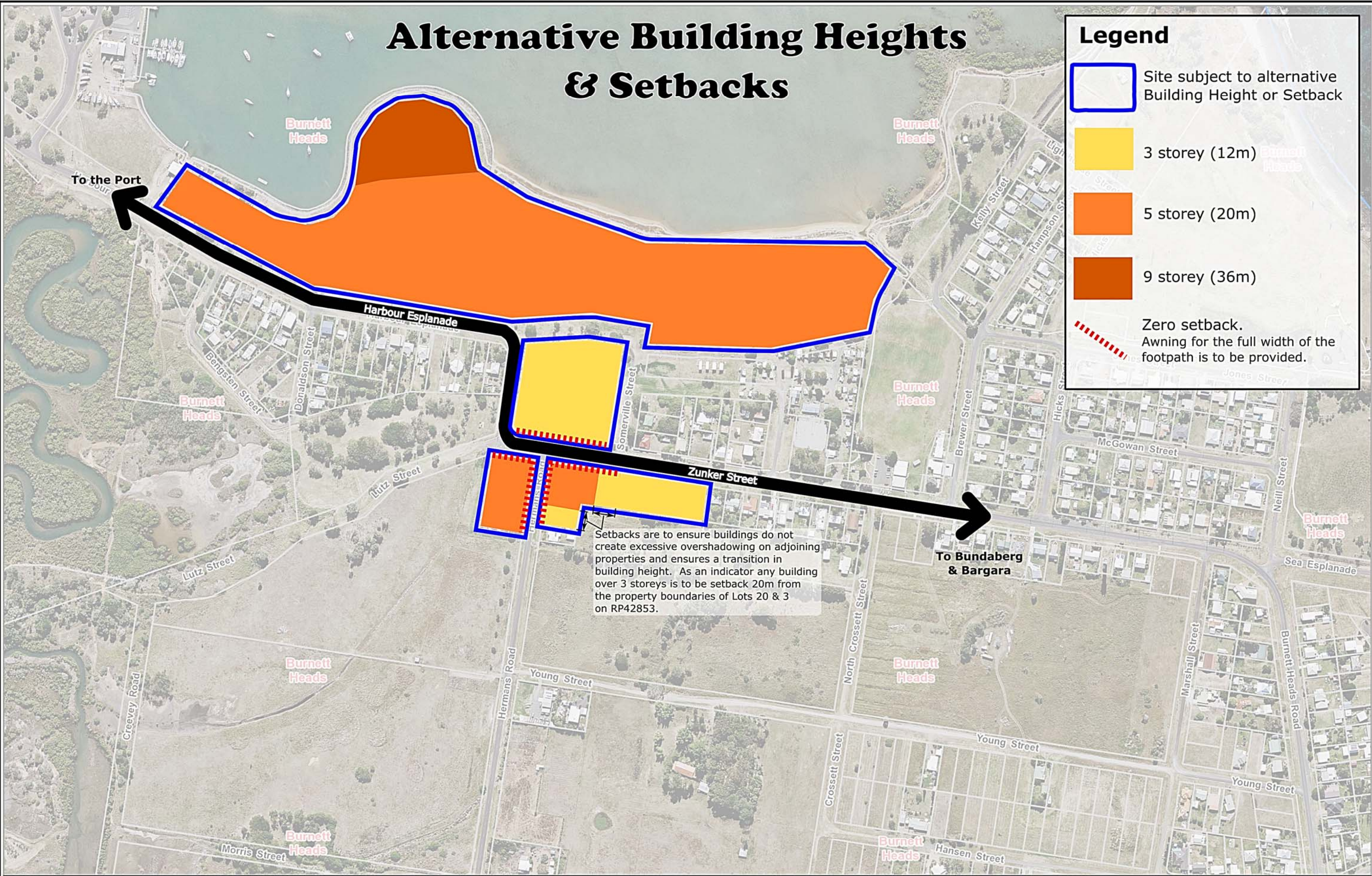
The Young Street extension should only be constructed when the Zunker Street commercial area is supported by sufficient resident population. Should Lot 2 on RP204901 be developed in the mean time the Young Street corridor should be protected.

Short - medium term solution

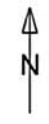
Alternative Building Heights & Setbacks

Legend

-  Site subject to alternative Building Height or Setback
-  3 storey (12m)
-  5 storey (20m)
-  9 storey (36m)
-  Zero setback. Awning for the full width of the footpath is to be provided.

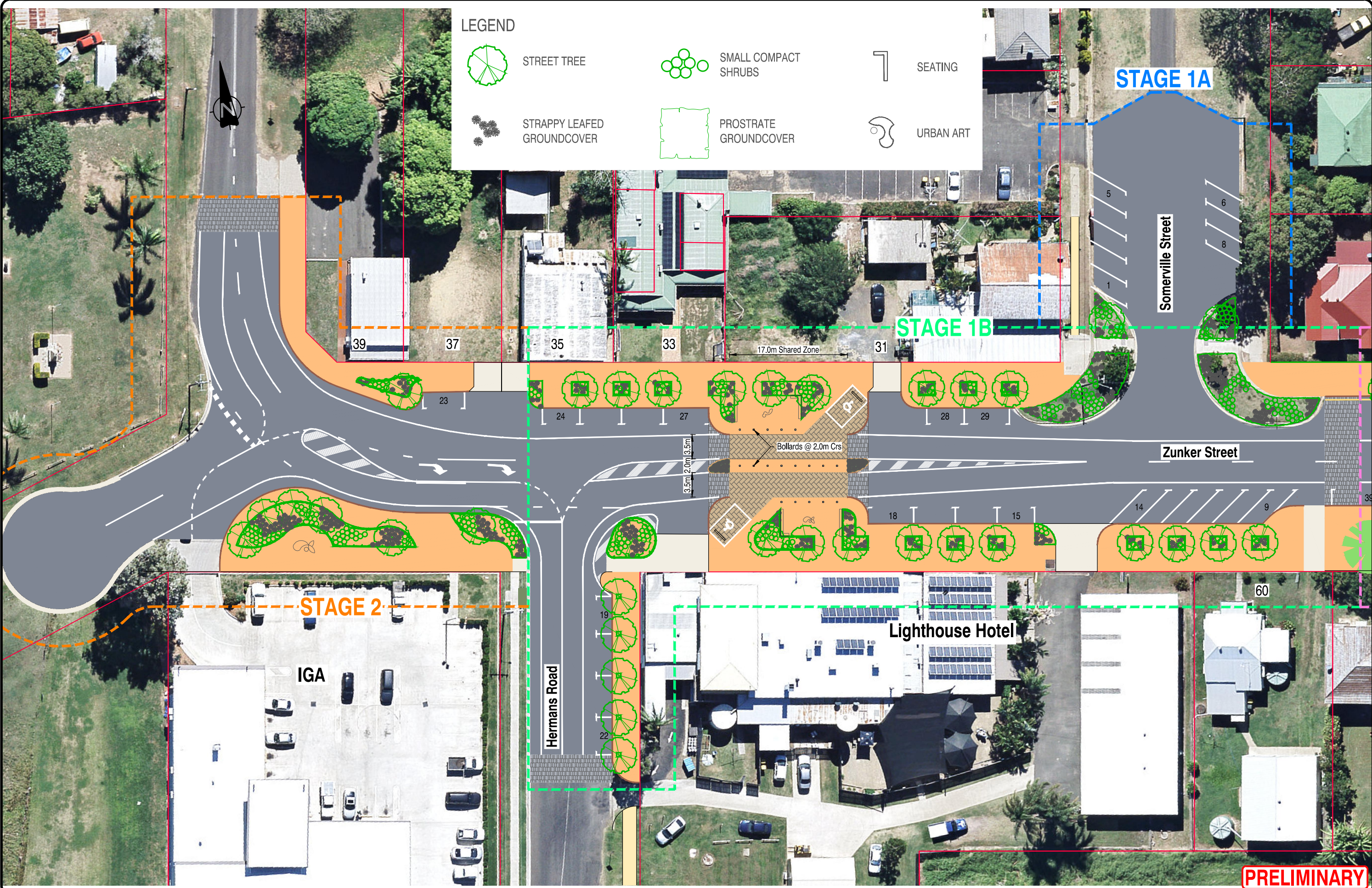


Setbacks are to ensure buildings do not create excessive overshadowing on adjoining properties and ensures a transition in building height. As an indicator any building over 3 storeys is to be setback 20m from the property boundaries of Lots 20 & 3 on RP42853.



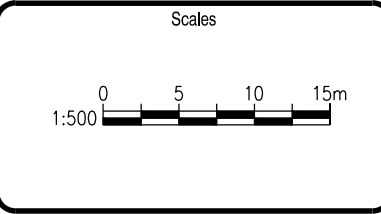
Appendix 2 – Zunker Street Concept Streetscape Plan

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PRELIMINARY

Survey Data	
Survey No.:	
Height Datum:	AHD
Horiz. Datum:	MGA ZONE 56
Scale Factor:	MGA GROUND (See Survey Notes)
Level Books:	
Surveyor:	



Revisions	Verified	Date
A ORIGINAL ISSUE		

Quality Certification	
Design:	Verified:
Drawn: Tifa/CC	Checked: RMC
Approved By Engineer:	Date:
	RPEQ:



Locality: Burnett Heads
 Facility Name: Zunker Street
 Asset Name:
 Details:

**Zunker Street Proposed Streetscape
 Concept Plan
 Stages 1 & 2**

Associated Drawing No.:	
1 of 2	Sheet Size: A3
Project No.:	Rev.:
Drawing No.:	A



LEGEND

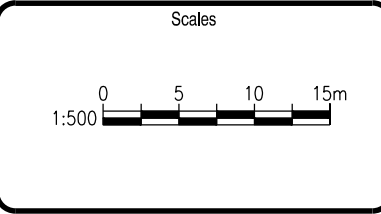
- STREET TREE
- SMALL COMPACT SHRUBS
- STRAPPY LEAFED GROUNDCOVER
- PROSTRATE GROUNDCOVER
- SEATING
- URBAN ART

LEGEND

- STREET TREE
- SMALL COMPACT SHRUBS
- STRAPPY LEAFED GROUNDCOVER
- PROSTRATE GROUNDCOVER
- SEATING
- URBAN ART

PRELIMINARY

Survey Data	
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Height Datum:	AHD
Horiz. Datum:	MGA ZONE 56
Scale Factor:	MGA GROUND (See Survey Notes)
Level Books:	
Surveyor:	



Revisions	Verified	Date
A ORIGINAL ISSUE		

Quality Certification	
Design:	Verified:
Drawn: Tifa/CC	Checked: RMC
Approved By Engineer:	Date:
	RPEQ:



Locality: Burnett Heads
 Facility Name: Zunker Street
 Asset Name:
 Details:

**Zunker Street Proposed Streetscape
 Concept Plan
 Stage 3**

Associated Drawing No.:	
2 of 2	Sheet Size: A3
Project No.:	Rev.:
Drawing No.:	A



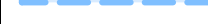


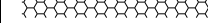
Appendix 3 – Wastewater Concept Plan

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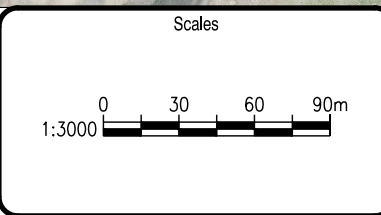
JOINS DRAWING NUMBER 123019

LEGEND

-  PROPOSED RISING MAIN
-  NOMINAL INITIAL SEWER CATCHMENT AREA
-  NOMINAL TOTAL SEWER CATCHMENT AREA
-  AREA TO BE SERVICED BY PRIVATE PUMP STATION
-  LOT TO BE FILLED ABOVE DEFINED FLOOD LEVEL
-  LOT TO BE FILLED (UP TO 0.75m DEEP)

FOR CONSULTATION

Survey Data	
Survey No.:	LIDAR
Height Datum:	AHD
Horiz. Datum:	MGA ZONE 56
Scale Factor:	MGA GROUND (See Survey Notes)
Level Books:	Surveyor:



Revisions	Verified	Date
C CATCHMENTS AMENDED	HB	02.17
B ALIGNMENTS AMENDED	DH	01.17
A ORIGINAL ISSUE		

Quality Certification	
Design: JCR	Verified: pv
Drawn: JCR	Checked: pv
Approved By Engineer:	








Locality: BURNETT HEADS
 Facility Name: BURNETT HEADS SEWER
 Asset Name:
 Details:

**BURNETT HEADS CBD GRAVITY SEWER CONCEPT
 LAYOUT PLAN
 SHEET 1 OF 2**

Associated Drawing No.: 123018-123019	
1 of 2	Sheet Size: A3
Project No.: IWW2114.2016	Rev.:
Drawing No.: 123018	C

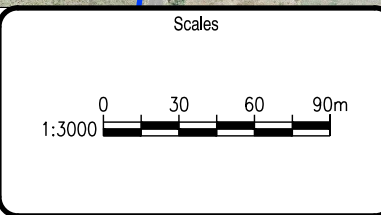


LEGEND

-  PROPOSED RISING MAIN
-  NOMINAL INITIAL SEWER CATCHMENT AREA
-  NOMINAL TOTAL SEWER CATCHMENT AREA
-  LOT TO BE FILLED ABOVE DEFINED FLOOD LEVEL
-  LOT TO BE FILLED (UP TO 0.75m DEEP)

FOR CONSULTATION

Survey Data	
Survey No.:	LIDAR
Height Datum:	AHD
Horiz. Datum:	MGA ZONE 56
Scale Factor:	MGA GROUND (See Survey Notes)
Level Books:	Surveyor:



Revisions	Verified	Date
C CATCHMENTS AMENDED	HB	02.17
B ALIGNMENT AMENDED	DH	01.17
A ORIGINAL ISSUE		

Quality Certification	
Design: JCR	Verified: PV
Drawn: JCR	Checked: PV
Approved By Engineer:	



Locality: BURNETT HEADS
 Facility Name: BURNETT HEADS SEWER
 Asset Name:
 Details:

**BURNETT HEADS CBD GRAVITY SEWER CONCEPT
 LAYOUT PLAN
 SHEET 2 OF 2**

Associated Drawing No.: 123018-123019	
2 of 2	Sheet Size: A3
Project No.: IWW2114.2016	
Drawing No.: 123019	Rev.: C

Appendix 4 – Glentworth Smart Burnett Heads Study

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Smart Burnett Heads

A digitally enabled community roadmap

January 2017

COMMERCIAL-IN-CONFIDENCE

Document control

Report details:	
Title:	Smart Burnett Heads
Author(s):	Dan Wood
Reviewer:	Neil Glentworth
Status:	Final
Release by:	Neil Makepeace
Client:	Bundaberg Regional Council
Client contact:	Ian Norvock
Synopsis:	A community-led roadmap to better use digital tools to support Burnett Heads aspirations.
Disclaimer:	In preparing this report we have relied on information and material supplied by you, the client, and do not take responsibility for the accuracy of the information and material provided to us.

Revision details	Date of issue	Version number
Initial version	10 January 2017	0.1
Client feedback incorporated	16 January 2017	0.2
FINAL client release	19 January 2017	1.0

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1 Executive Summary

Bundaberg Regional Council has an aspiration to assist in the further development of the town of Burnett Heads.

That development includes a significant private sector investment in an additional marina and a major upgrade of the town's central business district (CBD) by Bundaberg Regional Council. It also includes the development of a vision for Burnett Heads to be Australia's premiere new sea change community, attracting additional residents who move from cities and larger towns to embrace the lifestyle and liveability of the community.

To ensure that vision is achieved and the effect of private and public sector investment is maximised for community benefit, Council has engaged external consultants, Glentworth, to ensure that current smart technologies are used to fulfil the vision, while ensuring that future technology is catered for.

This document constitutes a high-level roadmap of the smart technologies Bundaberg Regional Council will utilise to achieve the vision in the short, medium and long-term.

2 A Smart Burnett Heads

Burnett Heads is a town within Bundaberg Regional Council, bounded by the Coral Sea and the Burnett River. The southern boundary is variously, Moores Road, Mittelheusers Road, Burnett Heads Road, Port Road, Rubyanna Road, and a line which passes south of the Bundaberg Sailing Club.

With a population of approximately 2,419, the town is the third largest in the Bundaberg Region with a proud history of the early settlement of the region. However, over a period of time other towns in the region have received significantly higher levels of public and private investment.

The town has a large number of strategic advantages, including its placement where the Burnett River meets the Coral Sea, the area's abundant wildlife, an excellent lifestyle, and relatively cheap land close to a major services hub.

While these advantages are significant, the town has a number of current challenges. These include the lack of sewerage infrastructure which limits the town's ability to grow and a lack of a "brand" within and external to the region.

Understanding that the town has not had the investment or focus of Council for some time, Bundaberg Regional Council had committed funds and attention to ensure that the town can meet the needs of the future.

As part of that process and to increase the liveability of Burnett Heads for existing and future residents Bundaberg Regional Council has produced this community-led roadmap.

The roadmap itself focusses on using digital technology as an enabler to allow Burnett Heads to sustainably maximise use of the town's natural and man-made assets.

In many cases, the projects outlined in this roadmap have both digital and non-digital components. The non-digital components recognise that digital projects do not always achieve their objectives without other changes.

Elements within this roadmap are designed to complement the State and Federal Governments' policy goals, objectives and activities. The Burnett Heads approach is more localised based on direct community, business and visitor consultation. All relevant social and economic strategies, plans and

policies across all layers of government and industry bodies have been reviewed as part of the roadmap's development.

3 Development of this high-level roadmap

In December 2016, Bundaberg Regional Council engaged Glentworth to undertake community consultation relating to the region's digital aspiration, and then to produce a Smart Burnett Heads Roadmap.

Glentworth staff were in Burnett Heads and the broader Bundaberg Region from 13 to 15 December 2016. During that period Glentworth conducted community round-tables with the Burnett Heads Progress and Sports Association and the Burnett Heads Business Network. In addition, Glentworth conducted face-to-face conversations with a large number of local business owners and residents, local police, developers and owners and managers of local infrastructure. While in the region, Glentworth, facilitated by Bundaberg Regional Council, made a particular effort to speak to as many people as possible, including both tourists and locals. We estimate that Glentworth spoke to approximately 66 people during the consultation period.

From that process Glentworth produced a document summarising the region's strengths, weaknesses, opportunities and threats, as outlined by the participants. The community's feedback on aspirations and challenges has informed each of the projects. That document '*Burnett Heads Community Consultation Report*' should be read prior to reading this document.

The digitally enabled community roadmap articulates a comprehensive but pragmatic plan to seize the town's opportunities, mitigate the weaknesses, emphasise the strengths and avoid the threats. This reflects the geographical constraints and local conditions within Burnett Heads.

While digital technologies and connectivity are used as tools to achieve outcomes, they are not used to the exclusion of other tools available. Digital technologies and connectivity are instead preferred when they provide the cheapest or most effective way of achieving an outcome.

4 Vision for Burnett Heads

Bundaberg Regional Council has a vision for Burnett Heads to be Australia's premiere new sea change community, attracting additional residents who move from cities and larger towns to embrace the lifestyle and liveability of the community. Burnett Heads will be a thriving community which uses the marina precincts, the Port, the CBD and the foreshore to enable the continuation of the town's strong lifestyle while allowing that lifestyle to be shared with additional residents and tourists who return for events and to experience the foreshore.

Sea changers, typically retirees and those who can work anywhere, will grow the community and allow the town's charm, natural beauty, and appeal to be maximised, rather than lost.

To enable the vision, Council has committed to upgrading the streetscape in the traditional central business district on Zunker Street. This upgrade will provide sewerage infrastructure to the port and to the CBD to enable those areas to develop sustainably. It will also include a number of small, targeted projects to enhance the quality of life, attractiveness and tourism potential of the town.

5 Projects

Glentworth, informed by the community’s aspirations, has prioritised and recommended eighteen projects to enable the vision of Burnett Heads as Australia’s premiere sea change community. Many of the projects are broken up into sub-projects, allowing Bundaberg Regional Council and its partners to make a difference in the community while working towards a longer term outcome.

There is a mix of digital and non-digital projects, recognising that digital projects may not be as effective without complimentary projects. For instance, a tourism strategy may require both effective digital marketing and increased accommodation.

The following map outlines the proposed installation locations of smart technologies across Burnett Heads.



The smart technology projects have been prioritised for implementation across a timeline of *short*, *medium* and *long-term*. The high-level steps required to progress each project have also been outlined in Appendix A. Information relating to the financial impact of these projects is included in Appendix B while details about how the recommendations relate to the community consultation report can be found in Appendix C.

5.1 Infrastructure installation - Zunker Street

Council has committed to upgrading a section of the Burnett Heads business district between 25 and 39 Zunker Street and a small adjacent part of Hermans Road and Moss and Somerville Streets.

This upgrade is designed to ensure the continued success of the precinct once the new marina is operational, and that Zunker Street continues to contribute to the success of the town.

To ensure minimum disruption to that precinct, to enable its future growth and to provide the features of a premiere sea change community, Glentworth recommends the installation of smart technology at the same time as the street beautification is carried out.

5.1.1 Smart Lighting

Smart or intelligent lighting allows lampposts to brighten and dim according to a number of factors. This enables lights to dim when there is no one around and progressively brighten as someone approaches. It also allows lights to be remotely activated when there is a community disturbance or severe weather warning, or dimmed when there is a natural event like turtles nesting.

Smart lighting is energy efficient, will improve the nightly aesthetics of the area and increase the perception of public safety by ensuring the intensity of lighting is matched to local needs. A single smart lamppost can provide multiple functions in addition to lighting, such as alarms, Wi-Fi, signage and audio. These components are usually connected through a reliable and secured wired or wireless network that enables two-way communications to aid Council's monitoring and control functions.

Glentworth recommends Council should invest in Smart Lighting in the Zunker Street precinct.

5.1.2 Wi-Fi

As well as providing smart lighting, the smart lampposts can enable free Wi-Fi in the precinct. This will encourage tourists and locals to spend longer in Zunker Street, and will provide the level of digital connectivity which is expected by tourists and those relocating to sea change communities.

Glentworth recommends Council should use the smart lampposts to provide free Wi-Fi. In addition, Council should collect and aggregate depersonalised data from those who use the Wi-Fi, and through a variety of other means, to assist in planning. Glentworth also recommends Council should also seek the agreement of other owners of public Wi-Fi in Burnett Heads, the Port and the new Marina, enabling data to be shared for the benefit of all parties.

5.1.3 CCTV

We recommend a smart lamppost enabled with a CCTV camera is installed at the Corner of Zunker and Hermans Road.

This will enable Police to monitor anti-social behaviour within the precinct and encourage more positive driving behaviours on both Zunker Street and Hermans Road.

5.1.4 Smart Parking

Council's upgrade of Zunker Street includes two different types of car parking:

- Parallel parking, allowing cars with trailers, including boats to park
- Angle parking, allowing cars without trailers to park

In the parallel parks, Glentworth recommends Council invest in technology, enabling a real-time view of whether the park is utilised. Parallel parks have been prioritised because community members have expressed frustration at their inability to park in Zunker Street when towing a trailer.

There are two main technology options for smart parking: in-ground sensors and CCTV-enabled parking.

As there are twenty-five parallel parks in eight reasonably dispersed areas, the CCTV option would require at least six cameras. Therefore, we recommend Council install in-ground parking sensors in the parallel parks.

We also recommend Council install a smart billboard at the boat ramp advising those using that facility of the accessibility and availability of parking in the town.

This technology will enable members of the community and tourists to make better decisions about where they can park based on live data. This will increase accessibility and use of parallel parking

spaces by those towing trailers. Additionally, Council will be able to make evidence-based decisions about the requirement for parking spaces and their placement.

5.1.5 iBeacons

iBeacons are Bluetooth low energy devices which broadcast their identity and distance from nearby portable electronic devices.

The combination of a number of iBeacons allows a smart phone to identify exactly where a person is by triangulating the signals.

This allows, for instance, the creation of a mobile museum where a person can walk through a town with a smart phone application discovering points of interest and learning more about the local area.

iBeacons can be used for multiple purposes, including the advertising of special retail offers or options or broadcasting messages to people nearby.

We recommend Council invest in a small number of iBeacons in the precinct and publish their unique identification and placement electronically.

Glentworth also recommend Council encourage local schools to consider ways in which the iBeacons may be used and provide small prizes for school based groups developing applications using this technology. We also encourage Council to engage with local community groups with a view to providing assistance to develop a local mobile museum or showcase the history of the area.

5.2 Parks and Foreshore infrastructure

The parks and foreshore of Burnett Heads are considered by many to be amongst the great untapped resources of the town, potentially creating a vital link between one of the key attractions of the Bundaberg region, the marinas, and the Zunker Street precinct.

5.2.1 Parklands

In particular, South Head Parklands and Jack Northgate Oval can be used for greater community benefit through events like the Lighthouse Festival and through other community activities.

For that reason, we recommend Council invest in four Wi-Fi access points; two in South Head Parklands and two in Jack Northgate Oval and that demand for that Wi-Fi drive a future investment decision in more access points.

5.2.2 Foreshore

The foreshore is also a wonderful community resource. The community uses the footpath to walk and cycle, the beach to swim and the marina for maritime activities.

To enable growth in the utility of these public facilities Glentworth recommends Council invest in a number of iBeacons from the Marina to Bargara along the walking track. As the track is completed Council may wish to add additional iBeacons.

Council should also consider investing in smart lighting to provide a visual link between the Marinas and the centre of town. This will increase the perception of public safety and provide a means to provide information to the community about events, by the flashing of lights, such as severe weather.

To supplement this investment and ensure that it is best utilised for public benefit, Council should consider incentivising a person or company to hold public events in the parklands and along the foreshore.

Those events could be regular farmers' or craft markets, Christmas markets, outdoor movies, harvest festivals or other community events.

Events could be widely publicised via Smart Billboards at the entry to town, at the boat ramp and, with permission, from infrastructure owners elsewhere in town.

5.2.3 Boat ramp

The Boat ramp is one of the most utilised aspects of the Burnett Heads community, both by local residents and by people throughout the Bundaberg region. The boat ramp and the marina are the two main drawcards to the town. By maximizing these assets Bundaberg Regional Council will ensure that the town's brand, growth and progress are well marketed.

For that reason, Glentworth recommends Council invest in a smart billboard and CCTV camera at the boat ramp.

A smart billboard will advertise events, provide progress updates about the town's development and advise people using the boat ramp of how many vacant parks there are in town to enable them to park their cars and boat trailers. The smart billboard can also be used to broadcast messages to the public.

The CCTV camera would provide a video feed to police to increase public safety and discourage vandalism of property in the area.

The video feed can also be used to provide details of the use of the boat ramp, both by providing a live feed to the internet and by using software to sense when the ramp is being used. By aggregating the data, the community can get a view about the approximate wait times to use the infrastructure at a point in time.

Because evidence shows the boat ramp is utilised largely during daylight hours only, Glentworth recommends Council does not invest in Smart lighting at this time. Utilisation data from the CCTV camera could then be used to inform future investment decisions.

5.2.4 Skate park

The skate park has, in the past, been the focus of vandals. To ensure that the park is in good condition for all users, Glentworth recommends a CCTV camera providing a video feed to local police be installed. In addition, one smart light, which can be controlled by police should be installed to discourage anti-social behaviour.

Users of the skate park and members of the public will also benefit from the free Wi-Fi in the nearby park. It is expected that free Wi-Fi in the vicinity is likely to result in increased patronage of that area, creating an additional deterrent for anti-social activities.

5.3 Wildlife and fisheries monitoring

5.3.1 Turtles

The nesting of turtles on Oaks Beach and at Mon Repos is also a great strategic advantage for the region. For that reason, Glentworth recommends Council install cameras at nesting spots which will be uploaded to a future Burnett Heads website (see below at 7.1.1) to enable people from around the world to experience the nesting and hatching in real time.

In addition to camera infrastructure Council should consider investing in thermal sensors and environmental sensors including wind, temperature, humidity and air pressure near the turtle nesting sites.

By providing a live feed to the turtles and information about how they are laying and hatching, Council will help cement the Bundaberg Region as a region of first choice for ecotourism and add significantly to the brand of Burnett Heads.

These cameras can also be used by others to view the surf conditions prior to going to the beach.

5.3.2 Wetlands birds

Burnett Heads has two major birdwatching sites: the wetlands south of the Harbour Esplanade and the bird nesting site at Gorman Park.

Unfortunately, these birdwatching vantages are not well understood or promoted.

Glentworth recommends Bundaberg Regional Council should seek to work with the Queensland Ornithological Society to begin to establish a bird map of the town which, once established, can be contributed to by anyone using crowdsourcing technology.

In common with the turtle data, the bird map will contribute significantly to the perception of the town as a clean, green, sea change community. This will also further establish the area as an area of environmental significance.

5.3.3 Fish

Fishing is a major pastime for the residents of Burnett Heads, and for other people throughout the region, and is likely to be a major drawcard for those in search of a sea change.

Estuary Cod, Trevally, Queenfish and Grunter are in abundance and it is possible to catch reef fish and tuna further afield.

To ensure that the quality of recreational fishing at Burnett Heads is well understood, Glentworth recommends Council launch a competition, in conjunction with sponsors, for fishermen to tag a picture and a description of their catch on social media using a hashtag, #BurnettFish.

Information from those social media posts will be mapped to form part of the branding of the community.

The increased use of social media in fishing off Burnett Heads may also encourage others to consider visiting the region or moving to the town permanently.

5.4 Smart meters

Smart Water and Power Meters enable consumers of those utilities to control how much power and water they are using by understanding their consumption and altering their behaviour in accordance with their budget.

Customers will have insight into their personal water and power usage and will be able to ensure their appliances are not drawing excessive amounts of electricity or that their pipes are not leaking.

In addition to these benefits Council and electricity suppliers can bill customers for their consumption without having to travel to read meters, saving valuable funds and reducing the impact on rates.

For some time, Council has been interested in trialling Smart Meters in the region.

To help cement the vision of Australia's premiere sea change community, Glentworth recommends Council work to provide Smart Meters to Burnett Heads progressively. Smart Meters will allow sea changers to have more control over their utility bills, something that is extremely important to retirees and those on fixed incomes.

The trial of Smart Meters will rely on Council signing an agreement with Energy Queensland to share resources.

5.5 Smart billboards

To ensure the town's events and other relevant information are well known Glentworth recommends Council invest in four smart billboards: one at the Boat Ramp, one in the centre of town, one at South Head Parklands, and one at the corner of Burnett Heads Road and Mittelheusers Road.

In addition to welcoming visitors to the town and informing them of events, these smart billboards will also provide the community with public safety information in cases of emergency.

The billboards will also reinforce the brand of Burnett Heads and encourage tourists to explore the entire town, rather than just the marina and boat ramp.

6 Greater digital connectivity

Digital connectivity is a key enabler allowing businesses to grow, diversify and change in response to changing circumstance.

It also enables people to stay connected, access educational content or to work when and how they wish to. Increasingly, good connectivity is seen as a key factor in the liveability of a community, particularly by those attracted to sea change communities.

Burnett Heads currently has access to limited wired connection, with much of the connectivity to major infrastructure such as the Port being provided by microwave technology.

However, Telstra has invested in 4G LTE-A technology, also known as 4GX, in the town and plans to invest in 5G across Australia by the end of 2020.

4G LTE-A is sufficient to enable smart water meters, parking sensors, smart billboards and mobile phone applications across the town, but will not provide the reliable internet required to run a home-based business.

5G will allow residents to access fibre speeds from their homes or businesses by installing a Wi-Fi router.

While the community consultation process suggested that works associated with sewerage infrastructure could result in the community having additional fibre, additional investigations have determined that this is not practicable and does not constitute value for money in this circumstance.

Glentworth recommends Council work with the Port of Bundaberg, the proponents of the new marina and others to encourage telecommunication providers, and NBN Co., to encourage better connectivity in Burnett Heads. We also recommend Council consider ways in which their anticipated public works can assist in increasing the connectivity to the community in partnership with telecommunications providers.

By presenting a united front and aggregating the demand for better connectivity to enable shared and individual visions for the town, Council will draw the attention of telecommunications companies to the town's needs and potential as a sea change community.

7 Use of the data

The data created by these projects will be a substantial asset for both Bundaberg Regional Council and the community. To use this data to the greatest benefit requires an investment of time, resources and skills as well as a possible investment in storage and other technologies. These efforts include collecting, integrating, managing, analysing, and integrating data into the business of organisations.

7.1.1 Branding the town

People outside the region have limited knowledge of the town, while people within the region do not yet understand the value of the community as Australia's future premiere sea change destination.

The region's attributes can be better explored through one single point of information about the town's benefits, including up to date details of: demography, average house prices, public safety, fishing, bird watching, turtle migration, access to fresh local produce, weather, major and minor events, parking, use of water and electricity, as well as static details of the prevalence of flat walking paths, digital connectivity and access to local schools.

By adding details of Council's vision for Burnett Heads and plans to continue to invest in the region, Council can use the website and targeted digital advertising to encourage tourists and potential visitors to better understand the town. In addition, the data can also attract investors to provide some of the town's missing skills or infrastructure, including services such as in-home care.

For those reasons, Glentworth recommends Council consider investing in a single website, in partnership with community organisations, to better brand the town.

7.1.2 Enabling better decisions

The data arising from Wi-Fi installations, from the other infrastructure providers, as well as from smart parking will be used by Council to make better, more informed decisions about future investment in the town.

Glentworth recommends the use of data be considered a pilot program which, if successful, may be extended across the entire region and combined with other data and measures.

7.1.3 Sharing of data

Council understands that the data created above can be used for multiple purposes, including use by others to promote the town.

That's why Glentworth recommends Council make that data available to the community, including to the Port of Bundaberg and to TPK investments (the proponents of the new marina), so that they can use that information to target and encourage tourists and future residents to the community.

8 Cooperation across the town

Council isn't the only provider of infrastructure within the town. The Port of Bundaberg, as well as the proponents of the new marina, will continue to invest in the town.

To ensure there is alignment between all parties to create the desired outcomes for all parties Glentworth recommends Council seek to negotiate a number of agreements with those two entities.

Those agreements would attempt to facilitate the sharing of depersonalised data between Wi-Fi providers, as well as ensuring a seamless experience for people using Wi-Fi at each location.

9 Conclusion

Council's vision for Burnett Heads leverages the town's substantial strengths and significant potential, continues to emphasise the attributes which drew many of the town's residents to Burnett Heads in the first place, and ensures the town's sustainable growth now and into the future.

To enable that vision to be implemented, Council is actively supporting the proposed investment in the new marina, while ensuring that the town's traditional CBD is a key part of the future of the community. To enable small, targeted investments in smart technology to emphasise and leverage the existing strengths of the community, and ensure that technology assets are used for the maximum benefit of the community; Glentworth have provided the above recommendations and have prioritised the resulting actions for implementation across a timeline of short, medium and long-term.

Recommended investments would include a small targeted investment in smart parking, free Wi-Fi in underutilised areas, the installation of a number of iBeacons to support applications, a small number of CCTV cameras and four smart billboards.

In addition, Glentworth have also recommended: a number of software solutions that will harvest data from technology and use that data to make more informed decisions about how Council and business can continue to invest in the community.

Council's investment in the region, private investment in the town, and the recommendations included in this roadmap will enable this vision and allow Burnett Heads to sustainably into Australia's premiere new sea change community.

Appendix A - Table of Actions

Short-term

1. Seek agreements with the Port of Bundaberg and the proponents of the new marina to:
 - a. Jointly order smart lamp posts to ensure the same look and feel as well as discounts for bulk purchasing
 - b. Jointly invest in visitor analytics capability using shared data arising from the Wi-Fi infrastructure and other sensors
 - c. Install iBeacons strategically across the town
 - d. Negotiate jointly for better telecommunications infrastructure
 - e. Share data for community benefit and
 - f. Explore the possibility of additional smart billboards at the port or at the new marina.
2. Seek agreements with Energy Queensland to establish Burnett Heads as a trial site for smart water and smart electricity metering.
3. Commence procurement activities for:
 - a. 25 parking sensors and a solution which allows data arising from those sensors to be used
 - b. Smart light posts, in consultation with Energy Queensland, including the capability to:
 - i. Change luminosity as a result of changing levels of foot traffic
 - ii. Increase or decrease in luminosity as a result of external stimulus, allowing for changed lighting prior to a natural disaster or in response to a public safety matter
 - iii. Change luminosity during the turtle nesting season
 - iv. Provide Wi-Fi
 - v. Integrate with a CCTV camera
 - vi. Audio facilities.
 - c. Four additional Wi-Fi points
 - d. A web-enabled CCTV camera integrated with the smart light post
 - e. Two stand-alone CCTV cameras
 - f. An interface for police to receive feeds from the CCTVs
 - g. Storage for the CCTV feeds to be kept for a period of five days
 - h. 200 iBeacons
 - i. Four high definition web-enabled CCTV cameras
 - j. Four digital billboards (including a content management solution)
 - k. A visitor analytics solution
 - l. Selected environmental sensors
 - m. Four thermal sensors.
4. Seek an agreement with the Queensland Ornithological Society to assist in the establishment of a bird map.
5. Secure a sponsor for the fish map and establish the terms of the competition.
6. Set the terms of reference for a person or company to be incentivised to hold and manage events in the town.

Short-term

7. Establish the Burnett Heads website, articulating the vision and pointing to when the real-time data will be available.
8. Undertake a significant media campaign outlining the vision and how it will be enabled.
9. Appoint a person to:
 - a. manage the content on the digital billboards including preparing for disasters; and
 - b. manage the Burnett Heads website, including the promotion of the website and refresh of content.
10. Liaise with the Queensland Parks and Wildlife Service about the installation of environmental and thermal sensors.

Medium-term

11. Install, as part of the Zunker Street upgrade, Smart Lamp posts, in-ground parking sensors and a smart billboard.
12. Contract with a telecommunications company to provide free Wi-Fi using the Wi-Fi access points.
13. Install CCTV cameras at the skate park, the boat ramp and at the turtle nesting sites.
14. Commence procurement for:
 - a. A video analytics capability for the camera at the boat ramp
 - b. A dash boarding solution to be placed on the Burnett Heads website
 - c. 4GX enabled water meters
 - d. A customer interface allowing locals to discover their current water and power usage
 - e. A social media analytics function allowing details of the type of fish caught, when and where. This capability can also be used across the entire operations of Bundaberg Regional Council.
15. Install smart billboards at the other three locations.
16. Install iBeacons.
17. Announce the commencement of the Fishing competition in conjunction with the sponsor.
18. Establish a simple internal dashboard (for instance using PowerBI) for use within Council to visualise data about the use of Burnett Heads infrastructure.

 **Long-term**

19. Ensure the website is fully functional and there is sufficient information to prove the vision.
20. Consider expanding the internal dash boarding, visitor and customer analytics across the entire city as well as other ways Bundaberg may make use of a targeted investment in technology.
21. Undertake media activities to spread the word both about the process and the attributes of Burnett Heads.

Appendix B- Indicative Budget

Smart technology is now a very competitive marketplace. Glentworth recommends Council will secure detailed pricing as close as possible to the time of purchase. Decisions relating to the type of financial models acceptable are yet to be taken by Council. The following indicative figures provide some guidance.

Smart Lighting

Smart Lighting, if undertaken using standard procurement practices, is a relatively large capital expense for the provider of the pole. We understand that in the case of Burnett Heads the provider of the light pole is Electricity Queensland (previously Ergon) and Bundaberg Regional Council pays that company a yearly cost for the provision of those poles across the entire region.

The installation of Smart Lighting therefore requires the acquiescence and a financial agreement between Energy Queensland and Bundaberg Regional Council. Over time an investment in smart lighting will result in a financial return for Energy Queensland, assuming that charges remain constant, due to the lower level of electricity and maintenance required.

In addition, various Councils, including Warrnambool, have upgraded their entire street lighting by receiving a low interest investment from the Clean Energy Finance Corporation (CEFC) to cover the capital costs which will be paid back from the operational savings.

As Council will likely not be responsible for the purchase of these light poles, and even if they are a financial arrangement can be made which results in a net-zero cost impact, Glentworth have not provided detailed projected financial costings for smart lighting.

Wi-Fi

Much of the enabling infrastructure for a Wi-Fi mesh is included in the Smart Lighting, as such the focus will be on the internet connectivity to the network and the software ensuring that the policies (including appropriate use) are enforced.

Telecommunications providers are often willing to negotiate on the cost of providing this service, including offering vast discounts if the telecommunications company owns the resulting data.

While we would encourage Bundaberg Regional Council to negotiate with telecommunications companies in order to get the best deal we would suggest that it is imperative to retain ownership of the data.

Visitor Analytics

Should Bundaberg Regional Council make a decision to negotiate for the lowest cost there is an alternative way of receiving the same visitor analytics data. Companies like Trendwise can install a number of sensors throughout Burnett Heads and provide analytics on the number of visitors, their duration and how often they come. This capability can be provided for approximately \$20,000/year.

CCTV

The CCTV capability on the Corner of Zunker and Hermans Road is likely to be provided as part of the Smart Lighting Solution, and as such may be a part of a negotiated agreement with Energy Queensland.

For the remaining CCTV cameras there are a number of options for gaining this capacity, for example there are a number of companies who supply CCTV cameras for a cost of \$25/week including storage

and searchability of the videos. Alternatively, the cameras are likely to be purchased for around \$4,000 to \$5,000 with monthly charges for storage in addition.

Smart Parking

Council has a current trial of Smart Parking in the Bundaberg CBD. That trial involves 105 sensors deployed in Bourbong Street, between Barolin and Targo Streets. A smaller implementation, as is suggested in this document, is likely to have a higher cost of delivery per sensors than that trial and as such Council will explore leveraging the current contract as well as other options.

iBeacons

iBeacons is a proprietary brand of a low powered Bluetooth technology. Similar products start at approximately \$30 per unit. To purchase 200, which would enable iBeacon coverage in the CBD and along the foreshore would cost approximately \$6000.

Smart Billboards

The cost of Smart Billboards depends largely on the quality of the image and their positioning, including whether they will face the sun. For entry-level billboards we would expect Bundaberg Regional Council is likely to pay approximately \$23,000 per billboard, while larger, more versatile billboards are likely to cost up to \$59,800 per billboard.

Thermal sensors

Thermal sensors are available for purchase in the range of \$600 to \$5000.

Environmental sensors

Environmental sensors are relatively commonplace and relatively inexpensive, the costs vary from approximately \$99 to \$500 for an all-inclusive set.

Smart Water meters

Again, there are a large number of financial options for the provision of this infrastructure, including for Council to purchase the meters outright, rent them, or allow a company to purchase the “business” of water meter reading from Council, including the old water meters on condition they will update to smart meters and provide all data to Council.

The models allow Council to consider their appetite for capital investment, risk and the attitude of citizens to outsourcing these types of services.

Some models will result in a very large capital investment and operational savings, while others will necessitate no capital investment and a small reduction in operational savings.

Smart Electricity meters

Electricity meters are currently owned by Electricity Queensland (formerly Ergon) and therefore any implementation of this technology will have to be undertaken in concert with that body.

The financial arrangement Energy Queensland will be offering is currently unknown.


Video Analytics for boat ramp

Most IP based camera suppliers have an option to apply some analytic capability using the feed for the camera. As this is a negotiated outcome based on the purchase of an IP camera it is impossible to determine the cost of this service. However, we understand that some providers are offering this service for approximately US\$20 (approximately \$27.30) per month.

Dash boarding solution

A simple dash boarding solution can be undertaken using Power BI, a solution which is either free or costs approximately \$9.99/user/month. This, however, relies on the visualisation and analysis skills being available within Bundaberg Regional Council. More expensive and less skills intensive products cost approximately \$13,000/ year.

Appendix C- Response to community consultation

Community Consultation Reference	Recommendations	Relevant Roadmap Sections	Link
 Burnett Heads strengths			
Proximity to the sea and river mouth	Vision for Burnett Heads	4	The proximity to the sea and river mouth was seen as a key strength of Burnett Heads. By making this strength central to the vision and using iBeacons and projects on the foreshore and parklands as well as including projects emphasising the natural advantages in turtle nesting, birdwatching and fishing these natural advantages have been highlighted. In addition, the sea and river mouth are the most visited areas in Burnett Heads, several projects including around the boat ramp and smart parking have been suggested to encourage people to venture further afield.
	Smart Parking	5.1.4	
	iBeacons	5.1.5	
	Parklands	5.2.1	
	Foreshore	5.2.2	
	Boat ramp	5.2.3	
	Turtles	5.3.1	
	Wetland birds	5.3.2	
	Fish	5.3.3	
Smart billboards	5.5		
Branding the town	7.1.1		
The natural beauty	Vision for Burnett Heads	4	The region’s natural beauty forms a key part of the vision and projects such as Wi-Fi, iBeacons, the Parklands, Foreshore and projects surrounding the region’s wildlife are central to emphasising those advantages and encouraging others to spend longer in the town enjoying them.
	Wi-Fi	5.1.2	
	iBeacons	5.1.5	
	Parklands	5.2.1	
	Foreshore	5.2.2	
	Turtles	5.3.1	
	Wetland birds	5.3.2	
	Branding the town	7.1.1	
The history of the town	Vision for Burnett Heads	4	The natural and human history of the town is central to the vision and is further emphasised by projects including the installation of iBeacons, smart billboards and branding of the town allowing that story to be more effectively told. In addition, making the town’s natural history more accessible has also been emphasised.
	iBeacons	5.1.5	
	Turtles	5.3.1	
	Wetland birds	5.3.2	
	Fish	5.3.3	
	Smart billboards	5.5	
	Branding the town	7.1.1	

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Community Consultation Reference	Recommendations	Relevant Roadmap Sections	Link
The lack of inappropriate development	Vision for Burnett Heads Parklands Foreshore Branding the town Enabling better decisions	4 5.2.1 5.2.2 7.1.1 7.1.2	The projects recommended emphasise a future in which the town is developed according to the wishes of the community and the community spaces, while being better utilised, remain.
Lifestyle	Vision for Burnett Heads Wi-Fi CCTV iBeacons Parklands Foreshore Boat ramp Skate park Turtles Wetland birds Fish Smart meters Smart billboards Greater digital connectivity Enabling better decisions	4 5.1.2 5.1.3 5.1.5 5.2.1 5.2.2 5.2.3 5.2.4 5.3.1 5.3.2 5.3.3 5.4 5.5 6 7.1.2	Retaining the town’s lifestyle was seen as key to its future success. The projects recommended support the existing lifestyle and embrace a future where the town is larger but the communities lifestyle remains. The projects emphasise the livability and safety of the community while supporting a low-cost, active, connected lifestyle which appeals people attracted to the sea change life.
Active infrastructure	Vision for Burnett Heads iBeacons Parklands Foreshore Boat ramp Skate park Wetlands birds Fish	4 5.1.5 5.2.1 5.2.2 5.2.3 5.2.4 5.3.2 5.3.3	The town’s active infrastructure, including walking tracks and the boat ramp are key to the success of the implementation of the vision. A number of projects have been recommended which increases the utilisation of these assets.
A sense of community	Vision for Burnett Heads Parklands Foreshore	4 5.2.1 5.2.2	The sense community was strongly advocated in the community as being a key strength.




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Community Consultation Reference	Recommendations	Relevant Roadmap Sections	Link
	Skate park Smart billboards Branding the town	5.2.4 5.5 7.1.1	This roadmap recommends projects which increase the use of community spaces and further distributes community information.
Low cost of living	Vision for Burnett Heads Smart meters Greater digital connectivity Branding the town Enabling better decisions	4 5.4 6 7.1.1 7.1.2	The low cost of living in the town is a key part of the vision for Burnett Heads, along with a sense of community, the town's active infrastructure and its natural beauty are the key attractions for sea changers. For that reason, a number of projects have been suggested which emphasise and support a low-cost community.
Space	Vision for Burnett Heads Parklands Foreshore Boat ramp Wetland birds Branding the town	4 5.2.1 5.2.2 5.2.3 5.3.2 7.1.1	The public spaces and the lack of development along the eastern foreshore of the town were seen as great advantages of the town. These projects have been conceived to emphasise and increase the utilisation of that space.
A hub for creators	Vision for Burnett Heads Wi-Fi iBeacons Parklands Greater digital connectivity Branding the town Enabling better decisions Sharing of data	4 5.1.2 5.1.5 5.2.1 6 7.1.1 7.1.2 7.1.3	Creators tend to be attracted to communities which have a low cost base, public space, a sense of community and good connectivity. Projects have been recommended which will increase the connectivity to the community as well as emphasise the existing strengths.
Willingness to try new technologies and ways of doing things	Vision for Burnett Heads Smart Lighting Wi-Fi CCTV Smart Parking iBeacons	4 5.1.1 5.1.2 5.1.3 5.1.4 5.1.5	The community is extremely willing to embrace new ways of doing things. Several targeted, low-cost, high value technologies have been proposed as a result.




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Community Consultation Reference	Recommendations	Relevant Roadmap Sections	Link
	Parklands Boat ramp Smart meters Smart billboards Greater digital connectivity Enabling better decisions	5.2.1 5.2.3 5.4 5.5 6 7.1.2	
Willingness to collaborate amongst infrastructure owners	Vision for Burnett Heads Smart Lighting Wi-Fi CCTV iBeacons Foreshore Sharing of data	4 5.1.1 5.1.2 5.1.3 5.1.5 5.2.2 7.1.3	The region’s infrastructure owners, including the Port, TPK (the proponents of the new Marina) and others have expressed an interest in discussing the implementation of technology across the entire town.
 Burnett Heads challenges			
Lack of infrastructure	Vision for Burnett Heads Smart parking Greater digital connectivity Enabling better decisions	4 5.1.4 6 7.1.2	While recommendations have not been made about sewerage infrastructure, completed footpaths, beautification and accommodation, the recommendations support a vision which should increase the rates base of the community and will support a business case for increased infrastructure. Recommendations have been made on parking and the ability to use data from the community to inform the business case for increased infrastructure.
Poor digital connectivity	Wi-Fi Parklands Greater digital connectivity Enabling better decisions	5.1.2 5.2.1 6 7.1.2	Poor digital connectivity is a key barrier to the success of the vision. For that reason, a number of recommendations have been made around increasing the digital connectivity as well as making connectivity available in public spaces.


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Community Consultation Reference	Recommendations	Relevant Roadmap Sections	Link
Public safety	Smart Lighting CCTV Skate park Smart billboards	5.1.1 5.1.3 5.2.4 5.5	Concerns about public safety were raised a number of times in community consultation. To further support public safety outcomes recommendations have been made for the installation of smart lighting (including the capacity to flash in an emergency), a small investment in CCTV and information to be displayed on smart billboards.
Branding	Wi-Fi CCTV iBeacons Parklands Foreshore Boat ramp Turtles Wetland birds Fish Smart meters Smart billboards Greater digital connectivity Branding the town Enabling better decisions Sharing of data	5.1.2 5.1.3 5.1.5 5.2.1 5.2.2 5.2.3 5.3.1 5.3.2 5.3.3 5.4 5.5 6 7.1.1 7.1.2 7.1.3	The attributes of the town are not well known within and external to the region. This is a key barrier to increasing the tourism potential and attracting residents to the town. For that reason, recommendations have been made to use data arising from the technologies to better brand the town and emphasise and communicate the town's strengths.
Lack of opportunities for young people	Wi-Fi iBeacons Parklands Skate park Fish Greater digital connectivity	5.1.2 5.1.5 5.2.1 5.2.4 5.3.3 6	The lack of opportunities for younger people was a key local concern. Greater use of the parklands and public spaces as well as projects to increase the connectivity of the town has the possibility to improve the opportunities available to younger people in Burnett Heads.

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Community Consultation Reference	Recommendations	Relevant Roadmap Sections	Link
Community's desire to "age in place"	Smart Lighting	5.1.1	Projects have been recommended which increase the liveability and low cost of the town for older residents.
	CCTV	5.1.3	
	Parklands	5.2.1	
	Smart meters	5.4	
	Branding the town	7.1.1	
 Burnett Heads opportunities			
Defining the branding of the town	Vision for Burnett Heads	4	Please see the "Branding" section above.
	Parklands	5.2.1	
	Foreshore	5.2.2	
	Boat ramp	5.2.3	
	Turtles	5.3.1	
	Wetland birds	5.3.2	
	Fish	5.3.3	
	Smart meters	5.4	
	Smart billboards	5.5	
	Greater digital connectivity	6	
	Branding the town	7.1.1	
	Enabling better decisions	7.1.2	
	Sharing of data	7.1.3	
Increased infrastructure	Vision for Burnett Heads	4	Please see the "lack of infrastructure" section above.
	Smart Lighting	5.1.1	
	Wi-Fi	5.1.2	
	CCTV	5.1.3	
	Smart Parking	5.1.4	
	iBeacons	5.1.5	
	Parklands	5.2.1	
	Foreshore	5.2.2	
	Boat ramp	5.2.3	
	Turtles	5.3.1	
	Smart meters	5.4	
	Smart billboards	5.5	

COMMERCIAL-IN-CONFIDENCE

Community Consultation Reference	Recommendations	Relevant Roadmap Sections	Link
	Greater digital connectivity	6	
Better use of the Marina and the river	Vision for Burnett Heads Wi-Fi Smart Parking Parklands Foreshore Boat ramp Turtles Fish Smart billboards Branding the town	4 5.1.2 5.1.4 5.2.1 5.2.2 5.2.3 5.3.1 5.3.3 5.5 7.1.1	Please see the “Proximity to the sea and river mouth” section above.
Better use of the parklands	Vision for Burnett Heads Wi-Fi iBeacons Parklands Foreshore Skate park Wetland birds Smart billboards Greater digital connectivity Branding the town	4 5.1.2 5.1.5 5.2.1 5.2.2 5.2.4 5.3.2 5.5 6 7.1.1	Please see the “space” section above.
 Burnett Heads threats			
Natural disasters	Smart lighting Smart billboards	5.1.1 5.5	Smart lighting and smart billboards can allow information to be transmitted to the community quickly and easily during a natural disaster.

Appendix 5 – Burnett Heads Marina Commentary

Vision

The strategic foreshore location, scale and significant development capacity of the Burnett Heads Marina offers a significant opportunity to be a catalyst development site for the Bundaberg Region, particularly tourism related development. The development of this site will provide opportunity for a new integrated resort development with a range of related uses including function and entertainment facilities, hotel, retail, tourist attractions, residential, and marina related businesses.

Development of the Burnett Heads Marina will:-

- Provide an iconic contribution to the coastline and the head of the Burnett River;
- Provide opportunities for the existing Burnett Heads community through connections and integration with the existing urban form of the locality.

Elements

To ensure the development of the Burnett Heads Marina is appropriately designed and satisfies the community's expectations for development of the site through the following elements.

Land Uses

The marina site is to cater for a mix of compatible land uses amongst open space areas that are accessible to the broader community. Land uses that support and complement the marina's primary use and location are to be integrated so as to minimise potential conflicts. Permanent and tourism related accommodation, commercial, and marina related (low impact) industries are appropriate within the marina site.

Conflicts between land uses are to be managed through design elements, buffering and other separation measures.

Due to the scale and the expected medium to long term time frame for the marina's ultimate development, interim land uses may be considered on the site.

Urban Design

The urban design of the Burnett Heads Marina through form, type and arrangement of buildings, streets, and public spaces achieves best practice outcomes which:-

- Creates a foreshore for everyone;
- Creates a recognisable local identity which attracts local, interstate and international visitors;
- Incorporates sub-tropical architecture and landscaping;
- Is sensitive to the interface and relationship with the existing Burnett Heads town centre and broader community;
- Provides activity nodes and points of interest along the foreshore, and throughout other open space areas;
- Protects sightlines and view corridors to the foreshore via the extension of Moss and Sommerville Streets;
- Is easily navigable and accessible.

Built Form

Development of the Burnett Heads Marina delivers architecturally significant built forms which:-

- Reinforces the pedestrian amenity of the foreshore and pedestrian connections to the Burnett Heads Town Centre;
- Responds to the sub-tropical climate;
- Respects the Harbour Esplanade frontage;
- Are of a height and scale that makes efficient use of land, is consistent with planned infrastructure, and respects the interface with the adjacent Town Centre;

Note: Building heights nominated in Map 6 for the marina development site are indicative and are illustrative of the preferred layout and development orientation. Development that varies from these nominated outcomes are to demonstrate how impacts such as overshadowing, and the appropriateness of the development's bulk and scale are addressed.

- Provides active frontages which relate to the waterfront promenade, Harbour Esplanade, and the extensions of Moss and Sommerville Streets;
- Provides adequate building separation to allow light penetration and air circulation to private and public open space;
- Minimises the potential conflicts between motor vehicles, pedestrians, and cyclists through appropriate design and works, including for example, by limiting (where possible) the number of driveways and road crossings of pedestrian and cycle paths;
- Provide lighting that ensures public spaces are safe after dark and building entrances are easily identifiable. Lighting within the development is to minimise light spillage to limit the glow effect on nearby nesting sea turtles and their hatchlings;

Movement Network

Development of the marina site is to ensure connections to the surrounding movement networks and within the site are well designed, legible, and safe. Vehicle, cycle, and pedestrian networks are all to be catered for ensuring easy accessibility to, from and through the site. The movement network is to:-

- Encourage people to walk to their local destination rather than drive;
- Provide a promenade for the full length of the waterfront that is accessible by the community;
- Contribute to protecting sightlines of views of the marina from Sommerville and Moss Streets;
- Be easily navigable with a well-connected, logical and legible active transport network that minimises the need for directional signage;
- Provide equitable access for all;
- Where practical, separate vehicles from pedestrians and cyclists;
- Cater for buses and service vehicles on site.

Service Infrastructure

The marina site is to be connected to water, wastewater, transport, stormwater, and telecommunication networks.

Interim Land Use

An interim use is a land use that, because of its nature, scale, form, or intensity, is not an appropriate long term use of the land, but may be appropriate because its temporary nature and small scale does not restrict the viability of the long term vision of the site.

Due to the scale of the marina development site interim uses may be appropriate. Interim uses will allow the land owner to gain return from the site in the short to medium term while waiting for demand to increase without undermining the long term vision of the marina site.

Any proposed interim use should be assessed against the following:-

- Interim uses should not be separately subdivided. Subdivision or long-term leases limit the opportunity for the marina to realise its ultimate development potential.
- An interim land use is only permissible if it can be demonstrated that the use will not prejudice the vision for the marina.
- Interim land uses will not adversely impact on the amenity of the area, including the established township.