

# **Attachment 2 – Infill Capacity Study – Background Report for Bellingen Shire Housing Strategy 2020-2040**

*Delivering Housing Diversity for Our Community*

## **How many additional houses can we accommodate in our towns?**

**An estimate of infill development potential by the year 2040**

**Bellingen Shire**

**Infill Capacity Study – Housing Supply Potential to 2040**

**May – June 2019**

## Contents

What is infill housing? .....	4
Why do we want more infill housing? .....	5
What you told us .....	6
How much infill housing could we have? .....	8
Infill Housing Types – Providing Housing Choices and Diversity.....	10
Infill housing potential by neighbourhood .....	11
Dorrigo .....	11
Bellingen .....	18
Urunga.....	29
Mylestom, Repton, Raleigh.....	36
Recommendations: Infill Development in Bellingen Shire .....	43
Infill Focus Areas .....	46
Draft Key Sites.....	47
Infill testing methodology .....	48
Homes for Our Future Discussion Paper Extract - Choices for Growth .....	52

## INFILL HOUSING SERIES

#1 Infill Capacity Study – How many additional houses can we accommodate in our towns?

#2 Infill Design Study – How do we ensure good quality housing and protect local character?

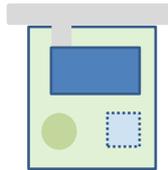
### A note on data

This document is a draft for public comment. It should not be used by anyone as a basis for investment or other private decision-making purposes about land purchase or land use. The data provided in this publication is of a general nature and should not be construed as specific advice or relied upon in lieu of appropriate professional advice. This study contains data and estimates used for modelling purposes only, to inform a Shire-Wide Housing Strategy. Data cannot be used to assume site-specific development potential, and figures referred to in this publication cannot be taken as guaranteed development potential. If you want to discuss the potential of your block contact a planning professional or speak to Council.

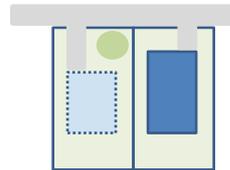
## What is infill housing?

Infill means filling in gaps. Infill housing means building more houses in existing towns and neighbourhoods.

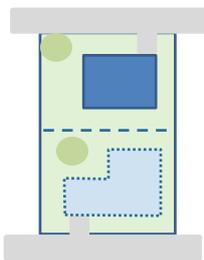
Here are some examples of infill housing:



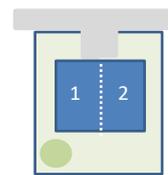
Building a granny flat in your backyard



Building a house (or houses) on a vacant lot in an existing neighbourhood



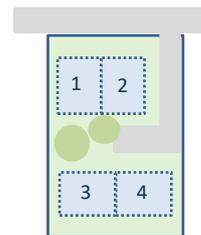
Building a second home on your property and subdividing the property to create two properties



Splitting one large house into two separate homes (creating a duplex/dual occupancy)



Shop top housing, building units above shops or offices (elevation view)

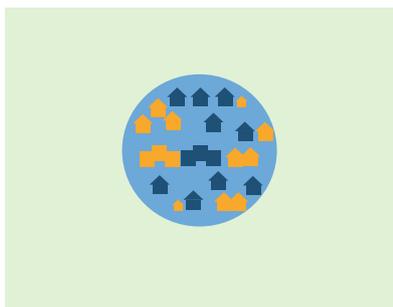


Demolishing an old home on a large block and building a number of villas

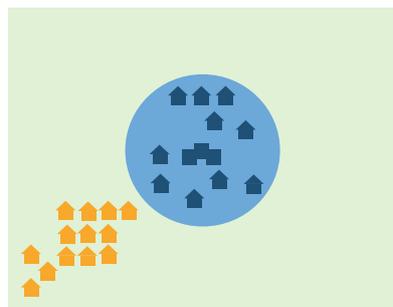
### The difference between *infill* and *greenfield* housing

Infill housing is an alternative to greenfield housing. Infill housing is accommodating more homes and people in existing built-up areas.

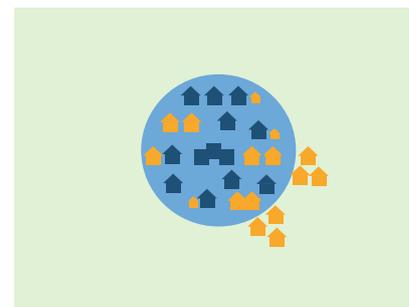
Greenfield housing is subdividing undeveloped areas (usually former farmland or natural areas) and building new housing estates. Greenfield development involves expanding existing suburbs outwards or sometimes creating entirely new suburbs. Greenfield housing can also be called *new release* housing and greenfield estates are often called *urban release areas*.



TOWN A  
INFILL



TOWN B  
GREENFIELD



TOWN C  
A MIX

## Why do we want more infill housing?

### Infill can provide more housing choice and diversity

- Provides houses of all shapes and sizes to suit a wide range of households and a wide range of needs.
- Provide for families to accommodate more family members; allows seniors to downsize; provides young people moving out of home a local housing option; provides key workers affordable homes close to work (e.g. teachers, police officers, nurses).
- Small-scale infill (low-rise) less likely to have a cookie cutter appearance and is more likely to be designed to suit specific site conditions (e.g. microclimate, privacy).
- More likely to be attractive to renters (close to services, low maintenance homes).

### Infill can deliver environmental benefits

- Reduced vegetation clearing and less housing creep into environmentally sensitive or food producing areas.
- less vehicle emissions because shops and services are nearby, encouraging walking.
- generally smaller building footprints, households generally more energy and water efficient.

### Infill can support existing communities

- Concentrates infrastructure and service spending in existing areas.
- Through upgrading of infrastructure in the neighbourhood – e.g. new playgrounds or other park and sports field embellishments, new footpaths, new trees and landscaping, new lighting, upgraded laneways, and upgraded sewer and water facilities.
- Increasing local spending, supporting local producers and businesses.
- Critical mass for services and groups – more school students, more members for local sporting teams and volunteers for community groups, more local labour.
- Providing a variety of housing choices for residents whose circumstances/housing needs may change over time.
- Through raising property values - new housing in walkable areas close to towns usually very desirable. Whilst positive for existing homeowners, there is a need to ensure a wide range of homes, including more affordable homes, are provided to retain and encourage community diversity and an equitable local housing market.

### Infill can support healthy lifestyles and community wellbeing

- Encourages more walking and cycling to nearby destinations.
- Homes close to community services and health facilities.
- Community networks and social infrastructure well-established.
- Encourages social interactions in streets, neighbourhoods and town centres.
- Reduces commuting time where residents have local work.

### Infill can be efficient and cost-effective

- Greenfield development can be expensive as medium-large developers, Council and ratepayers must fund building of *new* infrastructure (new roads, sewer and water, electricity etc.) and pay for ongoing maintenance of these new assets. The further from town the new housing, the higher the costs to connect to utilities, build roads, bridges etc.
- Infill can be built by individual landowners and small developers, taking advantage of existing available infrastructure (some upgrading may be required).
- Increased use of local amenities, cost of providing these amenities/services shared by more people, lowering cost per user, freeing up budget for additional services.
- Reduced private transport costs.

## What you told us

As the first step to preparing a new Growth Management Strategy for Bellingin Shire, Council asked the community how they wanted to grow.

The *Homes for Our Future Discussion Paper* provided choices for growth with a list of the benefits and trade-offs of each scenario. Infill (growing in existing towns) was the most popular growth scenario.

Council spoke to hundreds of people during the *Homes for Our Future* engagement period and collected 250 submissions. Support for growing in existing areas (infill) was the 4<sup>th</sup> most mentioned theme within the submissions.

The most popular themes from the engagement were:

- *provide more housing choices;*
- *make housing more affordable;*
- *support community connections.*

Other common themes indicating community support for infill included:

- *encourage walking and cycling*
- *provide smaller homes*
- *encourage sharing*
- *oppose generic cookie cutter housing and urban sprawl*
- *protect natural areas*
- *allow for more flexibility in planning controls*
- *allow for ageing in place and use resources more efficiently*

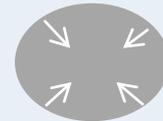
Concerns about infill were also raised in submissions, focused mostly on loss of mature trees and landscaping; concrete jungles/urban heat islands, loss of parking and rise in congestion; risk of poor design and impacts on character and loss of space.

Refer to the *Homes for Our Future Engagement Report* for more information.

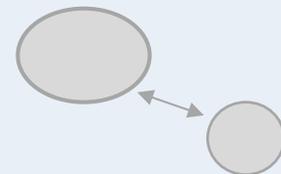
### HOW SHOULD WE GROW?



OUTWARDS



IN EXISTING TOWNS

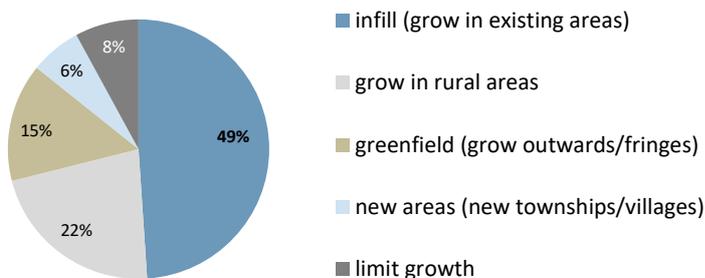


IN NEW AREAS



STRICTLY LIMIT

### PREFERRED GROWTH SCENARIO



## Your Quotes

"Limits should be placed on growing outwards. Focus on infilling existing towns. This protects farmlands and makes efficient use of infrastructure. Also reduces emissions, with less need for vehicles. [This] promotes health as people walk to destinations."

"Most people actually love living near other people so they can congregate, share recreation areas and town facilities. None of us enjoy driving our children miles and miles to a football field or dance lessons."

"The more people within the town boundaries, well supported by good infrastructure amenity, the more business enterprise and creative endeavour is encouraged."

"Infill makes good sense because already have services in place - assessment of infill development should be easier more lenient than development in new areas because everything already in place, easier to develop in infill areas in terms of services. If it's easier people may do more infill"

"Improve employment options within Shire. I drive to Coffs so I can earn enough \$ to stay here."

"Larger houses could be converted to duplex with minimal increase in footprint. Landscaping and biodiversity should be maintained through adequate built footprint: deep soil ratios and minimum sized gardens for decent sized trees."

"With infill, how to ensure urban tree cover % stays same (or goes up)?"

## How much infill housing could we have?

Infill modelling has forecast that **1,015** additional homes could be built in Bellingen Shire's town areas over the next 20 years (to 2040).<sup>1</sup>

The infill potential of each town is shown in the table below:

Town	Infill - Additional dwellings (estimated) <sup>2</sup>
Dorrigo	245
Bellingen	343
Urunga	371
Mylestom*	22
Repton*	10
Raleigh*	24

\* not currently connected to sewer, restricting infill potential.

Some areas will develop faster than others, whilst other areas may see very little change. Not all dwellings will be developed at once and infill dwellings will be built only where landowners choose and where sufficient infrastructure capacity exists or can be provided cost-effectively. The model reflects one possible growth scenario, and higher or lower rates of growth are possible. The key purpose of this study is to present a growth scenario to the community for comment to inform the development of a Housing Strategy.

### Why estimate infill potential?

These figures are estimates provided for the purposes of developing a Housing Strategy, with community input. A key aim of the Housing Strategy is to ensure high-quality housing outcomes for the Bellingen community. Understanding how much infill development could be built helps us to proactively plan for future growth.

Bellingen Shire needs more housing and the community have expressed support for well-located and well-designed infill development. The incremental nature of infill housing means Council has time to plan for and build adequate support infrastructure and forecast future service demands. Proactive planning can ensure good infill housing design that is compatible with existing streetscapes and neighbourhood character.

These figures will inform housing targets/limits within the draft Housing Strategy as well as assist in identifying priority areas for infrastructure maintenance and delivery. The housing potential described within this report is intended to support continued conversations with the community about how they want to see Bellingen Shire grow and evolve over the next 20-30 years.

### Infill housing constraints

The first stage of the infill capacity modelling does not comprehensively account for infrastructure availability and some housing potential will be constrained by these factors. Houses need to connect to water, sewer and to have safe access to a public road. Sometimes connections can be difficult and costly, or laneways may need upgrades, which can make infill housing harder and sometimes too expensive to build. In the coastal villages infill housing will not be possible until a sewer connection is built.

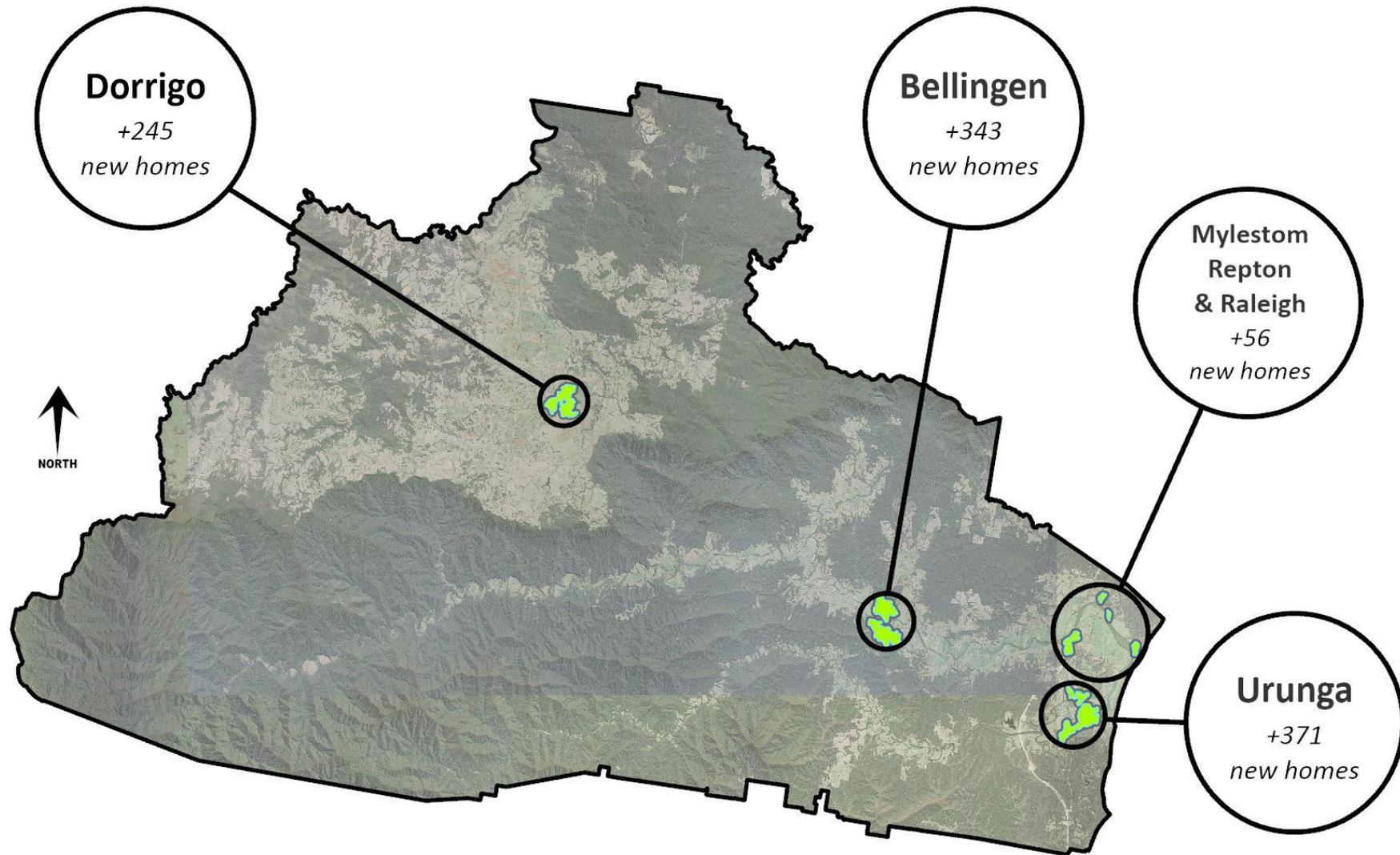
Infill housing will generally only be built where it is economically feasible and profitable. In a few cases people may build infill housing for reasons other than to make a profit, for example building a granny flat or dual occupancy to house family members. Some planning controls may also need to change to facilitate more infill development and this can take time.

These are some of the difficulties in providing more housing supply in our towns and therefore it may be some time before you see additional houses spring up in your neighbourhood. Some of these challenges may also mean less housing is possible than that predicted within this study.

<sup>1</sup> Town areas are defined as areas zoned **R1 General Residential**, as this is the most suitable zone for infill development. The town area boundaries exclude greenfield (undeveloped) areas zoned R1.

<sup>2</sup> These estimates are based on a middle/medium growth scenario. These figures are derived from Bellingen Council's infill capacity model which makes a number of assumptions. For more information see Methodology - Appendix A.

## Estimated Infill Housing to 2040



This map shows estimated number of new homes in R1 General Residential zones or existing town areas. These estimates do not include new homes in greenfield areas outside current town boundaries or rural- or rural-residential housing growth.

## Infill Housing Types – Providing Housing Choices and Diversity

People have different housing needs, and these needs can change over a lifetime (sometimes multiple times). The best way to provide housing for a broad range of people is to provide a variety of different homes to suit different budgets.

Bellingen Shire has a lot of 3 bedroom homes on relatively large blocks of land, mostly developed before 1980. Recently built homes are generally 4 bedrooms. Bellingen Shire has relatively little 1 and 2 bedroom homes, but the population make-up is changing. In the 1980s, couples with children were the largest household type, now it is couples without children, and single-person households have significantly increased. House prices across the Shire have increased quite dramatically in recent times and many households are seeking smaller, more affordable homes.

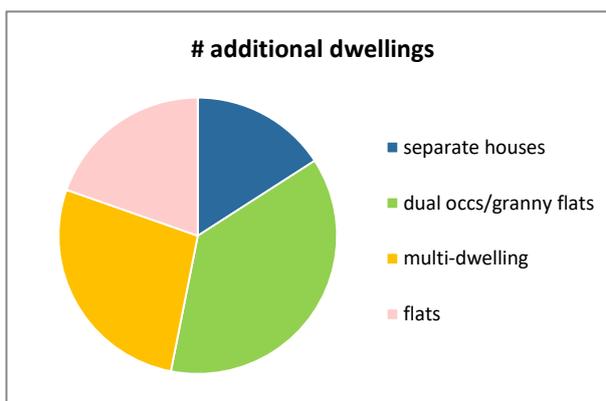
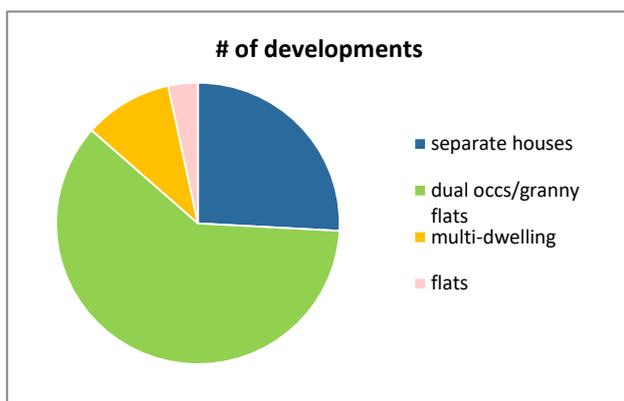
Infill housing can deliver housing variety and increase choices for the community. However, care must be taken because infill housing is not a silver bullet – infill housing can also deliver housing that is all the same size and similar in style. There needs to be strategic oversight and appropriate controls and incentives to encourage the type of housing and quality design that is needed.

The Infill Capacity Model has predicted that Bellingen Shire’s town areas could accommodate an extra 1015 dwellings over the next twenty years. Dwellings means homes, but not necessarily just houses. Whilst house growth is expected to be the most popular form of infill development, growth in other forms of dwellings – e.g. townhouses, villas, attached dwellings/terraces and small flat buildings is also predicted. The following shows a breakdown of housing diversity potential to 2040.

### INFILL CAPACITY STUDY – HOUSING DIVERSITY POTENTIAL

#### NOTES

<b>SEPARATE HOUSES</b>	+ 161 dwellings	Separate houses are single dwellings on one property (usually 1-2 storeys).
<b>GRANNY FLATS, DUPLEXES, DUAL OCCUPANCIES</b>	+ 378 dwellings	Granny flats are small, secondary homes on a property. Dual occupancies are two homes on one property, and can be attached (duplex) or detached.
<b>MULTI-DWELLING HOUSING</b>	63 developments providing +277 dwellings	Multi dwelling housing means 3 or more dwellings (whether attached or detached), each with access at ground level. Multi-dwelling housing includes villas, townhouses and terrace developments.
<b>RESIDENTIAL FLAT BUILDINGS</b>	21 developments providing +199 dwellings	Residential flat buildings are unit blocks, with dwellings on top of each other. In Bellingen Shire RFBs are limited in height to 10m. Small modern walk-up flat buildings are called Manor Houses, and these are limited to a maximum of 4 dwellings and 2 storeys.



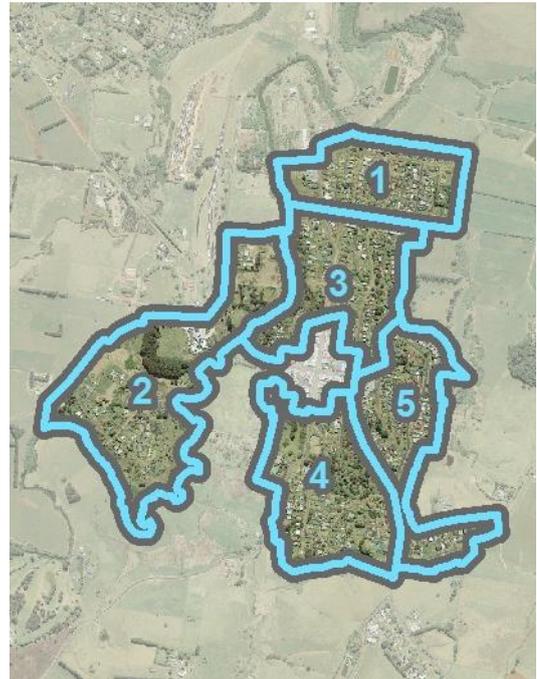
As the graphs above show, most redevelopment of properties for infill will result in granny flat or dual occupancy developments. Dual occupancies and granny flats are generally low-density housing forms and usually low-impact (depending on size and bulk). Whilst more medium density type housing forms (townhouses, villas, small flat buildings) provide fewer developments, they deliver a higher proportion of additional dwellings, because each development provides multiple homes (on average a multi-dwelling development is expected to deliver 4 dwellings on one site, whilst a flat building expects delivery of 8 or 9 homes on a [relatively large] site).

## Infill housing potential by neighbourhood

### Dorrigo

Dorrigo’s residential areas are well-suited to infill development. Most houses in Dorriggo are within walking distance of the well-serviced town centre and a number of parks. Properties are large (typically 1000m<sup>2</sup> or over) and deep and many have rear access via laneways. Whilst laneways are very common, they vary in width and condition. Properties typically run east-west, an excellent orientation for designing comfortable and healthy homes with good opportunities for solar access.

There are a mix of housing styles, ages and materials in Dorriggo, ranging from small weatherboard cottages, to more modern brick and fibro homes. Most homes are modest in size relative to property size, with large front yards featuring lawns and small gardens. Other common features are no or low front fences and inconspicuous driveways and on-site car parking. Dorriggo has an open, relaxed feel and country town character, and many areas enjoy idyllic rural views.



For the infill study, the residential areas of Dorriggo have been split into 5 blocks/neighbourhoods as shown above.



(87 dwellings)



ES  
area rep  
Dorrigo, an  
the town  
e are the  
in the Dc  
e. This is based on a middle/medium growth  
ario.

rate houses are single dwellings on one property (usually 1-2 storeys). Granny flats are small, secondary dwellings on a property. Dual occupancies are two homes on the property, and can be attached (duplex) or detached.

Multi-dwelling includes villas, townhouses and terrace developments at 1-2 storeys.

**ADDITIONAL POPULATION PROJECTION** + 357 people

Population change attributed to infill housing only – excludes population growth as result of greenfield and other housing growth. This projection uses 2016 data for average household size and dwelling vacancy rates for Dorriggo. Actual population change could vary depending on these and other factors.

**INFILL HOUSING GROWTH TARGET 2040** Subject to community consultation

It is proposed to include a housing growth target for Dorriggo within a new Bellingen Shire Housing and Growth Management Strategy.

## BLOCK D1

### Characteristics

This Block is located in the north of Dorrigo township bounded by rural land to the north and east, Bangalow Street to the south and the Bielsdown River to the west. The Dorrigo Town Centre (main intersection) is approximately a 1km walk from the north-east corner of Dorrigo Street. There are no footpaths and few streets have kerb and gutter. Many roadways are narrow, with wide grassy verges adding to the country town character of the block. There are no parks in this block.

Properties are large, with long (deep) lots mostly running east west with rear lane access. Many blocks measure roughly 1000m<sup>2</sup>. Homes generally occupy only a small part of the block with large front and rear yards. Many older homes have vehicle access from the rear lanes. Many homes do not have front fences (or very low fences) giving the area an open feel. Homes are a mix of older weatherboard cottages and fibro or brick homes. Many homes in the area, especially in the elevated areas, enjoy expansive views of the rural landscape.

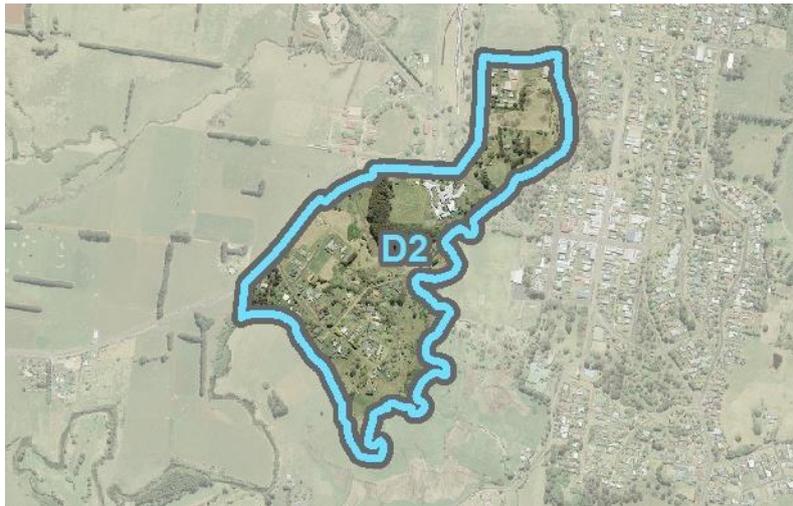
There are 3 heritage listed houses in the west of the precinct, including one of Dorrigo's oldest homes and one heritage listed cultural planting' consisting of numerous oak trees within the newly subdivided area of Ash/Bangalow Street. The Old Dorrigo Butter Factory (demolished) is listed as archaeological heritage. Council has limited flood information, but the block is surrounded by watercourses and whilst much land is elevated, some of the lower-lying parts could be affected by flooding. The block is not classified as bushfire prone.

### Infill Capacity

Block D1	Additional housing potential
High growth	44
Medium growth	<b>37</b>
Low growth	30

The infill potential of this block is rated 2 – Average.





## BLOCK D2

### Characteristics

Block D2 is located west of the Bielsdown River and is bounded by Ash Street to the north and rural land to the south and west. Dorrigo High School is located on the south side of Waterfall Way. There is one park in the block, Ray Cork Park and a narrow public reserve running from the end of Cypress and Bean Streets, with a footpath that links to Cudgery Street and the town centre. Across the river lies Dorrigo Recreation Grounds. There are no other formalised pedestrian/cycle links into town from this southern area. North of Waterfall Way is a large modern, medical centre and planned seniors living units (+~40 dwellings) and an industrial-zoned area. A footpath on the northern side of Waterfall Way runs from the showground across the bridge to Cudgery Street. There is one heritage listed house in the block and the plantings around the High School are listed.

The southern area contains a newer part of Dorrigo with more recent subdivisions and home building. Lots sizes are a mix of town-sized blocks with modern homes (e.g. 600-750m<sup>2</sup> along Gum St) and larger blocks backing onto the river and in the east, which do not follow a regular subdivision pattern. Much of the area contains generous grassy front verges and plentiful open space around the older homes and blocks. Newer homes are likely to be of brick construction and feature double garages.

The area is surrounded by the meandering river and parts are relatively low-lying and likely to be flood-prone, considered a significant constraint to housing development in much of this area, especially the lower-lying east. There is some potential in the higher areas around Gum Street.

### Infill Capacity

Block D2	Additional housing potential
High growth	77
Medium growth	<b>64</b>
Low growth	51

The infill potential of this block is rated 3 – Below Average. A large area is low-lying and flood-affected, severely limiting housing potential. In addition, this area does not have ideal pedestrian connections into town. The relatively high numbers of additional dwellings in this precinct are due to the planned independent seniors living complex next to the medical centre. These planned villas/units mask the otherwise low infill potential in this area.



**BLOCK D3**

**Characteristics**

Block D3 is located just north of the Dorrigo Town Centre, bounded by the Bielsdown River to the west, rural land to the east and Bangalow Street to the north. The streets are not laid out in a neat grid like in Block 1 to the north, and the block shapes and sizes not as uniform; however most block are large and deep running east west with rear laneway access. These laneways appear wider and more open than those to the north.

The town centre is close, walking distance from all properties. A narrow footpath runs down Hickory, Cudgery and Beech Streets. The old Dorrigo Bowling Club is located on a large property on Hickory Street and could be a key site for redevelopment, next to a park and the town centre. There are two parks in the block, Wheatley Park on Kurrajong Street and Bielsdown Native Park running along the river. The Don Dorrigo and Guy Fawkes Museum is located on Cudgery Street, opposite the CWA building.

Like much of Dorrigo, the country town character is evident in low front fences and very large front yards and grassy verges, with houses setback a considerable distance from the road. Most properties contain houses with small footprints and large yards/plentiful open space. There is not a consistent or common style of home evident in this block, but the area is low density with a vast majority single, detached homes. Homes in elevated positions enjoy countryside views.

There are 5 heritage listings within the block, 3 houses and 2 cultural plantings. Much of the block appears to sit above flood affected areas, however with limitations in Dorrigo flood data means this needs to be confirmed.

**Infill Capacity**

Block D3	Additional housing potential
High growth	72
Medium growth	<b>60</b>
Low growth	48

The infill potential of this block is rated 1 – Good.



## BLOCK D4

### Characteristics

Block D4 is located south of the Town Centre and is bounded by Karabin St (Waterfall Way) to the east, Dorrig Recreation Fields and an undeveloped greenfield residential area (along Whiskey Creek Road) to the west and rural land to the south. The precinct includes the residential area south of the town centre along Myrtle and Bielsdown Streets. The area is walking distance to the town centre (within 1km radius), although much of the block is steeper than other areas of Dorrig. This affords many properties excellent countryside views. There is a wide footpath along Karabin Street. The street layout is not a grid (it contains no-through roads and cul-de-sacs) and the main roads follow the topography.

Dorrig Primary School is located in the north-west corner of the block and Mt St John's Catholic Primary School is located in the south-east at a high point in the township. There is a large park within the block, Dorrig Heritage Gardens, containing Dorrig Public Pool and tennis courts. Dorrig Uniting Church is located on Myrtle Street and the Police and Ambulance Stations on Bielsdown Street. There are 4 homes listed as heritage items and 3 cultural plantings. The block is mostly elevated and not flood affected and only a small area in the southeast is classified as bushfire-prone.

Like much of Dorrig, lot sizes are large and house footprints are relatively small, providing large yards and lawns. House setbacks from the front property boundaries are not as uniform as in other areas of Dorrig, but front yards and verges are generous. There are some large properties and vacant allotments that could present good infill opportunities.

### Infill Capacity

Block D4	Additional housing potential
High growth	50
Medium growth	<b>42</b>
Low growth	34

The infill potential of this block is rated 2 - Average.





## BLOCK D5

### Characteristics

Block D5 is located in east Dorrigo, bounded by Cudgery Street and Waratah Lane in the north, the tree-lined Karabin Street to the west, rural land to the south and vacant residentially-zoned (greenfield) land to the east. One long laneway links Beech and Kurrajong Streets, with a small park at the southern end. This precinct contains Dorrigo Hospital and St Stephens Anglican Church which both contain heritage listings for ‘cultural plantings’. Additional heritage listings include street trees along Karabin Street, cultural planting on the corner of Karabin and Beech Streets and a house on Kurrajong Street.

Properties are walking distance to the town centre (most lie within 500m, but the south-eastern-most point is approx. 1.2km walk away from the centre of town). Like much of Dorrigo, the area is characterised by large front setbacks and a feel of wide open streets. In the north, the blocks run east-west and are large and long. Blocks in the south are relatively large, and are shallower with a north-south aspect. The southern area of Old Coramba Road and Cofton Close contain newer homes, with large front setbacks and often double garages. Land opposite homes on Old Coramba Road is zoned for residential development but retains a rural land use and is not yet subdivided. There are no footpaths in this area besides along Karabin Street and part of Beech Street.

There is limited flooding information available for Dorrigo and the majority of the properties within the block are elevated, however flood-affectation may need further investigation should development be proposed. Only a small area in the south is classified as bushfire-prone.

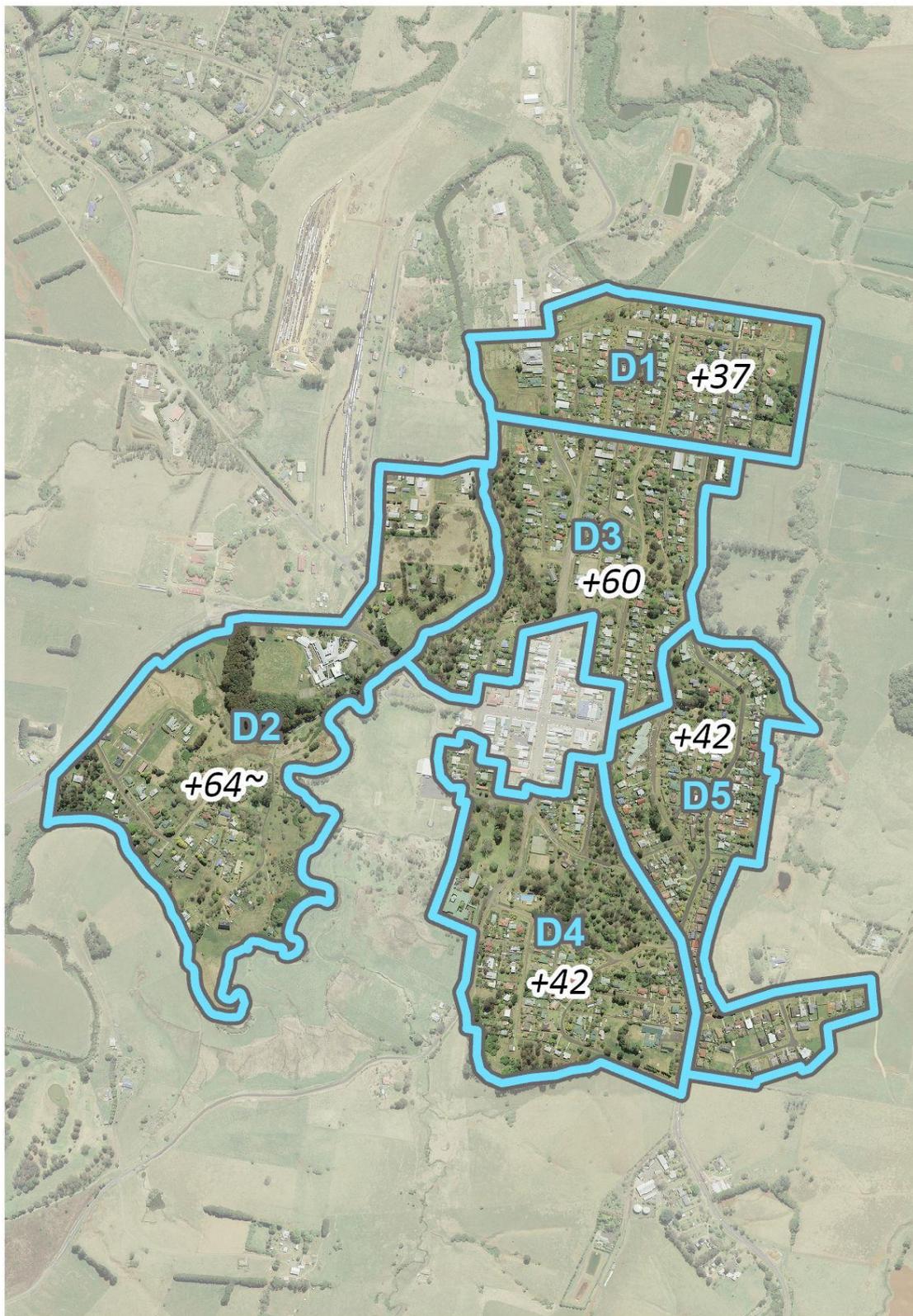
### Infill Capacity

Block D5	Additional housing potential
High growth	50
Medium growth	<b>42</b>
Low growth	34

The infill potential of this block is rated 2 - Average.

## DORRIGO - ESTIMATED INFILL HOUSING TO 2040

Estimated number of additional homes that could be built in areas zoned R1 General Residential\*



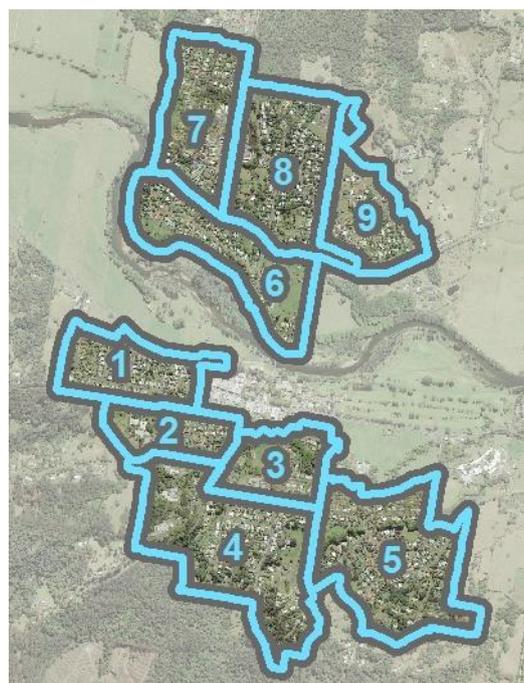
\* these estimates do not include new greenfield housing (homes in newly subdivided areas outside the current town boundaries)

~ BLOCK D2 The relatively high numbers of additional dwellings in this precinct are due to the planned independent seniors living complex next to the medical centre. These planned villas/units mask otherwise low infill potential in this area.

## Bellingen

Bellingen is the main service centre in the Shire and residents are attracted to its busy, heritage-listed main street, offering shops, entertainment and many opportunities for social interactions. Bellingen is a relatively compact town, surrounded by rural land and forests and split in two by the river. Most properties on the north and south sides of the river are within walking distance of the town centre, although the valley topography means some areas are quite steep. Whilst gardens (of all sizes) are a feature of the town, the south side of Bellingen has better access to parks and open space, although the northern side is generally leafier (higher % of tree canopy cover).

There is no one common style of home in Bellingen. An eclectic mix of older period homes, small cottages, older multi-dwelling housing and 80s-90s brick veneer homes as well as modern lightweight buildings co-exist with heritage-listed homes. Infill has occurred in Bellingen in an incremental manner over the years and many large properties provide opportunities for extra housing within town boundaries, sensitive to existing character. Like Dorrig and Urunga, most fencing is low (or non-existent) and hardstand areas (driveways, concrete) are kept to a minimum, although front setbacks are often not as large. Older parts of Bellingen contain laneways and grid roads, whilst newer areas feature cul-de-sacs and winding roads.



For the infill study, the residential areas of Bellingen have been split into 9 blocks/neighbourhoods as shown above.

### INFILL CAPACITY STUDY SUMMARY – BELLINGEN 2040

		NOTES
<b>TOTAL LAND AREA</b>	213 hectares	This area represents land zoned R1 General Residential in Bellingen, and excludes greenfield (undeveloped) areas and the town centre (area zoned B2).
<b>ADDITIONAL HOUSING POTENTIAL</b>	+343 new dwellings	These are the new houses delivered as <i>infill development</i> within the Bellingen Town Area as shown in the map above. This is based on a middle/medium growth scenario.
<b>HOUSING DIVERSITY POTENTIAL</b>	+ 40 separate houses + 169 granny flats, duplex and dual occupancy + 22 multi-dwelling developments (76 dwellings) + 4 residential flat buildings (58 dwellings)	Separate houses are single dwellings on one property (usually 1-2 storeys). Granny flats are small, secondary homes on a property. Dual occupancies are two homes on one property, and can be attached (duplex) or detached. Multi-dwelling includes villas, townhouses and terrace developments at 1-2 storeys. Residential flat buildings are unit blocks 2-3 storeys and (besides Manor Houses) are generally possible only on large sites.
<b>ADDITIONAL POPULATION PROJECTION</b>	+ 660 people	Population change attributed to infill housing only – excludes population growth as result of greenfield and other housing growth. Projection uses 2016 data for average household size and dwelling vacancy rates for Bellingen. Actual change could vary depending on these and other factors.
<b>INFILL HOUSING GROWTH TARGET 2040</b>	Subject to community consultation	It is proposed to include a housing growth target for Bellingen within a new Bellingen Shire Housing and Growth Management Strategy.



## BLOCK B1

### Characteristics

Located in SW Bellingen, the majority of the block is bounded by Oak St to the east, rural land to the north and west and William St to the south. A small area on Short Street Lane is also included in this block. Block B1 is close walking distance to the town centre, but is lacking footpaths (a good footpath is provided along much of Coronation St). This block has two parks, Piggott Park and Hewitt Park. There are three laneways, with some housing facing the laneways, including medium density villas along Robert Street Lane. Short Street Lane contains some housing, a Backpackers Hostel and back-of-house commercial development. St Margaret's Anglican Church is located on a large property in the north-east corner.

The block has many heritage items (18 listings) and east of Woodbury Lane is a Heritage Conservation Area. The heritage listings include 9 houses, 2 streetscapes (19 properties), 5 cultural plantings, one church and one fence. The block is not classified as flood-prone, apart from a small low-lying area next to Waterfall Way. Only a small area is bushfire-prone (SW corner).

Properties are generally large and some infill housing has already been provided, mostly older single-storey villas and dual occupancies. Despite a mix of dwellings in terms of age and size, there are many beautiful older dwellings that add character to the streetscape. Another character feature is the noticeable absence of garages and driveways - many older properties do not include driveways or garages facing the street (car parking is at the rear or on-street). Where driveways are provided they usually have a grass strip down the middle or are quite narrow and recessive in the streetscape. Most streets have kerb and gutter, but some are not fully sealed, providing grassy verges. Like most of Bellingen, gardens (especially in the front yard) are a notable feature of this block.

### Infill Capacity

Block D1	Additional housing potential
High growth	58
Medium growth	<b>48</b>
Low growth	38

The infill potential of this block is rated 2 - Average. Heritage provides design constraints and may limit yields but good infill development can co-exist with heritage items and contribute to the ongoing story of the neighbourhood, especially where homes can be built in the large rear yards of properties, therefore having minimal impact on the established streetscape.



## BLOCK B2

### Characteristics

Block B2 is located in SW Bellingen, bounded by large lot residential land to the west, William Street to the north, Church Street to the east and Bowra Street to the south. This neighbourhood borders the town centre, but limited footpaths. This block contains no parks, but Bellingen Public School is located on the corner of William and Lovell Streets and Bellingen Park (Market Park) is located just to the east across Church Street. Due to proximity to the town centre and markets, this area can get quite busy with visitors parking on market days or special events. There are two laneways in the block, William Street Lane and Bowra Street Lane. Most parts of the block are flat to gently sloping.

The block has 4 heritage listings, cultural plantings at the school, street trees along Bowra Street and Oak Street and a house on Church Street. In addition, William Street properties form part of the Bellingen Town Centre Conservation Area. A watercourse runs through the south-eastern corner of the block and some properties are flood affected. The block is not mapped as bushfire prone.

The streets on the block are arranged as a grid, with most lots measuring about to 800m<sup>2</sup>. A variety of street trees are notable features of the neighbourhood (jacarandas, firewheel trees, tibouchinas, callistemon) although pruning and tree maintenance appears haphazard. There are some commercial/service type uses in this neighbourhood (for example Bellingen Youth Hub, medical centres, works depots and warehouses) and a couple of examples of infill housing. There are many older homes in this neighbourhood, some being character homes. Older homes with hipped rooves and verandahs are common. Picket fences are also a common feature of this area.

### Infill Capacity

Block B2	Additional housing potential
High growth	14
Medium growth	<b>12</b>
Low growth	10

The infill potential of this block is rated 1 – Below Average. There are some infill opportunities, however this block is relatively small and therefore is not expected to deliver a significant volume of new infill dwellings.





## BLOCK B3

### Characteristics

Block B3 is bound by Creek Lane and Mary Street Lane to the north, Connell Park and Prince Street to the east, Watson and Crown Street to the south and Church Street to the west. This block is in walking distance to the town centre and contains the large Bellinghen Park, home to sports fields and the popular monthly markets. St Mary's Primary School is located in this block next to the Catholic Church. The former Bellorana Aged Care Facility is located on Watson Street and presents an opportunity for redevelopment. The lower parts of the block to the north are flat, but the block slopes up to the south, with Ford and Prince Streets running north-south to the elevated Crown and Watson Streets. There is a narrow lane connecting Prince and Ford Streets. This block is leafy and contains many mature trees.

There are many heritage items in the block, including the St Mary Immaculate Mother of God Catholic Church and Hall; cultural plantings at Bellinghen Park, Cemetery Creek and the former depot, the Park St Streetscape Group and 4 listed houses. The Bellinghen Conservation Area extends into this block, covering properties on Mary Street, Ford Street and Bellinghen Park. Cemetery Creek runs through this block to Connell Park and flooding is an issue nearby. Properties with dual frontage to Church and Rawson Streets are hindered for development due to drainage issues with a depression running along the rear of these properties (along Rawson Street).

Properties along Mary Street are smaller than most in the township, with most being under 600m<sup>2</sup> in area. Other properties in the area measure between approx. 720m<sup>2</sup> and 800m<sup>2</sup>. There is a mix of period homes in the area, including federation style cottages and bungalows as well as some more modern brick and fibro homes.

### Infill Capacity

Block B3	Additional housing potential
High growth	35
Medium growth	<b>29</b>
Low growth	23

The infill potential of this block is rated 3 – Below Average. This block is significantly constrained by flooding. The redevelopment of the Bellorana site provides infill opportunities.





## BLOCK B4

### Characteristics

Block B4 is a large area in south Bellingen, bound by large lot residential development in the west to the rear of Endeavour Drive properties in the east. The block takes in the south side of Bowra and Watson Streets in the north and heavily vegetated rural-zoned land to the south. Properties in the southern portion of this block are bushfire prone. Bellingen Hospital and an aged care facility are located in the west of the block. As with most of the residential areas of Bellingen, the town centre is within walking distance, although this precinct is hilly and some properties (especially in the upper, southern reaches) are steep. There are two parks (with limited/no amenities), O'Sullivan's on Watson Street and open space on Bowra Street. There are four laneways in this block, providing rear access for many properties. There are many large properties (measuring >1400m<sup>2</sup>) in this block, presenting some infill/subdivision opportunities; however many of these lots are steep, and vegetated, presenting access and development constraints.

There are a number of heritage listings within the precinct, including the archaeological listing (former Bellingen Cemetery) over the now-closed Bellingen Bowls Club, the original hospital building, five houses, a cultural planting at O'Sullivan's Park and the Northcote Streetscape group. There exists an eclectic mix of homes in this block, older period homes, infill from the 80s and 90s (generally brick or fibro dwellings) and more recent, modern homes. The newer homes are generally custom-built, but share common design features (for example lightweight materials, deep, elevated verandahs, clerestory windows).

The precinct is not constrained by the 1:100 (1%) flood level, although several properties behind Bowra and Watson Streets are affected by the PMF flood level (Probable Maximum Flood).

### Infill Capacity

Block B4	Additional housing potential
High growth	107
Medium growth	<b>89</b>
Low growth	71

The infill potential of this block is rated 1 - Good. This block covers a large area and whilst it contains some constrained areas in the southern reaches, it also contains a number of large sites that could be redeveloped and could include different housing types.





## BLOCK B5

### Characteristics

Block B5 is bound by O’Connell Park and Bellinghen High School in the north, undeveloped greenfield land to the east, and large-lot-residential and rural land to the south. This block is located in an elevated part of town, affording some views over the valley. Whilst there are many relatively level lots, some properties in the southern portion of the block are quite steep.

This area developed between the late 80s and 2000s and is one of the newer areas of Bellinghen township. In the older parts of Bellinghen (and Dorrigo/Urunga), streets are laid out in a grid, often with laneways. Newer subdivisions contain windy (usually narrower) roads with cul-de-sacs. This street layout is generally less walkable but the compact nature of Bellinghen means the properties within this block remain within walking distance of the town centre. This area has few footpaths. There is one small park (with no amenities) off George Hewitt Close, and the Connell Creek corridor running through the precinct is public land with a footpath providing a link to town.

The character of homes in this area differs from elsewhere in south Bellinghen as it does not contain the older historic homes prevalent elsewhere. There are no heritage items. Homes in this block are mostly elongated (stretching from side boundary to side boundary) and made of brick. Homes are mostly single-storey, although two-storey homes are relatively common. Despite lot sizes generally being shallower and smaller than traditional lots (generally 600-750m<sup>2</sup>), most properties have generous front and rear yards. Front yards are often densely planted. Properties in the upper reaches of this block, along Tibouchina Close and Endeavour Drive are larger (>1400m<sup>2</sup>); however, subdivision of these large lots into battle-axe allotments has occurred recently. Driveways and garages are more prominent in this block, as older parts of Bellinghen provide less parking (e.g. single garages only) or ‘hide’ vehicle access in rear lanes.

### Infill Capacity

Block B5	Additional housing potential
High growth	50*
Medium growth	<b>50</b>
Low growth	40

The infill potential of this block is rated 2 - Average. \*There are infrastructure limitations in the sewer network servicing this area which limit infill capacity. The cost to upgrade the network to take any additional infill development beyond that specified above is unlikely to be justified by the limited increased development it may allow.





## BLOCK B6

### Characteristics

Block B6 is located on the north side of the Bellingin River, bound by Wheatley Street in the north, the Showground to the west and the river/waterfront land to the east and south. Flood risk is a significant constraint to infill development across much of the block, except in the slightly elevated north-west portion. The block is walking distance to the town centre, crossing Lavenders Bridge, and a small neighbourhood centre is located opposite, at the intersection of Wheatley and Lyon Streets.

There are three heritage listings in the block, a house on Hammond Street, cultural plantings in Cedar Park and the trees and reserve at Bellingin Showground. Public open space includes the heavily vegetated Cedar Park, and the riverfront accessed via James Eather Way. The showground is a large green space managed by a trust. The showground is an important events and markets space and also provides camping. The showground is a fenced and managed space and public access/passive recreation is restricted.

There are a mix of homes in the block, the older homes in Hammond and Dowe Streets, are closer to the road and have smaller front setbacks than the more modern homes in the block, which have generous front lawns or gardens. There is a mix of weatherboard and brick homes. Front fences, when present, are generally low and decorative. Houses in the lower areas of the block are often raised to account for flood risks.

### Infill Capacity

Block B6	Additional housing potential
High growth	16
Medium growth	<b>13</b>
Low growth	10

The infill potential of this block is rated 3 – Below Average. Much of this block is affected by flooding risk.





## BLOCK B7

### Characteristics

Block B7 is located in north-west Bellingin, bound by Wheatley Street in the south, Gleniffer Road and rural land to the west, large-lot residential housing on to the north and properties behind Lyon Street and Tamarind Drive to the east. The block is within walking distance to North Bellingin shops (500m) and Bellingin town centre is a 2km (approx.) walk from the top of Sunset Ridge Drive. The block slopes to the north with the northern reaches of the block elevated and some offering great views of the valley. Some properties are sloping and steep. There is a very narrow footpath running down part of Sunset Ridge Drive, connecting to a footpath on Elliot Close. Roads in this area are narrow.

There is one park, a forest walk, connecting Sunset Ridge Drive and Tamarind Drive. Koalas have been known to occupy this park. There is no public area for active recreation or play. The character of the area is very leafy, with most homes sitting behind mature trees and vegetation. There are some sections of the block, mostly in the west, which have more front lawns and manicured gardens and less mature trees. There are no heritage listings within this block; likely due to the fact this area developed post 1980. There is a mix of single-storey and double storey homes in this area. Two-storey homes can take advantage of views and also breezes. There has been a little battle-axe subdivision.

The area is not affected by the 1:100 (1%) flood level (apart from the lower portions of large lots along sunset ridge drive backing out onto Gleniffer Road). A small number of properties are mapped as affected by the PMF (probable maximum flood). Properties along the eastern edge of the precinct, in Sky Place are mapped as bushfire prone.

### Infill Capacity

Block B7	Additional housing potential
High growth	49
Medium growth	<b>41</b>
Low growth	33

The infill potential of this block is rated 2 - Average.





## BLOCK B8

### Characteristics

Block B8 is located in North Bellinggen, north of Wheatley Street and south of Figwood Drive and Bellinggen Cemetery. The block extends to the rear of properties along Jagera Drive. The block contains the small row of shops servicing North Bellinggen and a small industrial area and park/wetland off Tamarind Drive. The block contains one other park – Robert Wolfe Park, which is not level nor well-kept. The area is hilly and many properties are steep/have steep driveways. The block is within walking distance to North Bellinggen shops and within 2km of the Bellinggen Town Centre (however this walk is uphill on the way back). There is no footpath along the main road of Lyon Street, which has a very narrow verge in many places, pushing pedestrians onto the roadway to walk.

The character of the area is very leafy and forested, with many properties containing mature trees and extensive vegetation. There are a number of cul-de-sacs in the area. Lot sizes are similar to those within the rest of North Bellinggen (mostly between 600-800m<sup>2</sup>), although many properties are steep. The area contains an eclectic mix of old and new homes. Elevated verandahs and two-storey construction from lightweight materials are common architectural features, although masonry construction is still quite common in some streets.

There are few heritage items in the area, Windy Hill house and plantings and remnant rainforest on Wheatley Street are listed. Some properties on in the lower south-west are affected by flooding and properties nearby the cemetery are classified as bushfire prone.

### Infill Capacity

Block B8	Additional housing potential
High growth	42
Medium growth	<b>35</b>
Low growth	28

The infill potential of this block is rated 2 – Average. There is a mix of constrained lots which have limited infill potential and larger, less-constrained lots in this area.





**BLOCK B9**

**Characteristics**

Block B9 is located in north-east Bellingen. The area extends from Jagera Drive in the west to McCristal Drive and Mt Tabor Close in the east. East of this area is the North Bellingen Urban Release Area, zoned for greenfield housing. To the south are small rural properties on North Bank Road, the Bellingen Wastewater Treatment Plant and the Bellingin River. This block includes the recently subdivided Iron Bark Place (off Figwood Drive). The block is within walking distance to North Bellingen shops and the Bellingen Town Centre. The area has three Parks – Jubilee Park, a grassy area on McCristal Drive and open space connecting Kimber Close and McNally Drive. These parks have limited amenities, although a small play area has been added at McNally Drive.

The area is characterised by large front lawns and generous front setbacks. The roads are narrow and mostly contain roll-kerbing. In some areas, the grassy front verges are used for parking, whilst in others; people are landscaping their front yards. Like other “newer” areas of Bellingen (areas developed since the 80s), brick homes are relatively common. The area is not as steep as the land to the west, and there is less mature vegetation. This neighbourhood has a more open and suburban character. There are very few front fences, reinforcing this open feel. The area contains a mix of single and double storey homes. Most lots measure approximately 700m<sup>2</sup>. There are a few examples of dual occupancy development, but the majority of housing is single detached dwellings.

There is a single heritage listing in the block, being Jubilee Park. The block is not bushfire prone. A number of properties along the north side of McCristal Drive are flood affected as a watercourse runs along the back of the block in this area.

**Infill Capacity**

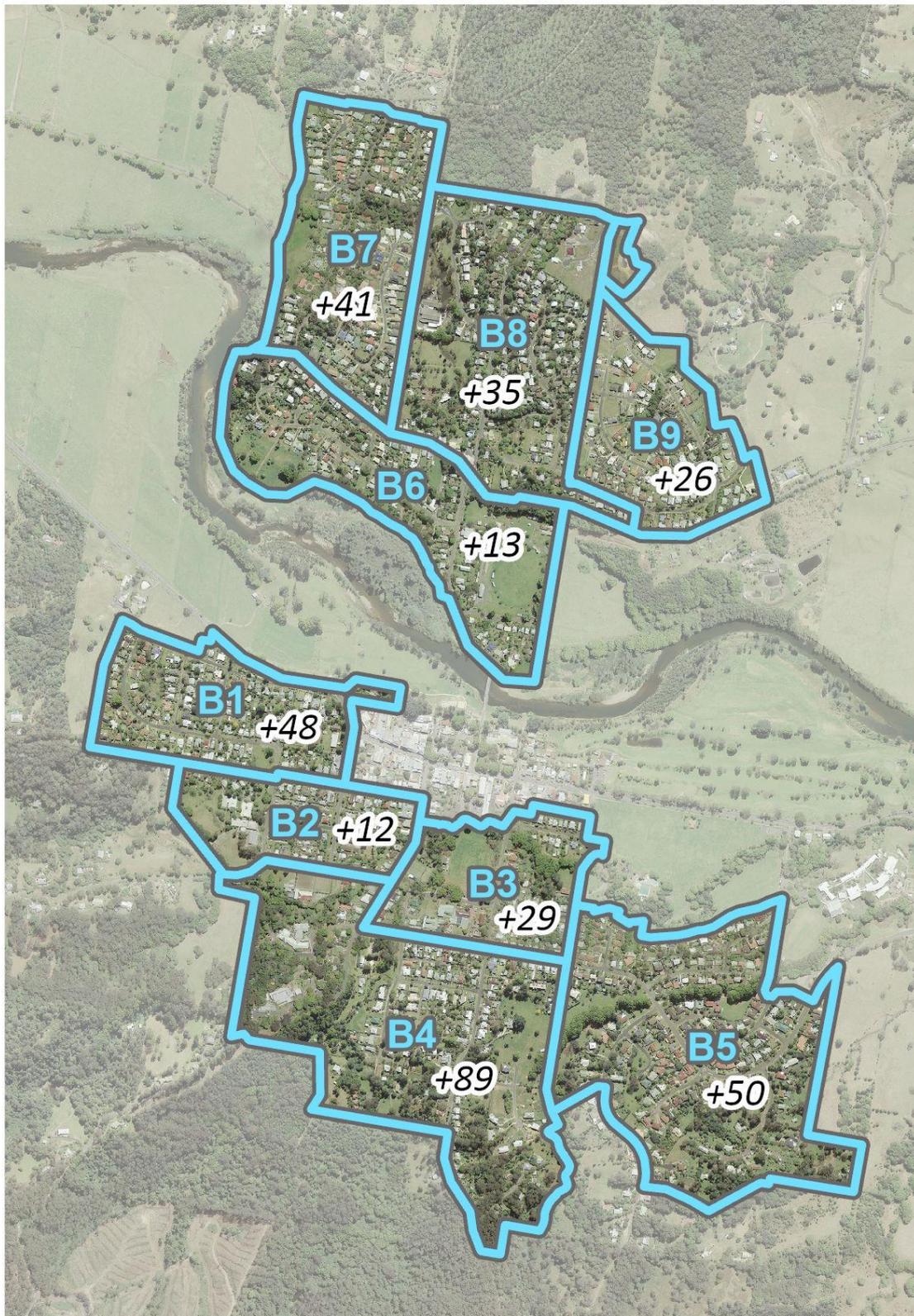
Block B9	Additional
High growth	31
Medium growth	<b>26</b>
Low growth	21



The infill potential of this block is rated 2 - Average.

## BELLINGEN - ESTIMATED INFILL HOUSING TO 2040

Estimated number of additional homes that could be built in areas zoned R1 General Residential\*



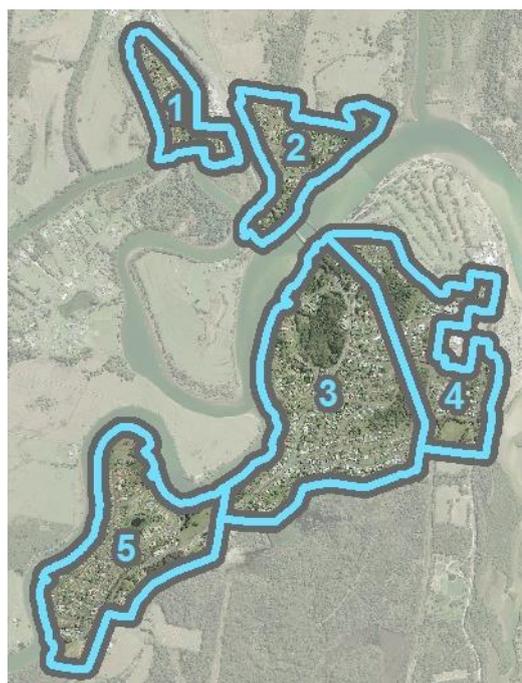
\* these estimates do not include new greenfield housing (homes in newly subdivided areas outside the current town boundaries)

## Urunga

Urunga has a population similar to Bellingen, but is the most spread-out of the townships, extending both north and south of the Kalang River, east and west of the train line and former highway (Giinagay Way). As a result, the edges of the town are not walking distance to the town centre. Despite this, lot sizes close to town are generally large, providing good infill opportunities.

Urunga also has a greater variety of housing types than other areas of the Shire, with a number of villas, townhouses and flats (2-3 storey walk-up buildings) close to town. Detached homes are a mix of brick veneer, fibro and some weatherboard construction. There is no typical style of home, although modern homes tend to be larger than the older homes and cottages in the area. Like most other town areas in the Shire, front yards and lawns are generous in size and front fences low (or non-existent), giving the suburbs a friendly and open feel.

The older parts of Urunga contain laneways, with many properties having rear access to their properties from lanes. These lanes (depending on condition) offer infill opportunities.



For the infill study, the residential areas of Urunga have been split into 5 blocks/neighbourhoods as shown above.

### INFILL CAPACITY STUDY SUMMARY – URUNGA 2040

		NOTES
<b>TOTAL LAND AREA</b>	188 hectares	This area represents land zoned R1 General Residential in Urunga, and excludes greenfield (undeveloped) areas and the town centre (area zoned B2).
<b>ADDITIONAL HOUSING POTENTIAL</b>	+ 371 new dwellings	These are the new houses delivered as <i>infill development</i> within the Urunga Town Area as shown in the map above. This is based on a middle/medium growth scenario.
<b>HOUSING DIVERSITY POTENTIAL</b>	+ 46 separate houses + 70 granny flats, duplex and dual occupancy + 26 multi-dwelling developments (114 dwellings) + 17 residential flat buildings (141 dwellings)	Separate houses are single dwellings on one property (usually 1-2 storeys). Granny flats are small, secondary homes on a property. Dual occupancies are two homes on one property, and can be attached (duplex) or detached. Multi-dwelling includes villas, townhouses and terrace developments at 1-2 storeys. Residential flat buildings are unit blocks 2-3 storeys and (besides Manor Houses) are generally possible only on large sites.
<b>ADDITIONAL POPULATION PROJECTION</b>	+ 759 people	Population change attributed to infill housing only – excludes population growth as result of greenfield and other housing growth. This population projection uses 2016 data for average household size and dwelling vacancy rates for Urunga. Actual population change could vary depending on these and other factors.
<b>INFILL HOUSING GROWTH TARGET 2040</b>	Subject to community consultation	It is proposed to include a housing growth target for Urunga within a new Bellingen Shire Housing and Growth Management Strategy.



**BLOCK U1**

**Characteristics**

Block U1 is located in northern Urunga, on Newry Island, west of Giinagay Way. The northern-most part of Newry Island (properties along Marshall Place, Island Place and Newry Island Drive to No.75) is zoned R1 General Residential. Properties in this area measure approximately 800-1000m<sup>2</sup>. Homes in this area have a consistent front setback, and are predominately of brick construction. Properties in this area are accessed via a timber bridge. Properties in the southern part of Newry Island are zoned R5 Large-lot Residential and are not included in this study.

This block also includes a small number of properties on Marina Crescent, not located on Newry Island. These properties are located between Giinagay Way and the Kalang River, just south of a small industrial area and the service station.

This block is located over 2.5km from the Urunga Town Centre, and is not considered within walking distance. The former Highway (Giinagay Way), Kalang River Bridge and Railway are significant pedestrian and cyclist obstacles. Properties in this area are within walking distance to a service station, which provides limited items.

There are two parks/reserves in this area. One grassed reserve is located just over the bridge. Another smaller reserve is located on the riverfront at the end of Marina Crescent.

All properties within this block are affected by flooding (1:100 (1%) flood level).

**Infill Capacity**

Block U1	Additional housing potential
High growth	0
Medium growth	0
Low growth	0

This block was excluded from the infill capacity study due to flooding constraints.





## BLOCK U2

### Characteristics

Block U2 is located in north Urunga, with the majority of properties located on the eastern side of Giinagay Way and the railway line. This area borders the Kalang River to the south, and rural land to the north. This block extends to a small number of properties west of Giinagay Way – on Dolphin Court and Old Punt Way. There are two parks in this locality - Maramba Park on Yellow Rock Road, adjacent to the railway line contains a small playground and a small sloped, reserve with a number of trees between Vernon Place and Vernon Crescent. The area is not considered walking distance to the town centre – it is located over 2km away and the main road, railway line and river are significant cyclist and pedestrian barriers.

Homes in this area are predominantly single-story brick homes with a consistent setback from the road. Most properties contain generous front and rear yards with plentiful lawn areas. The area has few front fences (if they are present they are low) and maintains an open feel. Most homes appear to be of a similar age – although there are a number of larger, contemporary homes and redevelopments in the western portion of this block.

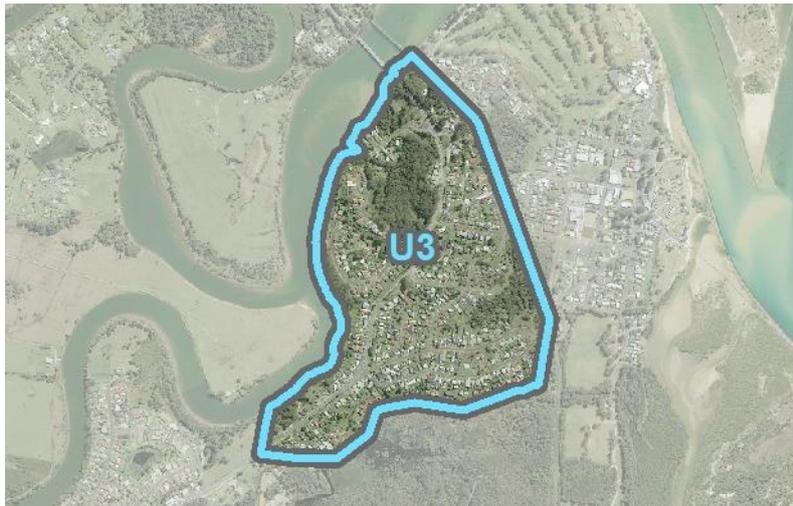
There are two heritage listings in this block – two houses on Yellow Rock Road. A number of properties are affected by the 1:100 (1%) flood level and further properties affected by the Probable Maximum Flood (PMF) level. Properties in the north are also exposed to estuary inundation risks associated with sea level rise. Several properties in the north are also classified as bushfire-prone.

### Infill Capacity

Block U2	Additional housing potential
High growth	40
Medium growth	<b>33</b>
Low growth	26

The infill potential of this block is rated 2 – Average.





## BLOCK U3

### Characteristics

Block U3 is a large precinct located west of the railway extending from the Kalang Bridge and river in the north to the intersection of Hillside Drive and Giinagay Way in the south-west. To the south of this residential area is environmentally sensitive land – wetlands protected by local and state planning laws.

Although much of the area is flat and located within walking distance to the Urunga Town Centre, the main road and especially the railway line are barriers. To access the town centre on foot or by bicycle, one needs to cross over the rail-line at Pilot Street or Fitzroy - Comlaroi Street or via Bellingen Street (under the bridge). Parts of the block with easy access to these areas are considered walking distance from town, whilst the extremities are not. Parks and reserves in the area include a small park behind the Visitor Centre, the riverfront Urunga Lions Park and thickly vegetated riverfront land. The Urunga Wetlands boardwalk is located just south of the precinct.

Parts of the precinct are flood affected (at or below the 1:100 (1%) flood level) – in the north around Crescent Close (also at risk of estuary inundation), and in the east between Lourdes Avenue and the Railway. Other properties on the edges of the block are affected by the Probable Maximum Flood Level (PMFL). Along the southern edge of the block, properties are mapped as bushfire prone. Heritage listings include remnant forest bound by Giinagay Way and Bellingen and Crescents Streets; and the Carmel Convent Group buildings and grounds.

Lots sizes vary across this large area, although most properties measure between 600- 1400m<sup>2</sup>. Many of the longer and larger lots (which are generally flat or gently sloping) present good infill opportunities. There are a cluster of properties with lot sizes <600m<sup>2</sup> in the south-east. Whilst single houses with large yards are by far the most common house type in the area, there are some villas and townhouses. This area has also seen recent multi-dwelling approvals. This precinct has 3 laneways and properties facing these have generally good infill potential.

### Infill Capacity

Block U3	Additional housing potential
High growth	167
Medium growth	<b>139</b>
Low growth	111

The infill potential of this block is rated 1 – Good.





## BLOCK U4

### Characteristics

Block U4 extends from the golf course in the north to the sports fields in the south, west to the railway line and east to the waterfront. This block borders the Urunga Town Centre and is close to shops, services and many recreation opportunities. The area is mostly flat, although an area south-east of town sits atop a small hill. Many of the lower-lying properties in the north and around the town centre are affected by flooding (1:100 or 1%; many additional properties are affected by the Probable Maximum Flood/PMF). Some properties near the golf course and on southern Morgo Street are exposed to estuary inundation risks due to sea level rise. There are a number of heritage items, including the war memorial and plantings, former Pilot house and fence, the museum and former museum (archaeological relic), the school grounds and remnant native swamp forest.

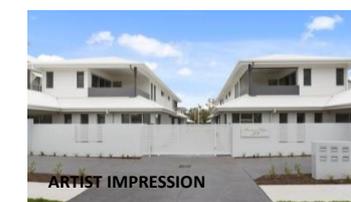
There are a mix of lot sizes and housing types in the area. There are four laneways in the block, with some properties accessing their properties from these laneways – for example a number of properties front the northern section of Coopers Lane. There are a number of large lots (>1400m<sup>2</sup>) particularly on corners that offer redevelopment opportunities.

Urunga has seen infill development in the past and has the highest percentage of medium-density developments in the Shire. This area contains many two storey walk-up unit blocks, as well as townhouses and single dwellings. Many homes have smaller front yards/smaller front setbacks than other areas of Urunga and housing therefore appears more compact. Many older properties have large rear yards. Older properties have no or low fencing, typical of elsewhere in the Shire, however newer developments appear to often include high/solid fencing.

### Infill Capacity

Block U4	Additional housing potential
High growth	121
Medium growth	<b>101</b>
Low growth	81

The infill potential of this block is rated 1 – Good.



ARTIST IMPRESSION



## BLOCK U5

### Characteristics

Block U5 is located in south Urunga, and consists of the riverfront residential area known as Bellinger Keys, as well as properties along Giinagay Way. Vacant land to the west of Giinagay Way is greenfield land known as the South Urunga Urban Release Area, which has the potential to deliver greater than 250 new housing lots (greenfield land is not included in this study). This block is over 2km from the Urunga Town Centre and is not considered walking distance as the old Highway and railway line are obstacles. The new South Urunga subdivision may present opportunities to create a bike link into town. The parks/reserves in the area include a very small grassed riverfront area on Rosedale Drive, containing no amenities and a wetland encircled by homes, accessible from Lake Court, Myall Court and Melaleuca Place but also containing no amenities. The Gundmain Residential Caravan Park is located at the southern edge of this block and along the former highway; the Honey Place is a tourist attraction with a small café.

There are a number of large properties on the outskirts of this block that present redevelopment opportunities, although some are constrained by vegetation, bushfire risk and flooding. The majority of new homes in this block will result from development of currently vacant sites. Properties close to the river are affected by flood and potential estuary inundation, although some small-scale infill opportunities (granny flats or dual occupancies) may be possible in the unconstrained areas of Bellinger Keys.

Homes in this area are detached modern dwellings, with large front and rear yards and large lawns, mostly constructed from brick. There are a number of short cul-de-sacs in the area and most homes include a double garage.

### Infill Capacity

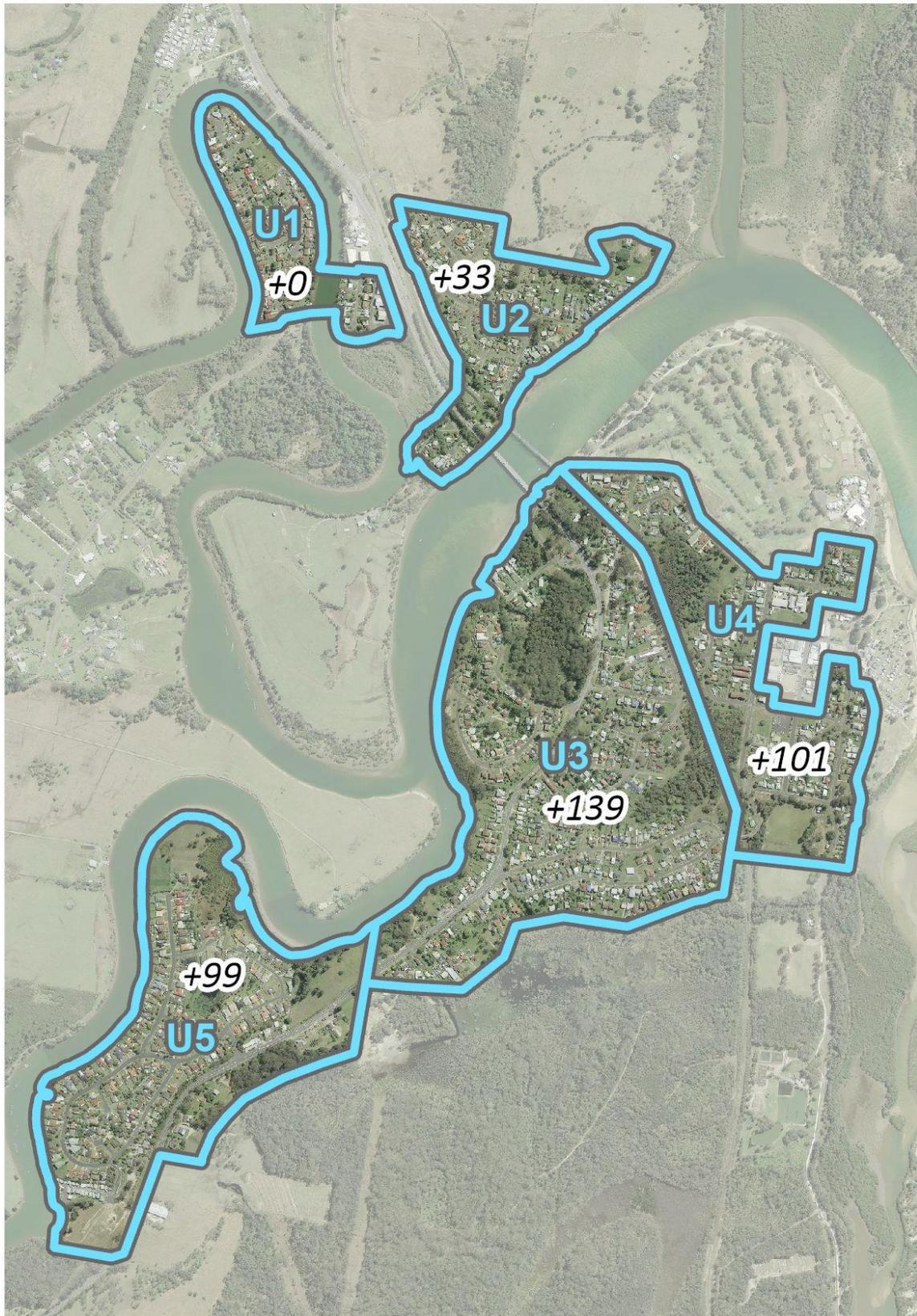
Block U5	Additional housing potential
High growth	119
Medium growth	99
Low growth	79

The infill potential of this block is rated 2 – Average. There are a number of good vacant development sites along Giinagay Way which could deliver housing diversity. This block is not walking distance to town and the residential area of Bellinger Keys offers relatively few infill opportunities.



## URUNGA - ESTIMATED INFILL HOUSING TO 2040

Estimated number of additional homes that could be built in R1 General Residential Zone\*



\* these estimates do not include new greenfield housing (homes in newly subdivided areas outside the current town boundaries)

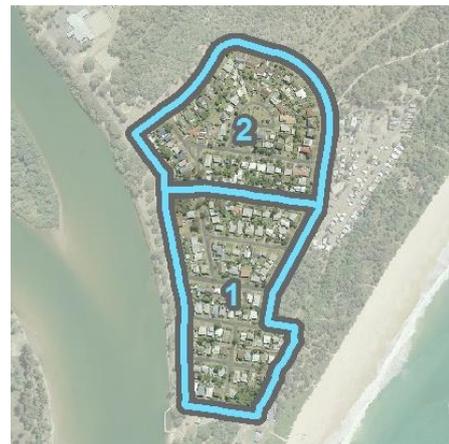
## Mylestom, Repton, Raleigh

Mylestom is a coastal village with a relaxed atmosphere. High vacancy rates (approx. 26%) highlight the area’s tourist/holiday home appeal. Traditionally, the area was known for small fibro beach homes. Redevelopment of these older homes and expansion of the small village northwards has provided a greater mix and variety of dwellings, including brick veneer homes, and larger, two (and a couple of three) storey homes. Common features include verandahs/balconies and decks and no or low front fences. Many lots in Mylestom are much smaller than elsewhere in the Shire (<450m<sup>2</sup>).

Repton is a very leafy village north of Mylestom and borders the Bongil Bongil National Park. Repton has good access to the Pacific Highway. Raleigh also has close access to the Pacific Highway and is located east of Bellingen, along the Bellinger River. Raleigh is a rural area, but contains a small hamlet of homes on suburban and rural-residential sized blocks.

The coastal villages are not currently connected to sewer, limiting their infill opportunities. A project to connect the villages to sewer may open up infill opportunities as summarised below.

The village area of Fernmount (area zoned R1 General Residential) has not been included in the study because there are currently no plans to connect the village to sewer.



MYLESTOM BLOCKS (R1 ZONE)



REPTON BLOCKS (R1 ZONE)



RALEIGH BLOCK (R1 ZONE)

### INFILL CAPACITY STUDY SUMMARY – COASTAL VILLAGES 2040

<b>TOTAL LAND AREA</b>	75 hectares
<b>ADDITIONAL HOUSING POTENTIAL</b>	+ 56 new dwellings
<b>HOUSING DIVERSITY POTENTIAL</b>	+ 26 separate houses + 30 granny flats, duplex and dual occupancy
<b>ADDITIONAL POPULATION PROJECTION</b>	+ 128 people (ASSUME AVG. HOUSEHOLD SIZE 2.3, VACANCY RATES UNKNOWN)
<b>INFILL HOUSING GROWTH TARGET 2040</b>	Subject to community consultation



## BLOCK M1

### Characteristics

Block M1 takes in the northern section of Mylestom village, north of Boronia Avenue. Mylestom is located between the ocean and the Bellingher River and is surrounded by environmentally sensitive land/coastal vegetation. This block is walking distance to Mylestom General Store and café and the Bowling Club. Mylestom offers good access to recreational activities and the nearest primary school is in Repton (approx. 2.5km).

The northern section of Mylestom contains larger properties than in the southern portion, because this area was subdivided later. Lot sizes north of Azalea Avenue measure between approx. 600-700m<sup>2</sup>, whilst lots south of Azalea Avenue and along Boronia and River Streets typically are less than 600m<sup>2</sup> in area.

This area has a mix of one and two storey homes (and one 3-storey house). Front verandas and decks are a common feature. A common house type is a two storey square home with a flat roof and veranda on the first floor, often with a garage or undercroft below. Whilst the shape of these homes is recognisable, all the homes vary in appearance, colour, materials and articulation. This block also contains a number of smaller cottages. Some redevelopment of the older homes is occurring slowly.

Mylestom is not connected to sewer, but the State Government has announced a grant to help connect the coastal villages to sewer. A sewer connection to Mylestom could enable infill development.

The northern-most section of this block is bushfire-prone. Mylestom village is not affected by the 1:100 (1%) level flood, however is mapped as affected by the Probable Maximum Flood. There are no heritage listings in this area.

### Infill Capacity

Block M1	Additional housing potential
High growth	14
Medium growth	<b>12</b>
Low growth	10

The infill potential of this block is rated 3 – Below Average. Mylestom is a small village with smaller than Shire-average lot sizes. Much of Mylestom has already been built out.





## BLOCK M2

### Characteristics

This block makes up the southern side of Mylestom village, taking in properties south of Boronia Avenue. This block contains a general store and café and the Mylestom Hall. To the south is Alma Doepel Reserve with a playground, amenities block and beach access. Mylestom offers good access to recreational activities and the nearest primary school is in Repton (approx. 2.5km). Waterfront properties command beautiful views over the river.

This area contains small property sizes relative to most of the Shire – generally approximately 420m<sup>2</sup> with some blocks having properties less than 400m<sup>2</sup> in size (e.g. along Winter and Johnson Avenues). These blocks are reflective of when the small coastal dwellings/modest beach homes close together and this character is recognisable today. Whilst the area does provide a mix of one and two storey homes (and a couple of three storey homes), of varying styles and materials, some smaller, older fibro and weatherboard homes remain.

Some redevelopment of the older homes is occurring. Modern dwellings are larger and generally feature coastal design through lightweight materials, flat or skillion rooves, and use of verandas and decks. The Bellingen Shire Development Control Plan contains character controls for this precinct in Mylestom.

Mylestom is not connected to sewer, but the State Government has announced a grant to help connect the coastal villages to sewer. A sewer connection to Mylestom could enable infill development.

Mylestom village is not affected by the 1:100 level flood (1% AEP), however is mapped as affected by the Probable Maximum Flood. There are no heritage listings in this area and this area is not mapped as bushfire-prone.

### Infill Capacity

Block M2	Additional housing potential
High growth	12
Medium growth	<b>10</b>
Low growth	8

The infill potential of this block is rated 3 – Below Average. Mylestom is a small village with smaller than Shire-average lot sizes. Much of Mylestom has already been built out.





## BLOCK R1

### Characteristics

This block is located in the small village of Repton, east of the Pacific Highway and north of the Bellinger River. This block extends from Perry’s Road in the north to Mylestom Drive in the south. The block is bound by the railway line to the east and large lot properties to the west. Most of Repton is made up of Large-Lot Residential properties (R5 zoning), but two areas are zoned R1 General Residential. Repton was settled in the 1800s and used to be served by a pub, railway station, general store and post office. Repton today has a school (to the south) and is 10-15 minutes’ drive from Bellingen and Coffs Harbour. This part of Repton has flood-free access to the Pacific Highway via Perry’s Road.

Properties in this area are a mix of sizes, some less than 600m<sup>2</sup> (two properties are less than 400m<sup>2</sup>), and others measuring over 1400m<sup>2</sup>. The area is hilly and steep, and many properties are pole homes or split level. Some of the homes in the elevated parts of the block have excellent views. The area is very leafy and forested, and parts of the block are recognised koala habitat. The suburb of Repton borders the Bongil Bongil National Park. Most homes are surrounded by mature trees and vegetation. The lower area along Mylestom Drive is flood affected, but most of the block sits above flood levels. The block is classified as bushfire prone land.

Properties in Repton are not currently connected to sewer; however, the State Government has announced a grant to help connect the coastal villages to sewer. The first stage of this project will connect the riverfront areas to sewer and not properties within this block.

### Infill Capacity

Block R1	Additional housing potential
High growth	7
Medium growth	6
Low growth	5

The infill potential of this block is rated 3 – Below Average.



**BLOCK R2**

**Characteristics**

This block is located in south Repton and is made up of a small number of properties along Mylestom Drive and River Street. Repton Primary School is located within this block. Cultural plantings at the school are heritage listed. Most of Repton is made up of Large-Lot Residential properties (R5 zoning), but two areas are zoned R1 General Residential. Repton is 10-15 minutes' drive from Bellingen and Coffs Harbour.

Homes in this area have a generous front setback, mostly obscured from the road by vegetation. Properties along River Street are elevated above the road and most are accessed via a separate unformed road running parallel. Lot sizes are typically large, measuring approximately 900m<sup>2</sup>. Homes are a mixture of styles and ages. There are many mature trees within the precinct.

The lower-lying portions of this block are flood affected, sitting at or below the 1:100 (1%) flood level, whilst a number of other properties are affected by the Probable Maximum Flood (PMF). Mylestom Drive is also flood affected (1:100/1%) so access and egress into this precinct becomes cut off during floods. The northern and southern extremities of the block are exposed to estuary inundation risk due to sea level rise. Properties are not classified as bushfire prone.

Properties in Repton are not currently connected to sewer; however, the State Government has announced a grant to help connect the coastal villages to sewer. The first stage of this project will connect the riverfront areas to sewer.

**Infill Capacity**

Block R2	Additional housing potential
High growth	5
Medium growth	4
Low growth	3

The infill potential of this block is rated 3 - Below Average.



**BLOCK RA1**

**Characteristics**

This block consists of the R1 (General Residential) zoned land within the small rural village of Raleigh. The block is located just off the Pacific Highway and is a 10-15 minute drive to Bellingen and Coffs Harbour. The block is bound by the Bellinger River to the west, Gurney St/Keevers Drive to the north, rural land to the east and large lot residential properties and environmentally sensitive land to the south.

Residential development runs along Giinagay Way through the block, with most lots being larger than 1400m<sup>2</sup>. A number of smaller lots with single homes sit along the riverfront. A large property on the eastern side of Giinagay Way is zoned for residential development and presents some opportunities for subdivision, but is currently being used for rural purposes, is significantly flood affected and is not yet connected to sewer. There are a mix of older and modern homes in this block. There are no heritage listings in the block. This area contains some non-residential development along the old highway, but the area is not served by a grocery or general store and there are no parks or public reserves. Raleigh Public School is located to the north, next to the Norco Dairy Factory.

Properties in Raleigh are not currently connected to sewer; however, the State Government has announced a grant to help connect the coastal villages to sewer. The first stages of this sewer project seek to connect the northern area of this block (north of the Pacific Highway intersection).

Raleigh is situated on a floodplain and whilst parts of this block sit above the 1:100 flood level, flooding does present a constraint on some properties. Small areas on the east and west extremities of the block are exposed to estuary inundation risks due to sea level rise. The block contains potential koala habitat and is surrounded by areas of significant vegetation. The southern part of the block is bushfire-prone.



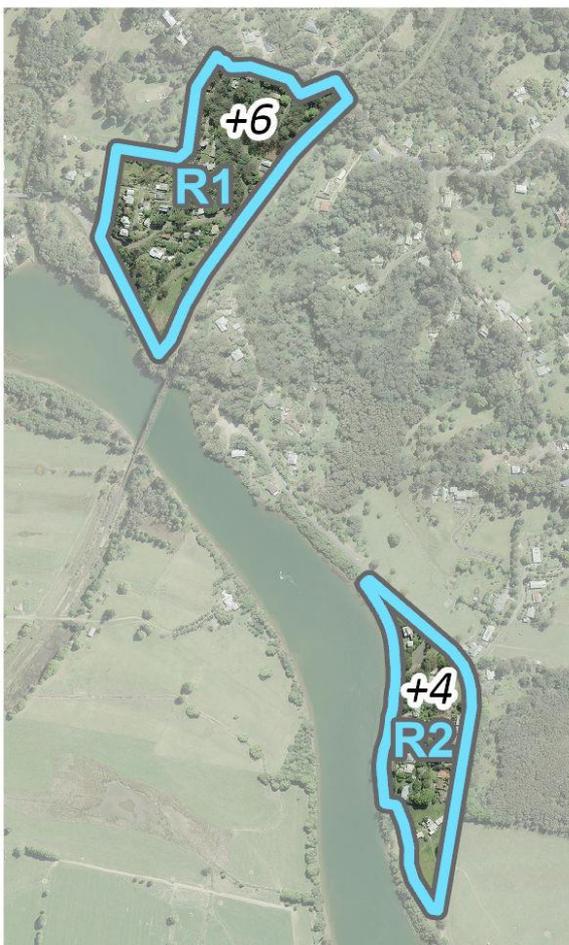
**Infill Capacity**

Block RA1	Additional housing potential
High growth	29
Medium growth	<b>24</b>
Low growth	19

The infill potential of this block is rated 2 - Average.

**MYLESTOM, REPTON, RALEIGH - ESTIMATED INFILL HOUSING TO 2040**

Estimated number of additional homes that could be built in R1 General Residential Zone\*



\* these estimates do not include new greenfield housing (homes in newly subdivided areas outside the current town boundaries)

## Recommendations: Infill Development in Bellingen Shire

### Infill capacity and history

Bellingen Shire has significant capacity for infill development to help meet future housing needs. The infill capacity model built by Bellingen Shire Council calculates almost 180 hectares of land is available within our towns to accommodate additional houses. The capacity model predicts 1015 infill homes could be delivered on this land by 2040 (under a medium/middle growth scenario). With good planning and implementation, this growth can be delivered to meet community housing needs in a manner sensitive to existing neighbourhoods.

Previous growth in Bellingen Shire has occurred mostly via the release of new residential land on the fringes of existing towns. For example much of North Bellingen, South-East Bellingen (housing around Crown Street), Bellinger Keys in Urunga and parts of south Dorrigo grew in this way from the 70s/80s population boom through to the early 2000s. Historically, some infill development has occurred in our towns, evident in Urunga's walk up flats and the villas, townhouses and subdivided dual occupancies in the larger towns of Bellingen and Urunga. This past infill development has occurred incrementally and without compromising the unique character of our Shire.

### Recommended growth approach

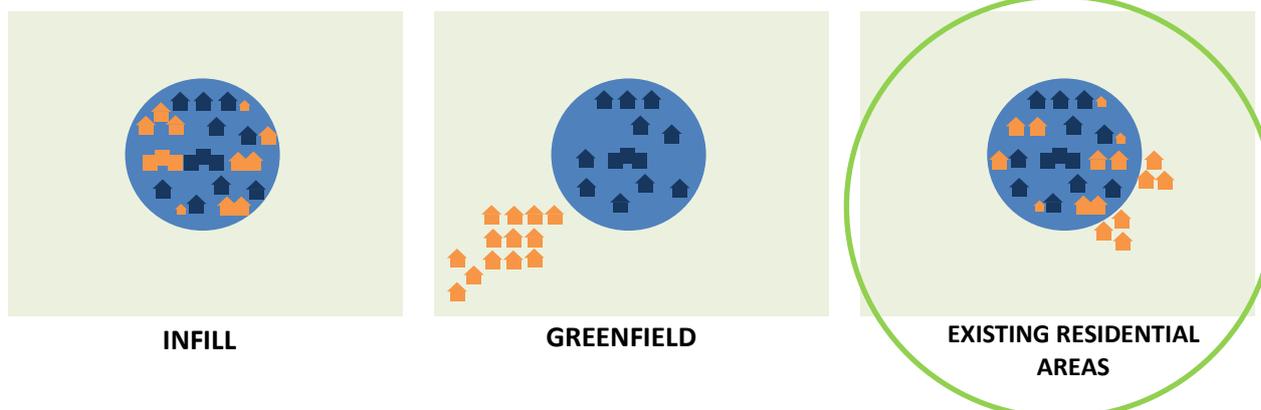
It is recommended that Bellingen Shire encourage infill development within its town areas.

Coupled with greenfield housing growth from already-zoned areas (e.g. the North Bellingen Urban Release Area, South Urunga and East Dorrigo) infill housing growth can provide for the likely housing needs of the population to 2040, without needing to rezone additional land on the outskirts of town (or outside existing town areas) for additional housing.

Encouraging growth in already-built up and residential-zoned areas means rural land and environmentally sensitive land on the outskirts of our towns will be protected from additional housing developments. This is consistent with the directions of the North Coast Regional Plan and accompanying Settlement Planning Guidelines.

### Recommended housing growth approach

To 2040, concentrate on infill development. Limit greenfield housing release to areas already zoned for residential development. Land should not be rezoned from rural to urban to meet housing needs to 2040, except in very limited circumstances, for small proposals located within close proximity to an existing town centre and where significant social benefits and minimal environmental impacts can be proven.



### Additional Recommendations:

#### 1. Community Engagement

This infill capacity study should form part of the community engagement for the Draft Bellingen Shire Housing Strategy. The study can be used to target residents of our town areas to gather feedback on

the predicted levels of growth in each area as well as priorities for infill development. The study can also be used in conversations about neighbourhood character and desired future character.

## **2. Housing Growth Targets**

This infill study can be used along with other studies and community feedback to establish housing growth targets for our Shire and town areas. These targets would sit within a Bellingen Shire Housing Strategy. Housing targets can provide signals to the development industry, stimulate new housing supply, and allow for efficient and proactive planning for infrastructure and service needs and upgrades and support grant and funding applications.

Monitoring of housing development relative to targets can also help illustrate the effectiveness (or otherwise) of different policy levers and directions and can be used to limit development beyond target levels (as housing delivery approaches target growth, housing needs, strategies and policies should undergo major reviews). Planning strategies and controls need to be kept up to date with changes in order to stay relevant and best provide for community needs and aspirations.

The North Coast Regional Plan contains projected dwellings to 2036 that can be construed as targets, however these figures (+459 new dwellings to 2036) simply reflect continuation of recent low growth development trends which have contributed to issues such as housing unaffordability for local residents and possible predicted population decline. It is recommended that Council and the community as part of the Draft Housing Strategy provide a local perspective and aspire to an agreed level of growth that will deliver social, environmental and economic outcomes for all residents.

## **3. Infill Housing – Good Design Guidelines and Controls**

We need to plan infill housing well to manage any future potential cumulative impacts and allay community concerns. Council should continue to investigate and implement ways to ensure housing development meets the changing needs of our community whilst remaining sensitive to local character. This includes modelling of possible infill development outcomes, development of best practice design guidelines and examples and changing planning controls to ensure good outcomes.

Council should ensure promotion of design processes and quality design outcomes are included in Local Strategic Planning Statements and supported by place-based Character Statements. In particular the community have told us they value green space and landscaped area, retention of trees and planting of more trees, sustainable house design and on-site parking. Bellingen Shire has a strong existing creative and design culture that should continue to be reflected in the built environment, retaining and enhancing what is different and special about our places. Facilitating well-designed infill development may also mean process changes, staff training, provision of incentives and offering additional design advice services or education campaigns.

## **4. Infrastructure Planning**

Housing growth must be supported by infrastructure – roads, parks, water and sewer connections and capacity as well as a range of services from waste collection to community services. Infrastructure network and service plans should be drafted for infill focus areas to ensure predicted growth is supported by adequate infrastructure.

Infrastructure plans can inform conversations with the community about levels of service, funding mechanisms and innovations. Understanding future growth patterns and targeted growth areas can help direct efficient spending of limited infrastructure funds.

## **5. Infill Focus Areas**

This infill capacity study illustrates that some areas have more opportunities to provide infill housing than others. These areas should be designated ‘infill focus areas’ in a Draft Housing Strategy. This could provide a signal to spur additional housing development in these areas, to better meet the housing needs of the community. These areas may see more change than others but could also become the focus for development incentives, desired future character statements/planning design guidance and infrastructure and sustainability improvements.

The areas of highest infill potential according to this infill capacity study are as follows:

- Block D3 in Dorrigo
- Block B4 in Bellingen
- Block U3 in Urunga
- Block U4 in Urunga

These areas have been mapped – see page 42. Additional and more-detailed modelling should be undertaken for these areas, for example taking into account infrastructure availability (ease of water and sewer connections) to further understand and address infill development barriers and inform infrastructure planning and service upgrades/provision.

## 6. Key Sites

Key sites are sites with considerable infill potential, and generally the potential to deliver greater housing diversity, for example townhouses, flats or small villa development. These sites are generally well-located close to shops, services and open space and with design guidance could offer a number of quality homes, supporting community wellbeing. Key sites recognised in planning policies could be accompanied by a set of design principles and there is the possibility of including incentives should these principles be observed. Key sites may offer good yields and present development partnership opportunities.

### ○ List of Potential Key Sites

#### **Dorrigo**

- 85 Hickory Street Dorrigo, Lot 2 DP 628931 – Former Bowling Club

#### **Bellingen**

- 6 Bowra Street Bellingen, Lot 570 DP 755557 – Former Bowling Club
- 15 Watson Street Bellingen, Lot 1 DP 863743 – Former Aged Care Units Bellorana

#### **Urunga**

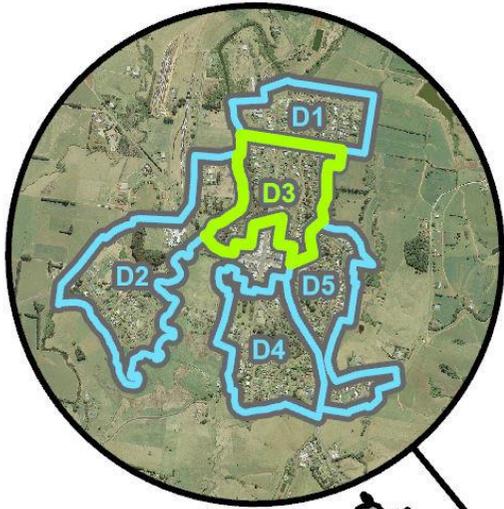
- 4121 Giinagay Way Urunga, Lot A DP 104582 – Vacant Lot, western side of Giinagay Way, north of Bellinger Keys
- 4 Riverwood Place Urunga, Lot 130 DP 755552 – Gundamain Caravan Park and Manufactured Home Estate – retain home estate as affordable housing and potential to redevelop vacant land fronting Giinagay Way
- 4160 Giinagay Way, Lot 2 DP 530493 – large lot with single house. Property has frontage to Giinagay Way and Hillside Drive

#### **Town Centre Sites**

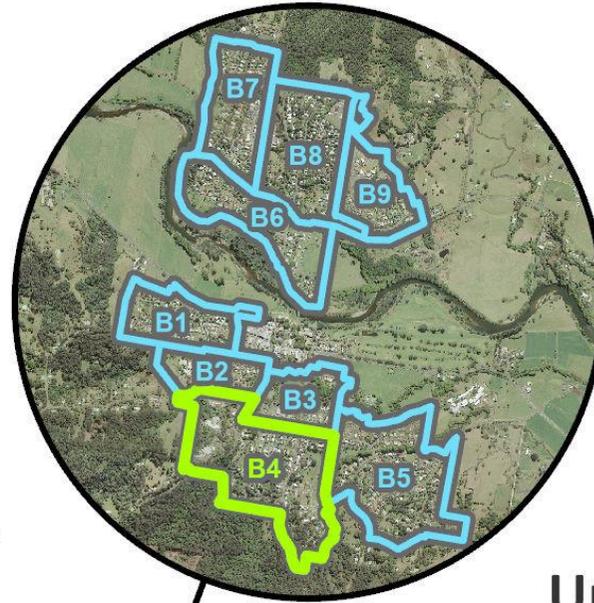
Potential shop-top housing

- 77-79 Hickory Street Dorrigo, Lot 4 Sec 10 DP 758357, Lot 1 DP 1039586 – Dorrigo adjacent to Coronation / Pioneer Log Park
- 21-23 Morgo Street Urunga, Lot 1 Sec 2 DP 759026, Lot 9 Sec 2 DP 759026 & Lot 10 Sec 2 DP 759026, Vacant land south of the Ocean View Hotel.

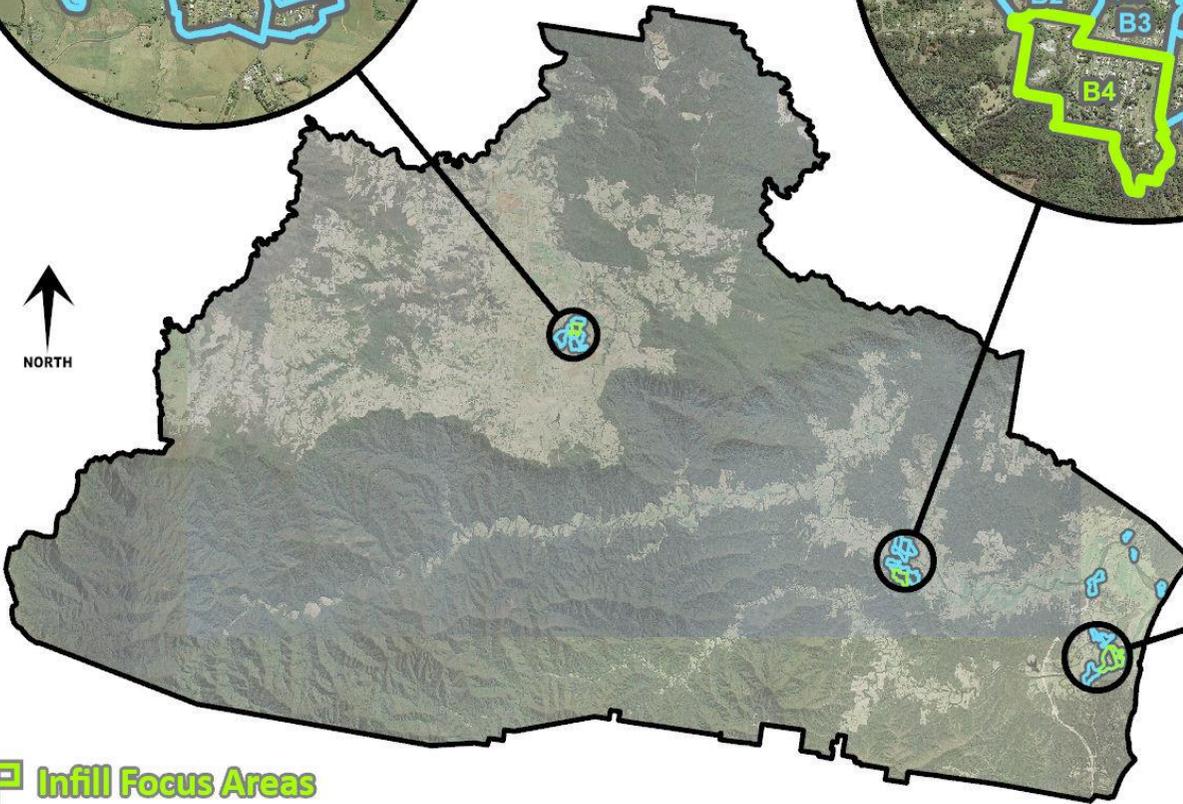
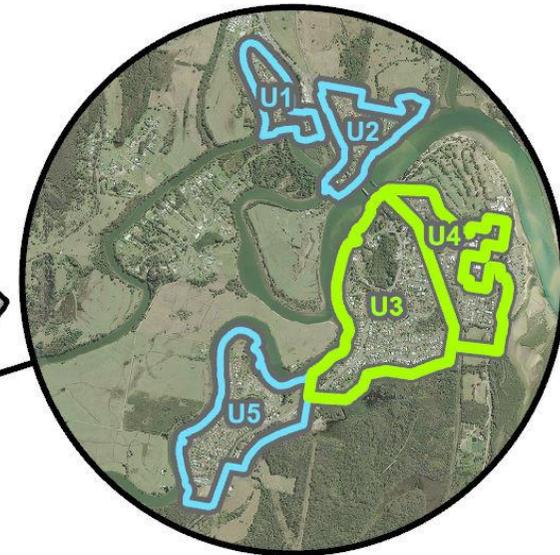
# Dorrigo



# Bellingen

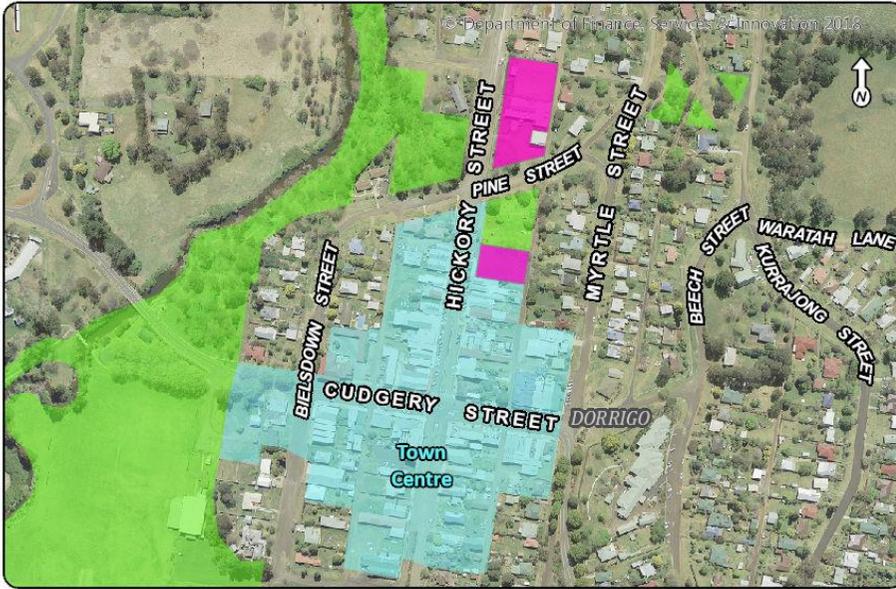


# Urunga

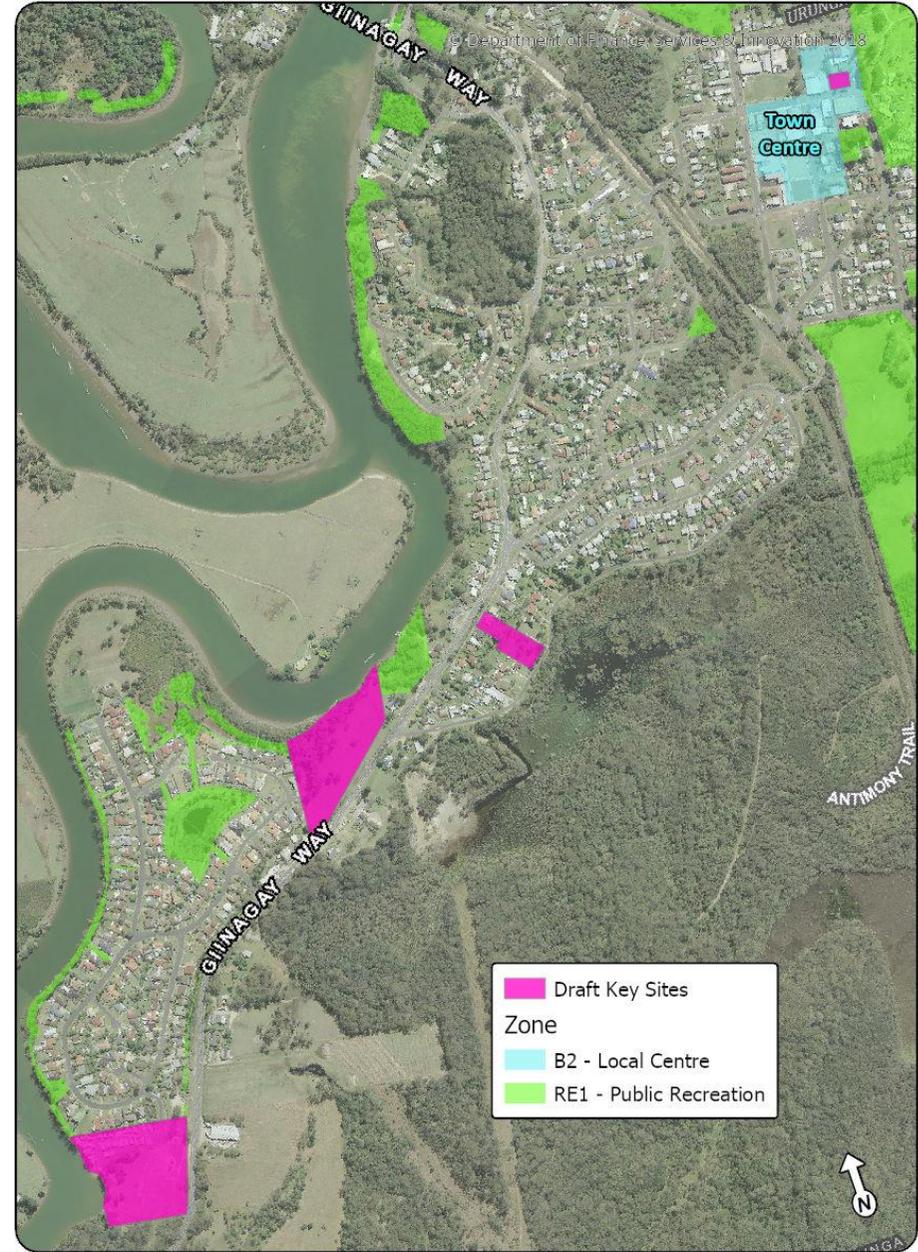


 Infill Focus Areas

## Dorrigo



## Urunga



## Bellingen



- Draft Key Sites
- Zone
- B2 - Local Centre
- RE1 - Public Recreation

## Infill testing methodology

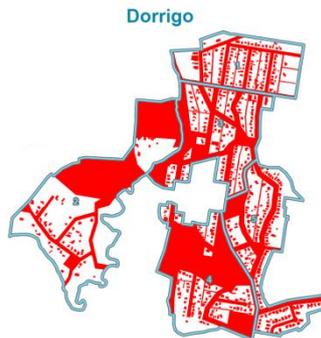
*How did we work out the additional housing potential in our neighbourhoods?*

### Infill Housing Model - Summary

**Step 1:** Separate towns into different areas/blocks

**Step 2:** Exclude non-developable area: e.g. roads, flood-prone areas, schools, existing development

**Step 3:** Identify potentially developable land in each block (properties that could accommodate infill dwelling/s)



**Step 4:** For each block, referencing potentially available land and lot sizes input assumptions into model (estimate proportion of likely infill development to 2040 for each block)

**Step 5:** Model calculates/forecasts number of additional dwellings for each block.

Block X	
% of properties	Infill Development Type
80%	None/Stay the same
5%	Granny flats
10%	Dual occupancies
5%	Multi-dwelling housing



### Detailed Methodology

Estimating future housing supply potential generally focuses on greenfield land only, estimating how many houses could fill an area of undeveloped land. Estimating how many additional houses to expect in already developed areas and established neighbourhoods in town is much harder and less frequently attempted. This is because properties in existing neighbourhoods are generally a mix of sizes (rather than the standard assumed size across greenfield housing estates), have different constraints to development and can be re-developed in numerous different ways, re-subdivided in some cases or (as in most cases) not be redeveloped at all.

The multitude of different landowners in existing neighbourhoods makes predicting future development much harder than for greenfield areas, which typically have one or few landowners/developers focused on achieving a planned outcome. Infill development happens much more incrementally but still requires good planning, to

ensure that the housing built meets community needs, is supported by adequate infrastructure and services, maintains local character and manages any cumulative impacts.

Bellingen Shire Council has built a model to better understand what to expect in terms of redevelopment potential in our town areas, recognising the community want to see more high-quality infill housing. Reducing barriers to infill housing, developing sound planning controls and planning for support infrastructure and services are all easier tasks, after understanding where infill housing can, and is likely to, occur and how much new housing we can expect or should plan for. These results are not set-in-stone and rely on changes in the local housing market (a transition from recent very low housing supply growth), demographic changes in some areas, some changes to planning controls and possibly changes to financing/feasibility barriers. Growth as described may take longer to be realised or total growth may be lower than predicted. Conversely if infill development takes off and planning controls do not set upper limits or strategy is not reviewed as planned, growth could occur in excess of these results/housing targets.

This model has been developed using GIS (Geographic Information Systems) mapping technology and Microsoft Excel.

The first stage of infill capacity modelling looked at assessing what land was available for infill development. The second stage modelled potential growth scenarios for land with development potential.

The growth model relies on a number of assumptions detailed further below. Whilst the data obtained from the model is neighbourhood-specific and fine-grain, it is important to remember that the model provides estimates only and cannot be taken as development advice as it does not account for site-specific opportunities or constraints.

## **METHODOLOGY – BELLINGEN SHIRE INFILL CAPACITY MODEL**

### **STAGE 1 – IDENTIFY POTENTIALLY DEVELOPABLE LAND**

#### **Objective:**

*This mapping and spatial analysis process will identify:*

- 1. The total land area of our towns that is zoned R1 General Residential (greenfield/urban release areas are excluded)*
- 2. What land is excluded by identified constraints (excluded land is not developable for housing, and includes roads, schools, hospitals and aged care facilities, parks, flood-prone land and lots smaller than 400m<sup>2</sup>)*
- 3. How much land is already developed; and*
- 4. How much potentially developable area there is left and how many properties contain potentially developable land*
- 5. What size the potentially developable properties are*

*These calculations will then be used, along with other GIS datasets and aerial photography, to inform assumptions and model growth scenarios and development outcomes.*

#### **Method:**

- 1. Separate Town Areas into Neighbourhood Blocks and Properties. Break R1 General Residential zoned areas of Dorrigo, Bellingen, Urunga, Mylestom, Repton and Raleigh into blocks grouped by common geography. Exclude town centres (zoned B2 Local Centre/B1 Neighbourhood Centre), R5 Large Lot Residential Zone and any greenfield housing areas (R1 zoned areas not subdivided or developed yet).*
- 2. Create Properties layer, showing adjoining land parcels in the same ownership as one entity (one property). This is to reflect cases where a dwelling is located over two land parcels (held in the same ownership) or where multiple small land parcels located side by side under the same ownership make up one property.*

3. Calculate area potentially available for further development by excluding non-developable land (Total Development Land)

Exclude:

- i. roads,
- ii. land not zoned R1,
- iii. parks,
- iv. properties containing hospitals/schools/aged care facilities
- v. properties with strata-title units and community title common property
- vi. flood prone land (1:100) (do not exclude entire property based on flood affectation, only exclude the portion of land that is flood-affected)

NOTES: FLOOD AFFECTED LAND IN DORRIGO: There is no extent mapping of flood affected land for Dorrigo, this means flood prone land cannot be excluded in Dorrigo. Results for blocks potentially flood affected will be notated with this proviso and caution needs to be applied to interpreting these results – as it may appear that more land is available for infill than actually exists due to potential flooding.

Other constraints such as heritage, bushfire and slope can constrain (but not always preclude) infill development across all areas of the Shire. Areas with significant constraints (including low-lying and potentially flood-affected land at Dorrigo) will be separately notated so growth scenario assumptions take these non-excluded constraints into account.

4. By block, group properties into the following lot sizes (m<sup>2</sup>):

- i. Small >400 and <600
- ii. Medium >600 and < 1400
- iii. Large >1400

To account for spatial shape irregularities (as data being used are not the registered land area) a buffer needs to be applied to ensure properties are placed in the correct group. The grouping of lot sizes with buffer are (m<sup>2</sup>):

- i. Small >396 and < 606
- ii. Medium >606 and <1414
- iii. Large >1414

4a. Exclude Lot areas measuring <400m<sup>2</sup>. For the purposes of the infill capacity modelling these blocks will be excluded as they are generally considered too small in the current Bellingen Shire context to accommodate additional dwellings. (Some larger lots may be affected by flooding or other exclusions and after excluding flood affected area the resulting unaffected area may be too small to allow for additional infill development).

5. Calculate Existing Developed Land (in m<sup>2</sup>). Calculate roof area of dwellings only, and exclude outbuildings (i.e. any roof area measuring < 60m<sup>2</sup>). All buildings with a roof area < 60m<sup>2</sup> are assumed to be outbuildings only and not dwellings. Outbuildings are not considered an impediment to infill redevelopment – i.e. they are easily demolished.

5a. Exclude roof areas for non-residential development (land not zoned R1, aged care facilities, hospitals, schools, churches, shops etc)

6. Calculate Potential Developable Land - The Potential Developable Land area is calculated by the following equation:

$$\text{Total\_Development\_Land (minus) Existing\_Developed\_Land}$$

The potentially developable area calculation is a measure of land available for development, but other constraints such as heritage or vehicle access or factors such as economic feasibility could mean development may not physically occur so the model must be used as an approximation for planning purposes only.

## STAGE 2 – PREDICT INFILL HOUSING GROWTH TO 2040

1. Collate GIS Property Data into Excel Spreadsheet, group into each town area and block.

2. Understanding that each potentially developable property could redevelop in a number of different ways (or most likely not redevelop/change at all) set up columns and equations to reflect future development possibilities (see assumptions on dwelling types below).

The following dwelling types/development outcomes were identified with assumptions about the likelihood of these development types occurring in a certain locality forming the basis of the modelling. The height limit of 10m Shire-wide was assumed to remain. It was assumed that high land values preclude amalgamation of lots. Properties with development potential as highlighted in the infill mapping process were assessed for their potential to accommodate additional development which was fed into the model.

NO CHANGE = +0	+ 0 DWELLINGS
SECONDARY DWELLING	+ 1 DWELLINGS
DUAL OCCUPANCY	+ 1 DWELLING
(S) SMALL MULTI-DWELLING = 4	+ 3 DWELLINGS
(M) MEDIUM MULTI-DWELLING = 8 DW	+ 7 DWELLINGS
(L) LARGE MULTI-DWELLING	+ 11 DWELLINGS
(S) SMALL FLATS = 6 DW	+ 5 DWELLINGS
(M) MEDIUM FLATS = 10 DW	+ 9 DWELLINGS
(L) LARGE FLATS = 16 DW	+ 15 DWELLINGS

It was assumed that each property contained 1 existing dwelling, consistent with Lake Macquarie Council's Infill Potential Study precedent. Therefore development of a dual occupancy on a property results in one additional dwelling being counted (in addition to the existing which is assumed retained). For multi-dwelling or flat development the existing dwelling is not counted as it is assumed it is replaced (a multi-dwelling redevelopment of 4 dwellings is counted as a net gain of 3 dwellings as the existing dwelling is replaced but is not considered net gain). As housing markets change, regular modelling and review of assumptions is necessary as well as tracking of housing growth as it happens.

3. Undertake block-by-block (neighbourhood-by-neighbourhood) analysis to estimate what percentage of properties in each block are likely to redevelop to provide some form of infill housing and estimate what types of infill housing most likely in different areas. Assumptions have been made at a neighbourhood/block level, and include assessment of some individual larger properties that appear to have significant infill potential (likely development scenarios have been predicted for these, or existing development approvals have been used). Growth assumptions are based on the following factors:

- Likelihood/market demand for different housing types due to 2040 (high-level demographic & feasibility assessment)
- Size of lots/properties and existing development patterns
- Road layouts and housing configuration on lot (e.g. laneway access or room for an access handle were seen as offering additional housing potential)
- Age of properties
- Vacant lots
- Land constraints such as slope, access, vegetation, heritage, bushfire
- Development Application and subdivision approvals and recent (last 10 years) development activity
- Council Staff knowledge of local areas and common/suitable development types
- Aerial photography and Street View

In these assumptions, the majority of properties in each neighbourhood are assumed to not redevelop and experience no change in number of dwellings – although the amount of no change varies with each neighbourhood. Overall, on average it is assumed 75% of properties will experience no change and 25% will undergo some change (which may be the development of a granny flat for example). Some current planning controls were factored in to the assumptions – for example 18% of potentially developable land was subtracted to account for setback requirements. However density localities and other DCP controls were not modelled.

After inputting estimated redevelopment types and proportions, the model calculates the number of additional dwellings expected. The model run was considered the middle/medium growth scenario. A high growth scenario was then extrapolated to result in +20% of predicted additional dwellings whilst a low growth scenario reflected -20% of predicted dwelling growth.

# Homes for Our Future Discussion Paper Extract - Choices for Growth

## DIRECTIONS/OPTIONS FOR GROWTH

**It can be hard to talk about growth**, as it affects people and places differently and there can be winners and losers and positive and negative impacts. Sometimes growth can happen too quickly, and sometimes growth doesn't happen at all (and population decreases). All growth scenarios (including low or no growth scenarios) come with positive aspects and a complex set of consequences to consider. All neighbourhoods change over time and planning for the future using business-as-usual approach does not mean things in the Shire will stay the same or environmental impacts will be avoided. As a community we want to be prepared for change and to be having conversations about how best to influence this change in a positive, affirming manner.

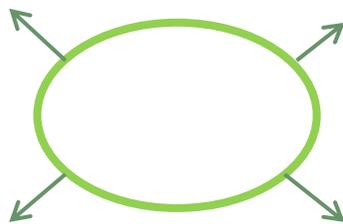
### What do you want the Shire to look like 20 - 30 years' time?

What is really important that we must try to keep? What can we change for the better? What will we need in the future? What will our children and their children need? How can we ensure managing change happens fairly?

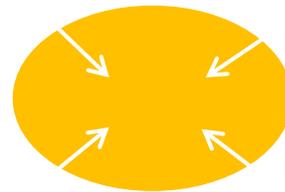
It is often easy to say what we don't want (which is important), but strategy is most effective when it is working towards achieving something we do want – shaping change and working towards goals rather than trying to prevent change or reactively manage issues. We don't need to accept rampant growth with negative environmental impacts – but we do need to be realistic in what is achievable, embrace some changes and understand what trends are occurring and how best we can address these trends and challenges proactively and creatively.

In order for Council to work with stakeholders and the community to draft a good Growth Management Strategy, we want to know how the community wants to grow. The following pages discuss various ways we could choose to grow and the benefits, trade-offs and environmental impacts of each of these options. Your preferred options can vary by area (a different approach on the plateau to the seaboard for example) or you may think combining options would be a good idea – let us know what you think!

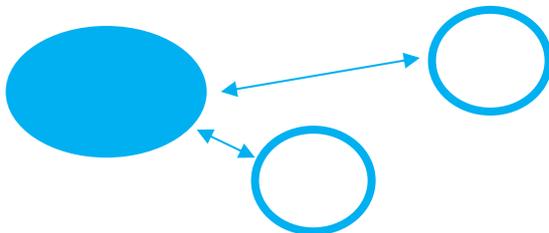
## CHOICES FOR GROWTH - SUMMARY



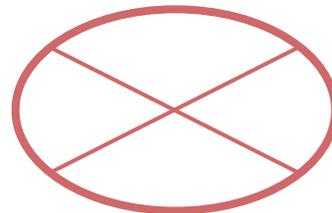
DIRECTION 1: GROW OUTWARDS



DIRECTION 2: GROW IN EXISTING TOWNS



DIRECTION 3: GROW IN NEW AREAS



DIRECTION 4: STRICTLY LIMIT GROWTH

## Direction 1 – GROW OUTWARDS



### What would this look like?

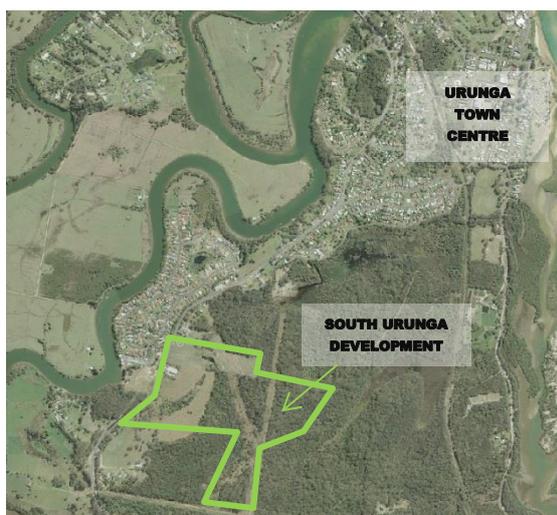
Growing outwards is expanding upon our existing towns by providing new houses on former rural or vegetated land on the fringes of existing built-up areas. This is a type of Greenfield Development. This option would be consistent with past suburban growth patterns in the Shire - all the main towns have expanded along their fringes during growth periods. There is residentially zoned land already available on the fringes of Bellingin, Dorrigo and Urunga (as recommended by the 2007 Growth Management Strategy) so more housing on the fringes will likely occur over the short-medium term. In the medium-longer term, we would like to know how far outwards you think our towns could and should grow.

### Benefits & Opportunities

- Popular with families with young children, first homebuyers and people who want a new, modern home
- Can be more affordable as houses provided on cheaper fringe land (formerly rural)
- Larger residential estates often provide new infrastructure e.g. playgrounds, footpaths
- Many homes can be built relatively quickly
- Not many neighbours to oppose development – more certainty for developers, quicker approval and construction processes (complying development pathway often an option)
- Can provide critical mass for environmental innovation, new infrastructure and services – e.g. purple pipe grey water recycling, upgraded community facilities
- If contained to fringes of existing towns with good links (especially pedestrian and bicycle links), can provide benefits similar to infill development – walkability, more people visiting local businesses

### Trade-offs & Challenges

- More tree removal & land clearing required than infill – impacts on biodiversity
- Higher likelihood than infill of impacting Aboriginal heritage (objects and places)
- Environmental land constraints could prevent further expansion (unless acceptance of greater environmental impacts).
- Land constraints (e.g. steep land) could impact viability
- Trend in newer master planned suburbs to provide homogenous (or very similar) housing products, limiting housing choice
- Costs of providing (and future maintenance of) new infrastructure could be higher than servicing infill development
- Fragmented land ownership and land banking making development difficult to realise
- Likely to be more reliant on private car transport (unless located within walking/cycling distance of town centres).
- Impact upon farmland and scenic rural landscapes from spreading suburban development
- Greenfield development with environmentally conscious features or technology are more costly upfront, therefore developers may pass on costs and such areas less affordable than conventional subdivisions.



### EXAMPLE OF GROWING OUTWARDS

Aerial photo of Urunga and surrounds including approximate area of proposed South Urunga Greenfield development (highlighted).

## Direction 2 – GROW IN EXISTING TOWNS



### What would this look like?

Concentrating growth in existing centres means building more houses in existing built up areas, as opportunities arise. This could involve building upon vacant lots, adding an extra home in a backyard (e.g. a granny flat), building new homes facing laneways, splitting large homes into two or more homes and in some cases redeveloping properties into low-rise (2-3 storey) townhouses or flats. This is called infill development. This option means more houses close to existing shops, services and jobs. Infill development can take many different forms, and can be different in different areas.

### Benefits & Opportunities

- Provides housing choices –different housing types and housing sizes
- Appeals to younger people. Suited to starting new households e.g. moving out of home. Also provides downsizing options for older people
- Attractive for renting
- Extra housing can be provided by landowners, do not necessarily need developers or consortiums to make extra housing
- Rural lands (food producing) and scenic rural landscapes protected as housing will not spread into these areas
- Supports walking and cycling. Reduces car trips to local destinations
- Benefits to local businesses – more people to use local services and buy local goods
- Provide catalyst for new and improved services and infrastructure in town - e.g. medical facilities, schools, parks, community facilities, playgrounds, car parks
- Can be controlled to be in keeping with the existing scale of homes in neighbourhoods.
- Efficient infrastructure spending – rather than extending new services into new areas
- Less land clearing required than for other options, environmentally sensitive areas and wildlife habitat protected
- Less isolation risks due to natural hazards
- Smaller housing types provided by infill (e.g. granny flats, townhouses, units) can be more affordable – however it depends what type of housing, how large and what specification they are built to and marketing.

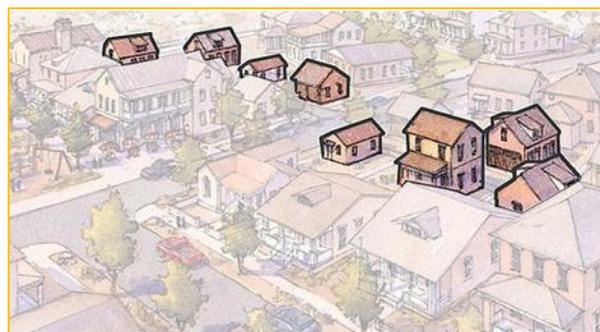
### Trade-offs & Challenges

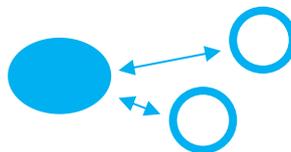
- Can be controversial – sometimes neighbours do not want extra development next to them
- Neighbourhoods become busier and noisier as more people move in
- People are living closer together (however, new greenfield housing estates are also providing smaller lots and homes closer together)
- Some loss of privacy and some loss of sunshine, views potentially impacted
- Smaller backyards, some loss of urban vegetation
- More people parking on streets and more traffic
- Need design knowledge, skills and controls - Poor quality designs can give infill developments a bad reputation (i.e. cause overshadowing, excess noise)
- Infrastructure may require upgrading (e.g. sewer, water extensions)
- Constrained by existing development – need bespoke design response to challenges
- Often slower approval and construction processes
- Development that is not climate sensitive and increases hard surfaces can create heat island effect and stormwater issues
- Risks of gentrification, unaffordable housing, in high demand/high value areas if luxury housing provided and more affordable homes/smaller housing types not provided

Graphic showing example of low-rise infill development could look like – suited to regional towns. More housing in towns does not necessarily mean high-rise buildings.

Source:

<https://anniekoh.tumblr.com/post/50101952799/infill>





## Direction 3 – GROW IN NEW AREAS

### What would this look like?

Growing in new places would mean establishing new suburbs or development areas outside of existing townships. Unlike Direction 1 – Expand Outwards, new growth areas need not be located directly adjoining the main towns. This could involve rezoning rural or environmental areas to residential or rural-residential and changing the character of these areas to provide for more housing. This would be a type of greenfield development. New infrastructure would need to be constructed to service any new residential areas.

Policies allowing for substantial additional housing growth or subdivision in our rural areas could also fall within this option as currently residential growth in rural areas is restricted. This type of policy change would allow for opportunistic housing growth as opposed to coordinated residential land release (greenfield).

### Benefits & Opportunities

- Provides additional housing supply to assist affordability
- Homes could be provided cheaper than other areas (on cheaper former rural land)
- New homes popular with families with young children, first homebuyers and people who want modern housing
- No or few existing neighbours to object
- Residents of new areas would benefit from new infrastructure, new roads, parks, footpaths etc.
- Could provide new cafes, shops etc to support new residents
- Can provide critical mass for environmental innovation, new infrastructure and services
- New development estates could attract new residents to the area, stimulate population growth with flow-on benefits to local economy
- Could provide opportunities for people to pass land and homes onto children – allowing more housing as form of farm succession planning
- Growth in rural areas could provide opportunities for new farmers – small lot farmers
- Landowners benefit from higher land values due to uplift in development potential in new growth areas

### Trade-offs & Challenges

- Most tree removal and land clearing of all options to provide for homes and bushfire protection - impacts on biodiversity
- Impacts on farmland, increase probability of conflicts between new residents and farmers, less local food produced
- Could raise surrounding rural land values and lead to speculative buying and selling and ad-hoc development outside of towns
- Risks associated with extra residents in areas isolated by floods, bushfire-prone land
- High costs to provide new/extend/maintain infrastructure (e.g. roads, water, sewer) to service new area
- More reliance on private car use. More commuting to jobs, traffic congestion.
- Escape expenditure to Coffs Harbour or Nambucca if these are closer centres – less support for local businesses.
- Larger shops (e.g. convenience anchors like a supermarket) could negatively impact existing town centres by drawing people, liveliness and spending away from existing activity hubs.
- High likelihood of impacting Aboriginal cultural heritage, as many areas previously undeveloped for housing
- New greenfield areas would require rezoning of land, technical and planning studies and long approval processes – not likely to supply housing in the short term
- No way to capture windfall gains to landowners for rezoning of areas to pay for public improvements.
- Trend in newer master planned suburbs to provide homogenous (or very similar) housing products, limiting housing choice
- Environmental land constraints could prevent further expansion (unless acceptance of greater environmental impacts)

Examples of recent new growth areas on the North Coast include:

- Kingscliff, Kings Forest & Pottsville, Tweed
- West Byron, Byron Bay
- Cumbalum, Ballina
- Sapphire Beach, Sandy Beach, Boambee East & Rural-residential at Bonville, Coffs Harbour
- Thrumster & Ascot Park Port Macquarie

## Direction 4 – STRICTLY LIMIT GROWTH



### What would this look like?

This option would mean beyond already approved growth plans (e.g. South Urunga), new housing development would not be actively encouraged. Housing supply would continue to slow. Population in the short-medium term could grow slowly or decline slightly and over the longer term could decline. Bellingen has strong history of environmental activism and no growth/population decline may align with some interpretations of deep environmental protection viewpoints. In considering this history of environmental activism however it is important to note that the influx of environmentally-conscious residents in the 70s and 80s also coincided with the largest population growth the Shire has experienced in recent times. This option is not preferred by Council at this time. That said there may be alternative funding systems/methods of providing for community needs that could be considered and incorporated into Council's strategic planning that are aligned with a more low-growth/stabilised population view. There may also be policy learning's from a future focusing on greater environmental protection (considered the primary motivation for people who want less growth) that could be incorporated into a Draft GMS.

### Benefits & Opportunities

- Reduced development pressure, less impact on natural environment given limited expansion into natural or undeveloped areas
- Opportunities for increased self-sufficiency
- Potentially stronger community ties due to greater communal responsibility for services and infrastructure
- Lower-consumption based economy, potentially lower resource use (depending on the habits of the population) having environmental benefits
- Less reliance on government (as government may be unable to fund extra services in a population decrease scenario)
- Lower house prices in medium-longer term if population decreases (less competition for homes)
- Retention of local character in short term (but community and character will change over medium-long term)

### Trade-offs & Challenges

- Lack of housing choices remains
- Could increase unaffordability and inequality if housing prices stay high in high demand areas
- Very difficult to limit growth if market factors intervene and development and affordability pressures compound – e.g. Byron Bay attempts to limit growth led to higher house prices and subsequent affordability pressures led to greenfield housing plans (West Byron)
- Likely to require very restrictive planning controls – provide limits to what people can do with their land and properties
- Difficult position to implement – more restrictive planning controls and limits require more emphasis on enforcement - difficult in context of contracting government services

- Very low to no population growth and population decrease becomes a much more likely probability
- Could reduce investor confidence and limited new investment.
- May need to pay more for services and infrastructure maintenance, renewal, improvement
- May need to accept lower levels of services
- May need to travel further for services and jobs – environmental impacts due to greater car reliance and emissions from transport
- Less people to buy from local businesses
- Reduced levels of service, infrastructure maintenance could have safety implications.
- Services will not grow and may contract depending on population trends (e.g. police, hospitals, banks, schools, community facilities, sporting teams)
- Loss of associated jobs if services contract or businesses close, could lead to higher unemployment, brain drain to areas of greater job opportunities
- Lower population and low growth, less justification to receive competitive grant funding
- Standards of living could change (safety, health, education)
- Older housing stock could fall into disrepair
- People could choose to move to less restrictive areas – loss of community ties
- This option not consistent with existing Council or State Government policy
- Will not result in local government financial sustainability – reduced level of government service provision, possible amalgamation pressure
- Unchartered territory, not mainstream approach in Australian economy where growth is rewarded with infrastructure investment, will need to explore other funding models for services (may not be tested)

This page is intentionally blank

