Housing Needs (Choice, Diversity & Affordable Living) Investigation

Moreton Bay Regional Council

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Executive summary

The homes we build now, will last decades into the future.

Due to the longevity of our decisions, planning needs to occur now in anticipation of our future housing needs, in decades to come.

This planning needs to account for future population numbers, family structures, and the need to create a well-planned region where people have access to jobs, transport, centres and recreation.

It is also important to focus on what makes Moreton Bay special - it's green character, coastal areas, rural hinterland areas, strong communities, innovative commercial and industrial areas, community infrastructure and our access to essential services.

Council has commissioned Gaskell Planning Consultants and SGS Economics and Planning to conduct a Housing Needs Investigation (HNI) to help achieve a well-planned region – to ensure Council has enough housing in the right locations to meet community needs and maintain what people love about Moreton Bay.

The HNI has examined where and how we live now, as well as what we need to do to maintain our livable suburbs as the region grows and changes. The HNI focusses on five key areas of housing:

1. choice
2. accessibility
3. location
4. affordability
5. capacity.

The HNI aimed to identify and support the housing needs of Moreton Bay's current and future residents, as a foundation for Council's new planning Scheme.

Broadly, the HNI found that Council's current planning framework supports the aforementioned areas of housing, at a high-level. However, more can be done to improve 'line of sight' between the strategic framework and lower-level elements of the planning scheme (e.g. code provisions), and outside the planning framework (e.g. incentives).

1. Choice – Supporting better housing choice for everyone

As we go through life, our housing needs and preferences may change. For example, we may start our housing journey wanting a small, affordable home - prior to looking for a larger family house. As we get older, we may prioritise a smaller, low-maintenance home, or need to move into specialised housing (such as retirement living or residential aged care).

Regardless of who we are, our housing needs change throughout our lives, and no two people are the same.

Housing choice allows people to find homes that meet their needs, life stage, budget and family size.

Historically, large family houses have dominated Moreton Bay and alternate housing choices have been limited. However, household sizes are decreasing, and there is an increasing trend of single-parent households. Large family houses may not be as suitable for these smaller households (refer to Section 2.1 for more information).

If these trends continue, there will be a mismatch between the types of housing available in Moreton Bay, and the types of housing people need. Housing is also becoming more expensive - as a result of land costs, construction costs and living costs.

To support smaller households, single-parent households and affordability, Council should seek to promote smaller homes including townhouses, terraces and apartments. Promoting smaller, lower maintenance homes in existing communities will also give ageing residents and downsizers more choice, if they want to remain in the same area as they age - close to their existing friends, family and familiar shops and services.

By supporting better housing choice, more people will be able to find a home that meets their needs, life stage, budget and family size - even as they change throughout life.

The HNI has found that:

- Families in Moreton Bay are living in larger, less dense homes than the rest of South East Queensland (SEQ) on average.
- Compared to the rest of SEQ:
  - Moreton Bay has less high density housing (3% vs 11%).
  - Moreton Bay has more low density houses (81% vs 71%).
- Single-parent households are expected to increase from 12-17% by 2051.
- Moreton Bay doesn't have as many small homes (1-2 bedrooms) as the rest of SEQ.
- In 2051 we expect our housing stock will need to be 73% separate houses, 21% medium density (low rise terraces or units), and 6% high density and other housing.
  - At present, 81% of Moreton Bay's housing is separate houses.

In response to these findings, the following are recommended to Council:

1a. Encourage greater diversity in housing types and sizes.

1b. Support smaller homes for single-parent families and smaller households.

1c. Promote medium and higher density housing, and a lesser proportion of separate houses.

Example actions to achieve these strategies include:

- Investigate the potential to reduce the minimum site area and separation distances for dual occupancy in the Suburban neighbourhood precinct, where the design can meet intended precinct character outcomes, and clarify these intended outcomes in the purpose statement of the General residential zone code.
- Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. densities akin to the Next generation neighbourhood precinct).
- Identify catalyst sites and opportunities for greater intensity residential infill at suitable locations (e.g. through neighbourhood planning processes, structure planning, master planning or a separate exercise).
- Consider ways to clarify expected development typologies throughout Moreton Bay (e.g. through revised zone cards/information sheets, an interactive tool, or amendments to zone/precinct names, codes, or planning scheme structure and strategic framework).
- Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. "development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings")
- Consider opportunities to engage with the community around housing choice, diversity and affordable living through the Neighbourhood Planning process
- Advocate to the State Government during the review of ShapingSEQ, to better support housing choice and diversity (e.g. through a dwelling diversity benchmark, similar to the current expansion/consolidation benchmark).

2. Accessibility – Providing options for our ageing and less mobile populations

Moreton Bay's population aged over 65 is growing at twice the rate as the rest of SEQ. And, by 2051, the population aged over 65 will have grown by 182% compared to 2016. In addition, in Moreton Bay, about 6.1% of people need assistance for core activities, compared with 5.2% in the rest of SEQ.

At present, 75% of homes in the Moreton Bay are large (3+ bedroom) family houses, which may not be suitable for an increasing number of downsizers and empty-nesters (refer to Section 2.3 for more information). To support this ageing population, Council should seek to promote smaller, lower maintenance housing around public transport and essential services, as well as suitable housing for people with mobility constraints, or whom need care.

Council should endeavour to support better housing choice for everyone, so people can access suitable housing at whatever stage of life they're in.

If Council can provide for more housing choice, older people who want to downsize will have the opportunity to remain in their community, close to their existing networks and social support.

The HNI has found that:

- Moreton Bay's population aged over 65 is growing at twice the rate as the rest of SEQ.
- By 2051, Moreton Bay's population aged over 65 will have grown by 182% compared to 2016.
- 75% of homes in the Moreton Bay are large (3+ bedroom) family houses.
- Higher proportions of older people live in Moreton Bay's coastal communities and on Bribie Island, and the Redcliffe Peninsula.
- In Moreton Bay about 6.1% of people need assistance for core activities, compared with 5.2% in SEQ.
- By 2051, Moreton Bay will need 7,925 additional accessible dwellings (7.2% of all additional dwellings).
- Around 6,300 additional people are expected to be living in aged care between 2021 and 2051.

In response to these findings, the following are recommended to Council:

2a. Facilitate more accessible, adaptable and low-maintenance housing.

2b. Encourage housing diversity for 1-2 person households and empty-nesters.

2c. Focus new housing around public transport and services, to support ageing and less mobile populations

Example actions to achieve these strategies include:

- Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. "development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings"). Note this action is also recommended above, to support housing choice.
- Review, and, if appropriate, support National Construction Code or Queensland Development Code 'Livable housing design' accessible dwelling requirements, if/when implemented (e.g. through guidelines relevant to Moreton Bay).
- Investigate potential incentive packages for residential care development (e.g. height and density bonuses on larger sites, with appropriate built form transitions for integration with local character) to support Moreton Bay's ageing population.
- Investigate options to better support NDIS housing (e.g. through incentives, levels of assessment, or a dedicated contact person within Council (i.e. a concierge) to support NDIS housing providers through the planning and development process).
- Consider opportunities to better support ageing-in-place throughout Moreton Bay, including appropriate housing diversity in Townships.

3. Location – Encouraging the right housing in the right locations

When deciding where to live, different people have different needs and preferences.

Some people prefer rural living, while others prefer small lot housing. Meanwhile, some people enjoy being close to shops, restaurants, public transport and job opportunities.

It is important to have options, so people can choose to live in a location that suits their personal circumstance and lifestyle.

In Moreton Bay, most new homes are being built in greenfield areas. Comparatively few homes are being built in established areas, near existing job opportunities, public transport, and centres (refer to Section 2.3 for more information). As long as housing in greenfield areas is available in well serviced locations the higher costs of infill housing will discourage infill housing investment. Over time as greenfield land is located further from well serviced locations, and the market matures, a greater demand for infill housing closer to services is expected.

Council should seek to improve this balance by encouraging more infill housing in established areas.

Providing more infill housing around job opportunities, public transport, and existing shops, cafes, restaurants and small businesses will help enrich Moreton Bay's centres, while also giving people more options when choosing where to live.

If the proportion of infill housing being built around existing public transport and centres doesn't increase, pressure will rise to push development outward, into new greenfield areas - where farmlands, green space, natural assets and significant environmental values exists.

The HNI has found that:

- Most new homes are being built in large-scale, greenfield areas.
- Comparatively little development is occurring around existing centres and public transport.
- Most new townhouses and terrace house developments are being built on large sites or in greenfield areas – rather than small-scale infill development being 'salt and peppered' into established areas.

In response to these findings, the following are recommended to Council:

3a. Encourage more small-scale 'salt and pepper' infill development in established areas.

3b. Enrich Moreton Bay's centres by encouraging higher density development around existing centres, public transport and job opportunities.

3c. Promote medium and high-density housing in well-serviced, high amenity locations (e.g. parkfront or riverfront land).

Example actions to achieve these strategies, for infill and greenfield development, include:

Infill development

- Create a suite of case study reference materials, to showcase and define successful 'salt and pepper' infill development (prioritising local examples where possible) to developers, landowners, and the community.

- Conduct a market sounding with potential or prospective medium density developers, to understand barriers to medium density development in Moreton Bay.
- Investigate and compare measures (e.g. infrastructure charge reductions, or application fee waivers) to encourage infill development.
- Investigate the opportunity, benefits and feasibility of facilitating higher density residential development in high amenity areas.
- Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. densities akin to the Next generation neighbourhood precinct). Note this action is also recommended above, to support housing choice).
- Identify catalyst sites, benefits and opportunities for greater intensity residential infill at suitable locations (e.g. through neighbourhood planning processes, structure planning, master planning or a separate exercise). Note: This action is also recommended above, to support housing choice.
- Consider local amenity improvements through Neighbourhood Planning processes, which could improve the attractiveness of centres and promote infill housing.

Greenfield development

- Create a suite of case study reference materials, to showcase and define successful medium density development in greenfield areas (prioritising local examples where possible) to developers, landowners, and the community.
- Investigate options to increase structure planning and collaboration with Unitywater and the State Government, to remain on the forward-foot of planning for greenfield development, including increasing the proportion of medium density housing in greenfield areas (in-line with how well-serviced the land is), coordinating infrastructure, preserving green space, amenity qualities, and planning for schools, centres and facilities.
- Evaluate recent structure planning processes (prioritising local examples, where possible), to understand best practice and record lessons learned for future structure planning exercises.

4. Affordability – Improving affordable living options

In line with State requirements, the focus of the HNI is affordable 'living' (as apposed to affordable 'housing'). While 'affordable housing' refers to the cost of buying or renting a home, 'affordable living' also includes the cost of transport to and from the home, as well as the cost of maintaining the home.

Most new homes being built in Moreton Bay aren't being built in areas which are conducive to affordable living. I.e. Most new housing is being built in areas where residents cannot walk to existing public transport, centres, job opportunities or schools.

Many homes are also larger than they need to be (with multiple spare bedrooms), and across Moreton Bay, rents are higher than many people can reasonably afford (refer to Section 2.4 for more information).

Council should seek to increase affordable living opportunities, via a broader range of incentives for higher density housing around existing centres and public transport.

The HNI has found that:

- Most new homes are being built in greenfield areas, without good access to public transport, shops and services.
- Approximately 35% of renting households are experiencing rental stress.
- 13% of mortgaged households are experiencing mortgage stress.
- Most 3+ bedroom homes have at least two spare bedrooms.

In response to these findings, the following are recommended to Council:

4a. Encourage new housing that supports affordable living, in well-serviced locations.

4b. Support more diverse housing stock that is 'affordable by design'.

Example actions to achieve these strategies include:

- Create guidance material or a suite of case study reference materials, to showcase and define 'affordable living', 'affordable housing' and 'affordable by design' housing outcomes (e.g. smaller homes of 1-2 or 3 bedrooms, efficient floorplans, natural lighting, heating and cooling, self-sufficiency, shared spaces etc) - including roles and responsibilities.
- Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. densities akin to the Next generation neighbourhood precinct). Note this action is also recommended above, to support housing choice and infill development.
- Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. "development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings").
- Advocate for Commonwealth and State support for affordable housing in Moreton Bay, to meet housing needs.
- Conduct an 'affordable living done well' ideas competition to generate collateral, which could be used when educating people and advertising contemporary best practice for affordable living.
- Support the identification and use of surplus State or Moreton Bay Regional Council land for use for affordable housing in partnership with the State Government and a not-for-profit affordable housing provider.

5. Capacity – Accommodating our growing population

Moreton Bay's population has been growing by approximately 10,000 people per year, and by 2041, is expected to reach 690,000. To accommodate this growth, around 3,650 additional dwellings will be needed every year.

Additionally, based on 'Moreton Says' survey results, Council is aware that people value the green, leafy character of Moreton Bay. Therefore, Council should aim to balance population growth with the character of Moreton Bay, by planning for the right amount of housing in the right locations.

ShapingSEQ requires 88,300 new homes to be built in Moreton Bay by 2041, however, more recent modelling conduced by SGS for this report suggests more dwellings may actually be needed (i.e. 91,620 new homes, rather than 88,300). Modelling shows that, based on current rates of development and current realistic capacity, Moreton Bay is on-track to meet and exceed both of these numbers by 2041.

Notwithstanding the above, an increase in housing density (particularly medium density (such as 'salt and pepper' housing in Next generation neighbourhoods) and high-density infill housing) would better support Moreton Bay's changing demographics, reduce long-term pressure on land supply (post-2041), and allow Council to maintain a rolling 15 years supply of land that is zoned and able to be serviced (refer to Section 2.5 for more information).

The HNI has found that:

- Moreton Bay's population is growing twice as quickly as the average across all SEQ local government areas.
- Moreton Bay's population is expected to grow by ~10,000 people and therefore, we will need an additional 3,650 dwellings per year.
- At current estimates Moreton Bay will reach a population of 690,000 by 2041.
- If historic development rates continue, 164,117 additional dwellings can be expected by 2051 (from 2016).
- Moreton Bay is on-track to meet the State Government's ShapingSEQ benchmark of providing 88,300 additional homes by 2041.
- Increasing the achieved density of infill development would be prudent, to support changing demographics and land supply.

In response to these findings, the following are recommended to Council:

5a. Maintain the green and leafy character, which Moreton Bay residents value.

5b. Encourage higher density infill housing, to manage land supply and urban encroachment into Moreton Bay's open, green and agricultural spaces.

Example actions to achieve these strategies include:

- Advocate for clear urban growth boundaries - to maintain natural environment and scenic amenity qualities, productive rural land, and to prevent fragmentation of the urban fringe.
- Add data about the diversity (typology), location and density of building completions to Council's development monitoring reports, to improve oversight of housing being delivered.
- Engage with development industry representatives regularly, to receive advice on real time market trends and issues.
- Continue developing Council's regional planning and growth modelling capabilities, to assist with capacity planning and growth management.

- Repeat this study every 4-8 years, or shortly before preparing a new Planning Scheme (whichever comes sooner), to capture the most current data at the time, and keep mapping up-to-date.
- Consider revising the densities permitted in the Next generation neighbourhood precinct, to align with the densities assumed in Council's October 2019 Planning Assumptions and the 'Moderate density scenario' discussed herein (Section 2.5.1).

It is important to note that high-level State Government benchmarks are the primary focus of this report's capacity discussion. More detailed assessments of capacity (such as capacity within the Priority Infrastructure Area) are dealt with separately.

1. Report Summary

1.1 Introduction and purpose of the report

Moreton Bay Regional Council has commissioned Gaskell Planning Consultants and SGS Economics and Planning to conduct a Housing Needs Investigation (HNI).

The HNI is focused on five key areas of housing:

1. choice
2. accessibility
3. location
4. affordability
5. capacity.

The HNI analyses current housing needs in Moreton Bay, discusses the implications of findings, and recommends actions to address concerns.

It is important to note that the availability and cost of housing is influenced by many additional factors, beyond the five key areas discussed in this report, and beyond what Council has influence over.

For instance, the costs and availability of housing is influenced by; the extent of State and Federal infrastructure, taxes and duties set by the State and Federal governments, and incentives and concessions offered by the State and Federal governments (such as the National Rental Assistance Scheme and HomeBuilder Grant). Furthermore, the cost and availability of construction materials, labour and finance can influence the cost and supply of housing and are beyond what Council has influence over.

As such, whilst it is important to note the multi-dimensional nature of housing and its many influences, the scope of this report is primarily focussed on what Council has most influence over.

1.2 Data sources

ABS data is the primary source for demographic data, current housing stock data, and data about building completions. The ABS is considered the best available, most comprehensive and high-quality source for this data.

ABS data has been supplemented with data on building approvals and completions from Council and some other data sources, which has been refined for strategic planning purposes. However, it is considered to be less standardised and high-quality than ABS data.

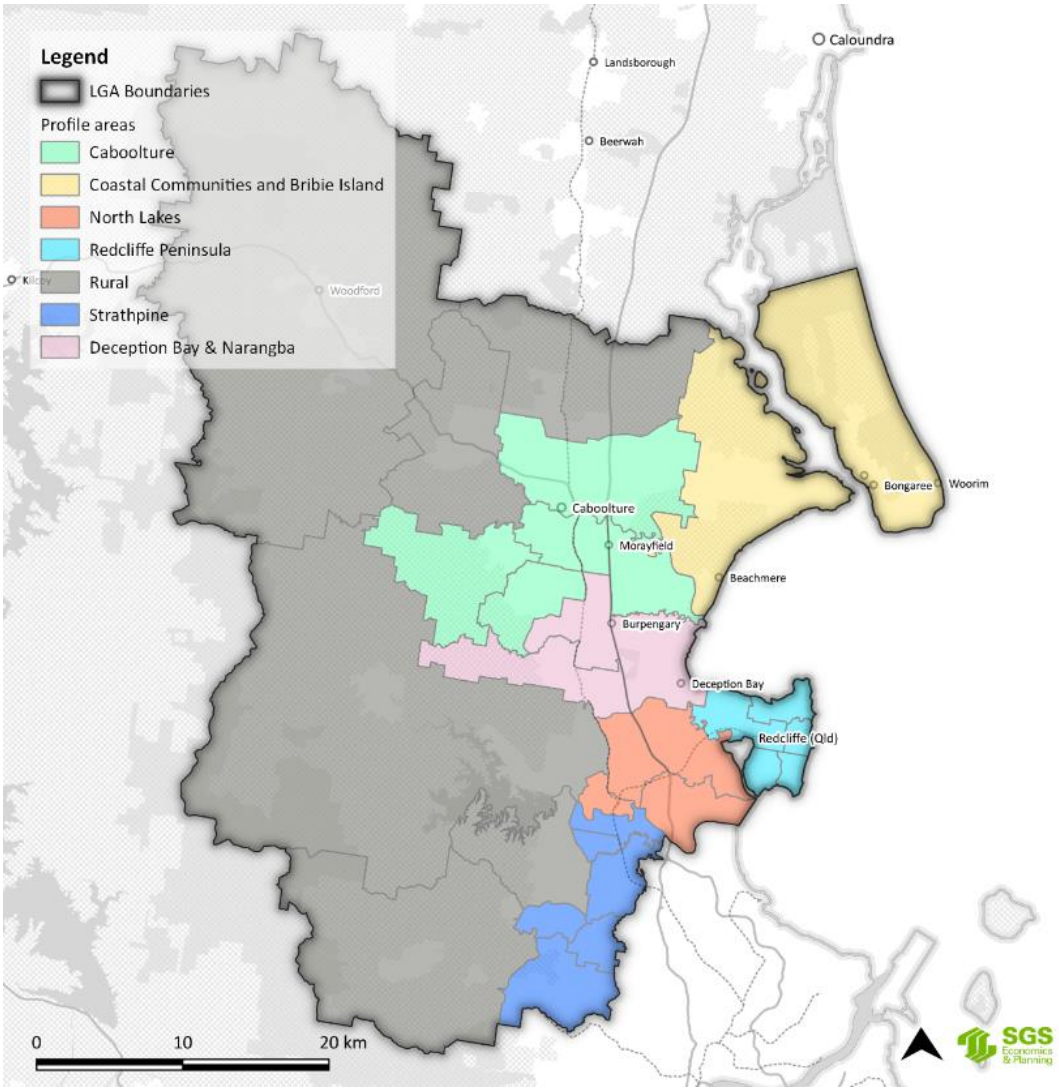
Generally, data has been used at the Statistical Area 2 (SA2) level to understand the different localities within Moreton Bay which all have different populations and housing characteristics. These areas are Caboolture, Coastal communities and Bribie Island, North Lakes, Redcliffe Peninsula, Rural, Strathpine and Deception Bay and Narangba.

Whilst this report is largely based on *2016* ABS Census data, at the time of finalising this report, limited *2021* Census data has been released. Based on a preliminary review of this limited 2021 Census data, it would appear that relevant longitudinal trends have largely continued, and none of this report's findings or recommendations have been voided by the more recent Census data.

1.3 Profile areas

The Moreton Bay LGA has been split into sub-areas for the purpose of aggregating demographic statistics and analytical results. These areas are shown in Figure 1 and are aligned with SA2s from the ABS Census to allow Census statistics to be used. These areas are intended to represent broad parts of Moreton Bay with different housing characters and development markets.

FIGURE 1:PROFILING AREAS USED TO PRESENT RESULTS



Source: SGS Economics and Planning, 2021.

1.4 Key terms

1.4.1 Housing types

In this report, dwellings are categorised into four types which are based on definitions used by the ABS in the Census and other data sources. These categories are:

- Separate house means a dwelling which is not attached to any other dwelling.
- Medium density dwellings include attached dwellings (such as semi-detached, terraced houses and townhouses), as well as two storey apartments buildings.
- High density dwellings are flats and apartment buildings with three or more storeys.
- Other dwellings include caravans and cabins, improvised dwellings (for example sheds, tents or humpies), houseboats and flats attached to shops.

The above refers only to *private dwellings*, in which individual households occupy self-contained dwellings which do not share bathrooms, kitchens or similar. Moreton Bay also contains non-private dwellings which includes student accommodation, aged care facilities and various other dormitory style or not self-contained housing forms.

Relocatable homes are usually classified as separate houses, as they share no boundary walls with other dwellings and are self-contained despite not being on their own property.

Granny flats and other similar forms of secondary dwelling (for example tiny houses on a property containing a larger house) are inconsistently classified in the ABS Census. They are sometimes counted as separate houses, or in some cases may be counted as part of the primary dwelling.

1.4.2 Household types

The following household types have been used in this report, aligned with those used in the ABS Census:

- Couple family with children means a family with two adults and one or more children.
- Couple family without children means a couple in a lone term-relationship without children. This includes both young couples and older couples whose children have moved out.
- One parent family means one parent living with one or more children.
- Other family includes other kinds of households containing related people living together, such as siblings living together.
- Multi-family household means two or more families (from the categories above) living together in the same dwelling.
- Lone person household means a single person living by themselves.
- Group household means two or more unrelated people living together, for example a shared house.
- Non-classifiable household means a household which does not fall into the above categories, or for which insufficient information was available in the ABS Census to accurately categorise the household.

As defined by the ABS, and in this report, a family can have unrelated people living with them. For example, a couple sharing a dwelling with another person would count as a couple family with children rather than a group household.

1.4.3 Types of housing development

In this report, the following terms are used to refer to different types of housing development:

- Greenfield development is the subdivision of broadacre or semi-rural land into new suburbs at the edge of urban areas. This is a common kind of development in Moreton Bay.
- Infill development is the 'salt and pepper' redevelopment of existing suburban blocks containing single houses with higher density kinds of development – whether it is dual occupancies, terraces, townhouses, villas, low-rise apartments or high-rise apartments. In many cases, amalgamation of more than one suburban property into a single development site will be required for development to proceed, as for example suburban blocks do not suit redevelopment into apartment buildings.
- First generation subdivision is the subdivision of a property which is larger than typical suburban properties into either suburban lots of medium density housing. This term is specifically used to refer to subdivision in established areas (as opposed to greenfield development). The term 'first generation' is used to reflect that the properties being subdivided do not reflect the predominant nearby suburban character and remain from an earlier rural or semi-rural land use pattern.

1.5 Policy context

The following legislative documents and strategic initiatives provide a strategic policy context frame the current state of housing choice, diversity and affordability in Moreton Bay:

- South East Queensland Regional Plan 2017 ('ShapingSEQ')
- Strategic Framework of the Moreton Bay Regional Council Planning Scheme 2016
- Residential Land Supply Assessment Project, March 2017 (Spatial Economics)
- Next Generation Neighbourhood Precinct Review - Briefing Note, July 2020
- Secondary Dwelling Review Project Updated - Briefing Note, September 2020
- MBRC Growth Management Strategy 2022-2042
- Residential Needs Assessment - Norling Consulting, September 2019
- Regional Economic Development Strategy 2020-2041
- A detailed summary of each abovementioned document is provided at Section 2.0.1.

1.6 Key findings

An overview of key findings from the HNI, is provided below.

1.6.1 Choice - *Supporting better housing choice for everyone*

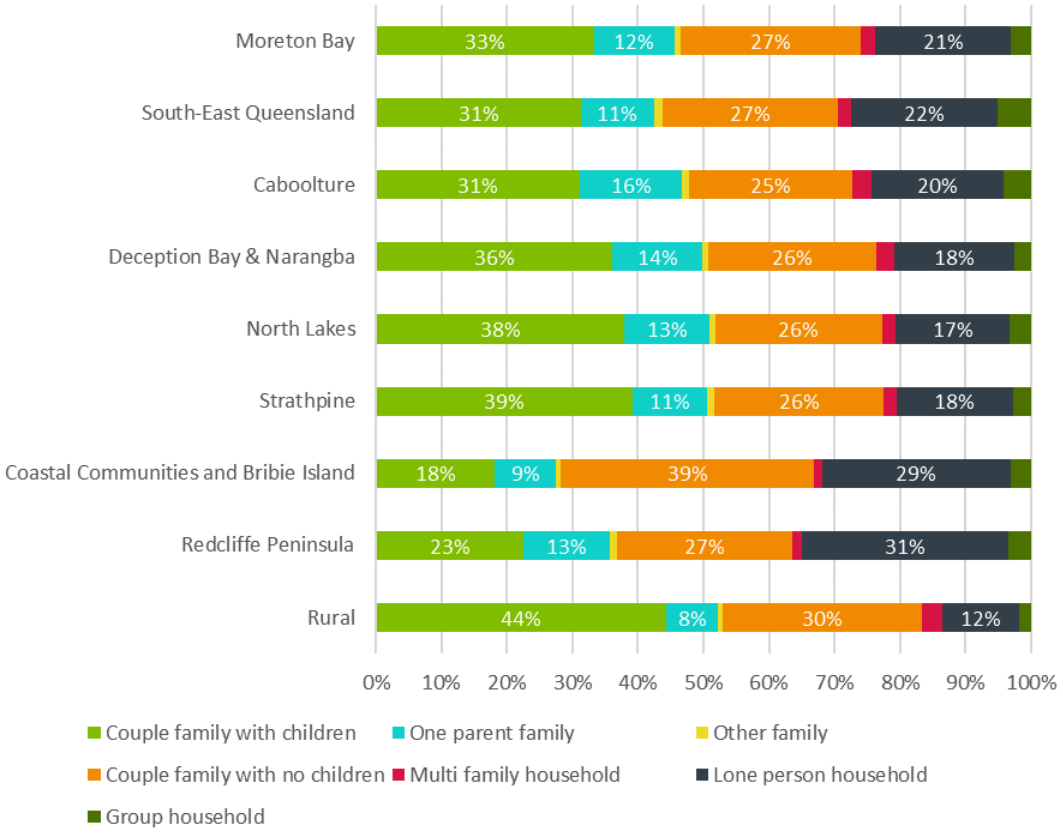
Household composition is usually the driver of housing needs.

Moreton Bay has a similar household composition to SEQ as a whole. However, within Moreton Bay, different areas have different characteristics. In particular:

- A higher proportion of people over 65 years of age live in Coastal communities and Bribie Island and in the Redcliffe peninsula (compared to the rest of Moreton Bay). These are known retiree destinations but also contain families with children in smaller proportions than other areas.
- The Caboolture area has a similar composition to SEQ and Moreton Bay as a whole, which is likely to shift towards a larger number of families with children as greenfield development accelerates.
- There is a higher proportion of people under 44 years of age in North Lakes.

The demographics of North Lakes show that greenfield development does not appeal exclusively to families with children, but that it will accommodate people across the age spectrum.

FIGURE 2: HOUSEHOLD COMPOSITION IN MORETON BAY AND PROFILE AREAS (2016)



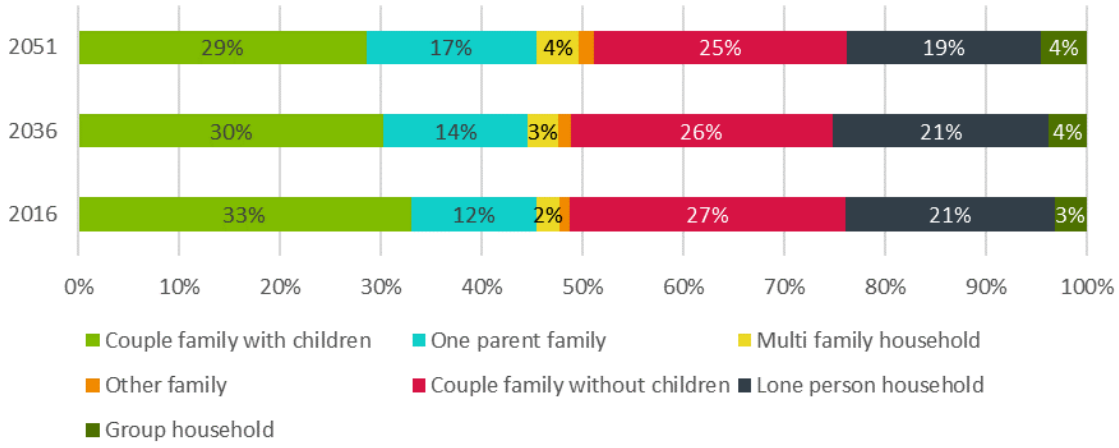
Source: ABS Census 2016

The highest population growth rates in both absolute and percentage terms, are forecast for older people, with the number of people aged 65+ in Moreton Bay expected to increase by 182% between 2016-2051, compared to an 80% increase in the population in general. Growth will continue across the

age spectrum, with slightly higher growth rates for people aged 10-19, 35-44 and 50-64 and slightly lower rates for people aged 0-9, 20-34 and 45-49.

Per SGS modelling, in accordance with QGSO and *ShapingSEQ* projections, an additional 123,579 households are expected to 2051 (from 2016). Generally, the household composition is expected to remain generally consistent with the current composition of households, however a rise in one parent households (12% to 17%) and a reduction in couple families in children (33% to 29%) is expected.

FIGURE 3: FORECAST HOUSEHOLD COMPOSITION IN MORETON BAY



Source: SGS 2021, ABS Census 2016

At present, medium density housing comprises 15 - 20% of new housing, while high density housing almost exclusively occurs on the Redcliffe peninsula, Bribie Island and coastal communities.

A slight shift in the mix of housing being delivered will be needed to meet forecast demand. 67% of new housing delivered between 2006-2016 was a separate house, and 75% between 2016-2021, while only 62% of housing needs to be separate houses between 2016-2051. A small increase in the amount of medium density will be needed, particularly when compared to 2016-2021, and a large increase in the amount of high density.

Based on projected demographics, the following forecasts identify changes to building types required to meet household needs.

TABLE 1: YEARLY RATES AND COMPOSITION OF HOUSING DEVELOPMENT

	2006-2016		2016-2021 Completions		2016-2051 Forecast to meet need	
	Yearly change	% of total change	Yearly change	% of total change	Yearly change	% of total change
Separate house	2,758	67%	2,841	75%	2,266	62%
Medium density	1,110	27%	716	19%	1,039	28%
High density	248	6%	105	3%	312	9%
Other	6	0%	113	3%	37	1%
Total	4,122	100%	3,774	100%	3,654	100%

Source: SGS 2021, ABS Census 2006, 2016, Council building completions data

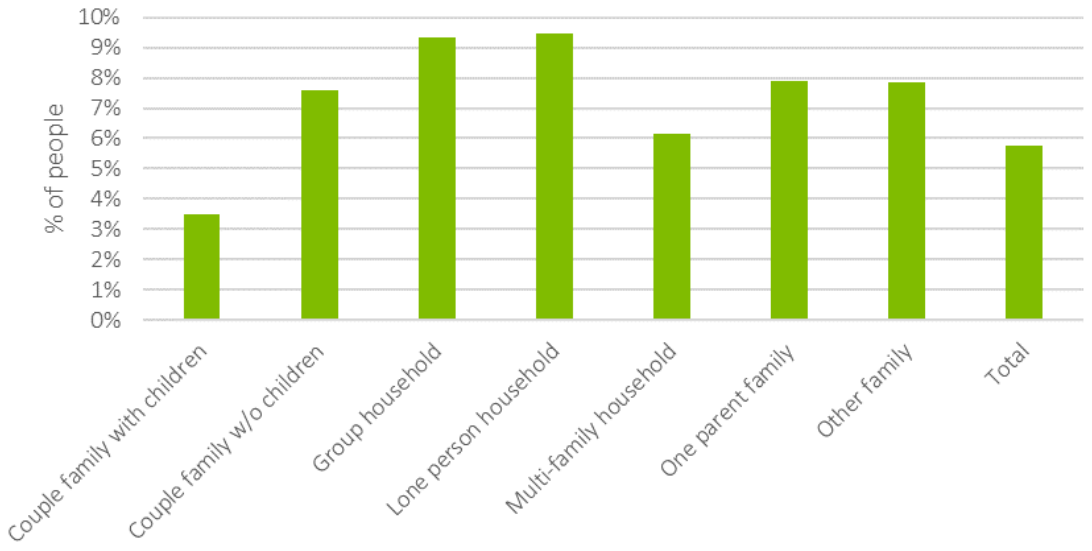
This is a small shift towards a higher proportion of medium and high density compared to historical growth and will lead to a more diverse housing mix in the future compared to now.

Accordingly, a higher level of medium and high density housing is forecast to meet future housing needs.

1.6.2 Accessibility - *Providing options for our ageing and less mobile populations*

Through the Census, the ABS estimates the proportion of the population who need assistance with core activities due to disability. The proportion of Moreton Bay's permanent population needing assistance is shown in the figure below broken down by household type.

FIGURE 4: PROPORTION OF MORETON BAY POPULATION WHO NEED ASSISTANCE WITH CORE ACTIVITIES, 2016



Source: SGS 2022 using ABS Census 2016

By comparing these proportions to the modelled household forecast, and assuming that the proportions will remain the same in the future, it is possible to forecast how many households may need accessible dwellings catering to the needs of those with a disability. This result is shown in the table below.

Some people who need assistance with daily activities may not need an accessible dwelling, and so the number of accessible dwellings needed may be slightly less than the numbers shown in this figure.

The number of households needing assistance with core activities in Moreton Bay is forecast to increase by 7,677 by 2051. These households will have varying needs for accessibility or modification in their housing, but if all households needing assistance with core activities need accessible housing this would translate into 7,925 additional accessible dwellings by 2051 or 7.2% of all additional dwellings.

1.6.3 Location - Encouraging the right housing in the right locations

The catchments of existing centres near train stations are the most well serviced parts of Moreton Bay, making them most appropriate for housing. The best serviced locations according to this combined index are the catchments of centres at Strathpine, Lawnton, Albany Creek and Petrie. Other centres which also perform well, but not as well, are Caboolture, Kallangur, North Lakes, Kippa-Ring, Redcliffe, Deception Bay, Burpengary and Morayfield. Bongaree and Bribie Island more broadly have local services and high amenity but by comparison have lesser accessibility.

While additional local services and amenities are likely to be built in greenfield areas in the future, the southern part of Moreton Bay has the best overall accessibility to jobs and services and this is unlikely to change in the future.

Currently the spatial distribution of development, based on buildings approval data, contains four key areas:

- Large-scale greenfield development is mostly generating large number of dwellings, particularly around Caboolture, Mango Hill and other growth areas.
- Relocatable home and retirement village developments, which contain many detached or attached villas on a large site. These contribute some of the clusters of development visible in the approvals and completions data.
- More distributed medium density development. These are large unsubdivided properties in established areas undergoing first generation subdivision into medium density housing estates.
- High density development, which is focused on the shoreline of the Redcliffe Peninsula and to a lesser degree to the canal/marina development in the northern part of the Peninsula.

An analysis of medium density housing approvals shows that the larger property areas accommodate most of the medium density dwellings. A major gap identified in this study is the limited infill occurring in the well serviced locations in proximity to train stations and major centres. Whilst the proportion of medium density in new greenfield estates and 'first generation' infill is creating a spread of housing diversity across the region; the well serviced locations are not in receipt of infill development notwithstanding the capacity to do so.

Instead of salt and pepper infill development, medium density development in Moreton Bay is occurring in three different settings:

- Some medium density development built into larger greenfield estates, for example the Capestone Development at Mango Hill.
- Stand-alone medium density estates which are first-generation subdivision on the edge of Moreton Bay's urban area or in greenfield settings.
- Generally smaller stand-alone first-generation subdivision medium density estates within the existing urban area on remaining large properties.

The second two of these development types, which are both stand-alone medium density estates, appear to make up most development.

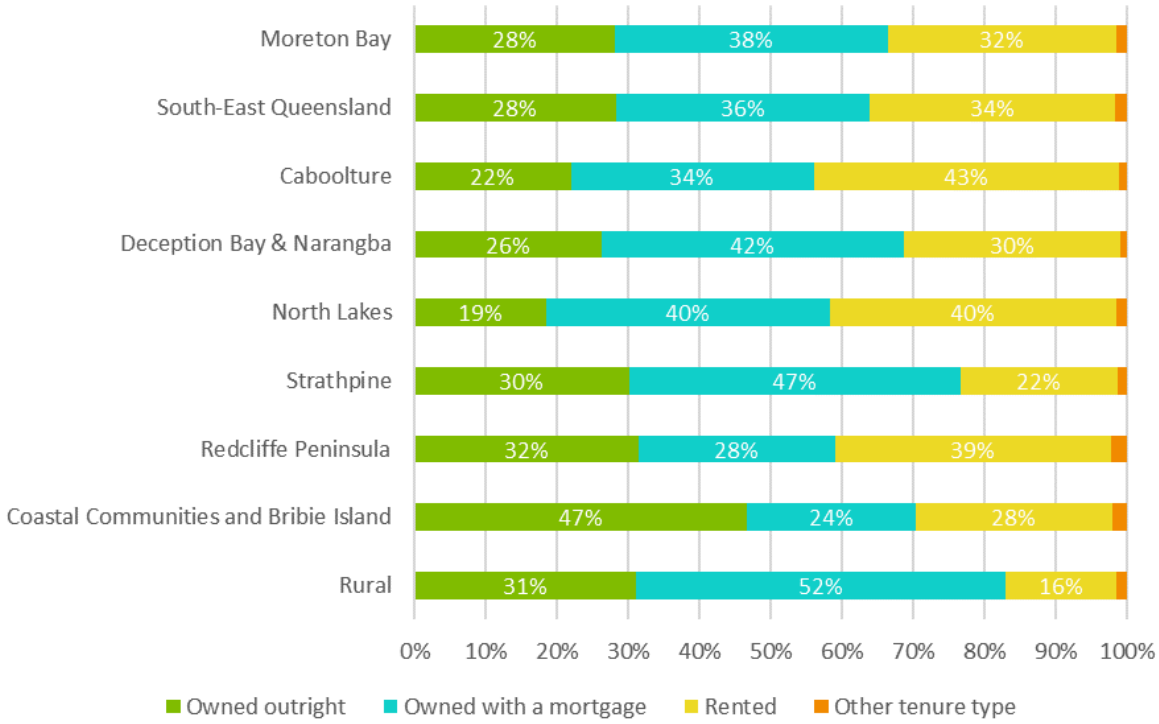
Moreton Bay's Planning Scheme is generally structured to allow for medium and higher density development in the best serviced locations: the catchments of existing centres and around train stations.

1.6.4 Affordability - *Improving affordable living opportunities*

The overall tenure profile for Moreton Bay, SEQ and the profile areas are shown in Figure 5. Overall Moreton Bay has a similar tenure profile overall to South-East Queensland, with a mix of tenure types. This reflects:

- the diversity of household types who live in Moreton Bay and the diverse housing markets is contains
- the age of development and predominant housing type in those areas
- variations in the housing market.

FIGURE 5: HOUSING TENURE (2016)



Source: ABS Census 2016

Table 2 shows increases in median housing costs, household incomes and rents from 2006, 2011 and 2016. This shows that increases in housing costs have outpaced increases in income, making housing less affordable in real terms.

TABLE 2: MEDIAN HOUSING COSTS AND HOUSEHOLD INCOMES

	2006	2011	2016	% Change 2006-2016	Average annual growth rate
Median house price	$305,000	$402,250	$435,750	43%	3.6%
Median unit price	$249,500	$335,250	$350,500	40%	3.4%
Median house rent ($/week)	$250	$340	$380	52%	4.3%
Median unit rent ($/week)	$230	$300	$335	46%	3.9%
Median household income	$1,048	$1,254	$1,408	34%	3.0%

Source: RP Data, ABS Census 2006, 2011, 2016

More recent data for Moreton Bay across these variables which is comparable to the historical values is not available. However, available data shows that housing costs have continued to increase since 2016 albeit at a slower rate. Between the September quarter in 2016 and the June quarter of 2021 in Moreton Bay rents increased by :

- 9% for a 2 bedroom flat increased by, or on average 1.8% per year
- 4% for a 3-bedroom townhouse, or on average 0.9% per year
- 15% for a 4 bedroom house, or on average 3.0% per year.

Over this same period, separate house prices across Greater Brisbane increased by 30% (5.7% per year on average), and unit prices increased by 1.2% only (0.2% per year on average) . By comparison, wages in Queensland increased by on average 2.3% per year between 2016-17 and 2021-21 , meaning houses are likely becoming less affordable while units have become slightly more affordable.

Mortgage and rental stress rates appear to be similar in Moreton Bay and SEQ as a whole, with around 35% of renting households in stress and 13% of mortgaged households. Mortgage stress rates are much lower than rental stress rates, with renters also having less security of tenure.

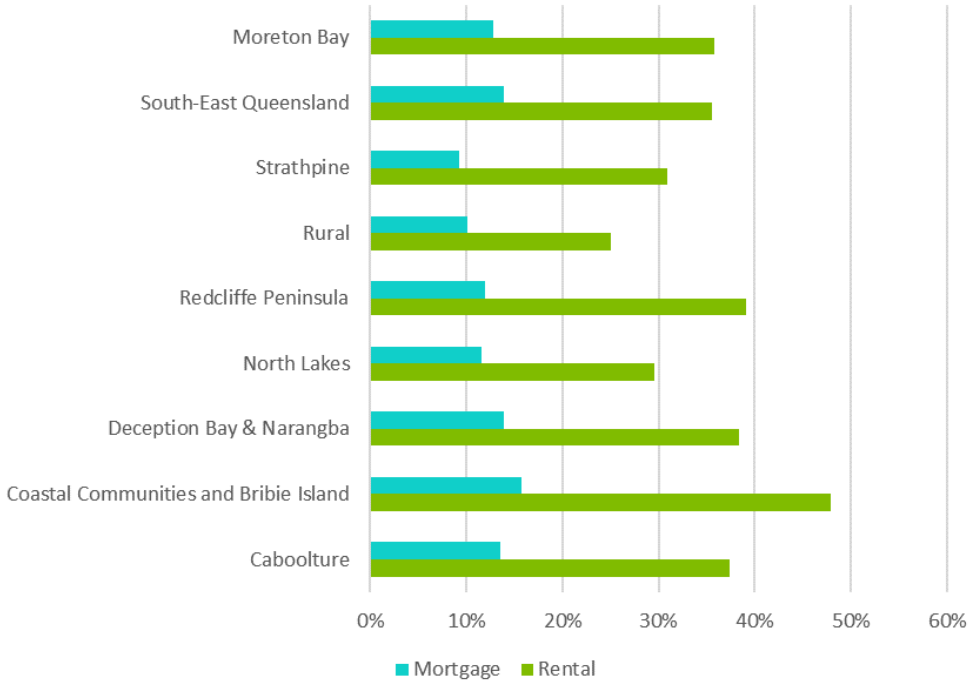
Coastal Communities and Bribie Island and Redcliffe have especially high rental stress rates, and generally the highest rents. The very high stress rate here is likely to be related to the large number of retirees with low incomes but potentially higher levels of assets. While Caboolture and Deception Bay and Narangba have the cheapest rents, they still have moderately high rental stress rates due to their lower average incomes.

Overall, these figures indicate that while housing in Moreton Bay is more affordable than in the City of Brisbane, across Moreton Bay rents are higher than many people can reasonably afford. Mortgages appear to be more in line with household's capacity to pay, although many households may not be able to afford to purchase housing.

In combination, it is revealed that:

- The northern part of Moreton Bay, particularly around Caboolture is very affordable in terms of land price but apart from the established parts of Caboolture is not highly accessible to jobs and housing and does not facilitate affordable living.
- Bribie Island has very high land prices as a result of coastal amenity, but is relatively inaccessible by public transport and has longer travelling distances if people need to frequently travel to employment or services.
- Some of the centres in the southern part of Moreton Bay have relatively affordable housing prices (although more expensive on a per square metre basis) and good accessibility, facilitating affordable living. These include Strathpine, Lawnton, Petrie and Kallangur.

FIGURE 6: HOUSING STRESS RATES (2016)



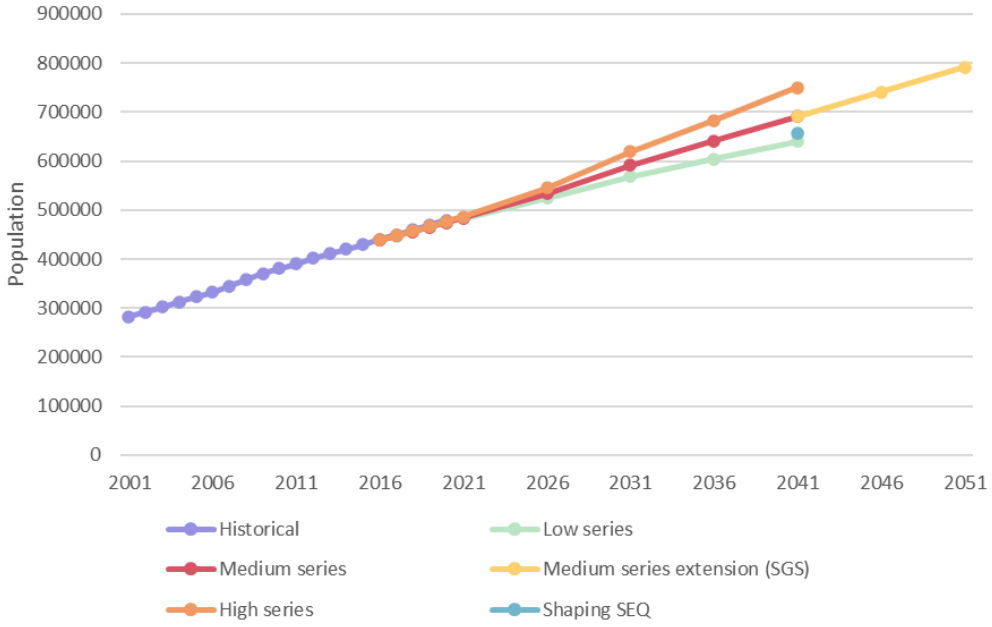
Source: SGS 2021 using ABS Census 2016

1.6.5 Capacity - Accommodating our growing population

Population projections for the Moreton Bay Region are based on the Queensland Government Statisticians Office projections, including the ShapingSEQ forecast for 2041. This study has utilised the medium series. The low series has a decline in population growth in the future, while the high series has an increase to higher rates of population growth than have been seen historically. Given the historical trend, the medium series is considered most likely.

The medium series growth projection expects an estimated growth of 252, 300 persons to 2041 at similar growth rates to the current rates. The extended population projection to 2051 has been provided based on 2031- 2041 birth, death and migration rates.

FIGURE 7: POPULATION FORECASTS FOR MORETON BAY



Source: SGS 2021, ABS 2020 Estimated Residential Population, QGSO 2020, Population Projections, QLD Government ShapingSEQ

On these assumptions the population is expected to grow by around 10,000 each year. This is similar to average past rates of population growth, although there has been some variation in past rates of growth between around 8,400 – 12,950 depending on the year. Moreton Bay's population is growing twice as quickly as the average across all SEQ local government areas, with a particularly significant increase in the number of older people (9% per year on average between 2006-2016).

The population increase is driven by births and internal domestic migration from Brisbane, regional centres in QLD and interstate, reflecting Moreton Bay's relative affordability compared to Brisbane City Council. These factors are likely to be robust or even increased in the face of COVID-19.

Net internal migration was by far the biggest driver of population growth where people moved from Brisbane City, Regional Centres and interstate. The most likely drivers were households looking to move to an affordable part of Moreton or a lifestyle location like Redcliffe or Bribie Island while still being within reach of Brisbane's services.

Considering housing needs based on this analysis, 127,904 additional dwellings will be needed in Moreton Bay between 2016-2051, or around 3,650 per year, which a slight decrease on the 2006-2016 development rate.

ShapingSEQ contains a benchmark of providing 88,300 additional dwellings in Moreton Bay between 2016-2041 (with 3,887 on average per year between 2021-2031), while SGS's modelling indicates a need for 91,620 over this time period.

The Queensland Government's Land Supply and Development Monitoring Report (LSDM) indicates that between July 2016 and Jun 2021, 23,892 dwellings were completed in Moreton Bay, or an average of

4,778 per year. As this is in excess of the number required per year under ShapingSEQ, Moreton Bay is currently on track against ShapingSEQ's housing supply benchmarks.

2. Housing Needs Investigation

2.0.1 Strategic Context

The following legislative documents and strategic initiatives provide a strategic policy context frame the current state of housing choice, diversity and affordability in Moreton Bay:

- South East Queensland Regional Plan 2017 ('ShapingSEQ')
- Strategic Framework of the Moreton Bay Regional Council Planning Scheme 2016
- Residential Land Supply Assessment Project, March 2017 (Spatial Economics)
- Next Generation Neighbourhood Precinct Review - Briefing Note, July 2020
- Secondary Dwelling Review Project Updated - Briefing Note, September 2020
- MBRC Growth Management Strategy 2022-2042
- Residential Needs Assessment - Norling Consulting, September 2019
- Regional Economic Development Strategy 2020-2041

A detailed summary of each abovementioned document is provided below.

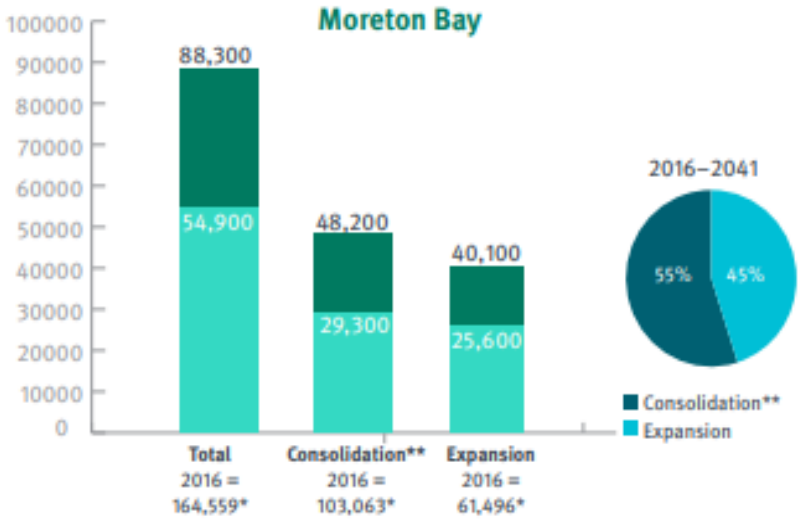
2.1.1 South East Queensland Regional Plan 2017 ('ShapingSEQ')

The South East Queensland Regional Plan 2017 (ShapingSEQ) was introduced 11 August 2017 and provides a regional framework for growth management to ensure the long-term planning direction across local government areas. The plan seeks to balance the economic and environmental issues by delivering viable long-term strategies. ShapingSEQ includes a number of regional policies that set out the desired regional outcomes, principles and policies to address growth management in SEQ. Of most relevance to this Housing Needs Investigation is the expected population growth and dwelling supply benchmarks for the Moreton Bay region, identified as follows:

- 88,300 total new dwellings by 2016-2041
- 48,200 new dwellings comprised as urban consolidation by 2016-2041 (55% urban consolidation target)
- 40,100 new dwellings comprised as urban expansion by 2016-2041 (45% urban expansion target).

The recent Land Supply and Development Monitoring report 2020 was undertaken to benchmark current dwelling approvals within Moreton Bay against the targets of ShapingSEQ. The findings of the report concluded urban consolidation and expansion for dwelling approvals were greater than the annual benchmarks as demonstrated in Figure 8.

FIGURE 8: LAND SUPPLY AND DEVELOPMENT MONITORING



Source: ShapingSEQ, August 2017.

2.1.2 Strategic Framework of the Moreton Bay Regional Council Planning Scheme 2016

The strategic framework sets the policy direction for the Planning Scheme and forms the basis for ensuring appropriate development occurs in the Moreton Bay area for the 20-year life of the Planning Scheme. These policy directions are underpinned by the following key drivers:

- projected growth within the region that forecasts a growth from 390,000 people (2012) to 538,000 people (2031)
- less constrained land has been developed resulted in increased costs develop remaining land
- existing major centres and services are not located within proximity to greenfield development sites
- infrastructure servicing costs to cater for increased demand and capacity
- increasing housing costs
- household composition is changing in response to an ageing population
- creation of local jobs has not kept pace with population growth necessitating long daily commuter trips out of the Region
- ecological considerations and environmental constraints.

2.1.3 Residential Land Supply Assessment Project, March 2017 (Spatial Economics)

This report investigates the historic, current, and future assessment of residential land supply and demand across the municipal area of Moreton Bay. It considers recent activity, projected demand, and adequacy of supply in terms of major residential (greenfield and major infill) and other sources of supply (dispersed infill and rural residential).

Moreton Bay is a residential growth area for the Brisbane Region, which has experienced strong and consistent residential development. Adequate greenfield land supply is necessary to maintain relative housing affordability and accommodation of future growth. However, infill locations should be seen as a future major land supply source, and appropriate land use policies/strategies should be explored to maximise development yields/densities at a precinct level.

There is consumer and industry preference for diverse and compact land and housing products. According to this report it is understood that there is sufficient residential land supply to satisfy demand for approximately 31 years in a competitive supply environment, however regular monitoring is essential to keep up to date with market changes.

2.1.4 Next Generation Neighbourhood Precinct Review - Briefing Note, July 2020

This report provides a review of the current development outcomes for the Next Generation Neighbourhood Precinct (NGNP) of the General Residential zone and the equivalent Transition Precinct (TP) of the Emerging Community zone in response to submissions received through the public consultation stage of the MBRC Planning Scheme Tailored Amendment No.1 and Council's resolution of 29 October 2019. A variety of short-term non-statutory actions have been proposed and it is suggested industry engagement be sought before conducting a Planning Scheme Amendment in the medium term.

Submissions received during consultation on the amendment raised concerns about the NGNP not delivering sufficient housing variation or private greenspace, adversely impacting privacy and security, lacking adequate car parking, and causing place identity and local character issues.

Council officers have identified issues regarding:

- a lack of community understanding of the precinct's purpose and location
- strategic issues (high level of development in the precinct, accessing development outcomes from superseded planning schemes, and inconsistences around precinct purpose and intended scale of the built form)
- planning and design issues.

The report proposes a series of short-term, medium-term, and long-term steps to address the issues identified.

2.1.5 Secondary Dwelling Review Project Updated - Briefing Note, September 2020

This report provides a review of current development outcomes for Secondary Dwellings and was initiated in response to submissions received through the public consultation stage of the MBRC Planning Scheme Tailored Amendment No.1 and Council's resolution of 29 October 2019. It focuses on concerns regarding the quality of development relating to Secondary Dwellings, which has been considered in two parts:

- Issue 1: Land use - misunderstanding of the 'Secondary Dwelling' definition and function
- Issue 2: Planning Scheme Provisions - design issues and amenity impacts.

Council officers have identified challenges due to a series of complicated land use definitions and a misunderstanding of these over a long period of time. This has resulted in development intensity similar to 'Dual Occupancy' without appropriate assessment, design measures and infrastructure charges. This issue is likely to worsen due to continued growth and affordability pressures.

The report proposes a series of short-term, medium-term, and long-term steps to address the issues identified.

2.1.6 MBRC Growth Management Strategy 2042-2042

Council is preparing a Growth Management Strategy (GMS) to set a roadmap for how Council will manage growth in the region to 2041 and beyond. It will provide principles, strategies and actions that will help manage forecast population growth in the region. This document is in response to significant project population growth, as ShapingSEQ outlines that Moreton Bay Region is required to deliver an additional 88,300 dwellings by 2041. Further, Caboolture West is identified as a 'Major Expansion Area' and 'High Priority Growth Area' and is located within the Urban Footprint Area.

Some of the key issues to be considered by the GMS include: :

- How do we best accommodate the expected population growth in our region?
- How do we better plan for our changing housing needs?
- How do we better plan for local employment opportunities?
- How do we better sequence infrastructure delivery with our expected growth?
- How do we better protect the heritage, character and identity of the region, and its many communities, as it grows?

2.1.7 Residential Needs Assessment - Norling Consulting, September 2019

This report supports a planning application to be lodged with MBRC on behalf of ADC Group Pty Ltd in respect of a DA for a Preliminary Approval for a Material Change of Use for Dwelling Houses, Home Based Business and a Sales Office that includes a Variation Request, which seeks to vary the effect of the MBRC Planning Scheme 2016 in respect of Morayfield.

The aim of the assessment is to address need for the development as the report asserts that the applicable Priority Infrastructure Area (PIA) lacks the capacity to meet residential demand for the next 15 years.

2.1.8 Regional Economic Development Strategy 2020-2041

MBRC is the third largest local government in Australia (by population), however it lacks a coherent regional identity and reputation as a business destination. In 2019, the region's population grew by 2.2%, however the economy grew at just 0.5% - the lowest level of growth since 2001. Thus, a new direction is required to encourage economic development within MBRC.

The Strategy has been developed as a 'collaborative effort' by local business, industry, and local government leaders in establishing the goals of a 'Bigger, Bolder and Brighter' economy, by supporting

the creation of a $40 billion economy, 16,000 new businesses and 100,000 new jobs over the next twenty years.

The Strategy proposes a range of initiatives and actions under four pillars: leadership and identity, industry advancement, trade and investment, and innovation and entrepreneurship.

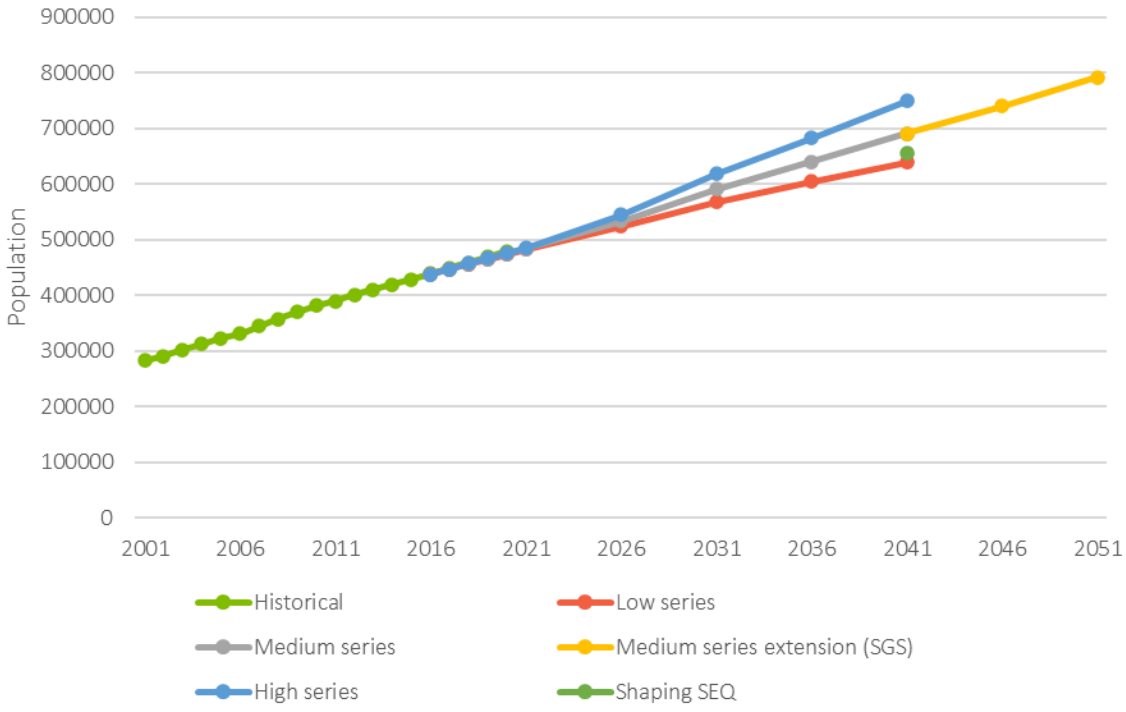
2.0.2 Population projections

Population projections are the key driver of housing demand, with a growing dwelling supply needed to accommodate a growing population. Queensland Government population projections are shown in Figure 9 below compared to historical population growth.

Depending on which population projections is used (the low, medium or high series), the population of the Moreton Bay LGA is projected to grow by between 201,300 to 311,900 (46% - 71%) between 2016-2041. The medium series projection, which has been used to model housing demand in this project, has estimated growth of 252,300 to 2041. Queensland Government projections do not extend beyond 2041, but SGS has extended this projection to 2051 which is discussed below.

Figure 9 also shows the population forecast for 2041 for ShapingSEQ, which is lower than the main series projection.

FIGURE 9: POPULATION FORECASTS FOR MORETON BAY

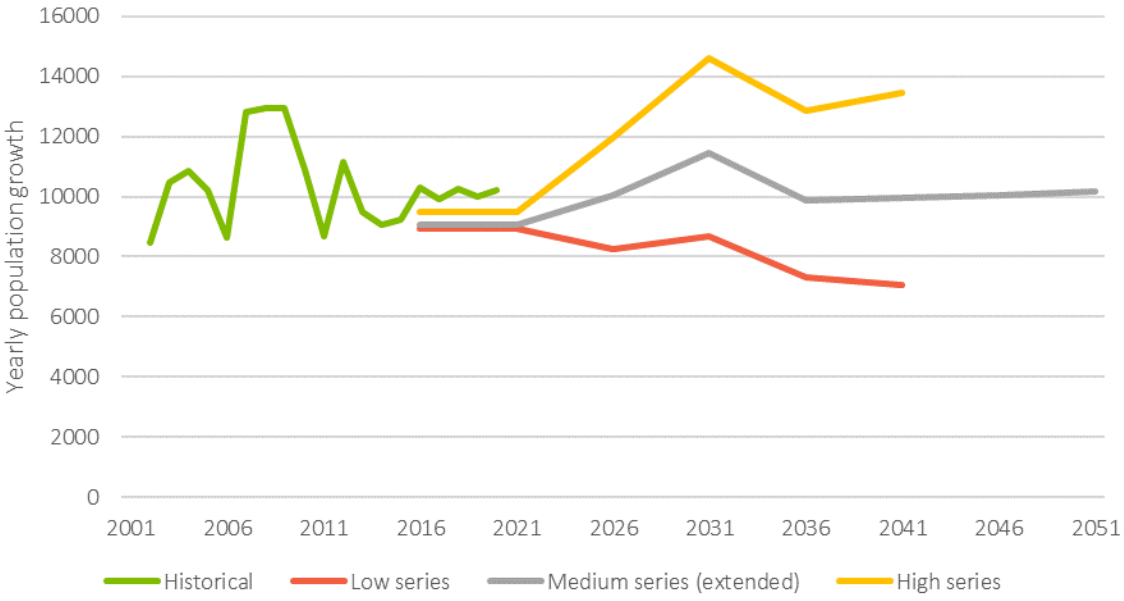


Source: ABS 2020 Estimated Residential Population, QGSO 2020, Population Projections, QLD Government Shaping SEQ

Yearly population growth under the forecasts is shown in Figure 10 compared to historical growth rates. Under the medium series projection, the population would grow by around 10,000 each year. This is similar to average past rates of population growth, although there has been some variation in past rates of growth between around 8,400 – 12,950 depending on the year. The low series has a decline in population growth in the future, while the high series has an increase to higher rates of population growth than have been seen historically. Given the historical trend, the medium series is considered most likely.

Population growth data since 2016 shows that the QGSO projections slightly understate growth since 2016, although the size of this difference is not large enough to cause substantial inaccuracy in modelling and could be counteracted by higher expected growth in the future under the medium and high series.

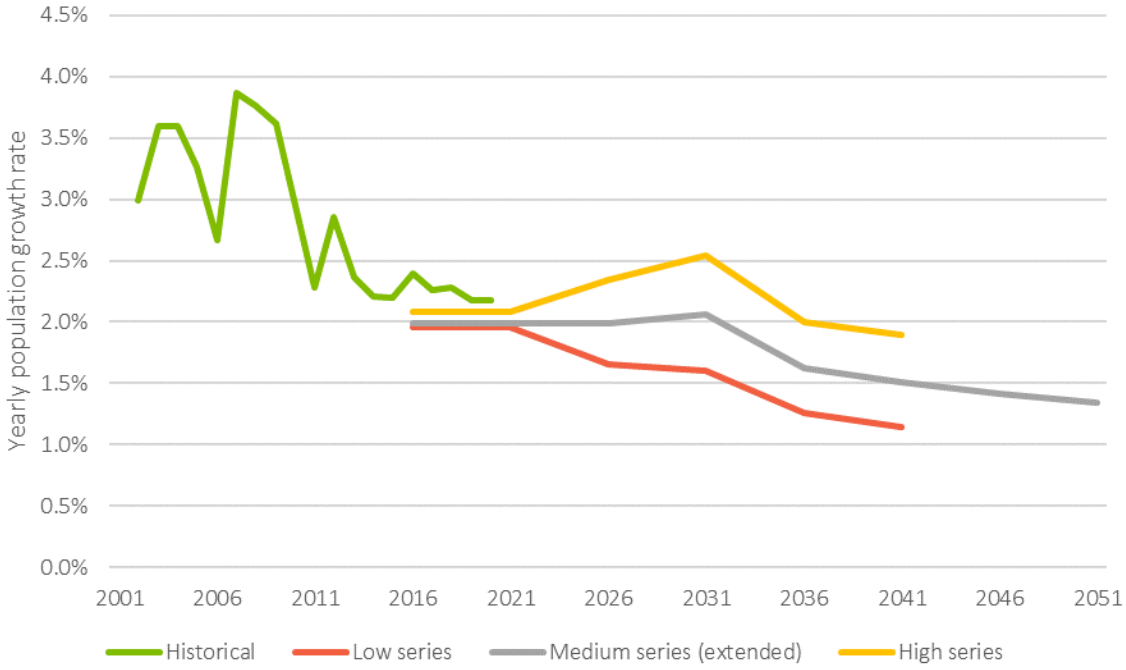
FIGURE 10: HISTORICAL AND FORECAST RATES OF POPULATION GROWTH FOR MORETON BAY



Source: SGS 2020 based on ABS 2020 *Estimated Residential Population*, QGSO 2020, *Population Projections*

The yearly percentage population growth rates under the projections are shown in Figure 11. As the number of additional people living in Moreton Bay each year is expected to remain relatively constant under the medium scenario, and with the population expected to keep growing, the growth rate as a percentage against total population is expected to decline. This is in line with the historical trend.

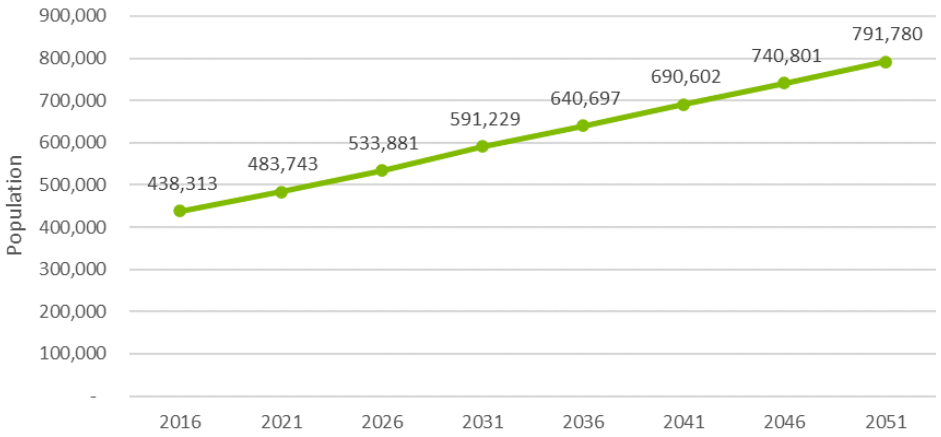
FIGURE 11: HISTORICAL AND FORECAST PERCENTAGE RATES OF POPULATION GROWTH FOR MORETON BAY



Source: SGS 2020 based on ABS 2020 *Estimated Residential Population*, QGSO 2020, *Population Projections*

SGS has adopted the medium series projection for the purpose of modelling housing demand and has extended the projection to 2051 by assuming that birth, death and migration rates between 2041-2051 reflect those between 2031-2041. The resulting projection is shown in Figure 12. Under this projection, between 2016-2051 the population would grow by 353,467 or 80% from 438,313 (2016) to 791,780 (2051).

FIGURE 12: ADOPTED POPULATION PROJECTION EXTENDED TO 2051



Source: SGS 2021 using QGSO 2020 *Population Projections*

2.1 Housing choice - Supporting better housing choice for everyone

This section focuses on what types of housing Moreton Bay needs now and into the future, to support better housing choice for everyone.

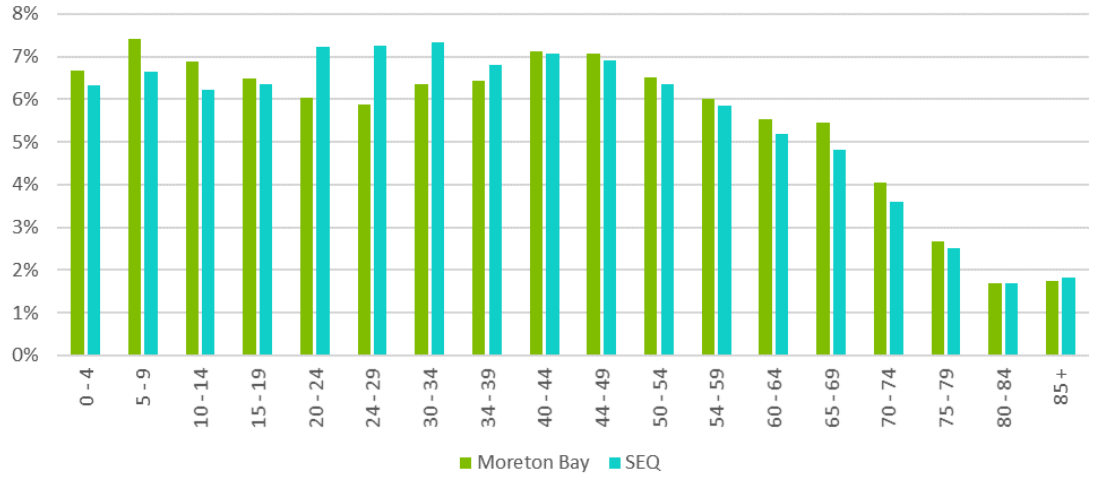
2.1.1 Data analysis

2.1.1.1 Population age profile

Moreton Bay's population age profile is shown in Figure 13 and compared to SEQ. Moreton Bay is home to people across the age spectrum, and Moreton Bay's population age structure is not highly different to that of SEQ.

Compared to SEQ, Moreton Bay has a slightly lower proportion of people aged 20 – 34. Young people in these age groups are often found in higher concentrations in more inner-city locations, and may move away from Moreton Bay to Inner Brisbane. Moreton Bay also has a slightly high proportion of people aged 0-14. This reflects the housing character and relative affordability of Moreton Bay, which appeals to young families with children.

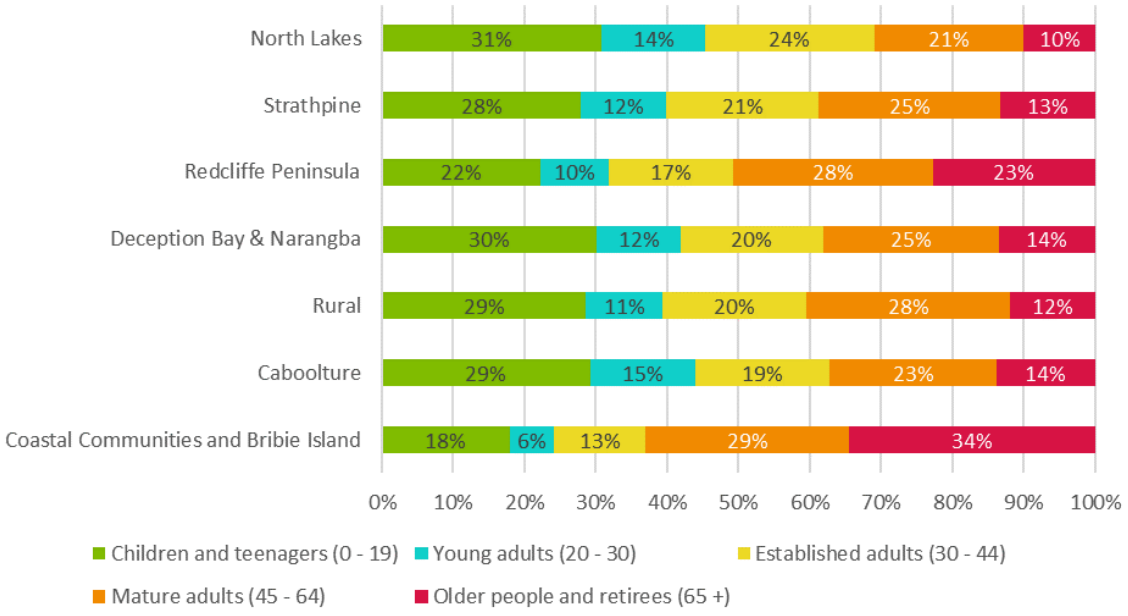
FIGURE 13: POPULATION AGE STRUCTURE (2016)



Source: ABS Census 2016

There is variation of the age structure within Moreton Bay, which is shown in Figure 14. The Coastal Communities and Bribie Island, and to a lesser extent Redcliffe Peninsula, have a very high proportion of older people and retirees compared to Moreton Bay as a whole, giving them an older population than the Moreton Bay Region average. These areas appear to appeal to retirees moving to the coast. The other parts of Moreton Bay, and in particular Deception Bay & Narangba and North Lakes, have younger populations with a higher proportion of children and teenagers.

FIGURE 14: POPULATION AGE STRUCTURE (2016)



Source: ABS Census 2016

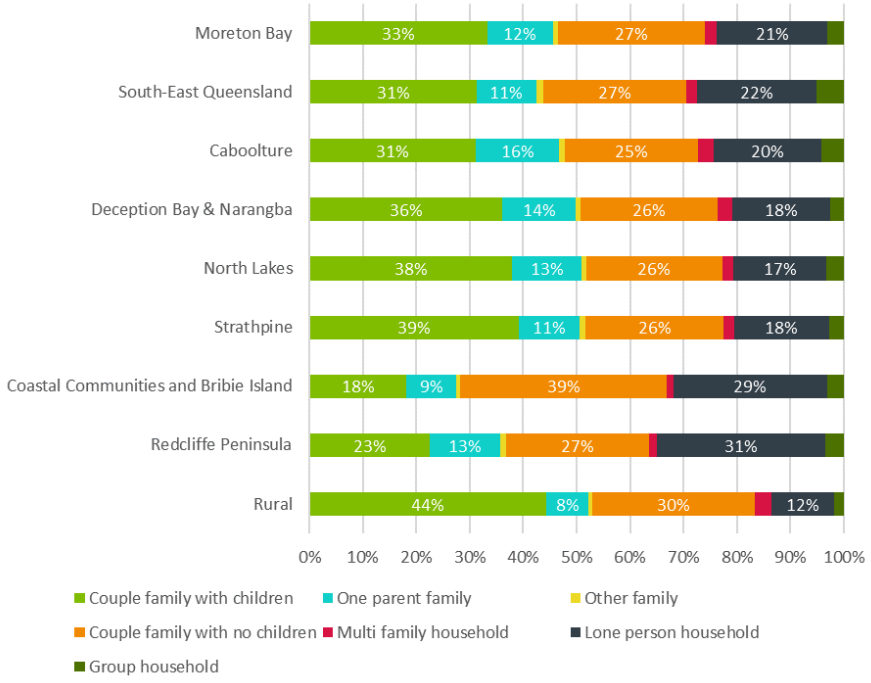
2.1.1.2 Household composition

The household composition of Moreton Bay is shown in Figure 15, along with that of the profile areas and the benchmark area of SEQ.

Couple families with children are the most common household type in Moreton Bay, but they make up only 33% of households. This is closely followed by the smaller household types of couples without children and lone persons. While some of these smaller households may not need as large a dwelling as a couple family with children, many may still choose to live in a separate house (housing preferences are discussed in more detail herein), and some couples without children may plan to have children in the future.

Moreton Bay's household composition is similar to that of SEQ, although Moreton Bay has a slightly higher proportion of couple families with children and a slightly lower proportion of group households. This means that Moreton Bay has a diverse household mix, including many households of different types.

FIGURE 15: HOUSEHOLD COMPOSITION IN MORETON BAY AND PROFILE AREAS (2016)



Source: ABS Census 2016

Moreton Bay's diversity of households relates in part to the size of Moreton Bay and the diversity of places and housing markets it contains. The profile areas all contain all types of households, but can be summarised in three broad categories with slightly different patterns of household composition:

- A higher proportion of people over 65 years of age live in Coastal communities and Bribie Island and in the Redcliffe peninsula (compared to the rest of Moreton Bay). These are known retiree destinations but also contain families with children in smaller proportions than other areas.
- The Caboolture area has a similar composition to SEQ and Moreton Bay as a whole, which is likely to shift towards a larger number of families with children as greenfield development accelerates.
- There is a higher proportion of people under 44 years of age in North Lakes.

Deception Bay and Narangba lies between the established community pattern of Caboolture and the younger demographic with more families of North Lakes, Strathpine and the Rural areas. This in part reflects the presence of different kinds of housing in the different parts of this profile area. As with Caboolture, the demographic is likely to shift slightly towards families with children as more greenfield housing development occurs.

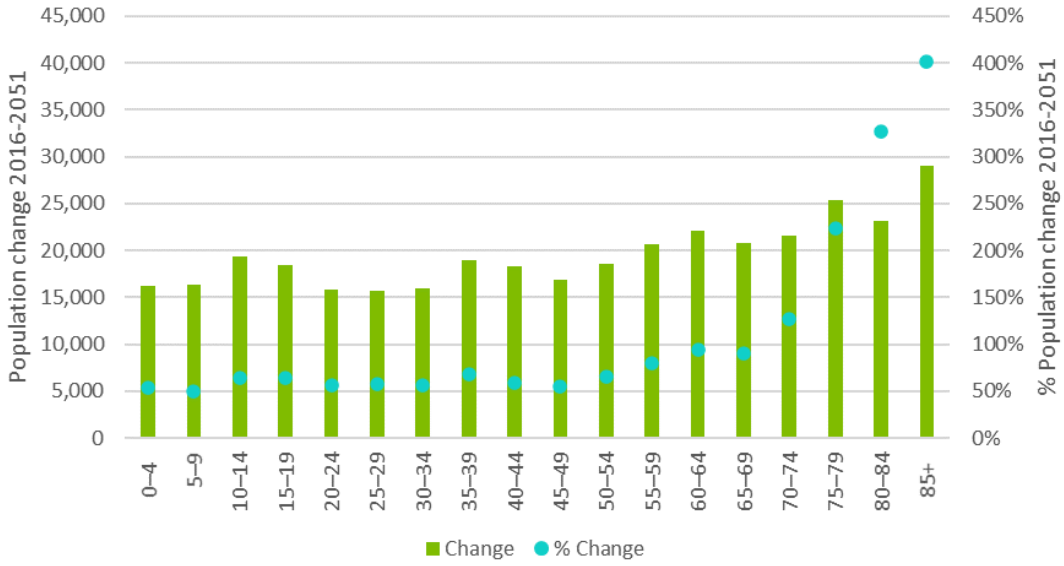
2.1.1.3 Historical population growth by age

Between 2006-2016 the population of Moreton Bay grew by 107,579 or 32% from 331,713 to 437,292. Different age segments of the populations grew at very different rates, as shown in Figure 16 which compares recent population growth rates for different age groups with those in SEQ as a whole.

Retirees and older people were by far the fastest growing group in Moreton Bay, with an average population growth rate of nearly 9%. This reflects an aging population, and the attraction of parts of Moreton Bay for retirees and older people. Young adults were the next fastest growing group, despite their lower prevalence in Moreton Bay than SEQ (refer above). This was followed by mature adults and then established adults and children and teenagers.

The overall growth rate shows that Moreton Bay's population grew around twice as quickly as that of SEQ. The same is broadly true of each age group, varying from Moreton Bay's population growing 1.8 times as quickly for established adults to 2.0 times as quickly for young adults.

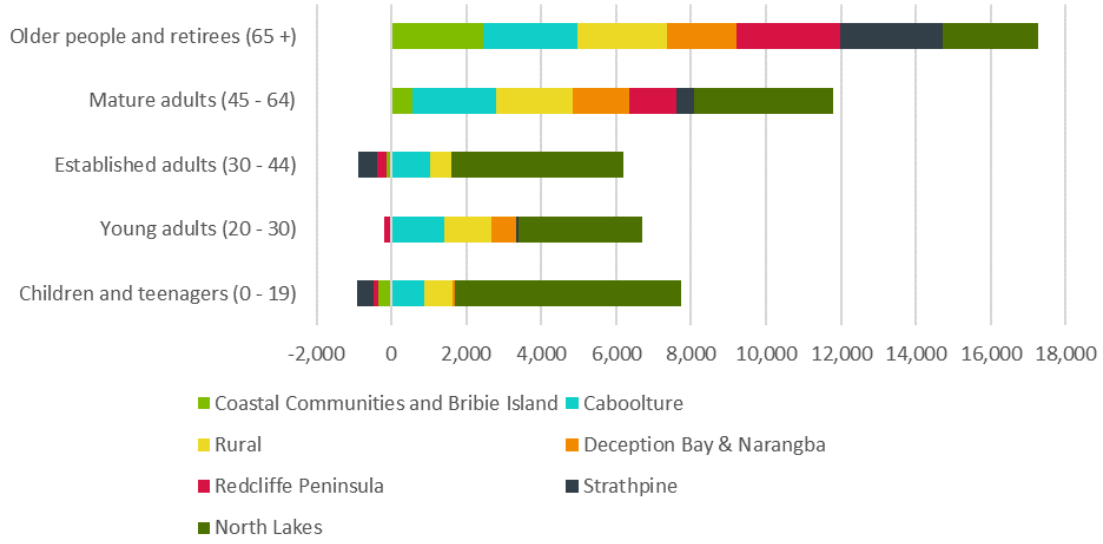
FIGURE 16: POPULATION GROWTH RATES BY AGE BETWEEN 2006-2016



Source: ABS Census 2006, 2016

Breaking population growth down into profile areas (shown below) provides more information on the spatial factors underpinning population change in different age groups.

FIGURE 17: BREAKDOWN OF POPULATION-AGE GROWTH INTO PROFILE AREAS



Source: ABS Census 2006, 2016

Between 2006-2016, the only parts of Moreton Bay with increases in the number of people across the full age spectrum were North Lakes, Caboolture and the Rural Area. All other areas experienced a decrease in at least one age group.

North Lakes and Caboolture accommodated substantial amounts of greenfield development, particularly North Lakes. Along with this greenfield development were high increases in the number children, teenagers and established adults - suggesting greenfield development is particularly appealing to families with children. However, the increase in number of people in other age brackets in North Lakes shows that greenfield development does not appeal exclusively to families with children, but that it will accommodate people across the age spectrum.

The Coastal Communities and Bribie Island, Redcliffe Peninsula, Strathpine and Deception Bay & Narangba had population growth only in people aged 45+ and particularly in the number of people aged 65+ (apart from Deception Bay & Narangba which had a small increase in the number of young adults). This reflects the population aging; the appeal of Redcliffe, the Coastal Communities and Bribie Island to retirees and older people; as well as the construction of large retirement villages in multiple other parts of Moreton Bay.

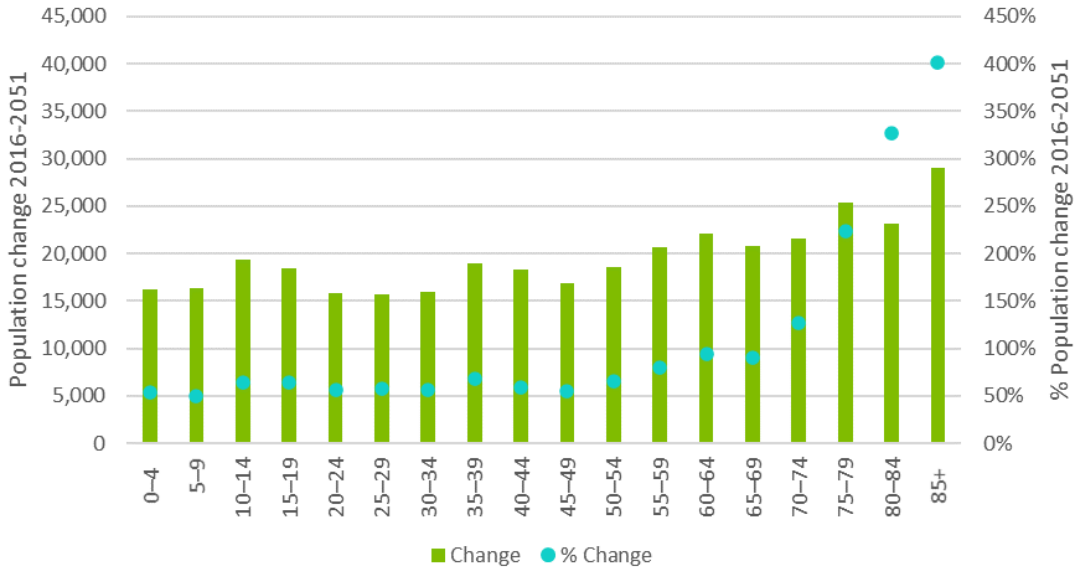
2.1.1.4 Population age forecasts

The QGSO 2018 rebased medium series population projection for Moreton Bay is shown in Figure 18 broken down by age. Whilst, at the time of writing, Moreton Bay has recently been tracking above the QGSO mid series population projections, for long-term planning purposes, the mid series is considered the most appropriate series to use for this investigation's planning horizon of 2051. In other words, the QGSO mid series is still appropriate, as (in SGS' view) the data does not currently support long term tracking above the QGSO mid series.

In line with the recent population growth rates by age and in different parts of Moreton Bay, by far the highest population growth rates in both absolute and percentage terms, are forecast for older people,

with the number of people aged 65+ in Moreton Bay is expected to increase by 182% between 2016-2051, compared to an 80% increase in the population in general. Otherwise, the population is forecast to grow across the age spectrum, with slightly higher growth rates for people aged 10-19, 35-44 and 50-64 and slightly lower rates for people aged 0-9, 20-34 and 45-49.

FIGURE 18: MORETON BAY POPULATION FORECAST BY AGE

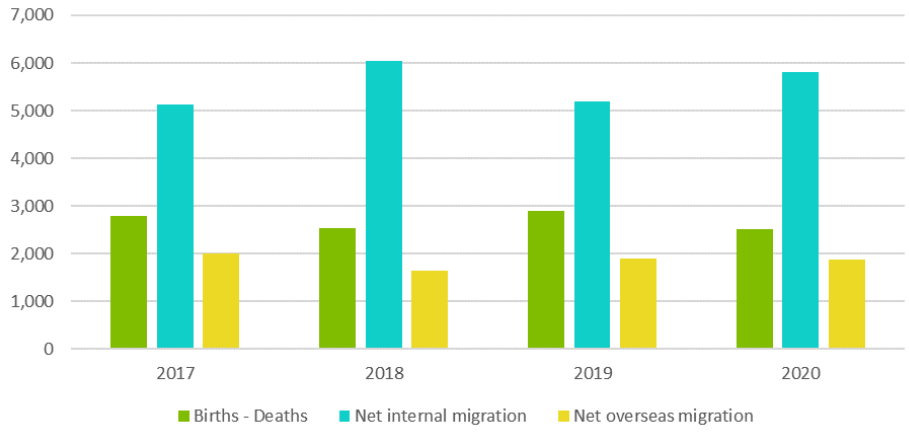


Source: SGS 2021 using QGSO 2018 rebased medium series population projections

2.1.1.5 Drivers or increasing population

The drivers underlying population growth across Moreton Bay since 2016 are shown in Figure 19. A higher number of births than deaths, net internal migration within Australia and net overseas migration all contributed to Moreton Bay's growing population. However, net internal migration was by far the biggest driver.

FIGURE 19: COMPONENTS OF POPULATION CHANGE SINCE 2016



Source: ABS 2021 ERP and components by LGA

This net domestic migration is driven by people moving from Brisbane, with a net increase of population in Moreton Bay of 9,053 due to people moving from Brisbane between 2016-2020 (see Table 3). Other LGAs from which large numbers of people move to Moreton Bay include local and regional centres in other parts of Queensland.

LGAs which feature high levels of net out migration from Moreton Bay are the Sunshine Coast and some regional LGAs in Queensland. Although, it should be noted that the highest net out migration levels are much lower than the highest net in migration levels - meaning more people are moving to Moreton Bay than from Moreton Bay.

Moreton Bay also has high levels of domestic in- migration from interstate, with a net inward migration from NSW of 3,525 between 2011-2016 according to the ABS Census.

TABLE 3: TOP LGAS FOR MIGRATION INTO AND OUT OF MORETON BAY, JULY 2016- JUNE 2020

	In migration	Out migration	Net migration
Top five LGAs for net migration into Moreton Bay			
Brisbane	43,637	34,583	9,053
Townsville	2,808	1,651	1,157
Logan	4,288	3,677	611
Mackay	1,501	976	525
Cairns	1,480	990	490
Top five LGAs for net migration from Moreton Bay			
Sunshine Coast	8,038	8,452	-414
South Burnett	1,145	1,340	-195
Somerset	1,015	1,155	-140
North Burnett	96	178	-82
Ipswich	3,216	3,297	-81

Source: Profile.id

This migration information reveals that Moreton Bay attracts people moving from Brisbane City Council likely looking for more affordable and larger housing, as well as from people from Regional Centres and interstate likely looking to move to an affordable part of Moreton or a lifestyle location like Redcliffe or Bribie Island while still being within reach of Brisbane's services.

While the drivers of population growth shown above only account for the start of the COVID-19 pandemic (up to June 2020), the underlying drivers of growth are likely to be relatively robust and to not be fundamentally changed by COVID-19. While international migration has been dramatically reduced by COVID-19, it is expected to recover somewhat once borders open and travel resumes. However, international migration only makes up a small part of the population increase in Moreton Bay. More important is the status of Moreton Bay as a relatively affordable part of Brisbane, and of parts of Moreton Bay as retirement destinations. Domestic in-migration to these areas is expected to continue, and potentially even to be boosted by the after-effects of COVID-19 and lockdowns leading people to move to larger housing in a lifestyle area.

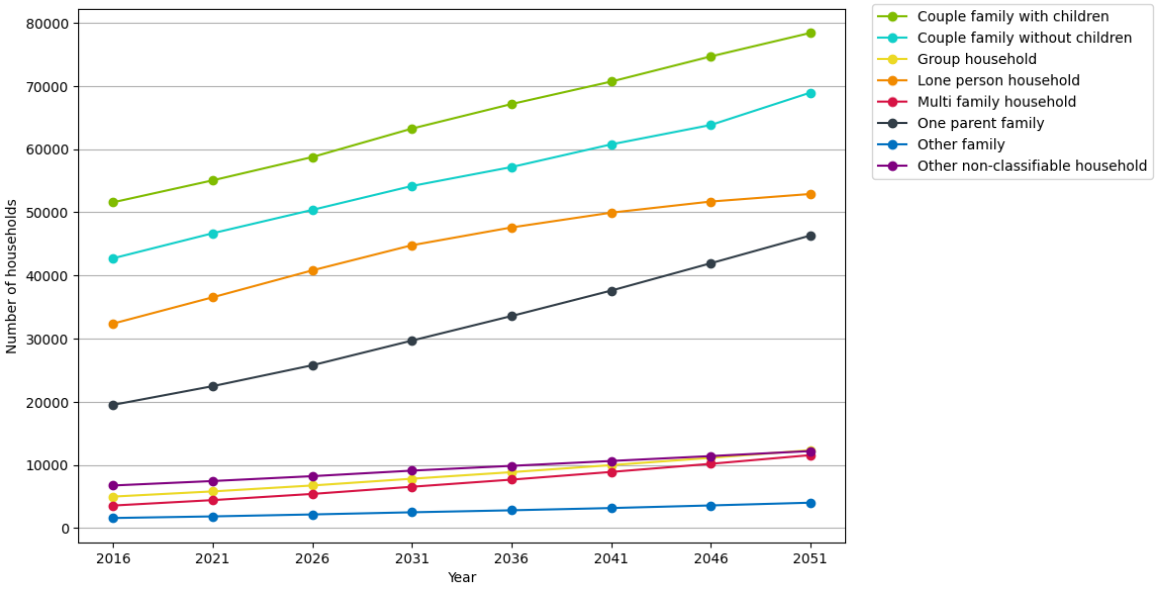
2.1.1.6 Household forecasts

SGS has produced a forecast of the number of households by type building off local demographic trends and the QGSO 2018 rebased medium series population projection for Moreton Bay. This projection is shown in Figure 20 and in Table 4.

Overall, an additional 123,579 additional households are expected to live in Moreton Bay between 2016-2051, a 76% increase (or 1.6% increase per year on average). Couple families with children are the most common household type and will remain so, seeing the most growth in number of households. However, the number of households of a variety of other types will also increase, including higher growth rates for group households and multi-family households, continuing Moreton Bay's housing diversity and generating a need for housing of a variety of types.

In percentage terms, the number of multi-family households is expected to grow the fastest, although off a relatively low base. This is followed by other families, group households and one parent families.

FIGURE 20: LAND SUPPLY AND DEVELOPMENT MONITORING



Source: SGS 2021

TABLE 4: FORECAST NUMBER OF HOUSEHOLDS IN MORETON BAY

Dwelling type	2016	2021	2031	2041	2051	Change 2016-2051	Average annual growth rate
Couple family with children	51,576	55,051	63,245	70,686	78,395	26,819	1.2%
Couple family without children	42,710	46,676	54,157	60,744	68,940	26,230	1.4%
Group household	4,981	5,802	7,810	9,963	12,331	7,350	2.6%
Lone person household	32,372	36,538	44,779	49,933	52,890	20,518	1.4%
Multi-family household	3,565	4,423	6,538	8,884	11,545	7,980	3.4%
One parent family	19,506	22,467	29,681	37,595	46,315	26,809	2.5%
Other family	1,591	1,846	2,496	3,167	4,014	2,423	2.7%
Other non-classifiable household	6,740	7,444	9,091	10,620	12,190	5,450	1.7%
Total	**163,041**	**180,247**	**217,797**	**251,592**	**286,620**	**123,579**	1.6%

Source: SGS 2021

2.1.1.7 Household composition

The current (2016) and forecast household composition resulting from this household forecast is shown in Figure 21.

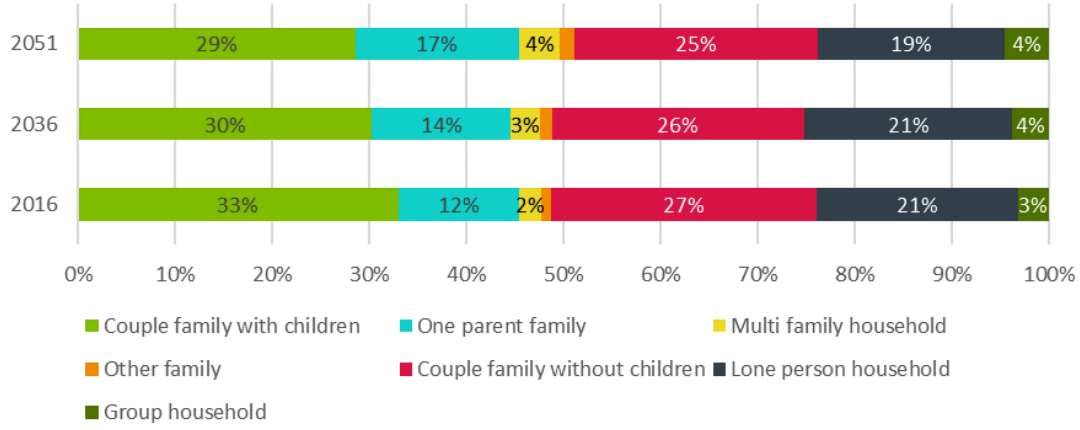
As population growth leads to growth in the number of households of all types, the household composition in Moreton Bay in the future is expected to be similar to the composition in 2016 (which is highly diverse, and similar to the household composition of SEQ as a whole).

Couple families with children are expected to make up a slightly smaller proportion of all households in the future, decreasing from 33% in 2016 to 29% in 2051. However, this decrease is expected to be offset by an increase in the number of one parent families from 12% to 17%. As a result, the number of families with children overall is expected to remain relatively constant.

There are also expected to be small other shifts, with increases in the proportions of group households, multi-family households and other families, although these are all expected to continue to make up

only a small proportional of all households. Total group household figures start from a relatively low base so that the percentage growth in these households remains a minor percentage of the household growth overall. The proportions of couples without children and lone person households are expected to decline slightly.

FIGURE 21: FORECAST HOUSEHOLD COMPOSITION IN MORETON BAY



Source: SGS 2021, ABS Census 2016

2.1.1.8 Household sizes

A key part of the household forecast is a forecast of household sizes. The headline results for this forecast are shown in Table 5.

TABLE 5: FORECAST CHANGES IN HOUSEHOLDS SIZES

	2016	2051	Change
Couple family with children	4.04	3.92	-0.12
Couple family without children	2.06	2.11	0.05
Group household	2.13	2.23	0.10
Multi-family household	5.42	6.11	0.69
One parent family	2.81	2.72	-0.09
Other family	2.25	2.17	-0.08
Total	**2.66**	**2.68**	**0.02**

Source: SGS 2021, ABS Census 2016

The overall average household size in Moreton Bay is expected to remain almost identical to its 2016 value, with a slight decrease from 2.66 to 2.64 forecast until 2026 and then an increase to an average

size of 2.68 by 2051. This pattern is in contrast to some LGAs facing acute affordability pressures, in which a greater increase in household sizes is forecast and speaks to the relative affordability of Moreton Bay.

The average household size of multi-family households is expected to increase, while the average sizes of couple families with children, one parent families and other families are expected to decrease, meaning slightly fewer children per households on average.

The average size of group households is expected to increase slightly. However, the low average size of these households in 2016 of 2.13 indicates that the vast majority of these households only contain two people, rather than larger shared households. At the forecast increased average size of 2.23 this will remain the case.

2.1.1.9 Housing type

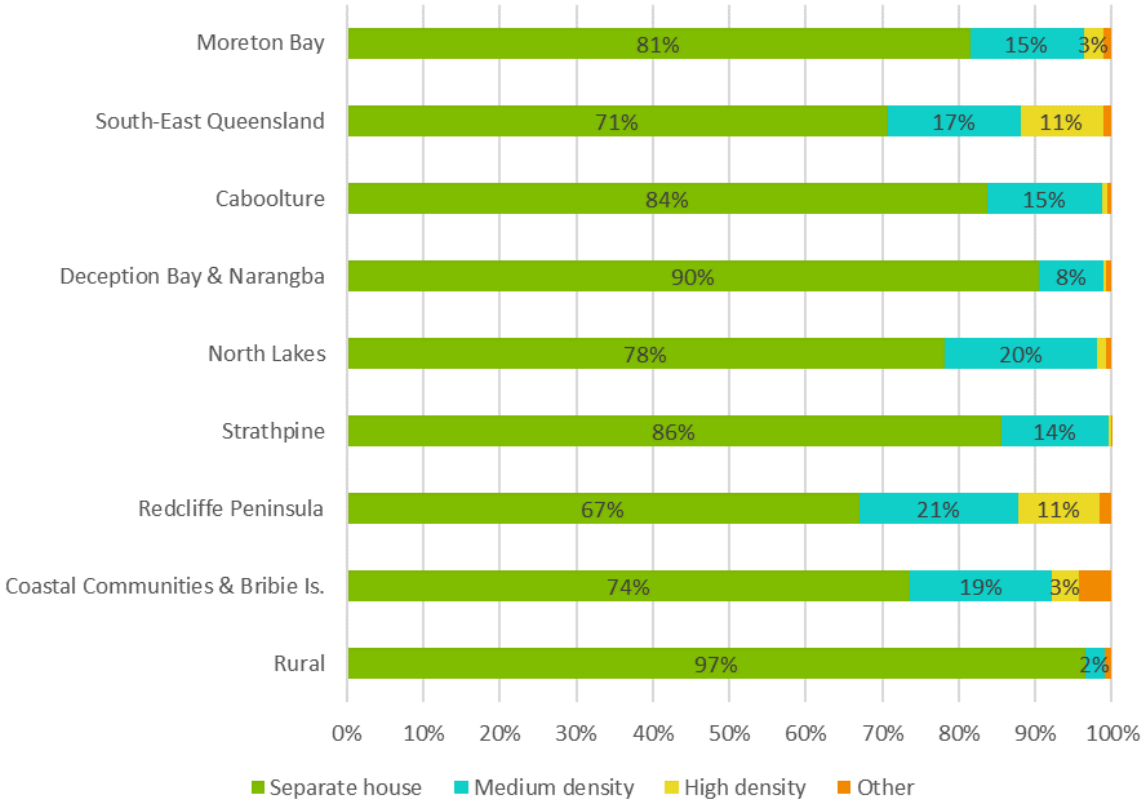
The composition of private housing in Moreton Bay, SEQ and Moreton Bay's profile areas is shown below.

Compared to SEQ, Moreton Bay has a high proportion of separate houses (81% vs 71%), a similar proportion of medium density housing (15% vs 17%) and much lower proportion of high density housing (3% vs 11%). As a result, Moreton Bay has lower housing density overall than the SEQ average, despite having a very similar household composition to SEQ (as discussed herein). Nonetheless, the presence of a similar proportion of medium density housing in Moreton Bay and SEQ shows that Moreton Bay currently contains housing diversity.

High density housing only makes up a recognizable proportion of the housing in the Redcliffe Peninsula and Bribie Island and the Coastal Communities. As discussed in other parts of this report, these are coastal and lifestyle areas with relatively high property prices which are attractive to retirees and others moving for lifestyle reasons, and this housing market characteristic lends itself to higher density housing forms. These aspects also point to high density housing viability factors discussed later in the report.

Medium density housing makes up a significant proportion of housing in all of the profile areas apart from the Rural Area, generally comprising 15-20% of all housing (except for Deception Bay & Narangba, which is more heavily dominated by separate housing). Housing diversity in multiple different parts of Moreton Bay is important to provide for people's housing needs as they change throughout their life cycle, without requiring people to move out of their communities.

FIGURE 22: HOUSING MIX (2016)



Source: ABS Census 2016

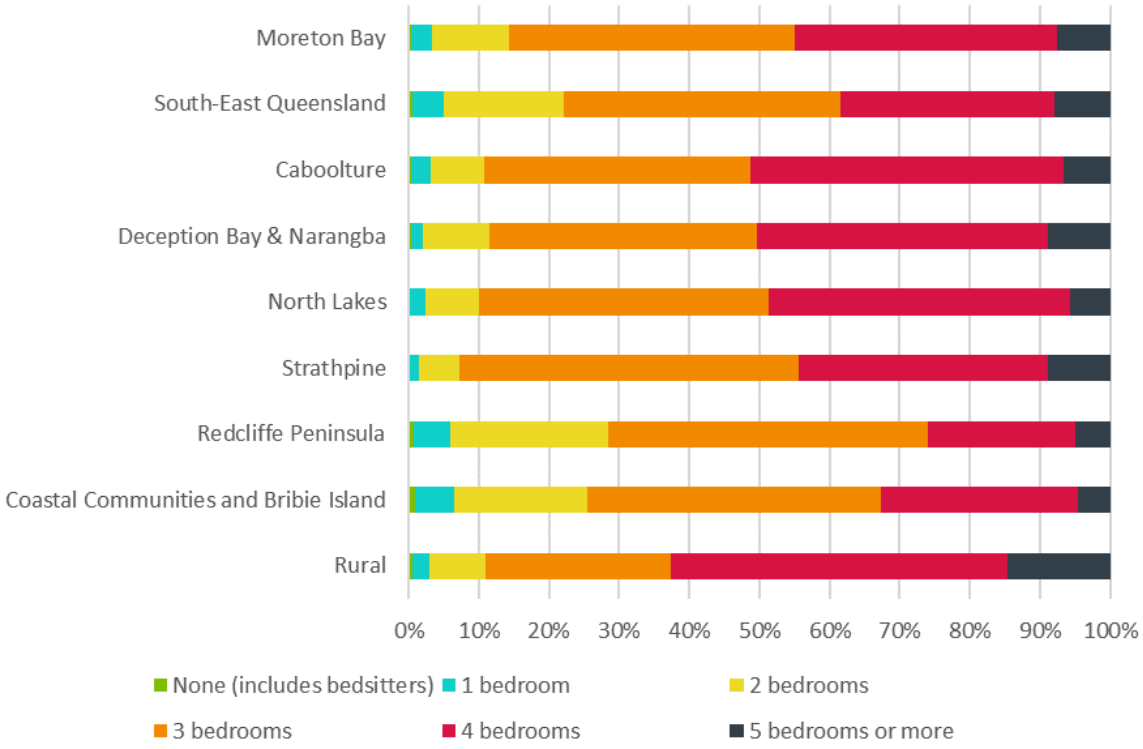
2.1.1.10 Number of bedrooms

The composition of Moreton Bay's housing in terms of number of bedrooms is shown in Figure 23. This can be considered as a good proxy for the size of housing in Moreton Bay and its different parts.

Compared to SEQ, Moreton Bay has relatively small proportions of one- and two-bedroom dwellings, and relatively high proportions of three and four bedroom dwellings. This reflects the relatively low number of high-density dwellings in Moreton Bay.

The number of bedrooms composition is influenced by the overall housing mix, as well as the predominant age of development in each area. The Redcliffe Peninsula and Bribie Island have high proportions of one- and two-bedroom dwellings corresponding with the high proportions of medium and high-density dwellings in these areas. The Rural Areas have relatively large houses, with a very high proportion of four- and five or more-bedroom dwellings. Other parts of Moreton Bay have generally similar dwelling size compositions, with a small number of one- and two-bedroom dwellings and a mix of three, four and five or more bedroom dwellings. The numbers of bedrooms in houses are also a reflection of the trend over the last ten to fifteen years where larger houses have been built which comprise at least three to four bedrooms.

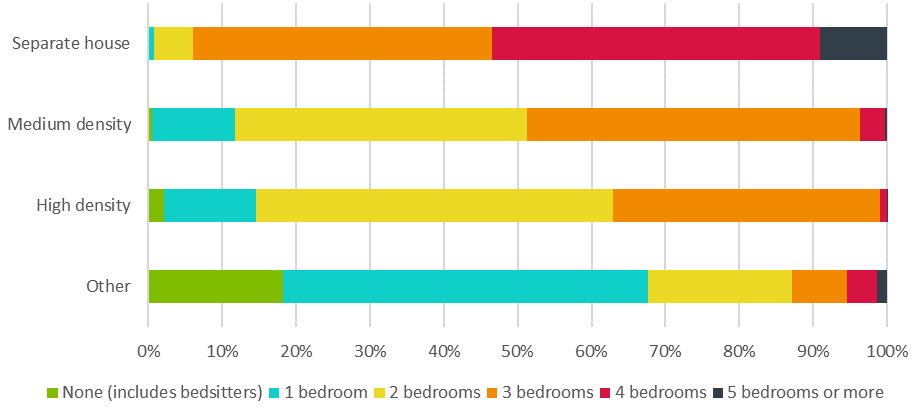
FIGURE 23: NUMBER OF BEDROOMS IN DWELLINGS (2016)



Source: ABS Census 2016

The relationship between housing type and number of bedrooms in Moreton Bay is shown in more detail in Figure 24. This shows distinctly different typical sizes for different kinds of dwellings.

FIGURE 24: NUMBER OF BEDROOMS BY DWELLING TYPE IN MORETON BAY (2016)



Source: ABS Census 2016

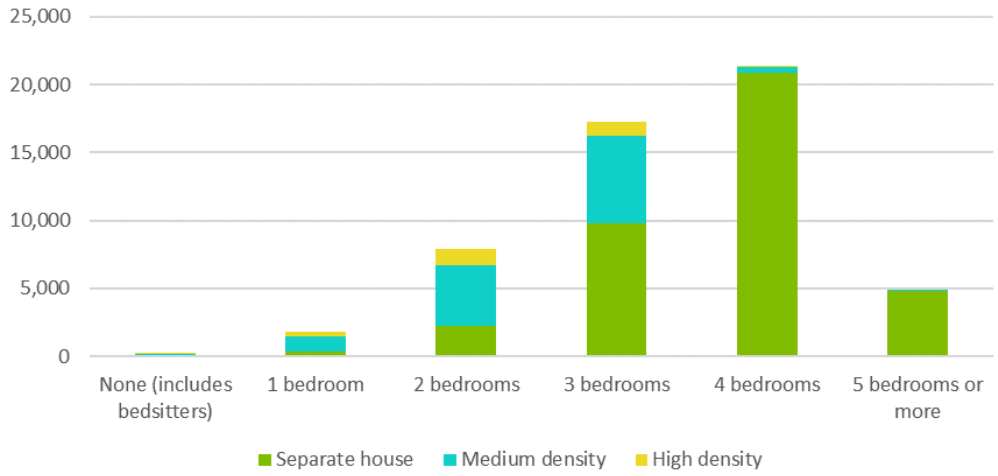
Separate houses are on average the largest, with over half having four or more bedrooms and very few having two or less.

Medium and high density dwellings have similar (although not identical) bedroom mixes, comprising around 1% - 2% studios, 11% - 12% one bedroom, 40% - 50% two bedrooms and 35% - 45% three bedrooms. This similarity is notable, as high-density housing in many other LGAs has a small proportion of three bedroom dwellings and so a smaller average square metre floor size than medium density housing. The relatively high proportion of three-bedroom high density dwellings may be a result of the location of this housing in the Redcliffe Peninsula and Bribie Island, which attracts retirees and those moving for lifestyle reasons who may want a larger high density dwelling with high levels of amenity rather than a smaller 'inner-city' style apartment.

Other dwellings in Moreton Bay mostly have one bedroom, with studios and two bedrooms also relatively common.

2.1.1.11 Size and type of new housing

FIGURE 25: NUMBER OF BEDROOMS IN NEW DEVELOPMENT 2011-2016



Source: ABS Census 2011, 2016

2.1.1.12 Housing preferences

To calculate what kind of housing is needed to accommodate a given number and composition of households, an assumption is required about housing preferences (that is, what kind of housing a given household type will choose or needs).

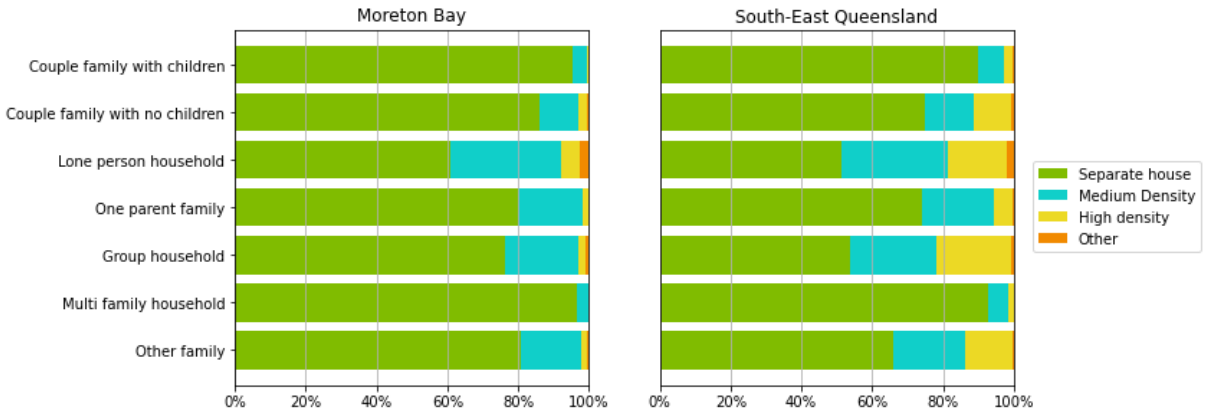
The proportion of each household type who is observed to live in each dwelling type is commonly referred to as revealed housing preferences. As people are constrained by the kinds of housing available and their affordability, trade-offs are required when choosing where to live. As a result, revealed preferences can differ from people's ideal (unconstrained preferences). People may also wish to stay in their current dwelling, even if it differs from their ideal preference.

Factors which influence revealed preferences include what kinds of dwellings households would like to live in, what kinds of dwellings are available and how affordable those dwellings are. Revealed preferences evolve over time as these variables change, as well as in response to shifts in local demographics.

2.1.1.13 Revealed preferences in Moreton Bay

Revealed preferences in Moreton Bay and the benchmark area of SEQ are shown in Figure 26. Overall, separate houses are the most common preference for all household types in both Moreton Bay and SEQ. Moreton Bay and SEQ have generally similar preferences for medium density, but high density dwellings are much less common in Moreton Bay, than overall in SEQ.

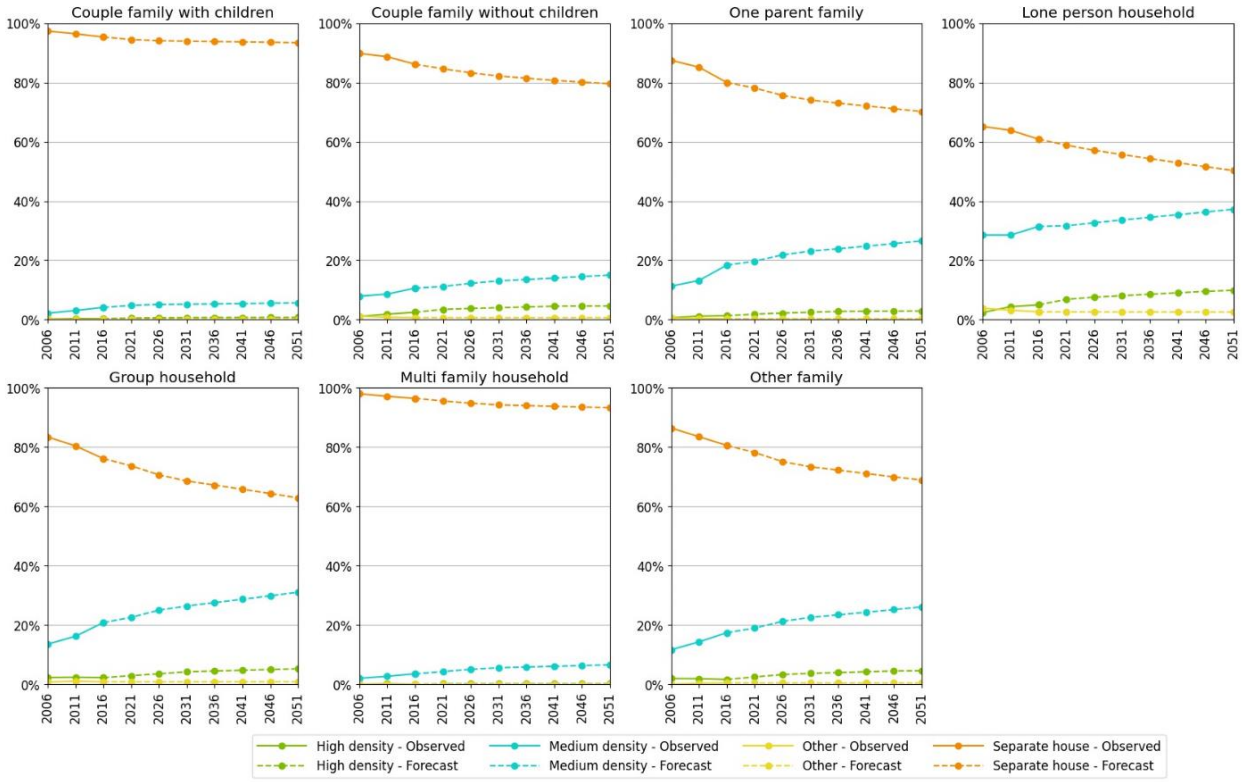
FIGURE 26: REVEALED HOUSING PREFERENCES IN 2016



Source: ABS Census 2016

Recent changes in revealed preferences in Moreton Bay can be seen from the ABS Census, which records housing as well as household type, and are shown in Figure 27. These trends have been projected into the future. This illustrates how revealed preferences are expected to change if recent trends (in the type of dwelling that is being built and the affordability thereof) continue.

FIGURE 27: TRENDS IN REVEALED HOUSING PREFERENCES IN MORETON BAY



Source: ABS Census 2006, 2011, 2016

Overall, separate houses are expected to remain by far the most common housing choice for all household types. However, there is a general trend in housing preferences away from separate houses and towards medium density dwellings. High density dwellings are a much less common choice, and without substantial changes from the status quo this is expected to remain so in the future.

Revealed housing preferences reflect what kind of housing is currently being built, and who is choosing to live in each kind of housing. Housing development is driven by the housing market and in part by what kind of housing people demand. However, if there is latent (i.e., unmet) demand for particular housing types, or local developers are not delivering particular housing types that would better meet the needs of the local community, this will not be reflected in trends in revealed housing preferences.

The following observations can be made for specific household types in Moreton Bay:

Couple families with children

Couple families with children are among the most likely household types to live in a separate house (95% of all households) and very few live in high-density dwellings (0.4% of households) or medium density (4%). Across SEQ, households are slightly more likely to live in medium density or high density dwellings, but the vast majority still live in separate houses. Over time, couples with children are becoming slightly more likely to live in medium density, but this change is only small.

Couple families without children

The vast majority of couples without children live in separate houses, although this is a lower proportion than couples without children. Over time this proportion is decreasing slowly. The proportion of couples without children living in medium density and high density are increasing, but high density is expected to remain a rare choice (increasing from 2.5% in 2016 to 4.6% in 2051). A much higher proportion of couples without children in SEQ live in high density.

Couples without children include those that are planning to start a family with children in the future, and older couples whose children have moved out, but they are still living in the family home and do not want to move. As such, while couples without children are often regarded as a small household type that would be better accommodated in smaller medium and high-density dwellings than in separate houses, many still choose to live in separate houses as their needs may change in the future and they may want more space or they may have been living in a separate house for some time.

One parent families

One parent families are relatively likely to live in separate houses (80% in 2016), followed by medium density dwellings (18% in 2016). Only a very small proportion of one parent families live in high density (1.3% in 2016).

One parent families may have more difficulty affording a separate house than couples with children, however they still need housing which is suitable for a family with children. Medium density can be considered as an intermediate housing type in price, size and design between separate houses and high density, which is more affordable than a separate house but is preferred as a housing type for families with children over high density. The need for more medium density to accommodate the increasing number of one parent families in Moreton Bay is underlined by the sharp increase in medium density as a choice for one parent families between 2011-2016 which is visible on Figure 27. This trend in preferences towards medium density dwellings is forecast to continue.

Lone person households

Lone person households are the household type most likely to live in medium or high density dwellings in Moreton Bay and least likely to live in a separate house, although most lone person households still live in separate houses (61% in 2016, forecast to decrease to 50% in 2051). Around 2.6% of lone person households live in other dwellings.

Compared to SEQ, a much smaller proportion of lone person households in Moreton Bay live in high density dwellings, with many still choosing a larger dwelling or to remain in their home rather than downsize.

Group households and other families

Group households and other families have similar preference profiles, with around 75% - 80% of households living in separate houses, most of the remainder in medium density and only 1.5% - 2% in high density housing. In the future, preferences are forecast to continue to shift slowly towards medium and high density. Across SEQ, much higher proportions of these households live in both medium and high-density housing.

Multi-family households

Multi-family households are the most likely household type to live in separate houses (97% in 2016), with nearly all of the remaining households living in medium density dwellings, and no multi-family households recorded living in high density dwellings in 2016. These households are likely to house many people and require large amounts of space, and so the prospects for substantial shifts in preferences are lower than for most other household types. This is illustrated by revealed preferences for multi-family households for SEQ, with 93% of households living in separate houses and only 1.5% in high density dwellings.

2.1.1.14 Whole of Moreton Bay forecast

The following forecasts have been combined to generate a baseline housing demand forecast by dwelling type which is shown in Table 6 and discussed herein:

- The forecast number of households by type in Moreton Bay,
- The linear trend forecast of recent preference trends.

This forecast only includes private dwellings, although people in aged care have been forecast separately.

Under this forecast, 127,904 additional dwellings will be needed between 2016-2051, or 3,650 on average per year (2016 is the most recent year in which baseline ABS Census data is available). This is the number of dwellings that would be needed to accommodate the forecast population, and so can be regarded as the best estimate for how many dwellings will be built over this timeframe. This would be an increase in housing supply of 76% over 35 years, or an average increase of 1.6% per year. There is a small amount of variation in how many dwellings is needed over each time period, which follows mostly from the population projections, with between 3,500 – 4,000 new dwellings forecast to be needed in any year.

TABLE 6: BASELINE HOUSING DEMAND FORECAST

Dwelling type	2016	2021	2031	2041	2051	Change 2016-2051	Average annual growth rate
Separate house	135,973	146,827	170,808	192,747	215,272	79,299	1.3%
Medium density	24,865	29,316	40,558	50,318	61,234	36,369	2.6%
High density	4,237	6,564	9,794	12,674	15,171	10,934	3.7%
Other	1,866	2,043	2,456	2,822	3,168	1,302	1.5%
Total	**166,941**	**184,750**	**223,616**	**258,561**	**294,845**	**127,904**	**1.6%**

Source: SGS 2021

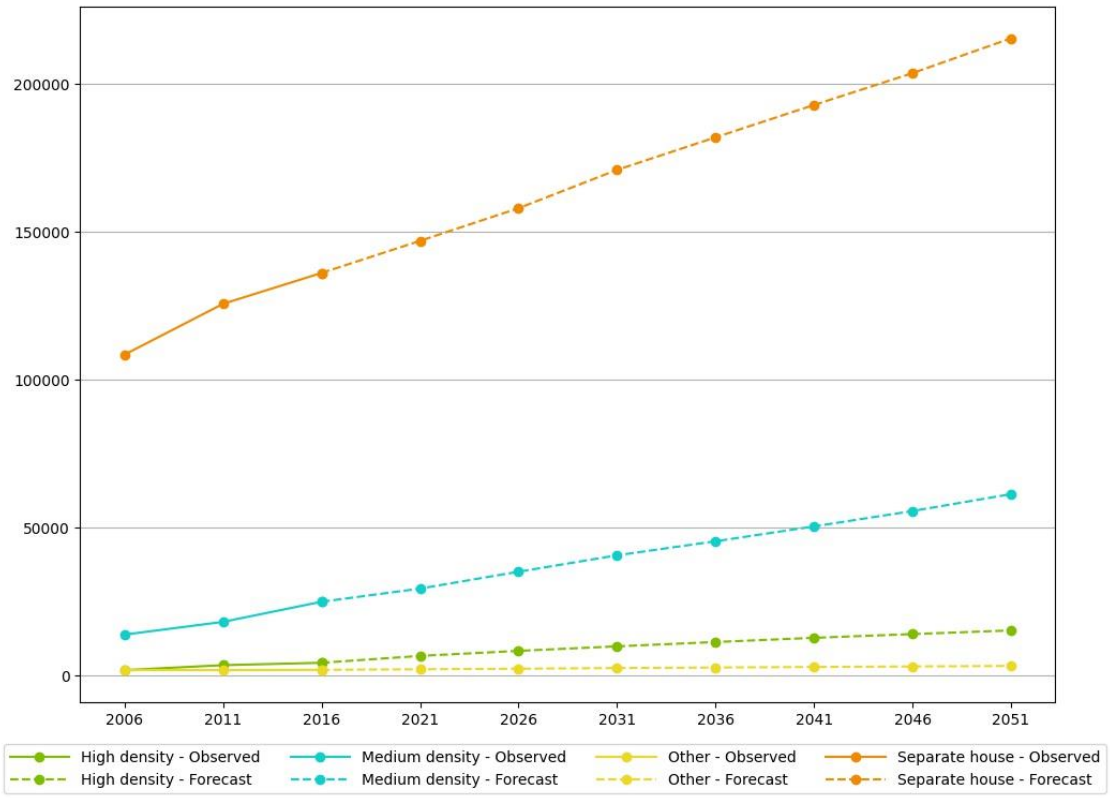
Over the shorter timeframe this figure reduces to 91,620 additional dwellings needed by 2041, which is above the ShapingSEQ dwelling supply benchmark of 88,300 additional dwellings between 2016-41. SGS's housing demand results will be used to assess the suitability of housing supply later in the report.

Because SGS's demand results are greater than the ShapingSEQ benchmark, if Council is on-track to meet SGS's demand modelling, it is also on-track to meet the ShapingSEQ benchmark.

Separate houses are by far the most common housing type in Moreton Bay, and are expected to remain so, comprising most of the overall increase in demand. However, there is also a significant need for additional medium density housing and some need for new high density dwellings and other dwellings. While the most need in terms of number of dwellings will be for separate houses, high density dwellings are expected to have the highest proportional change (258% increase between 2016-2051) and highest average annual growth rate as it is coming from a very low base. This is followed by medium density dwellings (146% increase between 2016-2051), other dwellings and then separate houses (58% increase between 2016-2051).

Figure 28 provides a visual representation of this demand and its comparison with recent growth rates. This shows that the forecast growth rates for each housing type are similar to those observed between 2016-2051. More details on this comparison are discussed below.

FIGURE 28: BASELINE HOUSING DEMAND FORECAST

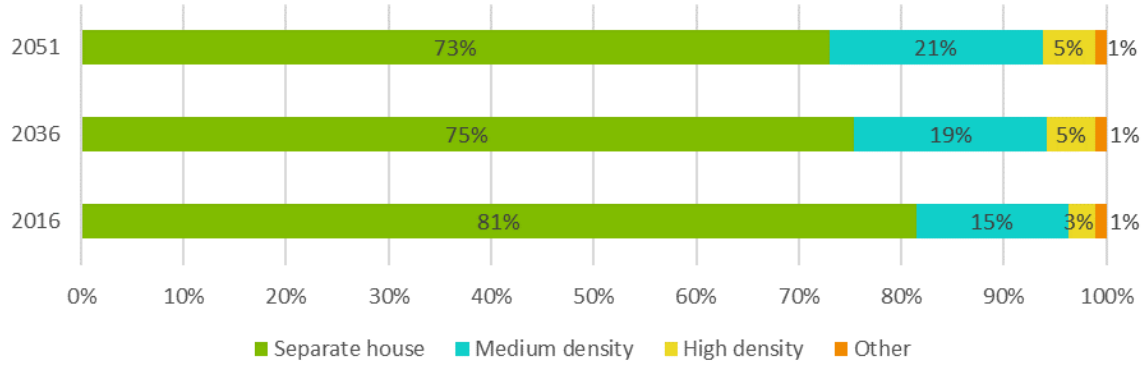


Source: SGS 2021

The higher forecast growth rate of demand for medium and high density dwellings compared to separate houses means that the proportion of Moreton Bay's dwellings which are separate houses is

expected to decline over time. This is illustrated in Figure 29, which shows Moreton Bay's current (as of 2016) and forecast housing composition. While separate houses will remain by far the most common dwelling type in Moreton Bay by 2051 under this baseline housing forecast, this typology will go from 81% to only 73% of all dwellings.

FIGURE 29: FORECAST SHIFT IN HOUSING COMPOSITION IN MORETON BAY



Source: SGS 2021

The average yearly number of new dwellings needed to meet the overall forecast demand is shown in Table 7, compared to the observed development rate between 2006-2016 and building completions from 2016-2021. The table also shows the percentage breakdown of new development by dwelling type (as opposed to the percentage breakdown of all dwellings shown above).

The average yearly number of dwellings needed until 2051 is similar to the number completed each year on average since 2016, and slightly lower than the number completed each year on average between 2006-2016. As such, a continuation of recent development rates between 2016-2021 will be needed to meet overall housing demand in line with population projections, and an increase in overall development rate is not expected to be needed to meet growth forecasts.

A slight shift in the mix of housing being delivered will be needed to meet the forecast demand. As shown in Table 7 below, 67% of new housing delivered between 2006-2016 was a separate house, and 75% between 2016-2021, while only 62% of housing needs to be separate houses between 2016-2051. A small increase in the amount of medium density will be needed, particularly when compared to 2016-2021, and a large increase in the amount of high density.

TABLE 7: YEARLY RATES AND COMPOSITION OF HOUSING DEVELOPMENT

	2006-2016 Completions		2016-2021 Completions		2016-2051 Forecast	
	Yearly change	% of total change	Yearly change	% of total change	Yearly change	% of total change
Separate house	2,758	67%	2,841	75%	2,266	62%
Medium density	1,110	27%	716	19%	1,039	28%
High density	248	6%	105	3%	312	9%
Other	6	0%	113	3%	37	1%
Total	4,122	100%	3,774	100%	3,654	100%

SGS 2021, ABS Census 2006, 2016, Council building completions data

2.1.1.15 Demand by profile area

Overall housing demand forecasts have been distributed into profile areas and then SA2s using the SGS housing demand model at the SA2 level with SA2 population projections from QGSO, and adjusting results in some cases to match expected development outcomes and timing.

The modelled results show how the headline housing demand figures for the whole of Moreton Bay could be broken down into profile areas and SA2s on the basis of current market trends, demographic trends and growth areas.

Caveats

The distribution of growth across Moreton Bay as indicated by profile-area housing demand forecasts is very dependent on the methodology used in developing population projections (as noted above, projections at the SA2 level from QGSO were used in this case). In general, small-area population projections will make assumptions around when certain precincts are developed and how much housing they contain. These and other assumptions may not reflect likely housing development if policy or the housing market changes, meaning the resulting housing demand forecasts will not necessarily be a good reflection of likely housing development outcomes.

Additionally, SGS's housing demand model is based on demographic and housing preference trends. These are more volatile for profile areas and the whole of Moreton Bay, and in some cases there are small discrepancies between ABS Census output areas between different Census years. In response to this problem, SGS have manually checked the smaller area forecast results and aligned them to the Moreton Bay totals, but small area forecasts should still be regarded as less reliable than profile area or whole-of-Moreton Bay forecasts.

Despite these caveats, these small-area housing-demand forecasts are a good starting point when considering whether there is enough housing capacity in different parts of Moreton Bay, and where

development is likely to occur given the best available data on development and demographic trends and population projections.

It is also noted that housing policy can shift demand around especially between nearby areas.

Results

The table below shows the total housing demand forecast for each profile area, while the following tables break down future shifts in demand into dwelling types.

These results indicate that housing demand will grow across Moreton Bay in each profile area. By far the greatest number of additional dwellings will be needed in the Caboolture and Rural areas, which have been grouped together because the Caboolture West Growth Area is split between the SA2s allocated to Caboolture and the Rural Area. Combined, demand modelling results show these profile areas needing around 51,850 additional dwellings between 2021 – 2051, a 105% increase and 47% of total additional dwelling demand across Moreton Bay.

After this, the greatest increase in dwelling demand is for the Deception Bay & Narangba and North Lakes areas, followed by the Redcliffe Peninsula and Coastal Communities & Bribie Island which demand results indicate would each need around 30% more dwellings by 2051.

TABLE 8: OVERALL HOUSING DEMAND FORECAST BY PROFILE AREA

Profile area	2021	2031	2041	2051	Change	% Change
Strathpine	28,815	31,014	32,588	33,942	5,127	18%
North Lakes	36,066	46,732	49,925	53,233	17,167	48%
Redcliffe Peninsula	29,336	31,982	35,138	38,166	8,830	30%
Deception Bay & Narangba	22,588	29,665	36,779	44,224	21,636	96%
Coastal Communities and Bribie Island	18,705	21,179	22,604	24,186	5,480	29%
Caboolture and Rural	49,241	63,043	81,528	101,095	51,854	105%
Total	**184,751**	**223,616**	**258,561**	**294,845**	**110,094**	**60%**

Source: SGS 2022

The following two tables provide more detail about the type of dwelling demand modelled in different areas. These results show that:

- The Caboolture and Rural areas have the majority of additional separate house demand, followed by Deception Bay & Narangba.
- Most other areas are expected to have modest increases in demand for separate houses.

- The Caboolture and North Lakes areas are expected to experience the most demand for medium density dwellings.
- There is expected to be some medium density demand in most parts of Moreton Bay, outpacing the rate of growth in demand for additional demand for separate houses everywhere except the Caboolture, Rural and Deception Bay & Narangba areas which contain major future growth areas.
- The vast majority of additional high density demand (83%) is modelled to be located in the Redcliffe (60%) and North Lakes (22%) areas, which is generally consistent with existing development trends and with the relatively status-quo trend-based approach of the housing demand model. An evolution of the housing market could see this demand more spread across Moreton Bay, particularly in more established areas like the Strathpine profile area.

TABLE 9: CHANGE IN HOUSING DEMAND FORECAST BY DWELLING TYPE

Profile area	Separate house or other			Medium density			High density			Total		
	2021-36	2036-51	Total	2021-36	2036-51	Total	2021-36	2036-51	Total	2021-36	2036-51	Total
Strathpine	1,291	887	*2,178*	1,529	1,008	*2,536*	158	255	*413*	2,977	2,150	*5,127*
North Lakes	3,356	-449	*2,907*	7,437	4,914	*12,351*	1,707	202	*1,909*	12,499	4,668	*17,167*
Redcliffe Peninsula	494	532	*1,025*	1,095	1,506	*2,601*	2,381	2,823	*5,203*	3,970	4,860	*8,830*
Deception Bay & Narangba	10,160	9,506	*19,665*	686	1,036	*1,723*	98	150	*248*	10,945	10,692	*21,636*
Coastal Communities and Bribie Island	1,121	40	*1,161*	1,945	1,902	*3,847*	204	268	*473*	3,270	2,210	*5,480*
Caboolture	19,153	23,481	*42,634*	3,020	5,456	*8,475*	145	216	*361*	22,592	29,262	*51,854*
Rural				274	110	*384*	0	0	*0*			
Total	**35,574**	**33,996**	***69,570***	**15,984**	**15,933**	***31,917***	**4,693**	**3,913**	***8,607***	**56,252**	**53,842**	***110,094***

Source: SGS 2022

TABLE 10: PERCANTAGE OF NEW HOUSING DEVELOPMENT BY TYPE IN EACH PROFILE AREA

Profile area	Separate house or other			Medium density			High density			Total		
	2021-36	2036-51	Total	2021-36	2036-51	Total	2021-36	2036-51	Total	2021-36	2036-51	Total
Strathpine	4%	3%	*3%*	10%	6%	*8%*	3%	7%	*5%*	5%	4%	*5%*
North Lakes	9%	0%	*4%*	47%	31%	*39%*	36%	5%	*22%*	22%	9%	*16%*
Redcliffe Peninsula	1%	2%	*1%*	7%	9%	*8%*	51%	72%	*60%*	7%	9%	*8%*
Deception Bay & Narangba	29%	28%	*28%*	4%	7%	*5%*	2%	4%	*3%*	19%	20%	*20%*
Coastal Communities and Bribie Island	3%	0%	*2%*	12%	12%	*12%*	4%	7%	*5%*	6%	4%	*5%*
Caboolture	54%	68%	*61%*	12%	12%	*12%*	4%	7%	*5%*	40%	54%	*40%*
Rural				2%	1%	*1%*	0%	0%	*0%*			
Total	100%	99%	*100%*	100%	100%	*100%*	100%	100%	*100%*	100%	100%	*100%*

Source: SGS 2022

2.1.1.16 Demand in expansion and consolidation area

The following table breaks the demand model results into the consolidation and expansion areas (as defined by ShapingSEQ) based on SA2 forecasts (noting that SA2 level housing demand forecasts are relatively unreliable compared to whole of Moreton Bay forecasts).

Overall, population forecasts, demographic and market trends indicate that between 2021-41 68,294 additional dwellings would be needed in the consolidation area (62% of additional demand) and 41,800 in the expansion area (38% of additional demand).

This equates to an average of 2,276 additional dwellings per year in the consolidation area and 1,393 in the expansion area (3,669 total), compared to the average development rates implied by the ShapingSEQ benchmarks of 1,928 dwellings per year in the consolidation and 1,604 in the expansion area (3,552 total). As such, these demand modelling results reflect an overall rate of housing development higher than the ShapingSEQ benchmark, and with a greater proportion of development in the consolidation area (55% is the ShapingSEQ benchmark). If sufficient provision is made in planning to accommodate the modelled demand in each area, this will ensure that the ShapingSEQ benchmarks can be met.

TABLE 11: OVERALL HOUSING DEMAND FORECAST BY PROFILE AREA

	Profile area	2021	2031	2041	2051	Change	% Change
Consolidation	Separate house	68,062	80,392	96,995	115,049	46,987	69%
	Medium density	14,864	20,883	24,529	29,197	14,334	96%
	High density	4,961	7,601	9,829	11,795	6,835	138%
	Other	408	466	502	547	139	34%
	Total	**88,295**	**109,342**	**131,855**	**156,589**	**68,294**	**77%**
Expansion	Separate house	78,764	90,416	95,752	100,222	21,458	27%
	Medium density	14,453	19,675	25,789	32,036	17,584	122%
	High density	1,603	2,193	2,846	3,376	1,772	111%
	Other	1,635	1,990	2,319	2,622	986	60%
	Total	**96,456**	**114,274**	**126,706**	**138,256**	**41,800**	**43%**

Source: SGS 2022

2.1.1.17 Infill vs greenfield housing demand

Housing demand has been split into greenfield and infill/centres components by making assumptions about what proportion of new housing will be built in infill as opposed to greenfield development in each profile area under two scenarios:

- Increased infill scenario – Assuming that some infill development occurs (an increase on current market trends), with almost all new high density and 37% of new medium density development occurring through infill.
- Limited infill scenario – Assuming that very limited infill occurs confined mainly to the Redcliffe Peninsula and Strathpine area, making up only 18% of medium density and 71% of high-density housing demand. At the time of writing, this scenario is the most likely/realistic scenario.

Under both scenarios, all additional separate houses are assumed to be delivered through greenfield development.

Almost no infill is occurring in Moreton Bay apart from the Redcliffe Peninsula as discussed elsewhere in this report, with medium density housing being delivered through first-generation subdivision of remaining large properties. Depending on the size of the properties in question, this could be considered as greenfield development. The Limited Infill Scenario thus represents a status-quo scenario leading to additional greenfield housing demand, while under the Increased Infill Scenario some infill development will happen in the future as the housing market matures.

Note that these scenarios are high level are intended to be indicative of potential development outcomes, although actual development outcomes may differ.

Resulting forecasts of infill and greenfield housing demand are shown in the following table. According to these results, 59,308 greenfield dwellings will be needed by 2041, or 65,105 if very little infill development continues to occur at rates similar to infill rates at the time of writing. This could increase to 88,744 new dwellings and 96,969 new dwellings respectively by 2051.

TABLE 12: MORETON BAY GREENFIELD AND INFILL HOUSING DEMAND FROM 2021

Scenario	Development type	To 2031	To 2041	To 2051
Increased Infill scenario	Greenfield	31,152	59,308	88,744
	Infill – medium density	4,141	7,832	11,964
	Infill & centres – high density	3,159	5,892	8,261
Limited infill scenario	Greenfield	34,673	65,105	96,969
	Infill – medium density	1,990	3,815	5,875
	Infill & centres – high density	1,789	4,112	6,125

Source: SGS 2022

The following table breaks Moreton Bay totals to 2051 into profile areas. In line with the profile area dwelling type forecasts, Caboolture and the Rural area carry most of the greenfield demand although the North Lakes and Deception Bay & Narangba areas also experience substantial amounts. Medium density infill demand is highly concentrated under the limited infill scenario, but more distributed

throughout Moreton Bay under the increased infill scenario. High density demand predominately falls in the Redcliffe Peninsula in either case in line with housing preference trends.

TABLE 13: GREENFIELD AND INFILL HOUSING DEMAND BY PROFILE AREA TYPE 2021-51

Scenario	Development type	To 2031	To 2041	To 2051
Increased Infill scenario	Greenfield	31,152	59,308	88,744
	Infill – medium density	4,141	7,832	11,964
	Infill & centres – high density	3,159	5,892	8,261
Limited infill scenario	Greenfield	34,673	65,105	96,969
	Infill – medium density	1,990	3,815	5,875
	Infill & centres – high density	1,789	4,112	6,125

Source: SGS 2022

2.1.1.18 Adjusted housing demand scenario

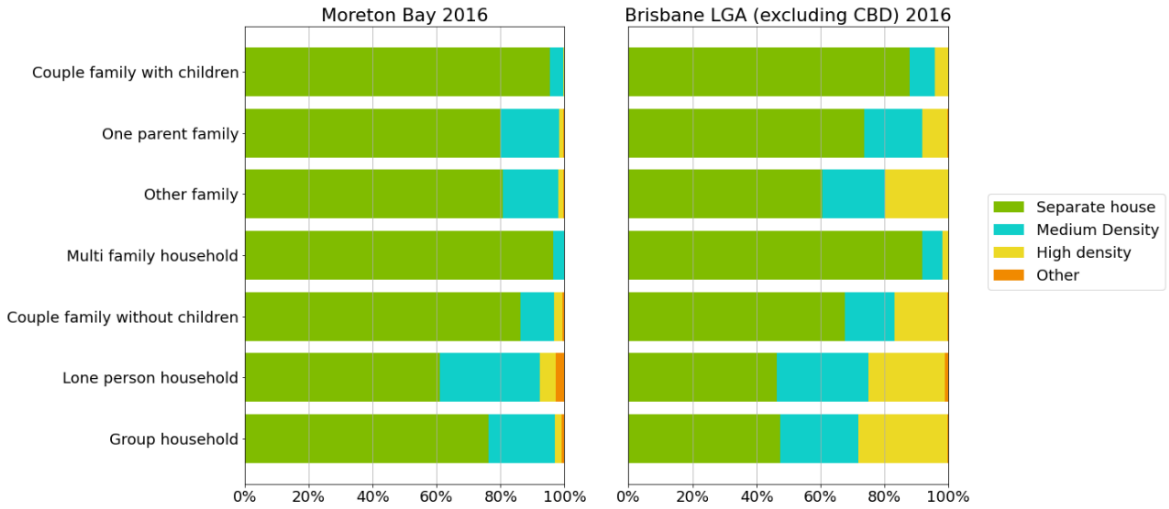
As noted above, baseline housing preference forecasts are influenced by the kind of housing which is being built. While they provide an indication of the trade-offs and choices different kinds of households are making, they may miss latent (i.e., unmet) demand for particular housing types, or miss new and emerging kinds of housing demand which is not yet being met by the development industry.

Engagement with the real estate industry through phone calls (outlined herein), and with the development industry through an industry forum, provides mixed messages on how demand is changing in Moreton Bay. While real estate agents generally believed there to be little demand for medium and higher density housing in Moreton Bay outside of specialised submarkets like Redcliffe, professionals from the development industry noted that there is demand for medium density housing, notwithstanding a lack of feasibility for infill development.

A survey of a cross-section of the community would be required to understand in much greater depth whether there is unmet housing demand (i.e. for certain typologies) in Moreton Bay. However, without undertaking this research, an indication of how housing preferences could change in the future can be found by comparing housing preferences in Moreton Bay to other LGAs and by gaining insights from demographics and industry professionals operating in the area.

Figure 30 compares Moreton Bay's housing preferences as revealed by the 2016 ABS Census, and forecast in the baseline demand scenario, to those in the Brisbane LGA in 2016 excluding the Brisbane CBD SA2. This comparison shows that compared to Moreton Bay, households in Brisbane are accommodated at high density, and in some cases medium density. This demonstrates that many households of each of the types shown below are willing to trade off living space to live in a well-located high density dwelling in Brisbane's inner and middle-ring suburbs.

FIGURE 30: MORETON BAY HOUSING PREFERENCES FORECAST COMPARED TO BRISBANE LGA



Source: SGS 2021, ABS Census 2016

As greenfield development continues to occur and the fringe of Brisbane pushes outwards, established parts of Moreton Bay will be further from the urban fringe and may resemble more closely established parts of Greater Brisbane closer to the Brisbane CBD in housing demand profile. In this case, there could be more demand for medium and higher density housing in more parts of Moreton Bay (for example, higher density housing demand in several key centres with high levels of amenity rather than just in Redcliffe and Bribie Island).

At the same time, there is a trend towards increasing delivery of medium density housing in greenfield developments in Melbourne and Sydney where house prices are higher. This is partly a response to unaffordability of detached greenfield housing for some parts of the community, and partly a reflection of a more mature housing market, with people choosing medium density housing near greenfield centres. As Greater Brisbane's population and house prices continue to grow, Moreton Bay's greenfield development areas in the future may look like Sydney's and Melbourne's now.

2.1.1.19 Adjusted preference forecast

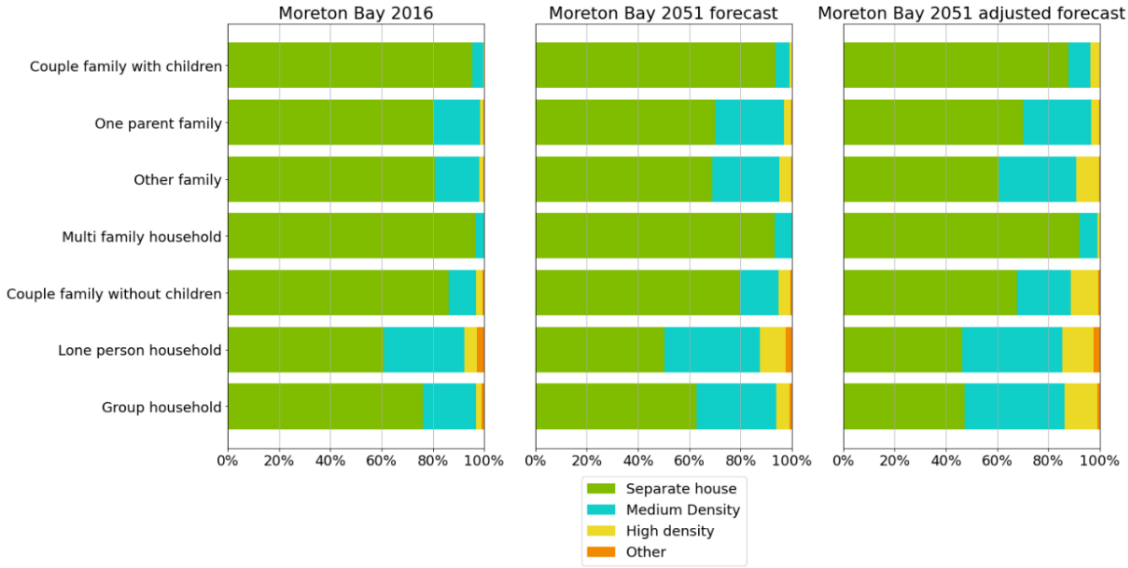
To reflect the potential changes in housing demand suggested by these trends, an alternative housing demand scenario has been created in which Moreton Bay's housing preferences shift away from separate houses to match revealed preferences for separate houses in Brisbane LGA excluding the Brisbane CBD. The preference gap between this adjusted scenario and the baseline forecast (that is those households no longer living in separate houses) has been allocated evenly into medium and higher density dwellings reflecting a continuing preference in Moreton Bay for medium over high density, but also some maturation of the housing market and delivery of high density housing in new places. This adjusted preference forecast is shown in Figure 31, along with Moreton Bay's 2016 revealed preferences and the 2051 baseline forecast

The adjusted forecast reflects an alternative future in which Moreton Bay in 2051 has a more mature and complete housing market which resembles the inner and middle ring Brisbane housing market and where greenfield growth is occurring it has shifted somewhat towards medium density. Due to the uncertainties inherent in forecast over 30 years, this intended to be a high level and illustrative scenario

rather than an accurate and scientific forecast of what Moreton Bay's housing preferences will be. The alternative scenario can be compared to the baseline scenario to provide a guide as to the range within housing demand in the future may fall.

The adjusted forecast is intended to illustrate an LGA-wide alternative forecast, and so profile area forecasts and splits into greenfield and infill for the adjusted demand forecast have not been created.

FIGURE 31: BASELINE AND ADJUSTED HOUSING PREFERENCE FORECAST



Source: SGS 2021, ABS Census 2016

Results

The adjusted housing demand forecast which results from the adjusted preference forecast is shown in Table 14. Under this forecast, the same number of dwellings would be needed to house the same number of households, but the mix of separate houses, medium and high density would change. 18,517 less separate houses would be needed by 2051, but 8,795 more medium density and 9,705 additional high-density dwellings would be needed.

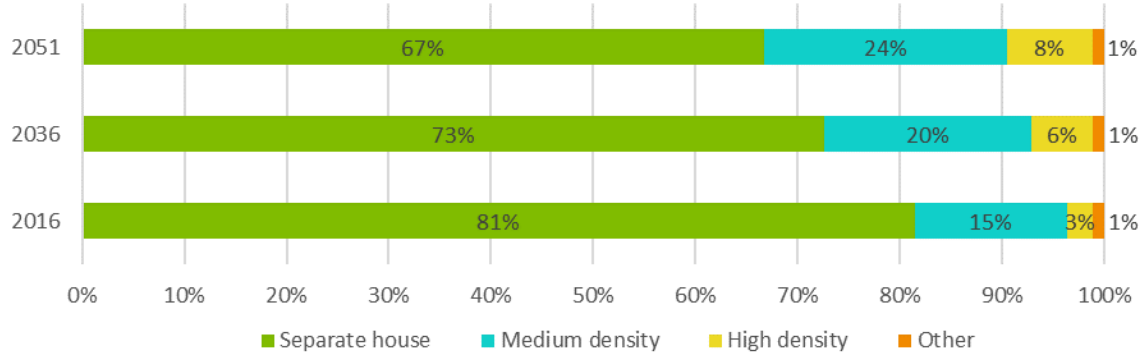
TABLE 14: ADJUSTED BASELINE HOUSING DEMAND FORECAST

Dwelling type	2016	2021	2031	2041	2051	Change 2016-2051	Average annual growth rate
Separate house	135,973	146,181	166,995	182,520	196,755	60,782	1.1%
Medium density	24,865	30,117	42,456	55,442	70,029	45,164	3.0%
High density	4,237	6,367	11,626	17,716	24,876	20,639	5.2%
Other	1,866	2,086	2,539	2,884	3,185	1,319	1.5%
Total	**166,941**	**184,751**	**223,616**	**258,561**	**294,845**	**127,904**	**1.6%**

Source: SGS 2021

This shift towards medium and high density preferences results in an increased forecast change in overall housing composition in Moreton Bay compared to the baseline forecast. Compared to the baseline housing demand results, Figure 32 shows separate houses making up only 67% of dwellings in 2051 compared to 73% under the baseline forecast. Medium density would make up 24% instead of 21%, while high density would make up 8% instead of 5%.

FIGURE 32: SHIFT IN HOUSING COMPOSITION IN MORETON BAY UNDER ADJUSTED PREFERENCES SCENARIO



Source: SGS 2021

Table 15 breaks these results down into the average change in dwellings per year, and the percentage composition of new dwellings (as opposed to the percentage composition of all dwellings shown above).

TABLE 15: ADJUSTED BASELINE HOUSING DEMAND FORECAST

	2016 – 2051 Adjusted forecast		2016-2051 Baseline Forecast		2016-2021 Completions	
	Yearly change	% of total change	Yearly change	% of total change	Yearly change	% of total change
Separate house	1,737	48%	2,266	62%	2,841	75%
Medium density	1,290	35%	1,039	28%	716	19%
High density	590	16%	312	9%	105	3%
Other	38	1%	37	1%	113	3%
Total	3,654	100%	3,654	100%	3,774	100%

Source: SGS 2021

As noted above, the same number of new dwellings would be needed under the adjusted scenario as the baseline scenario. However, separate houses would make up only 48% of new development, compared to 62% under the baseline scenario. Almost twice as many new high density dwellings would be needed per year as under the baseline, but they would still only make up 16% of overall development. There would also be an increase in the number of medium density dwellings needed per year.

A substantial change in recent development patterns from recent completions would be needed to achieve the scenario expressed in the adjusted demand forecast. To achieve the adjusted scenario, rates of development of separate houses would need to drop significantly (from 75% to 48% of all development), while medium and high density would need to increase significantly (high density from 3% to 16% of all development). However, little change would be needed in the number of dwellings built per year.

2.1.1.20 Limits to shifts in preferences

The adjusted housing demand scenario illustrates limits to how much housing preferences might change in the future. Lower revealed preferences for separate houses from Brisbane have been used, and as noted a substantial shift in development mix would be needed to achieve these adjusted preferences. Despite this, separate houses are expected to remain the dominant dwelling type and the most common type of dwelling built, and a large amount of land would need to be developed to accommodate new separate houses.

To achieve these preferences and level of market maturity, it would be expected at a high level that levels of amenity, services and infrastructure in Moreton Bay in 2051 would need to be similar to those currently present on average across the Brisbane LGA's inner and middle-ring suburbs. Achieving even greater shifts in preferences while accommodating the same population may require a further increase in amenity, services and infrastructure above what is currently present on average in the Brisbane LGA. This would be difficult to achieve, illustrating that unless a significant change in housing preferences occurs on a population-level or a significant state-wide shift in planning policy, there are limits to how far preferences are likely to shift in Moreton Bay over the timespan of this study.

Limits on how far housing preferences in Moreton Bay are likely to change in turn imply a continued demand for land for greenfield development if population growth continues. If Council were to decide that a boundary should be placed around urban expansion over the next thirty years (or beyond), either a decline in population growth into Moreton Bay, or a major shift in the way people think about housing would be needed to accommodate growth within the bounded area.

2.1.2 Summary of housing choice data analysis

As discussed above, key finding relating to housing choice include:

- Families in Moreton Bay are living in larger, less dense homes than the rest of SEQ on average.
- Compared to the rest of SEQ:
  - Moreton Bay has less high density housing (3% vs 11%).
  - Moreton Bay has more low density houses (81% vs 71%).
- Single-parent households are expected to increase from 12-17% by 2051.
- Moreton Bay doesn't have as many small homes (1-2 bedrooms) as the rest of SEQ.
- In 2051 we expect our housing stock will need to be 73% separate houses, 21% medium density (low rise terraces or units), and 6% high density and other housing.
- At present, 81% of Moreton Bay's housing is separate houses.

2.1.3 Implications

A diversity of housing provides households with greater choices about the housing that best suits them. Families come in all shapes and sizes and having housing that better matches our family and household types provides a more suitable housing mix to meet the community's needs. A variety of housing is useful for a range of reasons:

- Different stages of our life require different housing needs – family homes, share housing or 'flatting' with friends or partners, couple housing, family housing, and housing suited to older people or people particular needs.
- Choices about where and how we live – suburban, urban or rural settings, housing close to jobs, services or public transport.
- Having different housing with different affordability levels to suit household incomes.

Although large houses have dominated historically, household composition in Moreton Bay is slowly changing, where a greater number of single parent households are expected, and a greater numbers of older people.

The Moreton Bay region contains low amounts of high density housing (3% compared to 11% in SEQ) and higher amounts of separate houses compared with SEQ (81% compared with 71%). To support households and affordability, we need to promote smaller homes including townhouses, terraces and apartments in new estates and in established suburbs.

If current trends continue, there will be a mismatch between the types of housing available in Moreton Bay, and the types of housing people need.

Housing choice is important because our housing needs change over time, depending on our family

2.1.4 Strategies

To avoid widening the mismatch between the types of housing available in Moreton Bay, and the types of housing people need, the following strategies are recommended:

1a. Encourage greater diversity in housing types and sizes.

1b. Support smaller homes for single-parent families and smaller households.

1c. Promote medium and higher density housing, and a lesser proportion of separate houses.

2.1.5 Recommendations (overview)

Detailed recommendations are discussed later in this report - including the context for recommendations, as well as timing, importance, and costs associated with recommendations. Notwithstanding, below is an overview of recommended actions to achieve the aforementioned strategies:

- Investigate the potential to reduce the minimum site area and separation distances for dual occupancy in the Suburban neighbourhood precinct, where the design can meet intended precinct character outcomes, and clarify these intended outcomes in the purpose statement of the General residential zone code.
- Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. densities akin to the Next generation neighbourhood precinct).
- Identify catalyst sites and opportunities for greater intensity residential infill at suitable locations (e.g. through neighbourhood planning processes, structure planning, master planning or a separate exercise).
- Consider ways to clarify expected development typologies throughout Moreton Bay (e.g. through revised zone cards/information sheets, an interactive tool, or amendments to zone/precinct names, codes, or planning scheme structure and strategic framework).

- Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. “development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings”).

2.2 Housing accessibility - Providing options for our ageing and less mobile populations

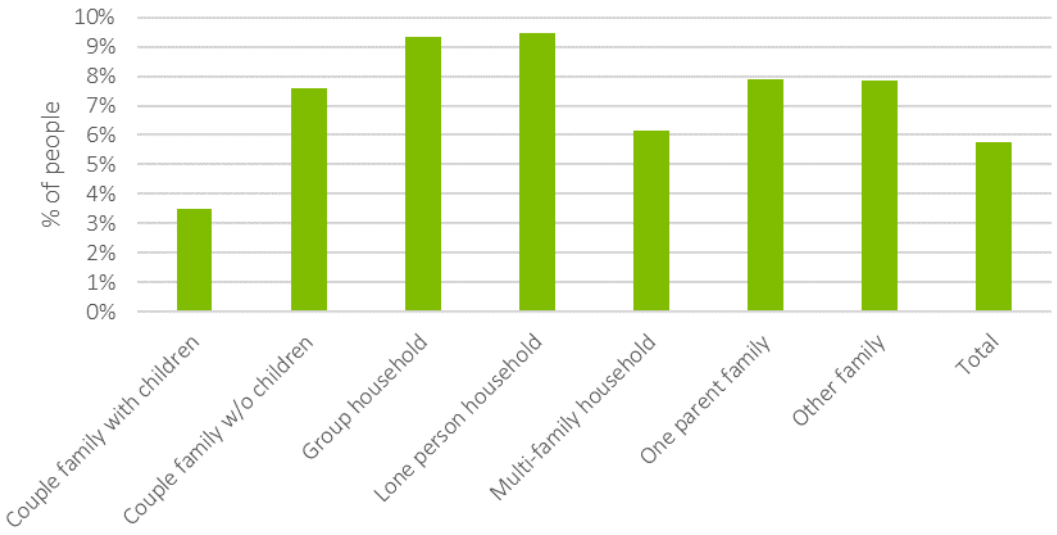
This section focuses on what types of housing Moreton Bay needs to support its ageing and less mobile populations.

2.2.1 Data analysis

2.2.1.1 Housing for less mobile people

Through the Census, the ABS estimates the proportion of the population who need assistance with core activities due to disability. The proportion of Moreton Bay's permanent population needing assistance is shown in the figure below broken down by household type.

FIGURE 33: PROPORTION OF MORETON BAY POPULATION WHO NEED ASSISTANCE WITH CORE ACTIVITIES, 2016



Source: SGS 2022 using ABS Census 2016

By comparing these proportions to the modelled household forecast, and assuming that the proportions will remain the same in the future, it is possible to forecast how many households may need accessible dwellings catering to the needs of those with a disability. This result is shown in the table below.

Some people who need assistance with daily activities may not need an accessible dwelling, and so the number of accessible dwellings needed may be slightly less than the numbers shown in this Table 16.

TABLE 16: FORECAST NUMBER OF HOUSEHOLDS WHO NEED ASSISTANCE WITH CORE ACTIVITIES

Household type	2021	2031	2046	2051	Change 2021-2051
Couple with children	1,920	2,206	2,465	2,734	814

Couple without children	3,542	4,110	4,610	5,232	1,690
One parent family	1,774	2,343	2,968	3,656	1,883
Other family	145	196	249	315	170
Multi-family household	272	402	547	711	438
Group household	541	728	929	1,149	609
Lone person household	3,452	4,231	4,718	4,997	1,545
Other non-classifiable household	829	1,013	1,183	1,358	529
Total	**12,476**	**15,229**	**17,669**	**20,153**	**7,677**

Source: SGS 2022

The type of dwellings these households would likely live in has been forecast under the base case housing demand scenario using the following method:

1. Calculate % of people needing assistance from the 2016 ABS Census broken down by household type cross-tabulated with dwelling type.
2. Assume these %s remain the same in the future and apply to forecast number of households by household type and dwelling type from housing demand modelling.
3. Rebase values for each household type so that they add up to the totals in the table above for each household type and year.
4. Multiply number of households by vacancy rates (broken down by dwelling type) from the housing demand model to convert forecast number of households into a forecast number of dwellings

The resulting forecast is shown in the table below.

TABLE 17: FORECAST NUMBER OF DWELLINGS ACCOMMODATING HOUSEHOLDS WHO NEED ASSISTANCE WITH CORE ACTIVITIES

Dwelling type	2021	2031	2041	2051	Change 2021-2051
Separate house	10,213	11,954	13,512	15,008	4,795
Medium density	2,181	3,119	3,917	4,840	2,659
High density	273	414	550	681	408
Other	92	110	130	155	63
Total	**12,759**	**15,597**	**18,110**	**20,683**	**7,925**

Source: SGS 2022

It is not possible to determine what proportion of dwellings is currently accessible. If all of the current demand for accessible housing is met and all households who need assistance with core activities need some level of accessibility in their housing, an additional 7,925 accessible dwellings are likely to be needed between 2021-2051, when accounting for vacancy rates. This is 7.2% of all additional dwellings expected to be needed in Moreton Bay during this period.

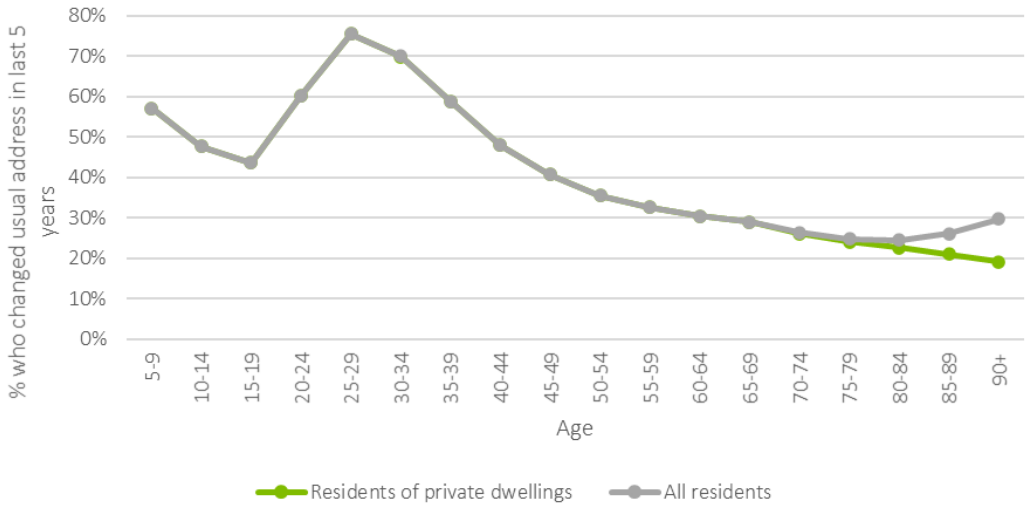
The additional accessible dwellings needed in the future will cater to people with a wide range of needs for assistance with core daily activities, from those for whom minimal changes to a non-accessible dwelling could be sufficient, to others with much higher needs. In some cases an existing dwelling be retrofitted to be accessible and so a new accessible dwelling may not be required. More detailed data would be required to forecast demand more specifically by level of dwelling modification or accessibility required.

2.2.1.2 Household mobility of older people

As noted elsewhere in this report, parts of Moreton Bay are retirement destinations. These areas have a relatively old average age and high proportions of couples without children aged 45+ and lone person households. Notable retirement destinations like Redcliffe and Bribie Island are likely to attract people choosing where to move for lifestyle reasons (one of the main reasons for downsizing). This population driver is likely to remain important in the future and provide some continued demand for housing in these areas.

From the age of 30 onwards people in Moreton Bay are less likely to move the older they get (as shown in the following figure). The exception to this statement is over the age of 75. For over 75s, the proportion of all people who moved in the last five years increases and diverges slightly from the proportion of people in private dwellings who have moved in the last five years, which continues to decrease. This divergence is a result of people moving into nursing homes and aged care when they are no longer able to live in their own home.

FIGURE 34: HOUSEHOLD MOBILITY OF MORETON BAY RESIDENTS BY AGE



Source: SGS 2021 using ABS Census 2016

These results indicate that older people are likely either not to move house, or to move relatively few times, unless they need to move into aged care.

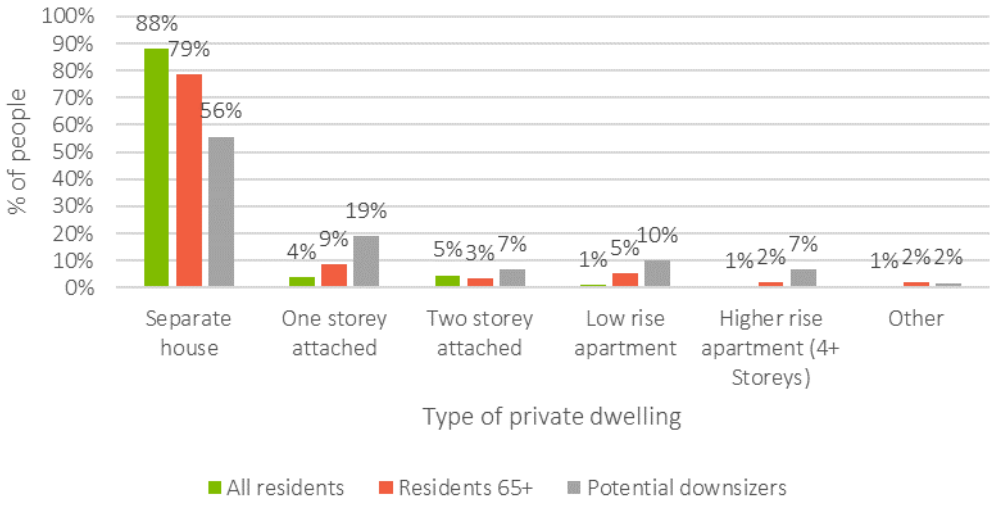
2.2.1.3 Housing choices of older people

The following figure compares the housing choices of people aged 65+ as indicated by the 2016 ABS Census to those of the Moreton Bay community as a whole. It also shows a third category of people denoted 'Potential downsizers'. This is a subset of people aged 65+ who:

- Moved address within Australia in the last five years
- Live in a private dwelling (as opposed to aged care), and
- Live without dependents in a couple without children or lone person household.

The 2016 ABS Census records 10,345 of these people living in Moreton Bay, making up 16% of all people aged 65+. This is a significant portion of people aged 65+, particularly given that it only includes those who moved in the last 5 years.

FIGURE 35: THE KINDS OF DWELLINGS OLDER PEOPLE LIVE IN IN MORETON BAY (2016)



Source: SGS 2021 using ABS Census 2016

Overall, the vast majority of people aged 65+ in Moreton Bay live in a separate house, although those aged 65+ are less likely to live in a separate house than the broader community. The dominance of separate houses is consistent with the overall housing mix in Moreton Bay, and with older people tending to stay in their homes as they age.

After separate houses, people aged 65+ are most likely to live in single storey attached dwellings (much more likely than the broader community). Single storey attached dwellings offer level access which is beneficial to people with reduced mobility, and are typically larger than apartments. By contrast, two storey attached dwellings are less popular in older people than the community at large.

Low rise apartments (2-3 storeys) are also a relatively common housing choice for older people, and a much more common housing choice than in the broader community.

Higher rise apartments and other dwellings are relatively uncommon in Moreton Bay, and so accommodate a relatively low proportion of the population. While these are a more common choice for people aged 65+ than the broader community, the difference is much less than that for single storey attached dwellings and lower rise apartments.

The housing choices of potential downsizers diverge more strongly from the broader community those of all people aged 65+. Separate houses are the most common housing choice for potential downsizers, but is a much less dominant choice than in the broader community. Single storey attached dwellings are the next most common choice. Low rise and higher rise apartments are also relatively common choices for these groups, accommodating 17% of potential downsizers compared to only 2% of all Moreton Bay residents.

2.2.1.4 AHURI research findings

Demographic statistics for Moreton Bay in the previous two subsections illustrate where older people currently live and are choosing to live in Moreton Bay. However, there may be a latent desire for downsizing that is not served by the current housing market. Nationwide research by the Australian Housing and Urban Research Institute (AHURI) interrogates this issue and examines what kind of housing older people would choose if it was available. This research is not specific to Moreton Bay. Research findings include that :

- 30 per cent of older Australians (those aged over 55) are considering moving housing in the next five years.
- Around 69 per cent would like to own a separate house.
- 50 per cent want a home with three bedrooms and 20 per cent want a home with four or more bedrooms.
- 85 per cent of people living in houses were found to be happy with their current dwelling type,
- 80 per cent want to own their own home.

More recent research from a survey of Australians nationwide found that :

- Most older respondents nationwide had either downsized (26%) or were considering it (29%).
- Downsizers often do not stay in their local area, with 42% moving to neighbourhoods new to them and 37% to locations they already knew such as a holiday destination, and only 22% staying in the same neighbourhood.
- Housing tenure typically does not change when people downsize, but half of downsizers had changed dwelling type and two thirds had moved to a dwelling with fewer bedrooms
- Downsizers generally want additional bedrooms to use for a variety of purposes, with two thirds of downsizers still having spare bedrooms.
- The most common reasons for downsizing are to achieve a particular lifestyle (27%), for financial reasons (27%) and to reduce property and garden upkeep (18%).
- Surveys and interviews indicate a preference for smaller detached and attached houses in high-amenity areas, with the lack of availability of this kind of housing stock a major barrier to facilitating downsizing.

- There are also other barriers to downsizing beyond the remit of local town planning, including many people being happy with their current dwelling or wanting to keep their current amount of space; financial constraints; and taxation policy.

There is a difference between Moreton Bay statistics and AHURI's findings, with around 30% of older people considering according to AHURI's research, while demographic research for Moreton Bay above shows that older people are relatively unlikely to move house. It is likely that many people who consider downsizing do not do so. Barriers to downsizing may prevent people considering moving from doing so, including availability of appropriate housing as well as broader factors and people being happy with their existing house. There may be some latent demand for downsizing, meaning more downsizing may occur if barriers were addressed.

AHURI's research finds that downsizers will typically want a moderately sized (not large) dwelling with some spare bedrooms. Smaller separate houses and attached dwellings fit this description and are typically favoured over apartments. This is broadly consistent with statistics for Moreton Bay.

2.2.1.5 Relevance to Moreton Bay

The combination of Moreton-Bay specific statistics with AHURI's provides the following implications for Moreton Bay:

- Most older people will continue to live in their existing dwelling, or if they do downsize to only move a limited number of times.
- Separate houses are likely to remain the most common housing type accommodating older people, with many remaining in their existing house as they age or moving into different separate houses.
- Downsizers are a smaller but still notable demographic group in Moreton Bay. They are likely to continue to move to Moreton Bay in the future, providing a housing demand stream for retirement destinations like Redcliffe and Bribie Island.
- The discrepancy between AHURI findings and local statistics with regards to how often older people move indicates that there may be some latent demand for additional downsizing if appropriate housing was available.
- Both local statistics and AHURI research show that older people generally want some space when they downsize, likely favouring either smaller separate houses or attached dwellings, and likely with spare bedrooms.
- There is a smaller but not insignificant submarket of older people and potential downsizers in Moreton Bay moving to both low rise and higher rise apartments. These people are likely trading off the desire for space with the ability to move to a lifestyle destination like Redcliffe.

The policy implications of these findings are:

- The existence of downsizers as a notable demographic group in Moreton Bay (if less common that older people staying in existing dwellings), and the potential latent demand for downsizing indicated by AHURI research, mean that it is important to ensure appropriate housing is provided in areas attractive to downsizers and other older people. This provides the opportunity for downsizing to occur, freeing up other housing stock in some cases.
- New apartments will cater to some downsizers in the future and it is important that some apartments have accessible design, and potentially three bedrooms.

- Single storey attached dwellings will continue to be needed to appropriately accommodate older people moving to and downsizing within Moreton Bay.

  While some of these are likely to be provided in relocatable home and retirement village developments, it is also important to encourage development of some single storey attached dwellings in high-amenity areas near services to cater to older people with reduced mobility.

2.2.1.6 Aged care

According to data from the Australian Government, there were 4,217 residential aged care places in 40 facilities in Moreton Bay at the end of June 2021. The most places are in the Caboolture and Redcliffe Peninsula areas, followed by Deception Bay & Narangba and North Lakes (see the table below).

TABLE 18: RESIDENTIAL AGED CARE FACILITIES AND PLACES IN MORETON BAY, JUNE 2021

Profile area	Facilities	Residential aged care places
Coastal Communities and Bribie Island	4	329
Caboolture	9	1,190
Redcliffe Peninsula	10	992
North Lakes	5	558
Strathpine	4	384
Deception Bay & Narangba	6	609
Rural	2	155
Total	40	4,217

Source: SGS 2021 using Australian Government GEN Aged Care Data 2021, Aged Care Service List 30 June 2021

Some of these places will be vacant at any one time. There were 3,479 people in residential aged care in the Cabool Aged Care Planning Region (ACPR) on the 30th of June 2020[1]. The Cabool ACPR consists of the Moreton Bay LGA and a sparsely populated area stretching to the northwest. Apart from Moreton Bay, the only other part of the ACPR likely to contain aged care facilities is Kilcoy, which contains one 40-home facility. As such, there are approximately 3,440 people in Aged Care in Moreton Bay. This equates to an occupancy rate of around 80%.

[1] Australian Government GEN Aged Care Data 2021, *People using aged care services, 30 June 2020*

2.2.1.5 Aged care forecast

The number of people in aged care has been forecast, using trends in the proportions of people in each age group who live in aged care and the population projection for Moreton Bay (see Appendix A Step 1 for more details on the method).

Both high care nursing homes and lower care hostels where meals are provided and residents do not live in self-contained dwellings are included in this count. Retirement villages composed of self-contained houses, villas or other dwellings are included in the above dwelling count rather than as aged care (these are common in Moreton Bay and are one of the development types discussed herein).

Overall, around 6,300 additional people are expected to be living in aged care by between 2021-2051, a 79% increase in this time series. Each year, the population in aged care is expected to increase by around 210. Note this has been forecast based on the ABS Census and overall population projections so the 2021 value differs slightly from the 2020 aged care data from the Australian Government, although it is quite close (3,499 people forecast for 2021 vs around 3,440 people in 2020 from Australian Government data).

While overall housing supply is expected to grow by 1.5% per year on average, the average annual growth rate of the number of people living in aged care is expected to be more than double this figure at 3.3%. This is a result of the large forecast growth in the number of older people living in Moreton Bay.

TABLE 19: FORECAST NUMBER OF PEOPLE IN AGED CARE

2016	2021	2031	2041	2051	Change 2021-2051	Average annual growth rate
3,120	3,499	5,464	7,726	9,796	6,297	3.3%

Source: SGS 2021

2.2.2 Summary of housing accessibility data analysis

As discussed above, key findings relating to housing accessibility include:

- Moreton Bay's population aged over 65 is growing at twice the rate as the rest of SEQ.
- By 2051, Moreton Bay's population aged over 65 will have grown by 182% compared to 2016.
- 75% of homes in the Moreton Bay are large (3+ bedroom) family houses.
- Higher proportions of older people live in Moreton Bay's coastal communities and on Bribie Island, and the Redcliffe Peninsula.
- In Moreton Bay about 6.1% of people need assistance for core activities, compared with 5.2% in SEQ.
- By 2051, Moreton Bay will need 7,925 additional accessible dwellings (7.2% of all additional dwellings).
- Around 6,300 additional people are expected to be living in aged care between 2021 and 2051.

2.2.3 Implications

As we go through life our housing needs change. Its important that everyone has a home that is the right fit for them. Although our population is ageing, our housing isn't changing as much as it needs to to meet the regions changing needs.

Across Australia numbers of older people are increasing. This is particularly the case in the Moreton Bay Region which has a much higher proportion of aged persons than the SEQ average. The Moreton Bay Region has increasing numbers of people over 65 years of age that will increase by around 182% between 2016 and 2051 (compared to a 80% increase in the under 65 aged group by comparison).

According to Australian Government data there were 4,217 residential aged care placed in 40 facilities in Moreton Bay at the end of June 2021. Significant growth in specialist aged care housing (high care nursing homes or lower care homes where meals are provided) is expected at about 3.3% per year, with around 6,300 additional people expected to be living in aged care between 2021 and 2051.

Specific strategies are needed in different parts of the region to reflect population and household needs, such as the greater number of people over 65 years of age in coastal communities including Bribie Island and the Redcliffe peninsula.

Generally older people living in care increases sharply from 1% of persons aged 64 to 74 years to 25% in the 85 years and over aged group . This means that the majority of older persons reside in housing in our communities and home support packages support their aging in place.

Consideration of aging in place and communities is an important aspect of accommodating older person's needs, as is having available, in their local areas, suitable housing choices should downsizing or lower maintenance dwellings be a more suitable match for their needs. An increase in accessible housing may provide an opportunity for a currently unrealised infill market for small dwellings/ medium density in Moreton Bay's established suburbs where households may be looking to downsize but stay in their locality, and in line with low maintenance and accessible housing.

Retirement living development also offers more suitable housing and accessible environment options for older people. Manufactured home parks are a key part of that provision. Retirement living communities broaden the choice of housing for older people. In addition residential aged care, where purpose built aged care housing is required for people with high needs, will be required in Moreton Bay in greater numbers to meet demand.

Whilst the focus on ageing persons is warranted given the anticipated cohort increases, a broad range of people in our community have special needs. Adaptable housing assists with providing more housing that is better suited to people with reduced mobility or with special needs.

2.2.4 Strategies

To provide options for our ageing and less mobile populations, the following strategies are recommended:

2a. Facilitate more accessible, adaptable and low-maintenance housing.

2b. Encourage housing diversity for 1-2 person households and empty-nesters.

2c. Focus new housing around public transport and services, to support ageing and less mobile populations.

2.2.5 Recommendations (overview)

Detailed recommendations are discussed later in this report - including the context for recommendations, as well as timing, importance, and costs associated with recommendations. Notwithstanding, below is an overview of recommended actions to achieve the aforementioned strategies:

- Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. “development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings”). Note this action is also recommended above, to support housing choice.
- Review, and, if appropriate, support National Construction Code or Queensland Development Code ‘Livable housing design’ accessible dwelling requirements, if/when implemented (e.g. through guidelines relevant to Moreton Bay).
- Investigate potential incentive packages for residential care development (e.g. height and density bonuses on larger sites, with appropriate built form transitions for integration with local character) to support Moreton Bay’s ageing population.
- Investigate options to better support NDIS housing (e.g. through incentives, levels of assessment, or a dedicated contact person within Council (i.e. a concierge) to support NDIS housing providers through the planning and development process).
- Consider opportunities to better support ageing-in-place throughout Moreton Bay, including appropriate housing diversity in Townships.

2.3 Housing location - Encouraging the right housing in the right locations

This section focuses on whether Moreton Bay is achieving housing diversity in well-serviced locations.

2.3.1 Data analysis

2.3.1.1 Best serviced locations

Those places which combine accessibility to multiple different services and important destinations and are near public transport are generally considered the best serviced and the most accessible. In addition, these locations are usually considered as the most suitable for higher density housing from a 'first principles' planning point of view.

There are many ways that liveability and accessibility can be measured. There are also many different destinations that people may want to live near, and the importance of these different destinations will vary from person to person.

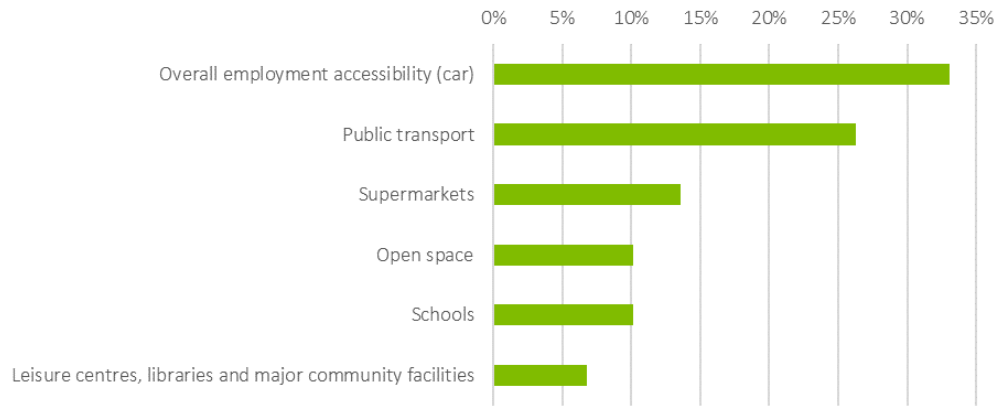
Accessibility analysis has been carried out to determine which parts of Moreton Bay are most accessible based on an analysis of overall job and service accessibility, accessibility to public transport stops and the walking or on-road distance to the following local goods, services and amenities:

- Supermarkets (as a proxy for broader retail centres)
- Open space
- Primary and secondary schools, both public and private (although public schools have been assigned a higher weight to reflect that they are available to the whole public)
- Libraries, leisure centres and major community facilities.

These different components have been weighted using the weights shown in Figure 36, and added up to produce an overall score for each property.

Maps showing each attribute, as well as combined scores, are shown in Figures 37-44.

FIGURE 36: WEIGHTS FOR THE OVERALL SCORING OF BEST SERVICED LOCATIONS



Source: SGS 2021

OVERALL EMPLOYMENT AND SERVICE ACCESSIBILITY

Figure 37 shows effective job density (EJD), a measure of overall employment accessibility by car. EJD is an index score produced by taking the number of jobs in any other location within the city and dividing them by the time taken to travel to that location, producing a spatial index of how many jobs are accessible and how long it takes to get to them. EJD has been calculated for SA2s.

While EJD is directly a measure of overall employment accessibility, it can also be considered as a good proxy for access to services. This is because many large services tend to be clustered in the same places as concentrations of employment, and services are themselves associated with large amounts of employment.

Mapping EJD shows that the southern parts of Moreton Bay which are closer to Brisbane have better overall job and service accessibility, as would be expected. The corridor along the railway line and Bruce Highway and the Redcliffe Peninsula performs moderately well, but not as well as The Hills, Albany Creek and Strathpine.

Bribie Island and the coastal communities, as well as the rural areas score poorly on this metric reflecting low levels of accessibility to employment and major services. The Caboolture West growth area also scores relatively poorly.

PUBLIC TRANSPORT ACCESSIBILITY

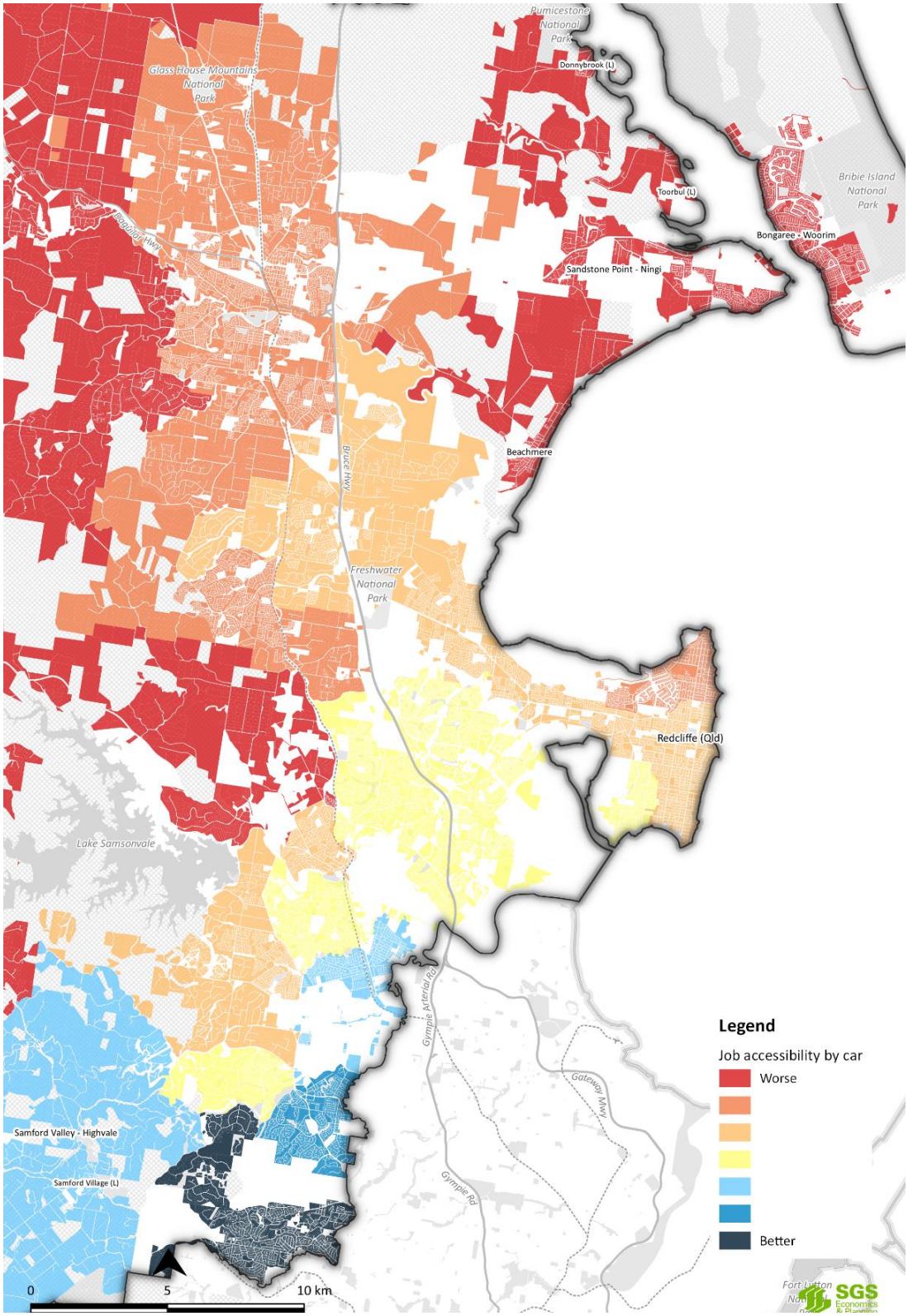
Public transport accessibility is mapped on Figure 38. This is calculated based predominately on walking distance to train stations, with walking distance to bus stops with a reasonable degree of frequency scoring less highly. The public-transport based EJD, an overall measure of employment accessibility by public transport at the SA2 level, is also included and makes up a small amount of the total score.

On this metric the walking catchments of train stations in the southern part of Moreton Bay are most accessible by public transport, followed by walking catchments around train stations further north in places like Caboolture.

There are few relatively frequent bus stops included in this analysis, with relevant stops:

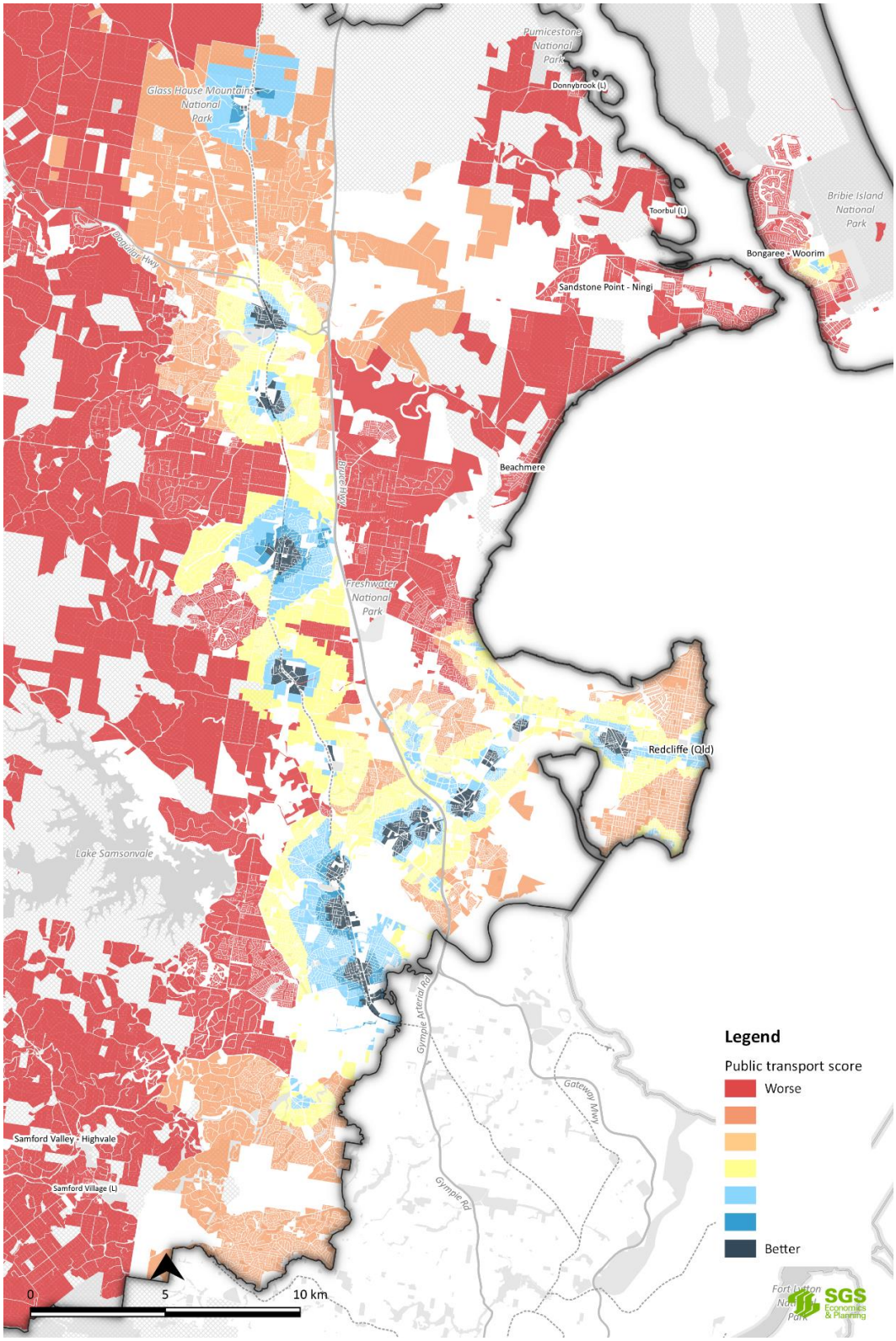
- Between Redcliffe and Kippa-Ring
- At Woody Point
- Along Deception Bay Road
- Along Diamon Jubilee Way in North Lakes
- At Bribie Island on Goodwin Drive
- On South Pine Road at Eatons Hill and Albany Creek.

FIGURE 37: OVERALL ACCESSIBILITY OF EMPLOYMENT AND SERVICES



Source: SGS 2021

FIGURE 38: PUBLIC TRANSPORT ACCESSIBILITY



Source: SGS 2021

LOCAL SERVICES AND AMENITIES

Figures 39-43 map accessibility to supermarkets; open space; schools; and libraries, leisure centres and major community facilities. Together these are considered as local services and amenities.

For each of the destination categories that fall into this analysis, walking and on-road catchments of three different sizes have been determined to reflect a reasonable walking catchment, a catchment for a longer walk or short drive and a reasonable driving or other active transport distance. Properties score most highly if they are within the walking catchment, and worse for the further out catchment (driving) areas.

Whilst these maps are current at the time of publishing, Council may choose to keep 'live' versions of this mapping, to capture development and infrastructure changes as and when they occur.

Supermarket accessibility

This score includes accessibility both big and small supermarkets, with properties scoring more highly if they are within the catchment of a larger supermarket (for example a Coles or Woolworths as opposed to an IGA X-press). Properties receive the highest score if they are within a walking catchment of two major supermarkets.

While only supermarkets have been directly mapped, this score is also intended to act as a proxy measure for broader accessibility to retail centres, as most retail centres will contain a supermarket or large grocery store, and larger centres will typically contain one or more major supermarkets.

There are several areas in the immediate surrounds of centres in Moreton Bay that receive the highest score, including parts of Caboolture, Burpengary, Deception Bay, North Lakes, Redcliffe, Kippa-Ring and Strathpine. Conversely, many areas of suburban housing are more than 2,400m from any supermarket, and so receive a poor supermarket accessibility score.

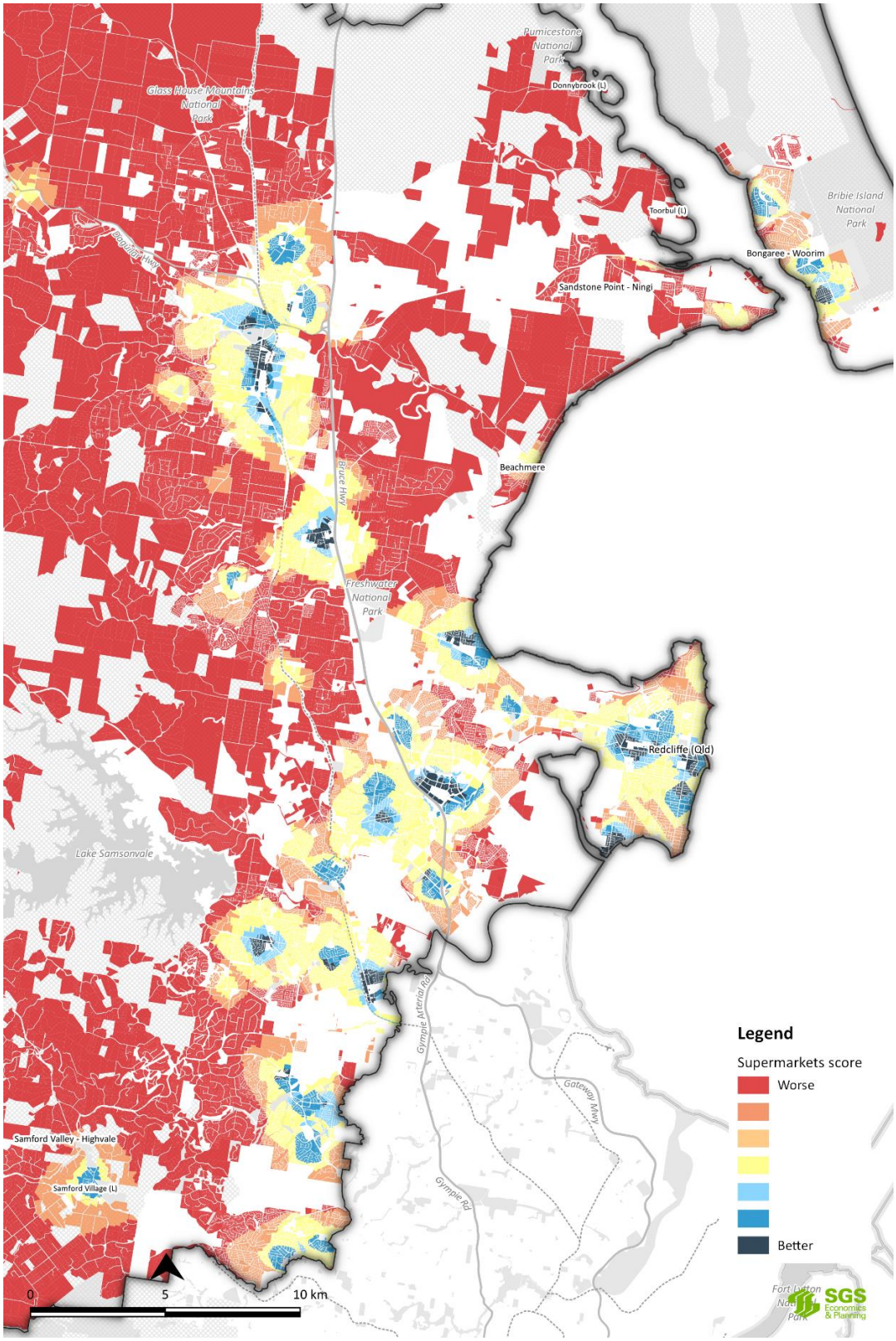
Open space accessibility

Properties are considered to have the best open space accessibility if they are 200m or less from an open space, with properties more than 800m from open space considered to have poor access.

Mapping of the open space accessibility score shows that more of Moreton Bay's suburban areas have good or moderate access to open space. However, some open spaces are more embellished or larger than others, and this has not been accounted for in this analysis.

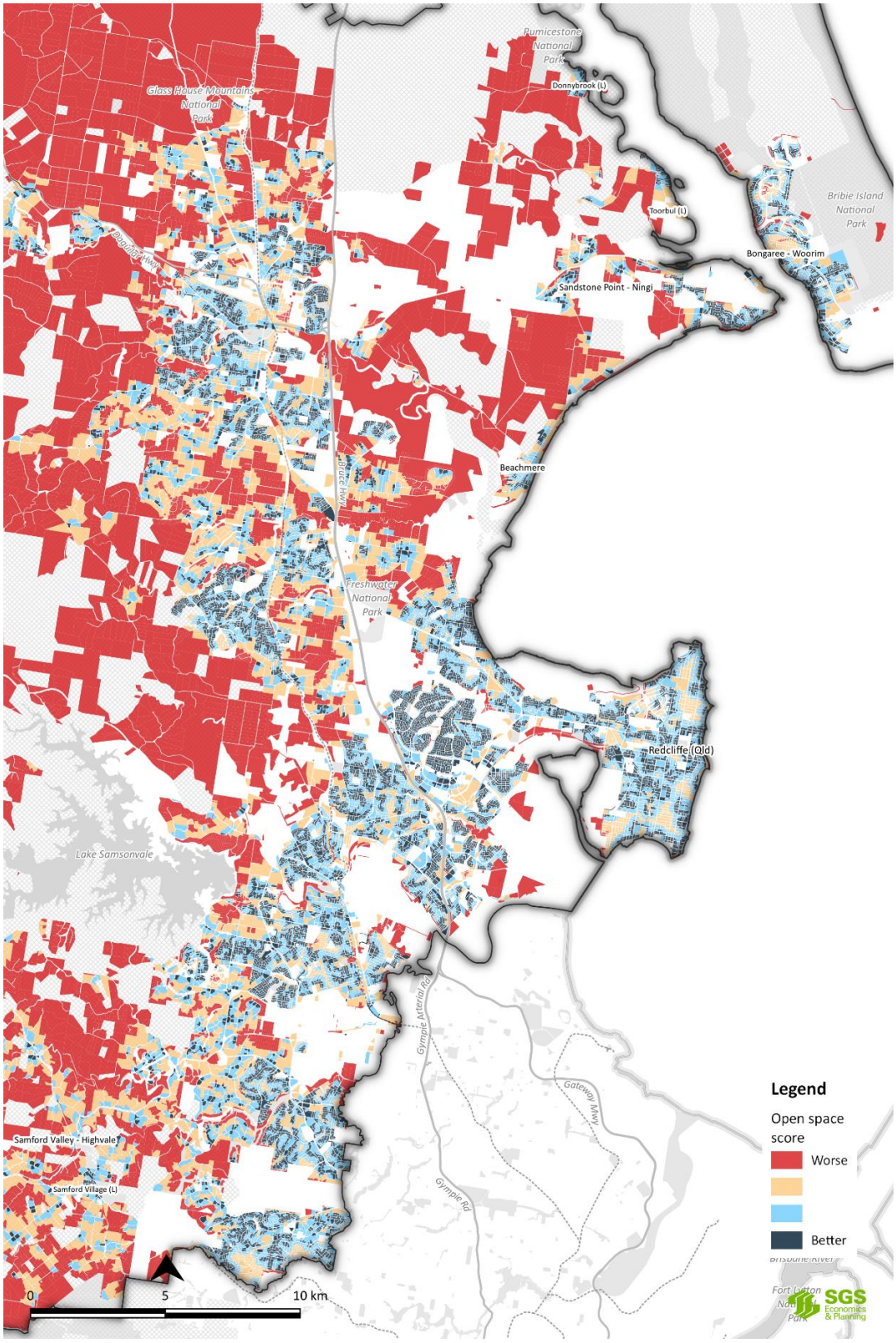
North Lakes and several other recent greenfield development areas have the most consistently good access to open space, with almost all properties within 200m of some kind of open space. By contrast, more established suburban parts of Moreton Bay, for example parts of the Redcliffe Peninsula and Caboolture, have variable access to open space including some houses more than 400m from open space and a few more than 800m.

FIGURE 39: SUPERMARKET ACCESSIBILITY



Source: SGS 2021

FIGURE 40: OPEN SPACE ACCESSIBILITY



Source: SGS 2021

Schools

It is important that housing that is likely to house families is in proximity to schools, and ideally within an easy distance for walking or other active transport. While proximity to schools is not essential for people who do not have school age children (including young people without children and older people and retirees), schools also play a major role in providing centres for local communities. If near centres, schools can improve foot traffic and activation in those centres.

Schools are generally spread throughout Moreton Bay, but there are relatively few places which are within the primary walking catchment of both a public primary and public secondary school and so these areas receive the maximum score for this metric. However, in general the established and suburban parts of Moreton Bay existing centres have at least moderate accessibility to schools, with the catchments of many centres performing well. There are also some suburban parts of Moreton Bay which have poor accessibility to schools, including Newport and parts of North Lakes, Murrumba Downs, Griffin, Joyner, Warner, and Bribie Island.

Libraries, leisure centres and major community facilities

There are relatively few leisure centres, libraries and major community facilities in Moreton Bay. They are mostly located in or near major service centres. As such, in some cases this metric provides an indication of proximity to service centres as well as directly to a leisure centre, library or major community facility.

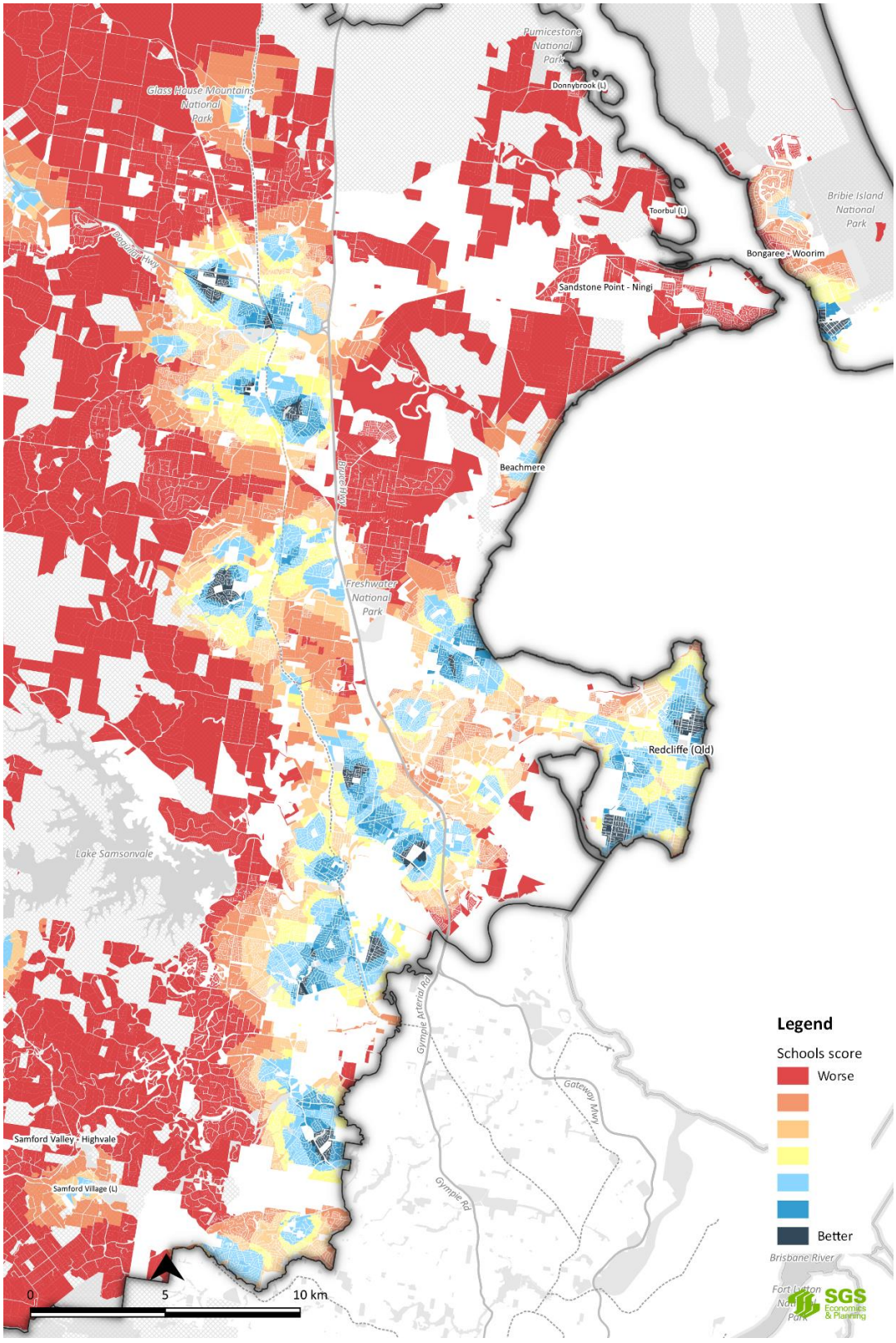
The centres that perform best on this metric, like Redcliffe, North Lakes, Caboolture and Deception Bay, have direct street networks that enables more direct access to these facilities.

Local services and amenities score

As noted in the preceding sections, there is some variation in which parts of Moreton Bay are most accessible to each of the destination types tested. When the attributes are weighted and combined, they produce an overall score for accessibility to local services and amenities. There are multiple centre catchments that perform moderately well or very well in this score including:

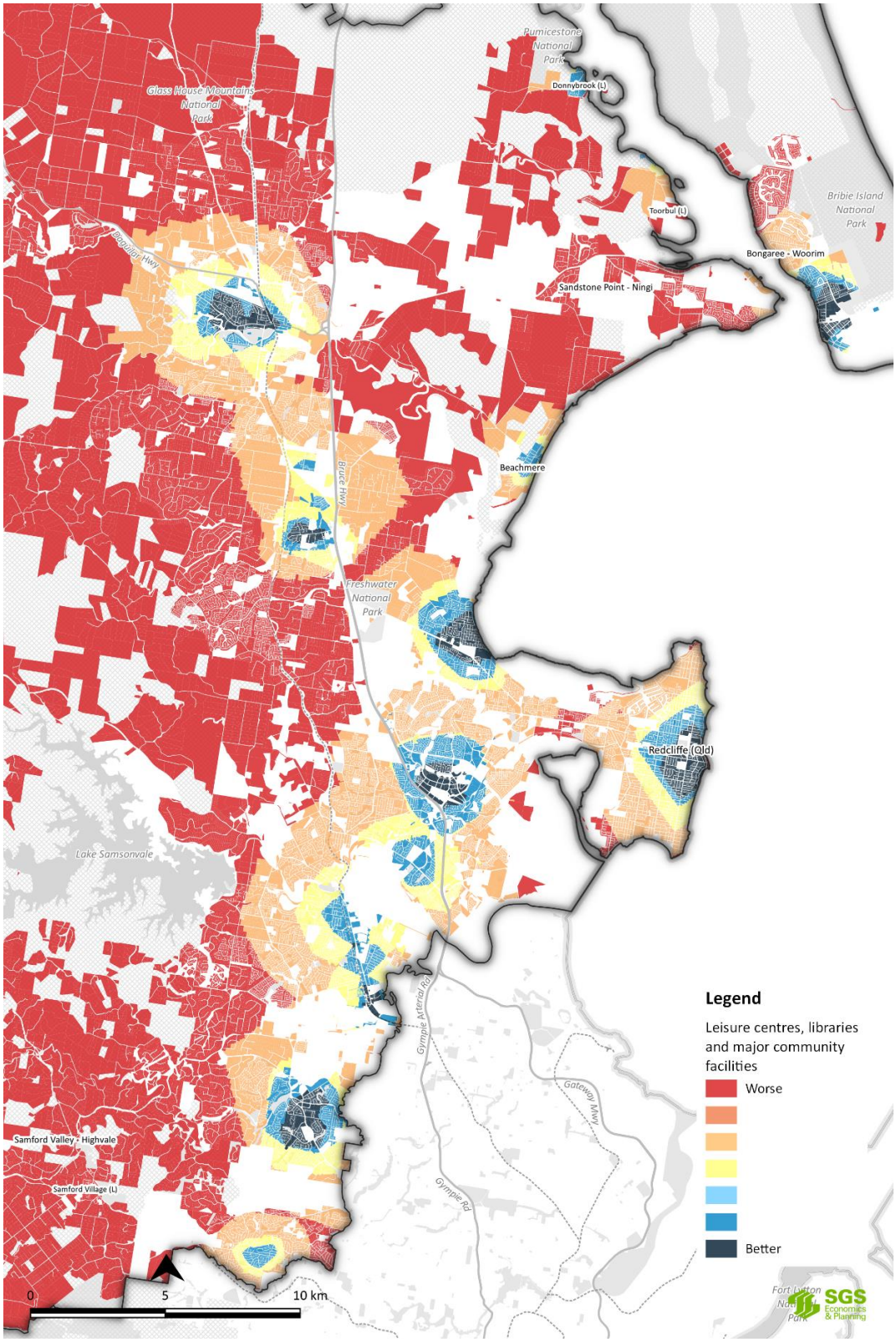
- Most of the Redcliffe Peninsula, except for parts of Newport, Scarborough and Woody Point
- Most of the established parts of Caboolture
- Large catchments around Lawnton and Strathpine
- The catchment of the Deception Bay centre
- The catchment of the Narangba Centre
- The area surrounding Old Northern Road and South Pine Road in Albany Creek and Eatons Hill
- Smaller centre catchments in North Lakes, Petrie, Kallangur, Narangba and Burpengary.

FIGURE 41: SCHOOLS ACCESSIBILITY



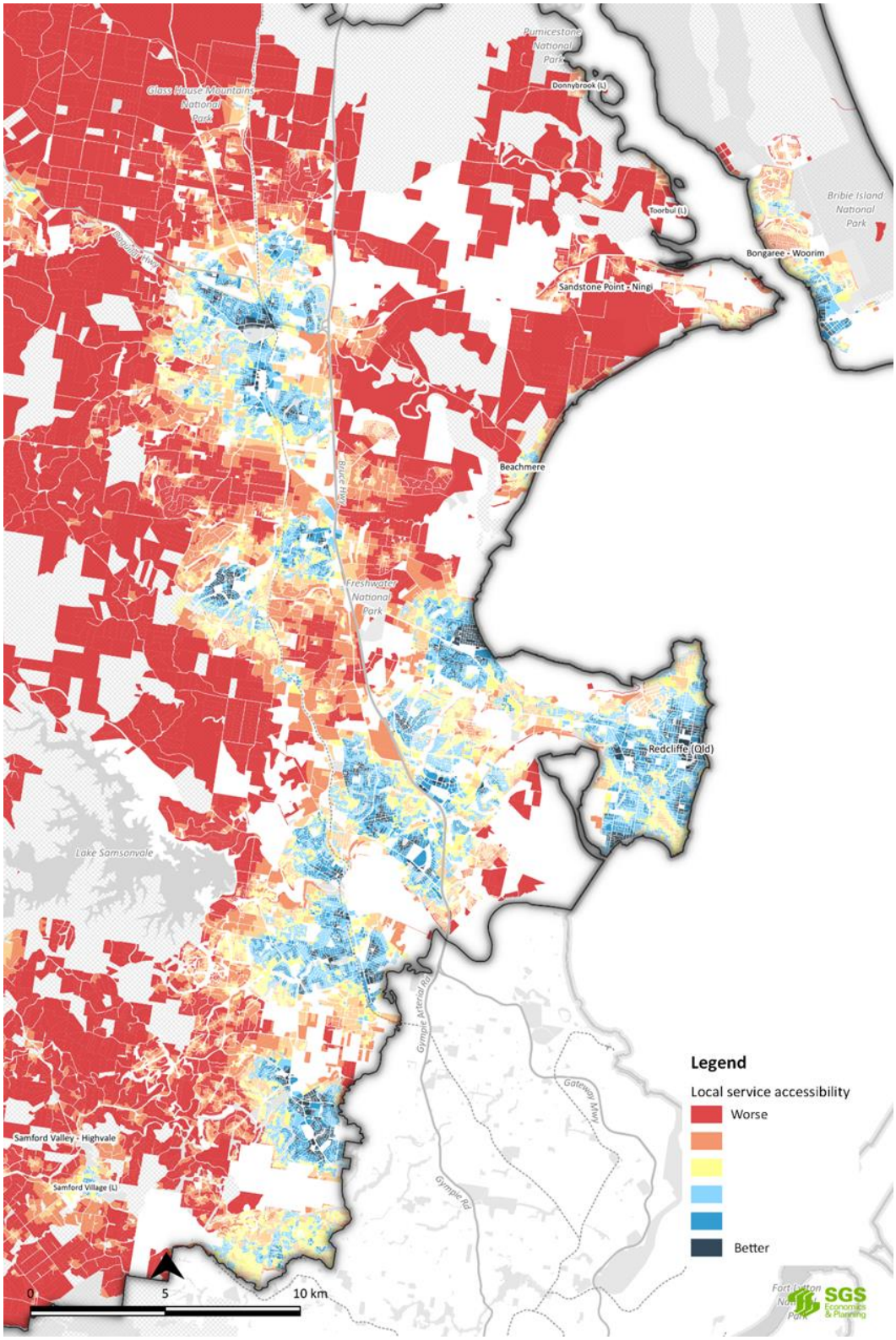
Source: SGS 2021

FIGURE 42: ACCESSIBILITY TO LIBRARIES, LEISURE CENTRES AND MAJOR COMMUNITY FACILITIES



Source: SGS 2021

FIGURE 43: ACCESSIBILITY TO LOCAL SERVICES



Source: SGS 2021

OVERALL SCORE

Figure 44 shows the combination of each of the scores with the weights outlined at the start of this section. This clearly identifies the best serviced parts of Moreton Bay as several catchments of existing centres co-located with train stations, and with good bus services like at Redcliffe and Deception Bay. Those centres that are located in the southern part of Moreton Bay perform better because they are closer to the range of services and employment available closer to Brisbane, while Bribie Island performs poorly despite the high local services and amenity score in parts of Bongaree due to poor overall accessibility.

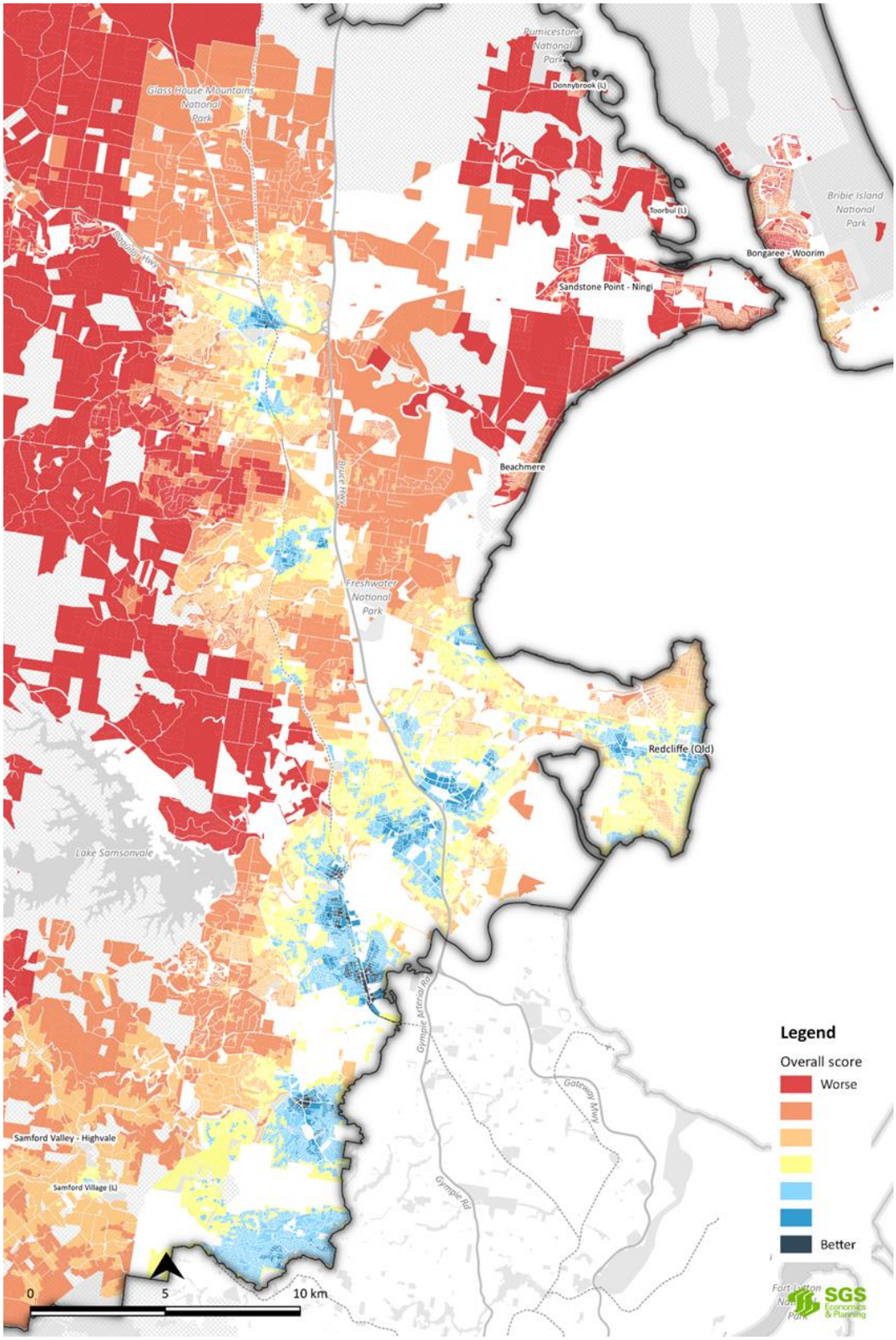
The best serviced locations according to this combined index are the catchments of centres at:

- Strathpine
- Lawnton
- Albany Creek
- Petrie.

Other centres which also perform well, but not as well, are:

- Caboolture
- Kallangur
- North Lakes
- Kippa-Ring
- Redcliffe
- Deception Bay
- Burpengary
- Morayfield.

FIGURE 44: OVERALL SCORING OF BEST SERVICED LOCATIONS IN MORETON BAY



Source: SGS 2021

WELL SERVICED LOCATIONS IN THE FUTURE

The well-serviced locations results are particularly relevant to determine the most appropriate places for growth in the short-medium term. Some parts of the well-serviced locations analysis will likely change in the future as greenfield development occurs (e.g. local services and amenities). However, other parts of the analysis (e.g. job accessibility) are less susceptible to change and so have greater significance for the long-term strategic planning of growth locations across Moreton Bay.

While overall job accessibility is unlikely to change substantially over time, and the highest levels of public transport accessibility around train stations are also relatively fixed, accessibility to local services and amenities is likely to improve in major greenfield development areas where new open space, retail centres, school and community facilities are planned. Some change in accessibility to local services and amenities may also occur in established suburbs, but this change is likely to be smaller and more gradual. As a result:

- Overall job and service accessibility is an important and relatively fixed factor in determining the best serviced parts of Moreton Bay for all housing, both greenfield and infill, and substantial change is not likely as greenfield estates develop.
- The best public transport is located at train stations and few new train lines are likely to be built. As a result, the catchments of existing train stations should be considered as potential locations for higher intensity housing on an ongoing basis as long as other amenities are available. Better bus services could improve public transport access elsewhere.
- Established areas that score well for local services and amenities as well as public transport and overall accessibility are the best locations for infill development, with limited change in the local services and amenity score likely in established areas.

These findings are summarised in Table 20.

TABLE 20: SIGNIFICANCE OF DIFFERENT PARTS OF THE ASSESSMENT OF BEST SERVICED LOCATIONS FOR FUTURE LOCATION OF DEVELOPMENT

	Greenfield development		Infill development	
	Level of change likely	Significant for locations for housing	Level of change likely	Significant for locations for housing
Overall job and services accessibility by car	High	Some	Little	High
Public transport	Some change possible (buses but unlikely new trains)	Moderate	Some change possible (buses but unlikely new trains)	High
Local services and amenities	Little	High	Some	High

2.3.1.2 Recent development

HOUSING COMPLETIONS

The Queensland Government's Land Supply and Development Monitoring Report (LSDM Report) indicates that between July 2016 and June 2021 (roughly the period between the 2016 and 2021 Censuses), 23,892 dwellings were completed in Moreton Bay, or an average of 4,778 per year (see the table below).

TABLE 21: HOUSING APPROVALS AND COMPLETIONS (NUMBER OF DWELLINGS) BETWEEN FROM THE 2016/17 – 2020/21 FINANCIAL YEARS

	2016/17	2017/18	2018/19	2019/20	2020/21	Total	Yearly	% in each area
Consolidation area	1,843	2,754	2,394	3,086	2,832	12,909	2,582	54.0%
Expansion area	2,729	2,383	1,734	1,632	2,505	10,983	2,197	46.0%
Total	**4,572**	**5,137**	**4,128**	**4,718**	**5,337**	**23,892**	**4,778**	

Source: SGS 2021 using Queensland Government *Land Supply and Development Monitoring Report*

ShapingSEQ aims for 54,900 additional dwellings to be built in Moreton Bay between 2016-2031, or an average of 3,660 per year. Of these, to 2031, 53% are to be delivered in the consolidation area (1,953 per year on average) and 47% in the expansion area (1,707 per year on average).

Moreton Bay's recent approvals and completions have tracked well above the ShapingSEQ benchmarks in terms of number of completions needed per year both across Moreton Bay , as well as individually in the consolidation and expansion areas. The percentage of completions in the consolidation area has also been slightly higher than the benchmark (54% vs the benchmark of 53%).

Over a longer period, ShapingSEQ aims for 88,300 new dwellings to be built in Moreton Bay between 2016-2041, with 55% of these in the consolidation areas and 45% in the expansion area.

SGS's housing demand modelling (as discussed in above) indicates demand for a slightly higher rate of housing development of 3,887 dwellings per year on average between 2021-31 including 2,104 in the consolidation area and 1,782 in the expansion area. Over a longer timeframe, modelling shows demand for 3,495 additional dwellings per year between 2031-2041, and 3,628 between 2041-2051. Over the whole period between 2021-51 3,670 additional dwellings will be needed per year on average. Moreton Bay's recent completions are tracking above these figures, as well as above the ShapingSEQ benchmarks.

While data from Council has been used to spatially analyse completions and approvals later in this section, Queensland Government Data provides a consistent point of reference against ShapingSEQ benchmarks with other LGAs, and so is used here to assess Moreton Bay's performance, and is frequently updated.

The LDSM indicates that Moreton Bay has 3.7 years of supply of uncompleted lot approvals overall, below the minimum four years of supply. Historic data indicates that this value has been close to 4 and relatively constant since 2016/17. The LDSM also indicates that there are 4.5 years of uncompleted multiple dwelling approvals in the consolidation area, slightly above the minimum benchmark from ShapingSEQ.

Overall, data on housing completions indicate that Moreton Bay's housing development market is performing generally above target rates, despite the slight shortfall in unreleased lot supply (which is likely to reflect development market fluctuations as well as inherent land availability). As discussed herein, there is some greenfield development capacity near or within established parts of Moreton Bay (for example near Caboolture and within the Caboolture SA2 which is part of the consolidation area). However, only a small portion of Moreton Bay's overall greenfield development capacity is located in established parts of Moreton Bay, with most located at Caboolture West and in some other precincts within the expansion area. As such, ensuring that infill housing development occurs will be critical to ensuring that the consolidation area continues to deliver targeted proportions of new housing over the longer term.

SPATIAL DISTRIBUTION OF DEVELOPMENT

The location of recent development provides an indication of the drivers of the current housing market and of the success of current planning policies. Figures 45-49 show the locations of recent building completions and approvals across the non-rural portion of Moreton Bay since 2016. These maps have been produced from property level completions and approvals data, which has been aggregated into a hexagonal grid in order to illustrate more accurately how much development is occurring in each area.

Building completions data represents actual new dwellings, and so is generally more reliable to understand the housing market as it excludes any speculative or stalled approvals. From the building completions data and desktop analysis by SGS, development is occurring in multiple different parts of Moreton Bay, but four broad categories of development are evident:

- Large-scale greenfield development is mostly generating large number of dwellings, particularly around Caboolture, Mango Hill and other growth areas.
- Relocatable home and retirement village developments, which contain many detached or attached villas on a large site. These contribute some of the clusters of development visible in the approvals and completions data.
- More distributed medium density development. As discussed in herein, these are large unsubdivided properties in established areas undergoing first generation subdivision into medium density housing estates.
- High density development, which is focused on the shoreline of the Redcliffe Peninsula and to a lesser degree to the canal/marina development in the northern part of the Peninsula.

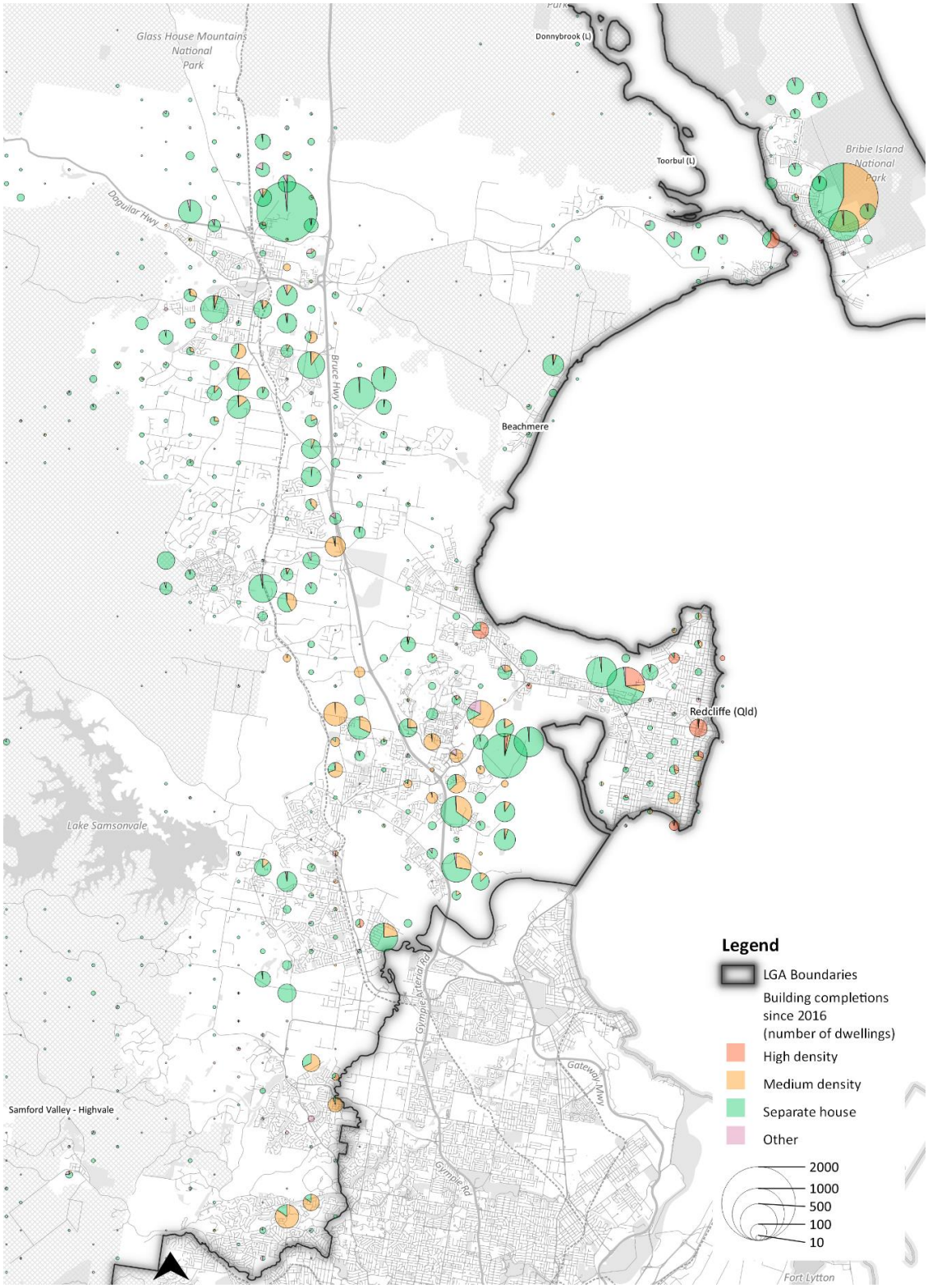
There is very little infill development occurring, as discussed herein.

Building completions are predominately clustered around Caboolture in release areas, North Lakes and surrounds in release areas and Redcliffe, with some completions elsewhere (which are only a small proportion of the total).

Building completions since 2016 will represent developments approved since both 2016 and before 2016, as development will take a number of years to complete and older approvals may not have lapsed. For this reason, approvals data may provide a more current perspective on the impacts of planning controls and of the market.

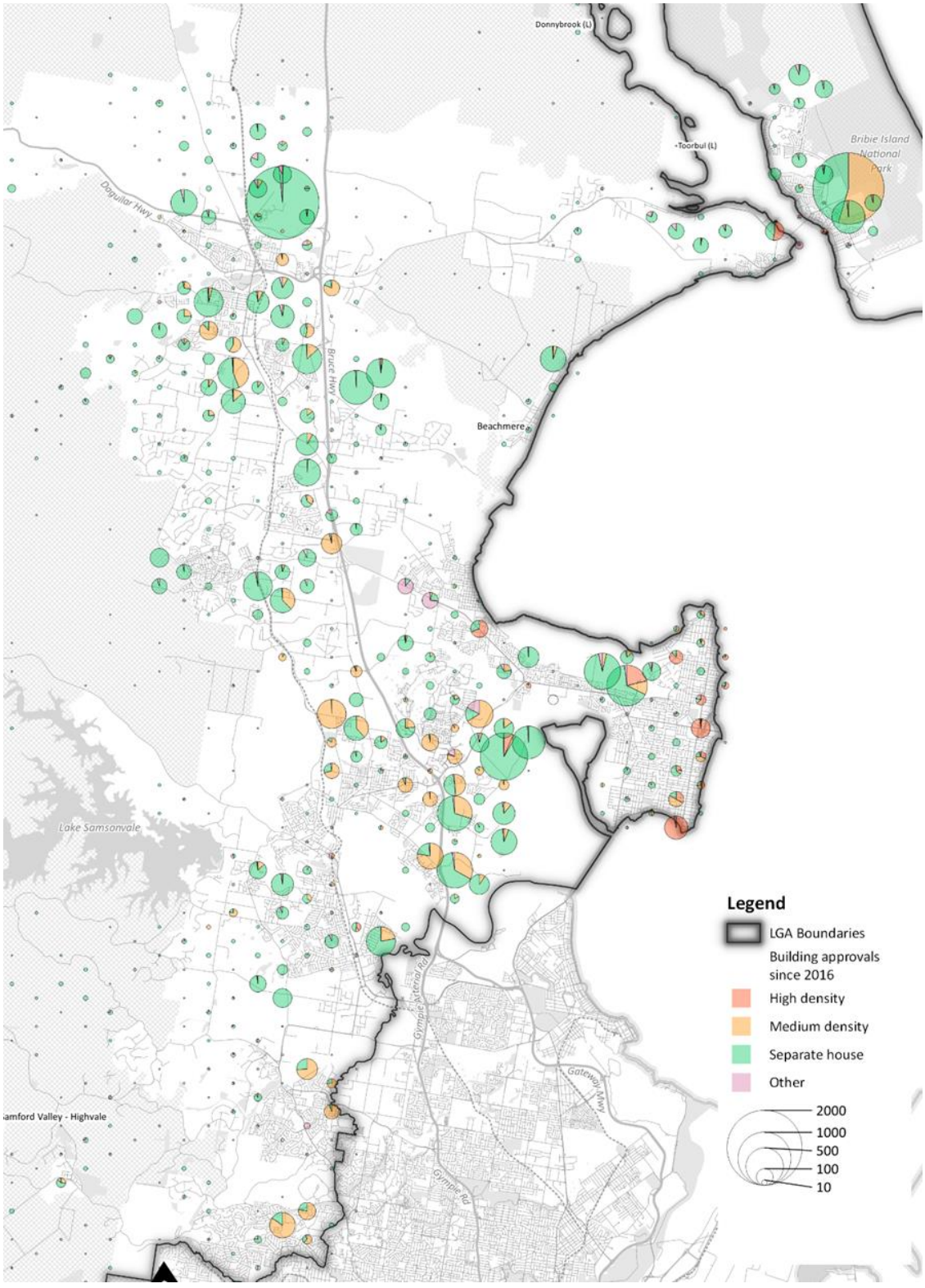
In this case, the spatial patterns in the approvals data are the same as in the completions data, although there are fewer approvals since 2016 as completions, particularly for high density. This reflects the recent decline in the high-density development market.

FIGURE 45: SPATIAL DISTRIBUTION OF BUILDING COMPLETIONS SINCE 2016



Source: SGS analysis of Council building completions data, 2021

FIGURE 46: SPATIAL DISTRIBUTION OF BUILDING APPROVALS SINCE 2016



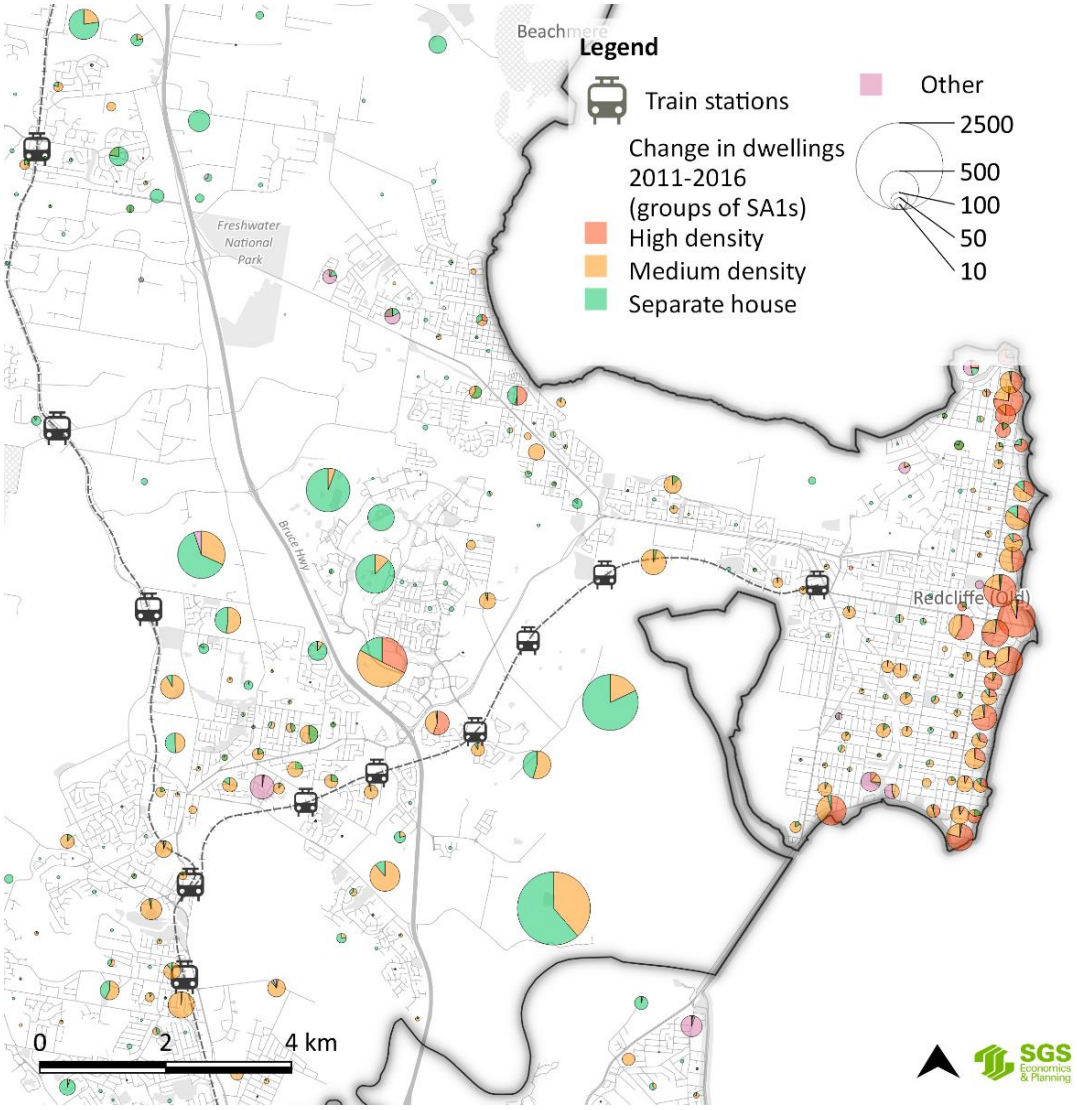
Source: SGS analysis of Council building completions data, 2021

While building approvals and completions data from Council has been validated and “cleaned” for this project, it is still a less reliable and comprehensive data source than the ABS Census. For this reason, the change in dwellings between ABS Census periods is also a useful tool as a way of analysing where development is occurring.

The following three maps show the location of development in Moreton Bay between 2011-2016 as indicated by the change in supply in SA1s in the 2011 and 2016 ABS Censuses (SA1s have been grouped not areas with the same boundaries in each AB Census). This also provides a perspective on where development was occurring between 2011-2016, which when considered along with the approvals and completions since 2016 gives a longer-term perspective.

Figure 47 shows development around North Lakes and Redcliffe. The pattern of high-density development (and some medium density development) being focused on the Redcliffe shore line is very clearly evident here. There was also a small amount of high-density development at North Lakes. Otherwise, the kinds of development seen here are similar to in the completions, with more greenfield development around North Lakes up to 2016.

FIGURE 47: LOCATION OF DEVELOPMENT BETWEEN 2011-2016 IN NORTH LAKES, REDCLIFFE AND SURROUNDS



Source: SGS 2021 using ABS Census 2011, 2016

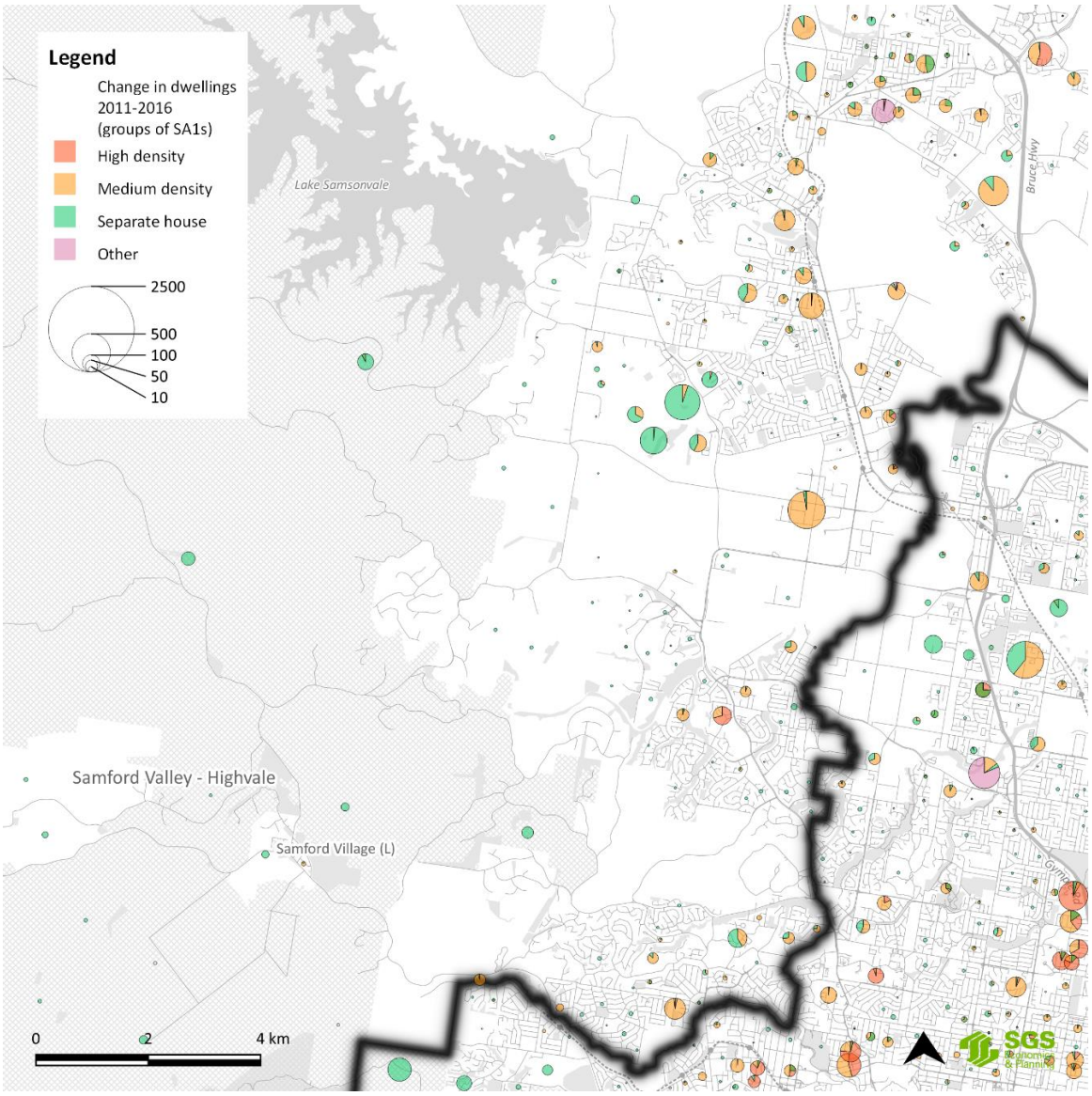
Figure 48 shows development in the southern part of Moreton Bay around Strathpine.

The medium density development here is almost exclusively first-generation subdivisions of remaining large properties in established areas.

Some greenfield development has occurred at Warner and a small high-density development is visible at Albany Creek.

More distributed medium and high-density development can be seen on the other side of Moreton Bay border near centres like Mitchelton, Everton Park and Chermside. These are closer to Brisbane than Moreton Bay's centres and may have higher property prices increasing feasibility for higher density development.

FIGURE 48: LOCATION OF DEVELOPMENT BETWEEN 2011-2016 IN STRATHPINE AND SURROUNDS



Source: SGS 2021 using ABS Census 2011, 2016

Figure 49 shows development between 2011-2016 around Caboolture. Some medium and higher density housing development in established areas is visible, as well as greenfield development at Caboolture North, Caboolture South and Morayfield.

FIGURE 49: LOCATION OF DEVELOPMENT BETWEEN 2011-2016 IN CABOOLTURE AND SURROUNDS

Source: SGS 2021 using ABS Census 2011, 2016

2.3.1.3 Infill and first-generation development

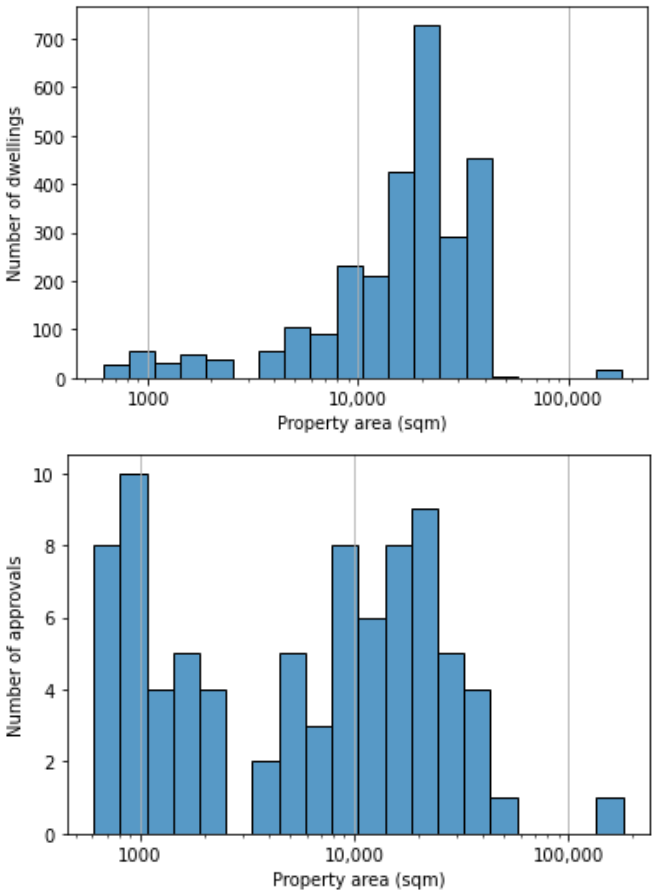
MEDIUM DENSITY

The size of properties on which building approval has been granted has been analysed to determine the degree to which development approval represents infill development, or the degree to which it is part of greenfield and first-generation subdivision and development.

Infill development as defined in this report requires the development of one or few amalgamated suburban properties to undertake development. Where this occurs, the property on which development takes place, which may be amalgamated, would be a similar size to typical suburban properties, or to a few suburban properties.

By contrast to this, Figure 50 shows that the vast majority of medium density dwellings approved (93%) were on properties of 3,000sqm or more which are likely to be too large to result from infill development. There is a slightly different picture for the number of approvals, with a modest number of approvals granted on infill-sized properties, but generating few dwellings on the scale overall medium density development in Moreton Bay.

FIGURE 50: RELATIONSHIP BETWEEN MEDIUM DENSITY YIELD AND STARTING PROPERTY SIZE FOR APPROVALS SINCE 2016



Source: SGS analysis of Council building approvals data

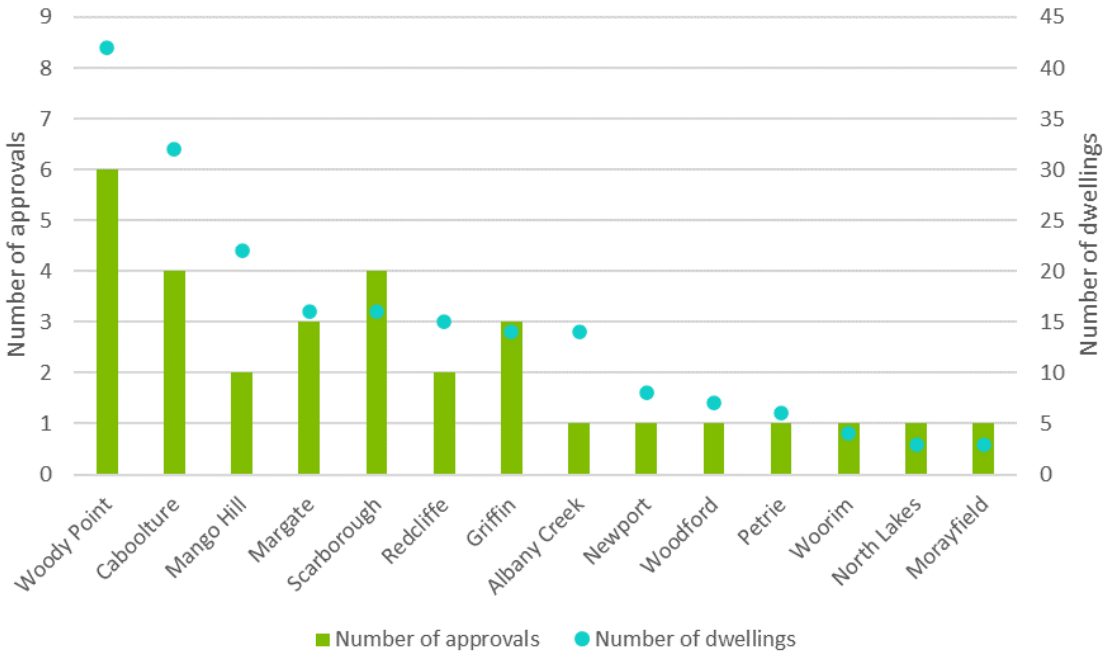
This means that the vast majority of medium density development is occurring as a result of greenfield and first-generation development rather than infill development.

Figure 51 provides a better picture of what kinds of approvals have occurred on properties which are within a size range reachable in infill development. The suburb in which the approvals are located is shown, along with the number of dwellings approved in each suburb.

Almost all of the approvals are either in greenfield suburbs (Mango Hill, Griffin, North Lakes, Morayfield), where they represent development in greenfield estates on larger properties post-subdivision rather than infill, or on the Redcliffe Peninsula (Woody Point, Margate, Scarborough, Redcliffe, Newport). The exceptions are four approvals in Caboolture, and several other suburbs hosting one approval each (Albany Creek, Woodford, Petrie and Woorim).

From this analysis, it appears that very little infill development is happening, and that what infill development is occurring is concentrated on the Redcliffe Peninsula.

FIGURE 51: LOCATION OF MEDIUM DENSITY APPROVALS SINCE 2016 ON LAND AREAS OF LESS THAN 3,000SQM



Source: SGS Analysis of Council buildings approvals data

Instead of salt and pepper infill development, medium density development in Moreton Bay is occurring in three different settings:

- Some medium density development built into larger greenfield estates, for example the Capestone Development at Mango Hill.
- Stand-alone medium density estates which are first-generation subdivision on the edge of Moreton Bay's urban area or in greenfield settings (for example part (a) of Figure 52).
- Generally smaller stand-alone first-generation subdivision medium density estates within the existing urban area on remaining large properties (for example part (c) on Figure 52).

The second two of these development types, which are both stand-alone medium density estates, appear to make up most development. Examples of these stand-alone estates are shown overleaf.

Continuing medium density development in multiple parts of Moreton Bay is important for widespread housing diversity, providing housing options for people within the same area throughout their housing life cycles.

FIGURE 52: THREE EXAMPLES OF FIRST-GENERATION MEDIUM DENSITY DEVELOPMENT

(a) Alma Road, Dakabin

(b) 209 Marsden Road, Kallangur

(c) Duffield Road Kallangur

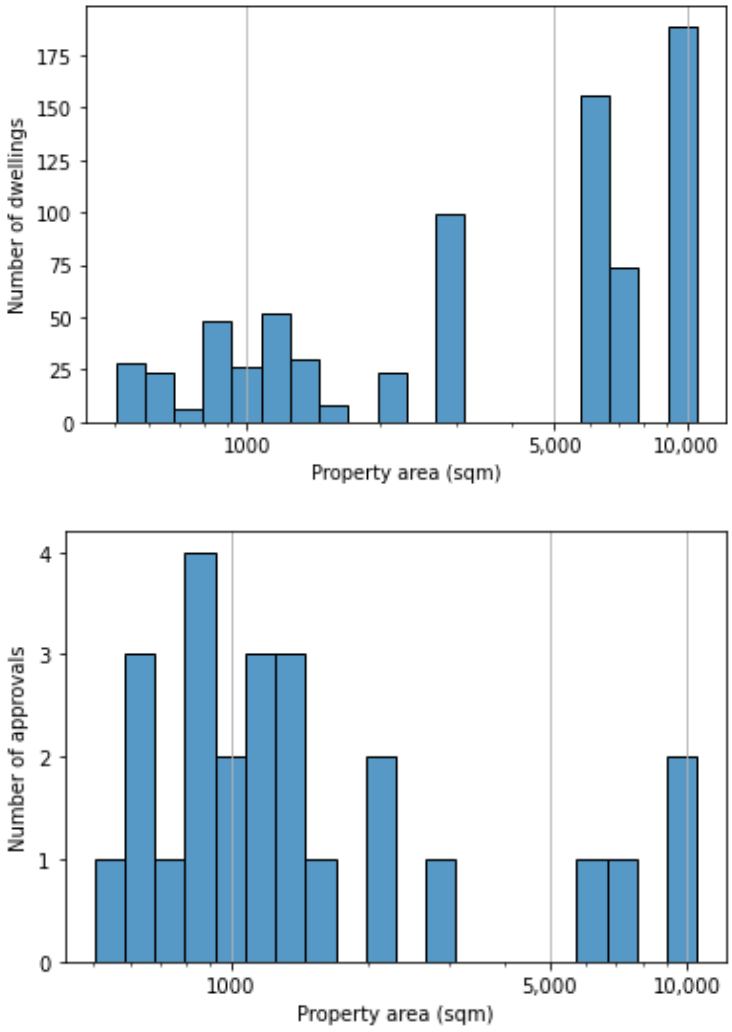
Source: Nearmap 2021

HIGH DENSITY

Similar analysis of the property area over which an application has been made has been carried out for an analysis of high density properties. As with medium density, large properties (around 3,000sqm +) contain the majority of approved dwellings. However, a greater proportion of approvals are on small properties in high density than medium density.

In terms of number of approvals, high-density approvals are more focused on small properties in centres and infill, but this makes up only a small part of the total yield.

FIGURE 53: RELATIONSHIP BETWEEN HIGH DENSITY YIELD AND STARTING PROPERTY SIZE



Source: SGS analysis of Council building approvals data

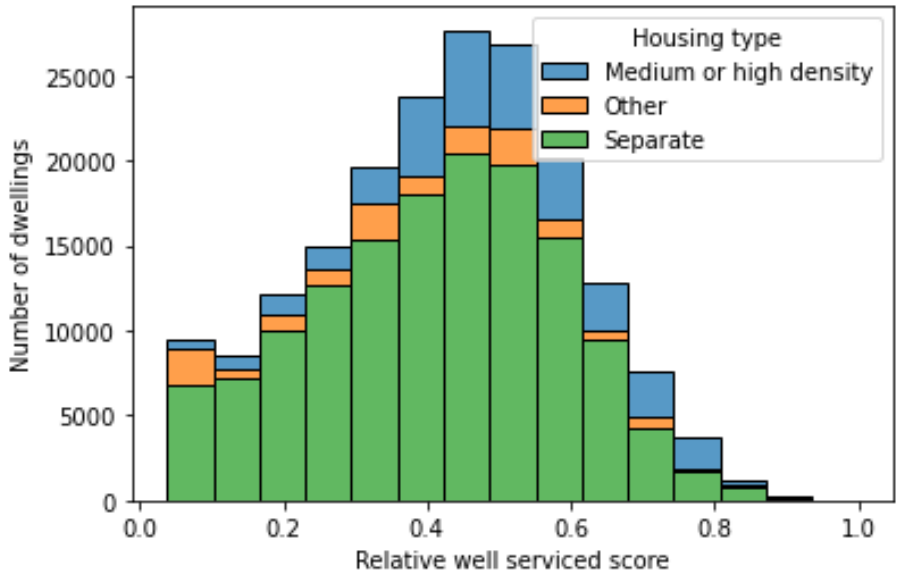
In high density analysis, it appears that some infill development is occurring. The mapping in herein shows this development to be located almost exclusively on the Redcliffe Peninsula and focussed on the peninsula's shoreline.

2.3.1.4 Alignment of growth with well serviced areas

As noted above, the best serviced areas in Moreton Bay which allow for affordable living and are most suitable for housing are the catchments around a range of centres, most of which are near train stations.

The alignment of the location of housing in Moreton Bay with the best serviced areas is shown in Figure 54, on which the location of housing is charted against the relative score of each property (the maximum achievable score is 1.0). Overall, there is more housing in moderately well serviced areas (a score of around 0.4 or above) than poorly serviced areas (around 0.3 or less). However, there is no current bias in the location of housing towards very well serviced locations. Both separate houses and medium and high density housing are located in both well serviced and poorly serviced areas.

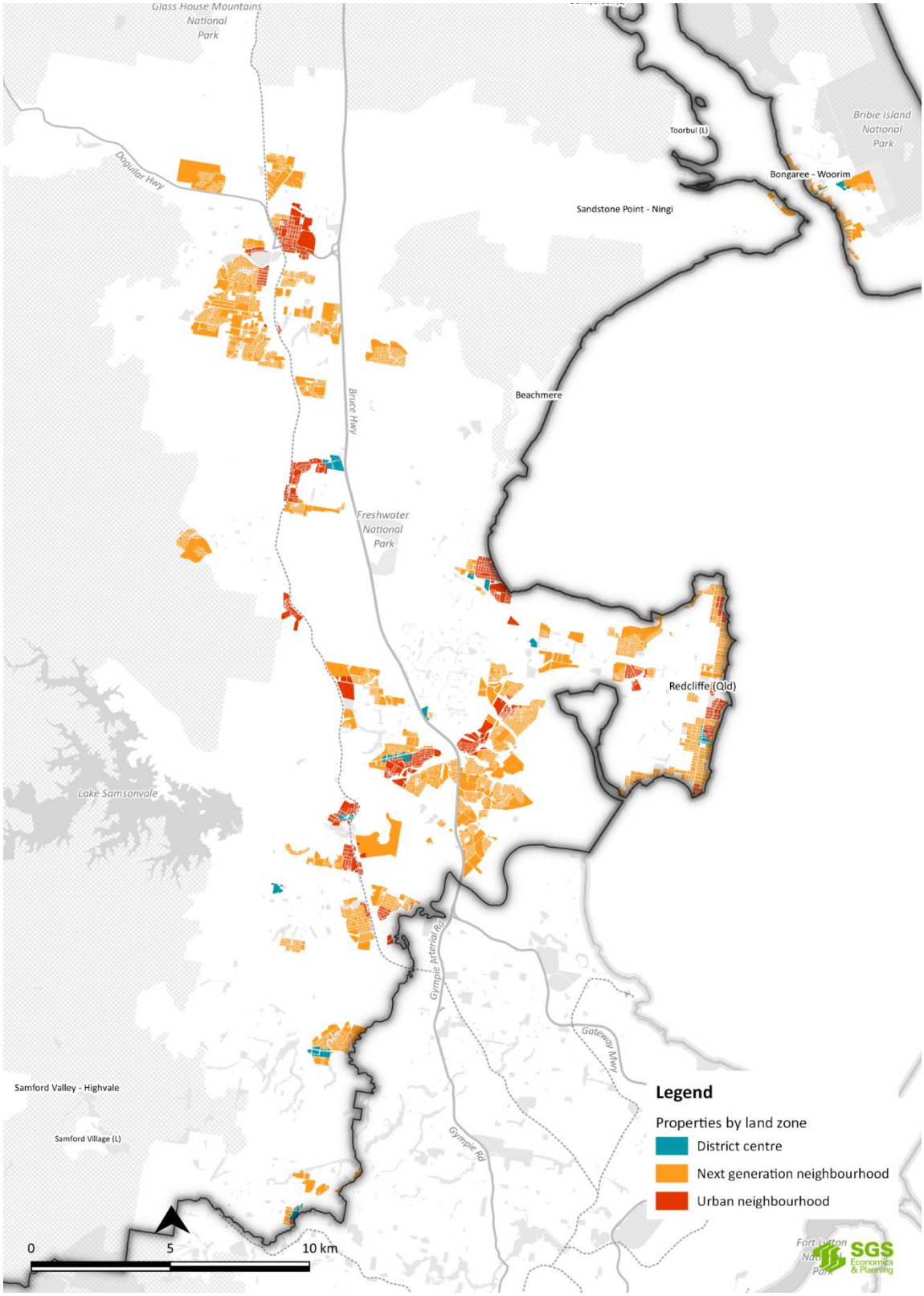
FIGURE 54: ALIGNMENT OF EXISTING HOUSING WITH WELL SERVICED AREAS



Source: SGS 2021

Moreton Bay's Planning Scheme is generally structured to allow for medium and higher density development in the best serviced locations: the catchments of existing centres and around train stations. This can be seen in Figure 55, which shows the Urban neighbourhood precinct and Next generation neighbourhood precinct applied to these locations. There are some exceptions with the Next generation neighbourhood place type applied in greenfield development areas, although as noted herein the local services and amenities scores of these locations may increase in the future if not their overall accessibility and public transport scores.

FIGURE 55: PRECINCTS IN MORETON BAY WHICH ALLOW HIGHER DENSITY HOUSING



Source: SGS 2021 using Council property data, land zoning layers

Despite Moreton Bay's Planning Scheme allowing for housing intensification in the best serviced areas, housing completions since 2016 are not on average better located than general housing, as can be seen in Table 22 and Figure 56.

Separate houses completed between 2016-2021 are on average less well located than existing separate houses in Moreton Bay.

Medium and high density cannot be accurately distinguished at the property level for existing dwellings, and so are considered together in the table above to produce an average score. This average score is as high as the average score for new medium density dwellings completed between 2016-2021, and higher than the average score for higher density completions.

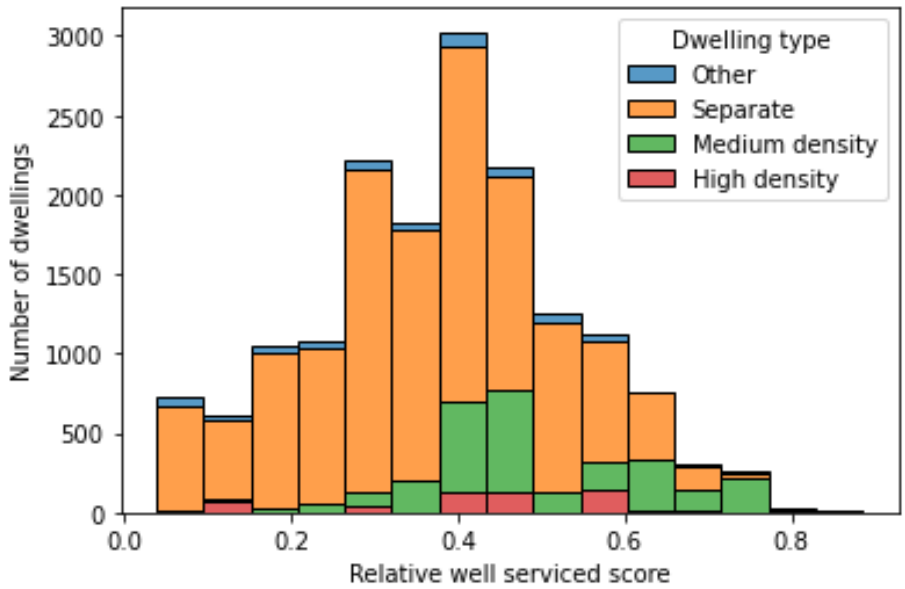
The average score for new other dwellings is slightly higher than for existing other dwellings, although other dwellings make up only a small fraction of overall development.

TABLE 22: AVERAGE WELL-SERVICED SCORE OF HOUSING IN MORETON BAY

	Separate house	Medium density	High density	Other
Existing dwellings	0.41	0.49		0.36
Completions between 2016-2021	0.36	0.49	0.44	0.38

Source: SGS 2021

FIGURE 56: ALIGNMENT OF HOUSING COMPLETIONS SINCE 2016 WITH WELL SERVICED AREAS



Source: SGS 2021 using Council building completions data

Housing completions not being focused on the best serviced parts of Moreton Bay is a result of the predominant kinds of development which are happening in Moreton Bay.

Most new separate houses are in greenfield developments, with greenfield areas generally receiving poor current scores on public transport and local services and amenities, although the local services and amenities scores may increase in the future.

The best serviced locations in the LGA are the catchments of train stations and existing centres, almost all of which are already developed with suburban housing, shops, services, or employment generating premises. As a result, substantial levels of infill development would be required in order for new housing to be located on average in the best serviced locations. However, as noted herein, very little infill development is occurring in the Moreton Bay LGA, with the partial exception of parts of the Redcliffe Peninsula. Instead, the stand-alone medium density housing estates being developed are more widely distributed where there are remaining large properties in established areas, or at the fringes of the urban footprint.

2.3.1.5 Opportunities and constraints to infill development

DEVELOPMENT FEASIBILITY

SGS has conducted high-level feasibility testing to understand the broad tipping points at which infill development may or may not be feasible, and how this compares to current property prices in different suburbs.

This modelling is not intended to determine whether any particular development will be feasible, but rather to provide strategic guidance as to why infill development is not happening, and how far much the market may need to change before infill becomes possibly feasible.

Construction cost assumptions are shown in Table 23. A medium standard finish has been assumed in all cases.

TABLE 23: CONSTRUCTION COST ASSUMPTIONS

Building type	Average cost
Townhouse internal area	$1,809 /sqm
Low density apartments internal area	$1,823 / sqm
High density apartments internal area	$2,491 /sqm
Balconies	$797 / sqm
Basement parking	$1,623 /sqm $51,943 per space
Undercroft carparking	$673 /sqm
Garage	$700 /sqm

Source: Rawlinsons Construction Cost Guide 2021

Other feasibility assumptions are shown in Table 24. These have been sourced generally from previous high-level feasibility assessments conducted by SGS Economics and Planning and from previous feasibility assessments for Moreton Bay supplied by Council. Higher costs would be likely in some cases, for example relatively low profit margins, timeframes and professional fees have been used as the intention of this assessment is to provide a tipping point at which development may start to be feasible.

TABLE 24: FEASIBILITY MODELLING ASSUMPTIONS

	Townhouses	Apartments
Finance costs	7% per annum	
Percentage of cost financed	70%	
Project timeframe	12 months	24 months
Professional fees	2.5% of construction costs	5% of construction costs
Construction contingency	2.5% of construction costs	
Profit margin	15%	18%
Land holding costs	1.5% per annum	
Land acquisition costs (stamp duty)	5% of property price	
Sales expenses	4% of GRV	
Infrastructure contributions	In line with Moreton Bay requirements	

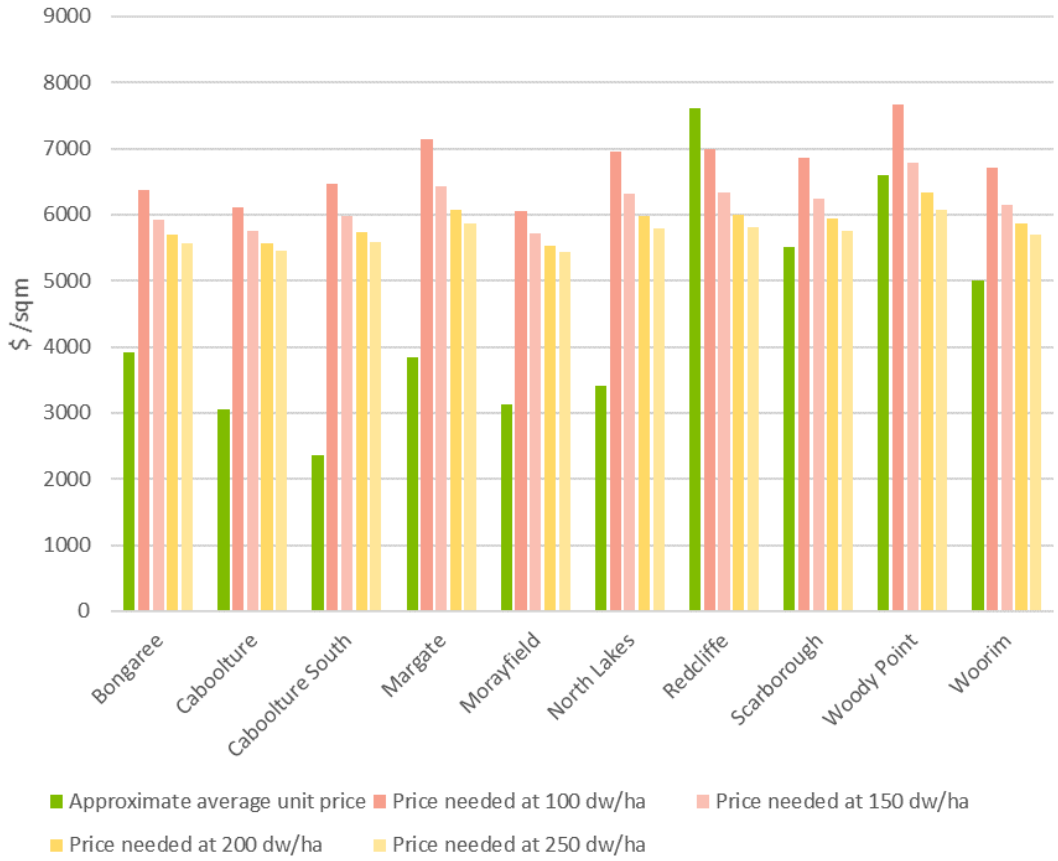
It has been assumed that apartments will be two bedrooms, 100sqm on average and with one undercroft car space per apartment. A 90% efficiency rate between gross floor area and net saleable area has been assumed.

Townhouses have been assumed to be 150sqm on average, have three or four bedrooms and have garages.

In each suburb it has been assumed that land for infill can be purchased for the average per sqm land price for separate houses in that suburb. Current per sqm apartment and attached revenues in each suburb have been estimated based on the 75th percentile of profiled sales in each suburb.

The results are shown in Figure 57. On these assumptions, only Redcliffe and some nearby suburbs are likely to be feasible for apartment infill development at reasonable densities. Other suburbs like Caboolture and Morayfield would require apartment sale prices to double to similar prices as those seen on the Redcliffe Peninsula before development was feasible.

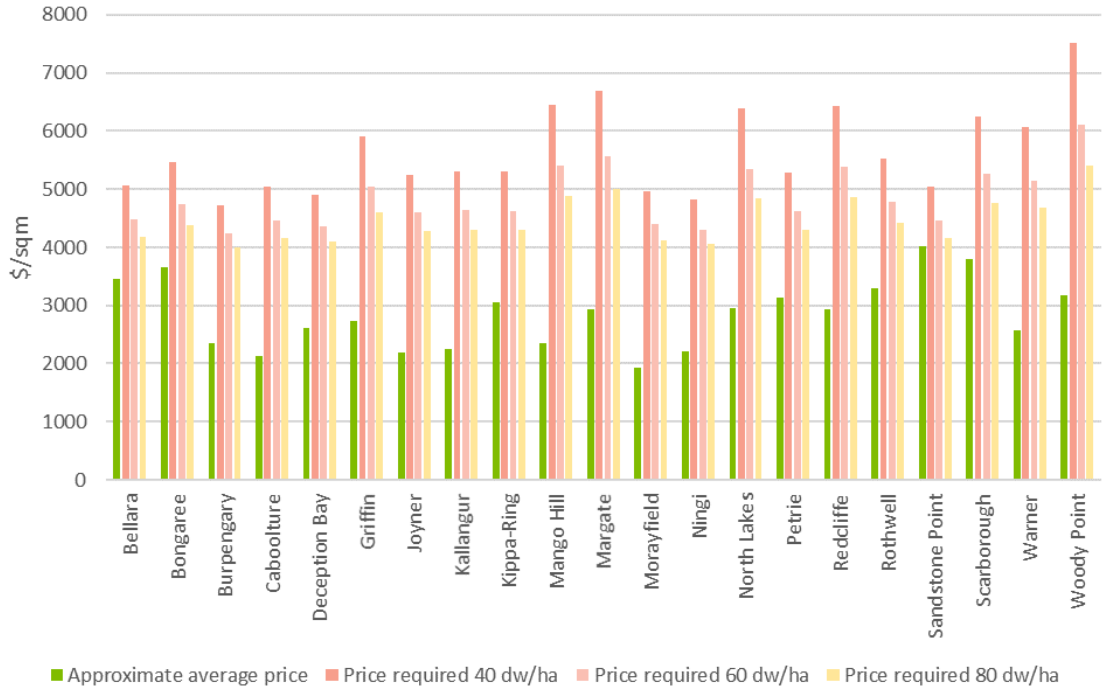
FIGURE 57: COMPARISON OF CURRENT PRICES WITH FEASIBILITY TIPPING POINT FOR APARTMENT INFILL DEVELOPMENT



Source: SGS 2021

For townhouses, no suburbs were found to be feasible for infill townhouse development. The closest to feasibility were those on or near Bribie Island, or parts of the Redcliffe Peninsula. However, for other suburbs like Kallangur, Burpengary and Caboolture a substantial rise in townhouses prices would be needed before infill development is likely to be broadly feasible.

FIGURE 58: COMPARISON OF CURRENT PRICES WITH FEASIBILITY TIPPING POINT FOR TOWNHOUSE INFILL DEVELOPMENT



Source: SGS 2021

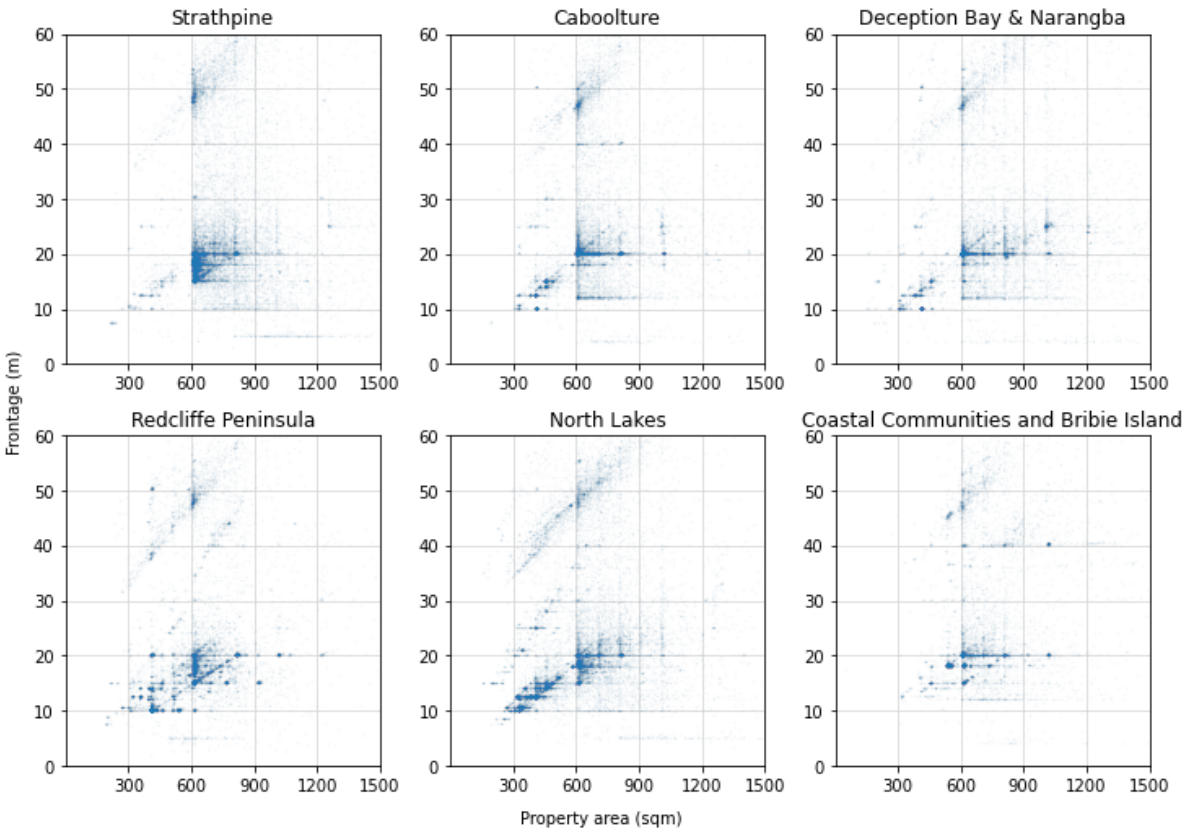
PROPERTY SIZES

The property areas and frontages of properties holding a single separate house provide a guide on the opportunities and constraints for infill development. If infill development is to occur, a developer must not only be able to develop feasibly, but it must also be possible to design development with as little property amalgamation required as possible.

Areas and frontages of properties (some of which may be able to be redeveloped) are shown overleaf broken down by profile area. This is followed by areas and frontages for properties with a well serviced score of 0.5 or more, indicating that they are moderately well serviced. Figure 60 reveals that most well-located properties holding a single house are between 600sqm – 800 sqm in size, and have frontages between 15-22m. This provides a size for which development design must be possible of 600sqm and 15-22m in frontage if no amalgamation occurs, 1,200sqm and 30-44m in frontage if two properties are amalgamated, and 1,800sqm and 45 – 66m in frontage if three properties are amalgamated[2].

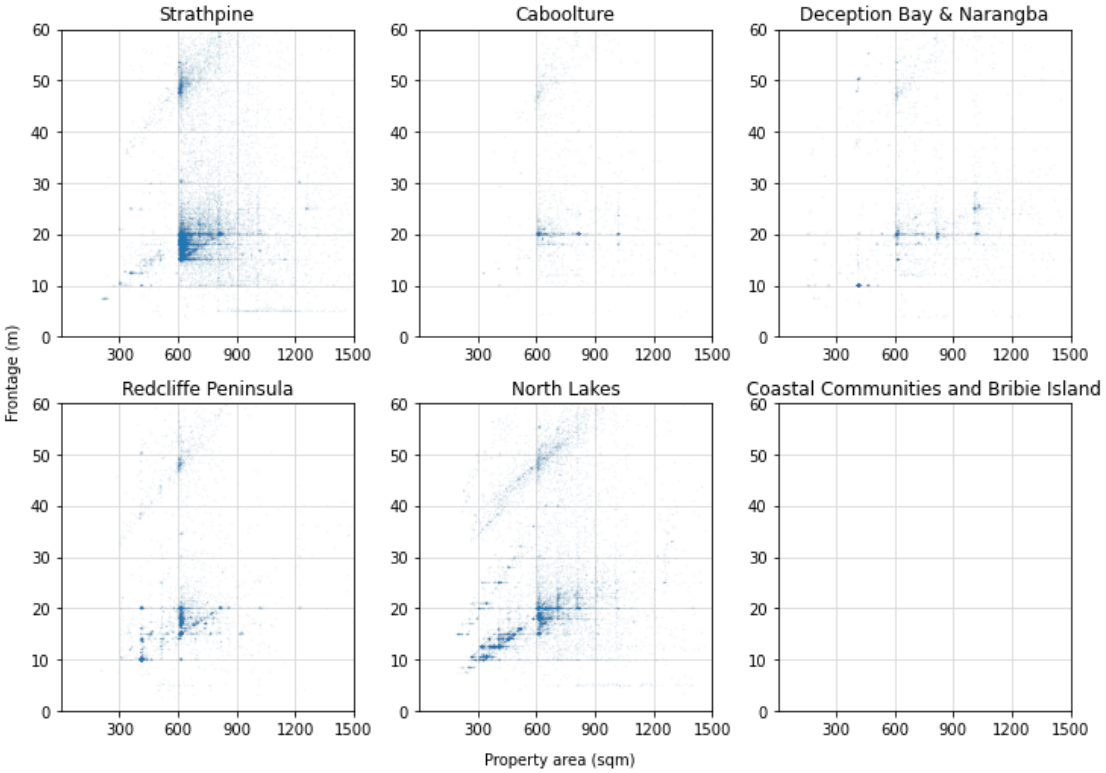
[2] Site size of 1,200m2 has been adopted as a reasonable assumption for site area for apartments or townhouses based on a review of sites where infill development has occurred. 1,200m2 is also intended to reflect the likely amalgamation of two 600m2 lots, with a frontage of 12m x 2 for a total of length of 24m. Capacity calculation is a theoretical maximum of reasonably achievable development rather than a simulation of what will occur, and a reflection of what is possible or reasonably likely.

FIGURE 59: AREAS AND FRONTAGES OF PROPERTIES HOLDING SINGLE HOUSES



Source: SGS 2021 using Council property data

FIGURE 60: AREAS AND FRONTAGES OF PROPERTIES HOLDING SINGLE HOUSES WITH A WELL SERVICED SCORE OF AT LEAST 0.5



Source: SGS 2021 using Council property data

2.3.2 Summary of housing location data analysis

As discussed above, key findings relating to housing location include:

- Most new homes are being built in large-scale, greenfield areas.
- Comparatively little development is occurring around existing centres and public transport.
- Most new townhouses and terrace house developments are being built on large sites or in greenfield areas – rather than small-scale infill development being 'salt and peppered' into established areas.

2.3.3 Implications

Greenfield

A major component of Moreton Bay Region's growth will continue to occur within new greenfield development sites in planned urban areas. This growth is predominantly occurring in medium or large scale sites within or on the fringe of new development areas. Major areas of Moreton Bay's growth will occur in Caboolture and Caboolture West, Morayfield South and Mango Hill, amongst other areas.

These new development sites primarily accommodate allotments intended for separate houses. A number of new development sites contain a diversity of dwellings including small or very small lots

accommodating 'terrace' housing (also called attached or townhouse dwellings) which contain built to boundary walls, small front or rear courtyards and rear lane vehicle access. In addition, some development sites contain low rise apartment buildings or groups of attached houses.

Encouraging greater housing diversity and choice will better match the expected housing needs of the region in the future. A lesser proportion of separate houses from around 70% to 62% in the future will better match the housing that is needed in the region in the decades to come. To achieve this requires a greater proportion (greater take up rates) of medium density housing.

Greenfield land is a finite resource and suitable available land for urban development will reduce over time. Using greenfield land carefully to create livable and accessible new communities is important in maintaining Moreton Bay's standard of living. New greenfield development sites are our future suburbs that will last generations. Creating community is an important consideration when land is first subdivided and as a result, broader structure planning is the best way to optimise a livable Moreton Bay for the future including:

- Road layouts which are integrated with a broader network of traffic management and access
- Infrastructure coordination in an efficient and timely manner
- Areas for parkland, ecology and waterway corridors which are carefully planned and add to the sense of place, amenity and livability of new areas
- Sufficient land being set aside for community services such as centres, schools and other services in accessible locations central to large dwellings numbers
- Opportunity for higher density housing in and around centres for housing diversity particularly in areas which are accessible to weekly services.

Infill

The Moreton Bay planning scheme General residential zone precincts have allowed for infill housing in well serviced areas across the region including Strathpine, Lawnton, Petrie, Kippa Ring the Redcliffe Peninsula and parts of Bribie Island. However, limited infill housing is occurring in infill locations.

Anecdotal evidence and industry feedback have identified that infill housing in Moreton Bay is currently not feasible under current conditions, primarily as a result of:

- High land prices (infill development usually involves the purchase of one or a number of house lots)
- High cost of construction for unit development
- Available house and land packages in reasonable proximity to infill locations which compete in the housing market
- Availability of older houses in established areas which also complete in the housing market
- Lower infill unit prices compared with house and land package
- Community resistance or opposition to infill housing that can slow or jeopardise the approval process.

Moreton Bay needs to encourage the delivery of a greater proportion of medium and high density housing to meet housing needs. New medium density housing currently comprises 15 to 20% of new

housing in Moreton Bay Region, and this is predominantly occurring in the Hills district where larger rural residential type lots are being developed into attached housing or 'townhouse' type development and in some greenfield development sites including retirement living, relocatable home communities. Over time the proportion of medium density housing will need to increase to around 35% and the proportion of separate houses decrease to around 60%.

Housing will need to accommodate an expected rise in lone person households and a corresponding decrease in couple families with children. A greater level of diversity and affordability in living choices will be required to create housing choice across the Moreton Bay region, and in particular, around the well serviced areas where medium density development is expected.

As well, aged care housing, or housing that is suited to the aged, is an ongoing housing need as the population ages. This may provide an opportunity for a currently unrealised infill market for small dwellings/ medium density in Moreton Bay's established suburbs where households may be looking to downsize but stay in their locality.

High density housing is occurring almost exclusively within the Redcliffe Peninsula close to the coast. More encouragement will be needed for high density housing where it is planned at other locations in the region.

The long term view of the Moreton Bay housing market is that the current majority of new dwellings being produced are separate houses, and that over time the market will mature where infill housing will become more viable. In other cities gradual infill housing has occurred over extended periods when:

- Greenfield housing locations are largely exhausted in the wider area
- Existing housing stock is at the end of its lifecycle
- Households more readily trade off unit living where it is less expensive than houses and where it has good access to services and transport
- Lifestyle choices emerge in established suburbs that promote a more urban lifestyle, such as accessible main street commercial areas, green space and parks, school catchments and viable commuting options, such as train travel
- Feasibility increases where the price of units is able to exceed medium density land and construction costs, where unit living is desirable and a comparable and better value compared with established houses.

2.3.4 Strategies

To encourage the right housing in the right locations, the following strategies are recommended:

3a. Encourage more small-scale 'salt and pepper' infill development in established areas.

3b. Enrich Moreton Bay's centres by encouraging higher density development around existing centres, public transport and job opportunities.

3c. Promote medium and high-density housing in well-serviced, high amenity locations (e.g. the Redcliffe Peninsula).

2.3.5 Recommendations (overview)

Detailed recommendations are discussed later in this report - including the context for recommendations, as well as timing, importance, and costs associated with recommendations. Notwithstanding, below is an overview of recommended actions to achieve the aforementioned strategies:

Infill development

- Create a suite of case study reference materials, to showcase and define successful 'salt and pepper' infill development (prioritising local examples where possible) to developers, landowners, and the community.
- Conduct a market sounding with potential or prospective medium density developers, to understand barriers to medium density development in Moreton Bay.
- Investigate and compare measures (e.g. infrastructure charge reductions, or application fee waivers) to encourage infill development.
- Investigate the opportunity, benefits and feasibility of facilitating higher density residential development in high amenity areas.
- Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. densities akin to the Next generation neighbourhood precinct). Note this action is also recommended above, to support housing choice).
- Identify catalyst sites, benefits and opportunities for greater intensity residential infill at suitable locations (e.g. through neighbourhood planning processes, structure planning, master planning or a separate exercise). Note: This action is also recommended above, to support housing choice.

Greenfield development

- Create a suite of case study reference materials, to showcase and define successful medium density development in greenfield areas (prioritising local examples where possible) to developers, landowners, and the community.
- Investigate options to increase structure planning and collaboration with Unitywater and the State Government, to remain on the forward-foot of planning for greenfield development, including increasing the proportion of medium density housing in greenfield areas (in-line with how well-serviced the land is), coordinating infrastructure, preserving green space, amenity qualities, and planning for schools, centres and facilities.
- Evaluate recent structure planning processes (conducted throughout Australia), to understand best practice and record lessons learned for future structure planning exercises.

2.4 Affordable living - Improving affordable living opportunities

This section focuses on whether Moreton Bay is supporting affordable living opportunities.

2.4.1 Data analysis

2.4.1.1 Housing tenure

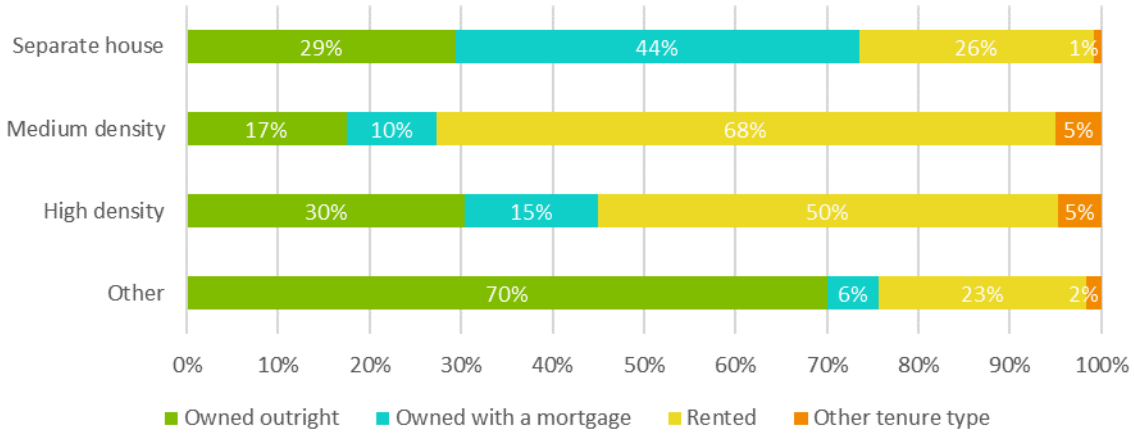
Dwelling tenure refers to the ownership status of a dwelling, and how a household has a right to live in it. For example, a dwelling can be owned, mortgaged or rented.

Different housing types have markedly different tenant profiles, which are shown in Figure 61 for Moreton Bay.

A moderate portion of separate houses are owned outright, and a high proportion of separate houses are mortgaged. This partly reflects the appeal of separate houses to families who are likely to value security of tenure and to purchase a dwelling. It also reflects that many of Moreton Bay's separate houses have been recently built in greenfield developments in which the house and land development model appeals strongly to owner occupiers and young families.

Higher density housing types have a high proportion of investor ownership, leading to a high proportion of households renting. In Moreton Bay medium density housing has the highest proportion of households renting (this is different to many other LGAs). This is likely a result of the predominance of high density housing in the lifestyle areas of Redcliffe and Bribie Island, and of a portion of this high density housing being occupied by retirees and older people who have moved to the area and purchased an apartment.

FIGURE 61: HOUSING TENURE BY DWELLING TYPE (2016)



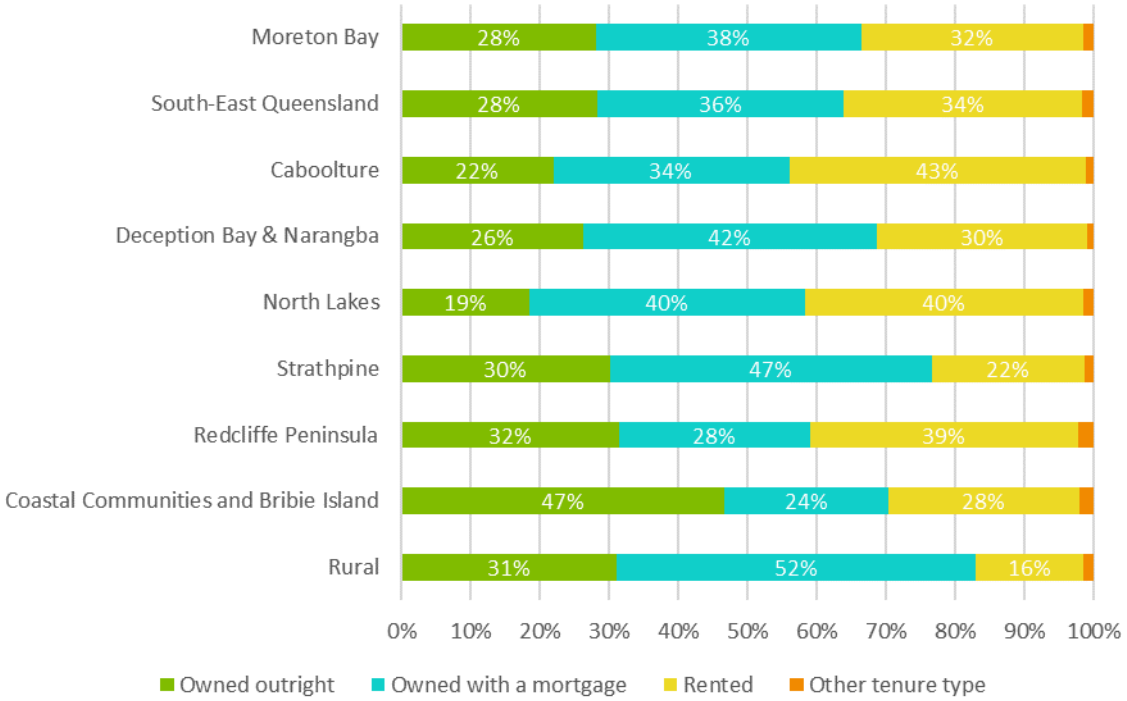
Source: ABS Census 2016

This data only covers private dwellings as classified in the ABS Census. As noted herein, retirement villages are classified as private dwellings by the ABS if they are self-contained homes, villas or other units, while aged care facilities are classified as non-private dwellings and are not included in this tenure data. Dwellings in relocatable home parks appear to be generally classified as owned rather than rented in the ABS Census.

The overall tenure profile for Moreton Bay, SEQ and the profile areas are shown in Figure 62. Overall Moreton Bay has a similar tenure profile overall to SEQ, with a mix of tenure types. This reflects the diversity of household types who live in Moreton Bay and the diverse housing markets is contains.

The tenure mix in Moreton Bay's profile areas reflect the age of development and predominant housing type in those areas as well as variations in the housing market. Redcliffe, Northlakes and Caboolture have high proportions of households renting (e.g. 43% in Caboolture, which is much higher than the Moreton Bay average of 32%). By contrast, Strathpine and the Rural area have relatively low rental dwellings. The Coastal Communities and Bribie Island have a very high proportion of housing owned outright; potentially reflecting retirement communities having purchased dwellings outright in these areas.

FIGURE 62: HOUSING TENURE (2016)



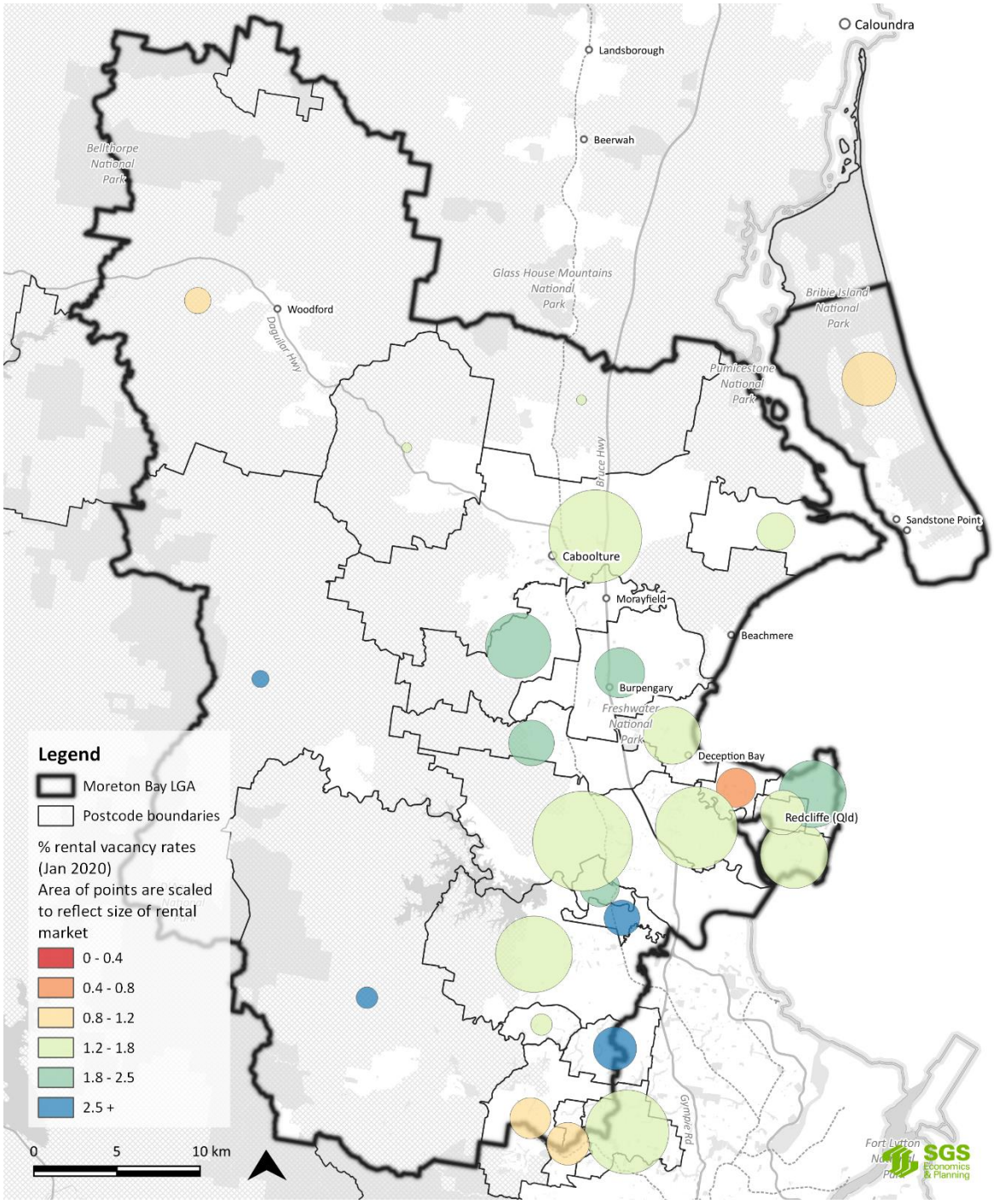
Source: ABS Census 2016

2.4.1.2 Rental vacancy rates

Rental housing vacancy rates have significantly reduced over the last two years during the COVID-19 pandemic. The LGA-wide vacancy rate has been estimated by SGS using publicly available data from SQM Research at the postcode level to be 0.6% in January 2022, compared to around 1.7% in January 2020. A rental vacancy rate of 0.6% implies very low availability of rental properties which is likely to make appropriate rentals difficult to secure.

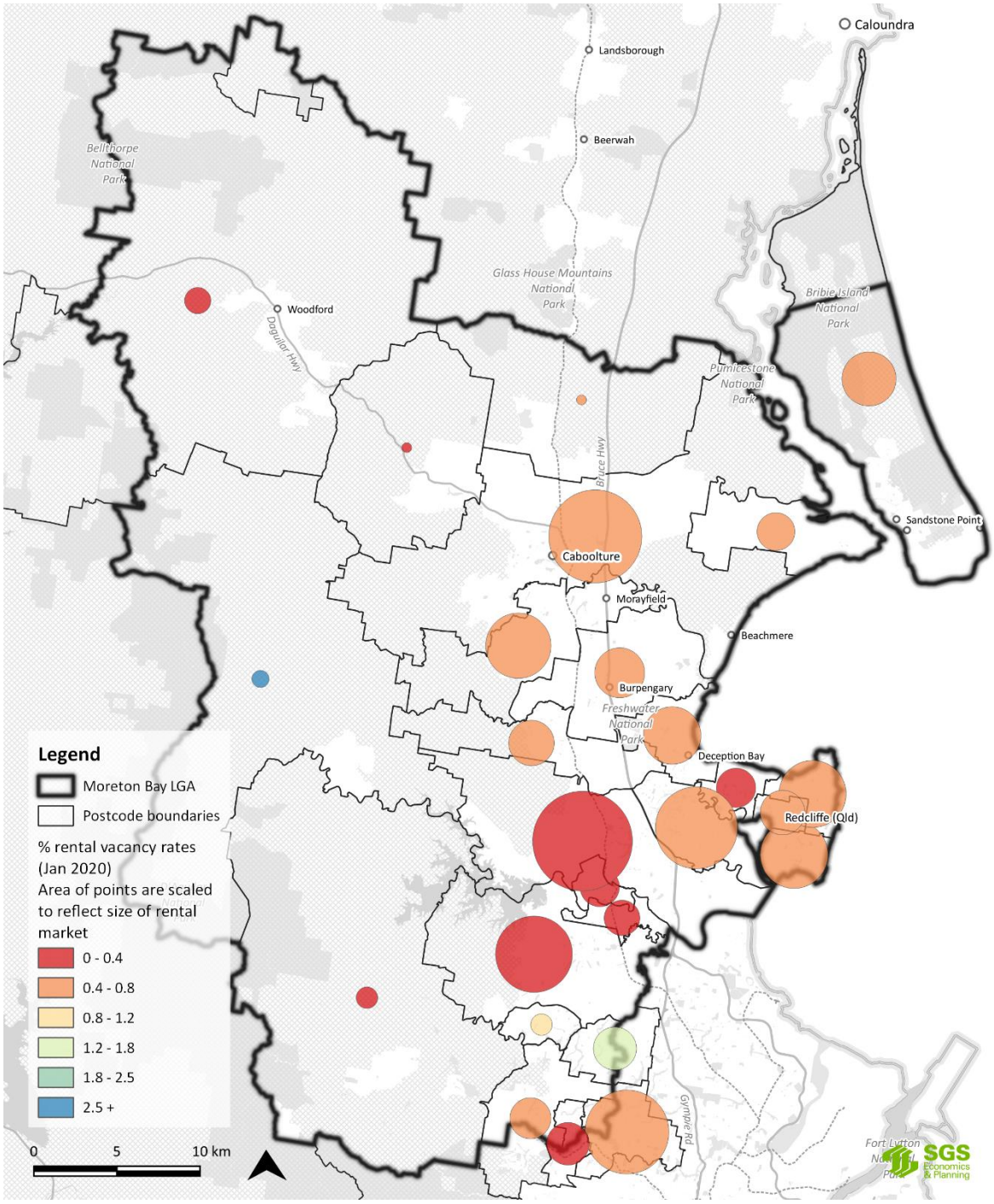
Figures 63-64 show vacancy rates in Moreton Bay's postcodes two years apart pre- and post-COVID 19.

FIGURE 63: RENTAL HOUSING VACANCY RATES PRE-COVID (JANUARY 2020)



Source: SGS Analysis of data from SQM Research https://sqmresearch.com.au/

FIGURE 64: CURRENT RENTAL HOUSING VACANCY RATES (JANUARY 2022)



Source: SGS Analysis of data from SQM Research https://sqmresearch.com.au/

Rental vacancy rates were generally between 1.5% - 3% pre-COVID (in January 2020) but drop to between 0.4 – 0.8% post-COVID (in January 2022), with some areas even lower than this. This effect appears to have occurred across Moreton Bay, with very low vacancy rates everywhere except Albany Creek, Eatons Hill and the small rental market of Dayboro and surrounds which is likely to have very volatile vacancy rates.

This means that while there was previously some variation in vacancy rates throughout Moreton Bay, it is likely to be difficult to find a rental dwelling throughout Moreton Bay at current vacancy rates, particularly in those parts of Moreton Bay with very small rental markets (for example rural areas and coastal communities).

2.4.1.3 Housing costs

COMPARISON OF HOUSING COSTS WITH INCOMES

Changes in house prices and rents over time are commonly compared to household incomes to determine whether housing affordability has become better or worse in relative terms. When housing costs rise more quickly than incomes, housing becomes generally less affordable while income growth which outpaces housing costs makes housing more affordable for the average household.

This comparison is made for Moreton Bay in Table 25. The ABS 2016 Census is used for household income data, restricting this comparison to 2006-2016. While the ABS 2016 Census is now relatively out of date and does not account for potentially significant changes in income and housing costs associated with COVID-19, it is the only publicly available data source at the LGA level on overall household income.

TABLE 25: MEDIAN HOUSING COSTS AND HOUSEHOLD INCOMES

	2006	2011	2016	% Change 2006-2016
Median house price	$305,000	$402,250	$435,750	43%
Median unit price	$249,500	$335,250	$350,500	40%
Median house rent ($/week)	$250	$340	$380	52%
Median unit rent ($/week)	$230	$300	$335	46%
Median weekly household income	$1,048	$1,254	$1,408	34%

Source: ShapingSEQ, August 2017.

Housing prices, rents and household incomes all rose between 2006-2016. However, housing prices rose slightly more than incomes, showing a slight deterioration in the affordability of dwellings to purchase in real terms. While lower interest rates mean that households are able to afford larger mortgages now than they were in 2006, the increase in dwelling prices has made entry into the housing market increasingly difficult for first homeowners who need to save a large deposit.

Rents rose more than housing prices between 2006-2016, meaning that average yields increased over that time period. As percentage rises in median rents were higher than rises in incomes, housing for rent became less affordable on average.

HOUSE PRICES

Figure 65 shows the median price per sqm, either of land in the case of separate houses or of internal area in the case of units and attached dwellings. The first chart provides a better understanding of the costs faced by a household who wants to buy a house, while the second provides a better illustration of the relative costs and revenues facing developers in different parts of Moreton Bay.

This section and the following section refer to attached dwellings, including townhouses, terraces, villas etc instead of medium density in order to align with the available data.

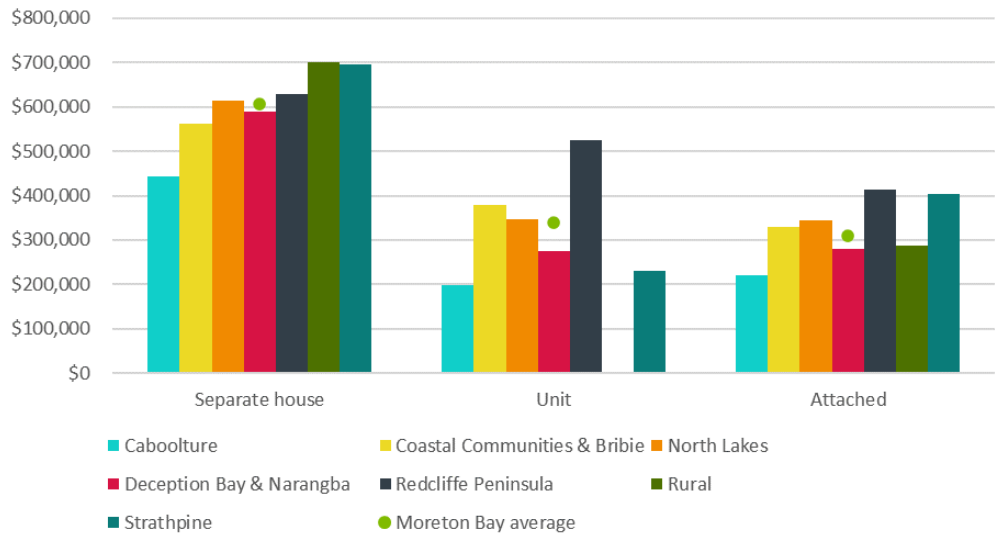
Overall, separate houses are the most expensive and units the cheapest, with attached and medium density housing providing a middle point between the two which is generally larger than an apartment but more affordable than a separate house. By contrast, units have the highest prices per sqm (and the highest construction costs), followed by attached dwellings and then separate houses.

There is some overlap between the price points of units and attached dwellings. Attached dwellings are typically further from centres and so in less desirable locations. In addition, a new apartment needs to have a certain price to be viable to build, which is likely to be higher than the price for a new attached dwelling out of the centre. Despite the difference in typical locations for attached dwellings and units, the similarity in price for those two dwelling types means that they are likely to be somewhat interchangeable from a housing affordability point of view.

There is significant property price variation between different broad parts of the Moreton Bay LGA. Unit prices are by far the highest on the Redcliffe Peninsula, which appears to be the only place where unit development is feasible corresponding with the higher returns achieved by developers in these areas compared to other areas where unit prices are much lower. This is followed by Bribie Island and the Coastal communities.

Caboolture is the cheapest part of Moreton Bay, followed by Deception Bay & Narangba. North Lakes, Strathpine and the Rural areas are all relatively expensive, likely as a result of their relatively large or new housing stock, and the benefits within North Lakes from the master planned community offerings such as proximity to open space, services and retail facilities.

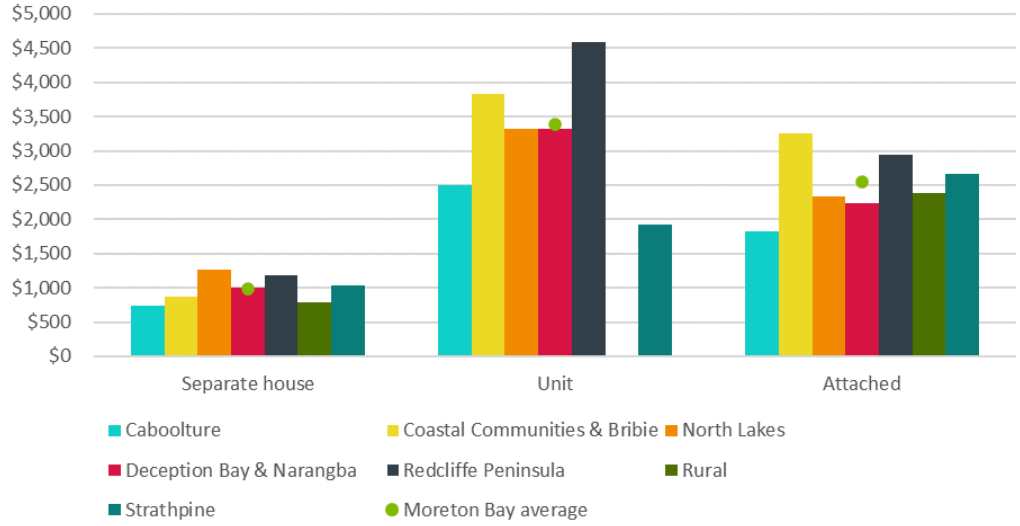
FIGURE 65: MEDIAN HOUSING PRICES



Source: SGS Analysis of sold property prices listed on real estate websites, 2021

Per-square metre prices further illustrate the relative attractiveness of different parts of Moreton Bay. While separate house prices are lower in Redcliffe and North Lakes than the Rural areas and Strathpine, average land sizes are also lower in Redcliffe and North Lakes (land sizes in new greenfield development are typically smaller than in older suburban areas), leading to higher per-square metre prices. The higher perception of Redcliffe and the Coastal Communities and Bribie Island as a location for attached housing or units is also clear, with them having much higher per square metre prices than other parts of Moreton Bay.

FIGURE 66: MEDIAN HOUSING PRICES PER SQM



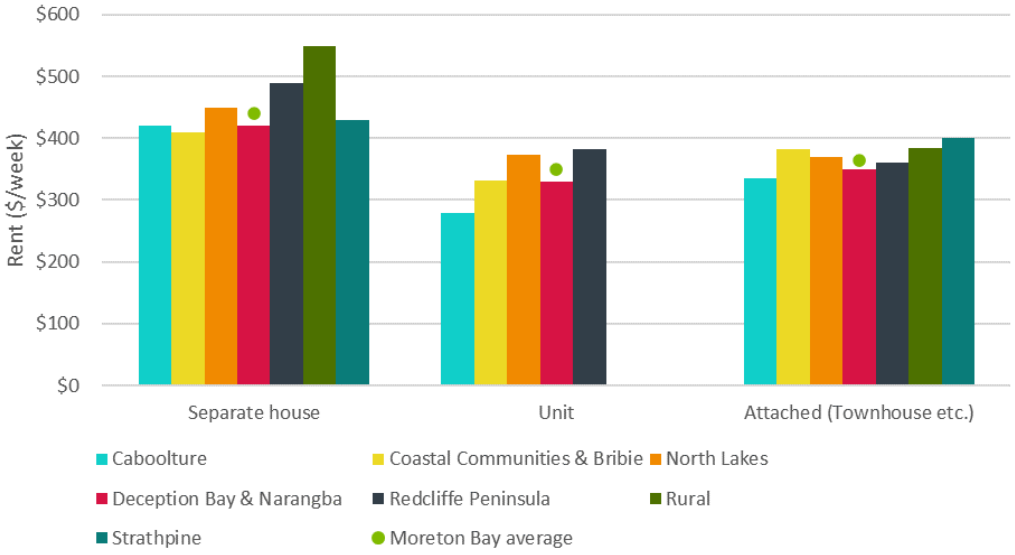
Source: SGS Analysis of sold property prices listed on real estate websites, 2021

RENTS

Average rents across Moreton Bay are shown in Figure 67. Compared to prices, there is more of a clear differentiation between housing types in rents, with separate houses the most expensive, followed by attached dwellings and then by units.

Similar to property prices, there is also significant price variation for rents between different dwelling types and parts of Moreton Bay. Caboolture is the cheapest area to rent overall, followed by Deception Bay & Narangba, while Redcliffe is the most expensive for units. Rents for attached dwellings are relatively uniform across Moreton Bay compared to prices for attached dwellings and to rents for other housing types.

FIGURE 67: MEDIAN RENTS FOR HOUSING



Source: SGS Analysis of rental price listings on real estate websites, 2021

The section below refers to 'flats' (i.e. units) instead of high density, 'townhouses' instead of medium density, and 'houses' instead of separate houses, in order to align with the available data.

The table overleaf provides a more detailed breakdown of rental prices at the postcode level using data from the Queensland Rental Tenancies Authority. Complete data is not available due to medians only being reported when there are a moderate number of bonds lodged.

This data shows in a more geographically detailed way the same overall trends seen in the profile area data:

- In general flats (median $310 per week in Moreton Bay for two bedrooms) are cheaper to rent than townhouses (median $360 per week in Moreton Bay for three bedrooms), which are cheaper to rent than houses (median $460 per week in Moreton Bay for three bedrooms).
- Over the five years between 2016-2021 median rents across Moreton Bay have gone up by substantially less than between 2011 – 2016, with rises of 9% for two bedroom flats, 4% for three

bedroom townhouses and 12% for four bedroom houses compared to a rise in median rents reported between the 2011 and 2016 Censuses of 46%.

- Rents for houses has risen faster than other kinds of rents, with townhouse rents experiencing the least change. Higher rises in rents for houses is consistent with the trend seen nation-wide of demand for houses increasing during COVID-19.
- The highest rent increases were in Redcliffe and surrounds (24% for two bedroom flats and 17% for four bedroom houses) and Bribie Island (25% for two bedroom flats, 37% for three bedroom townhouses and 21% for four bedroom houses). Caboolture and surrounds also had large increases for townhouses and houses, but as this postcode includes some of the coastal communities this could be skewing the medians.
- Modest rent increases were seen in most parts of the Strathpine and North Lakes profile areas.
- Redcliffe and Sandstone Point are the most expensive places to rent a unit, with Lawnton; Burpengary; Dakabin, Griffin, Kallangur etc. and Caboolture the cheapest.
- Townhouses are more affordable in most of the Strathpine, North Lakes and Caboolture profile areas and in Deception Bay, but are more expensive in Redcliffe and surrounds, Albany Creek, Narangba and Sandstone Point and surrounds. Narangba may have relatively new townhouse stock on average meriting its place on this list.
- Houses are relatively expensive to rent in the Hills areas, and most affordable in Caboolture and Morayfield.

TABLE 26: MEDIAN RENTS IN JUNE 2021, AND % CHANGE OVER 5 YEARS FROM JUNE 2016

			2 Bed Flat		3 Bed Townhouse		4 Bed House	
	Postcode	Location	Median rent	% Change	Median rent	% Change	Median rent	% Change
Redcliffe Peninsula	4019	Clontarf, Margate, Woody Pt etc.	$310	5%	$370	-12%	$450	10%
	4020	Redcliffe, Scarborough etc.	$368	24%	$433	12%	$470	17%
	4021	Kippa-Ring	$305	7%	$350	6%	$400	8%
	4022	Rothwell					$395	14%
Strathpine	4035	Albany Ck etc.			$475	6%	$530	13%
	4037	Eatons Hill					$520	15%
	4055	Bunya, Ferny Gv etc.	$340				$515	11%
	4500	Bray Pk, Cashmere, Strathpine etc.	$300	0%	$375	6%	$430	10%

			2 Bed Flat		3 Bed Townhouse		4 Bed House	
	Postcode	Location	Median rent	% Change	Median rent	% Change	Median rent	% Change
	4501	Lawnton	$285	10%	$360	3%		
North Lakes	4509	Mango Hill	$345	3%	$380	7%	$435	10%
	4502	Petrie	$350		$350	4%	$420	10%
	4503	Dakabin, Griffin, Kallangur etc.	$295	4%	$365	6%	$410	10%
Deception Bay & Narangba	4508	Deception Bay	$340	13%	$335	5%	$380	13%
	4504	Narangba			$400	14%	$410	10%
	4505	Burpengary	$285	6%	$355	9%	$410	10%
Caboolture	4506	Morayfield	$300	7%	$365	7%	$360	11%
	4510	Caboolture and surrounds	$290	9%	$350	17%	$355	15%
Coastal comm. & Bribie	4507	Bribie Island	$350	25%	$410	37%	$460	21%
	4511	Sandstone Point & Surrounds	$425				$380	17%
Rural	4512	Wamuran						
	4514	Woodford, D'Aguilar, Deleneys Ck etc.					$450	
	4516	Elimbah						
	4520	South-West Rural Area					$720	4%
	4521	North-West Rural Area						
		Moreton Bay LGA	**$310**	**9%**	**$365**	**4%**	**$460**	**12%**

Source: Queensland Government Residential Tenancies Authority, *Median Rents Quarterly Data*

HOUSING STRESS RATES

Households are often classified as being in housing stress if they pay more than one third of their income on housing, and have very low to moderate household incomes (defined in this case as having a

household income 120% of the Greater Brisbane average or less, equivalent to around $1,875 or less in 2016).

Particularly for low or very low income households, being in housing stress may reduce the amount of money they have available for discretionary expenses, or even for essential expenses like food, bills, transport and medical treatment.

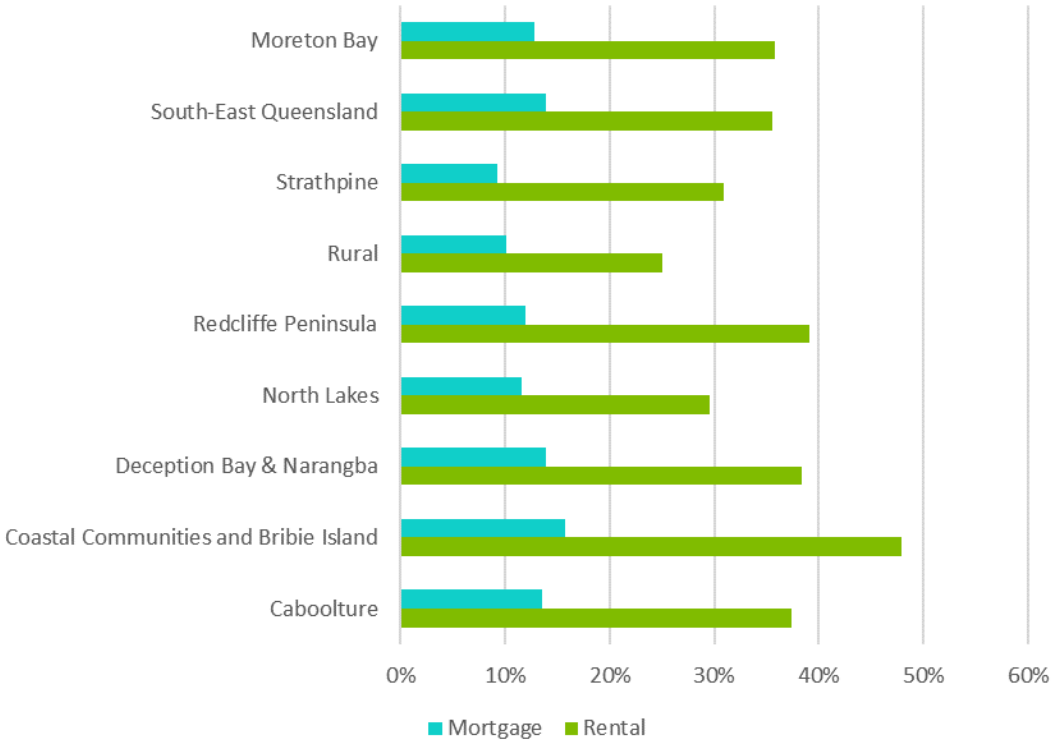
Rental and mortgage stress rates are shown in Figure 68 as a percentage of all renting households and households with a mortgage respectively.

Mortgage and rental stress rates appear to be similar in Moreton Bay and SEQ as a whole, with around 35% of renting households in stress and 13% of mortgaged households. Mortgage stress rates are much lower than rental stress rates, with renters also having less security of tenure.

Coastal Communities and Bribie Island and Redcliffe have especially high rental stress rates, and generally the highest rents. The very high stress rate here is likely to be related to the large number of retirees with low incomes but potentially higher levels of assets. While Caboolture and Deception Bay and Narangba have the cheapest rents, they still have moderately high rental stress rates due to their lower average incomes.

Overall, these figures indicate that while housing in Moreton Bay is more affordable than in the City of Brisbane, across Moreton Bay rents are higher than many people can reasonably afford. Mortgages appear to be more in line with household's capacity to pay, although many households may not be able to afford to purchase housing.

FIGURE 68: HOUSING STRESS RATES (PERCENTAGE OF RENTING HOUSEHOLDS AND HOUSEHOLDS WITH A MORTGAGE)



Source: SGS 2021 using ABS Census 2016[3]

2.4.1.4 Affordable living

The metric of how well serviced different parts of Moreton Bay are (discussed herein) is also relevant to which parts of Moreton Bay accommodate affordable living. This concept recognises that as well as housing costs, the kinds of housing people live in and their location can impose many other costs both financial and in terms of time.

Locations which are accessible to public transport, employment, goods and services require people to spend less time driving and give them alternatives to driving, reducing transport costs. People are also required to spend less time travelling, leaving more time for other activities. By contrast, locations with poor accessibility impose higher transport costs.

Figure 69 shows the overall well serviced score discussed herein (which can also be regarded as an affordable living score) along with the variation in the cost of a separate house between each suburb of Moreton Bay.

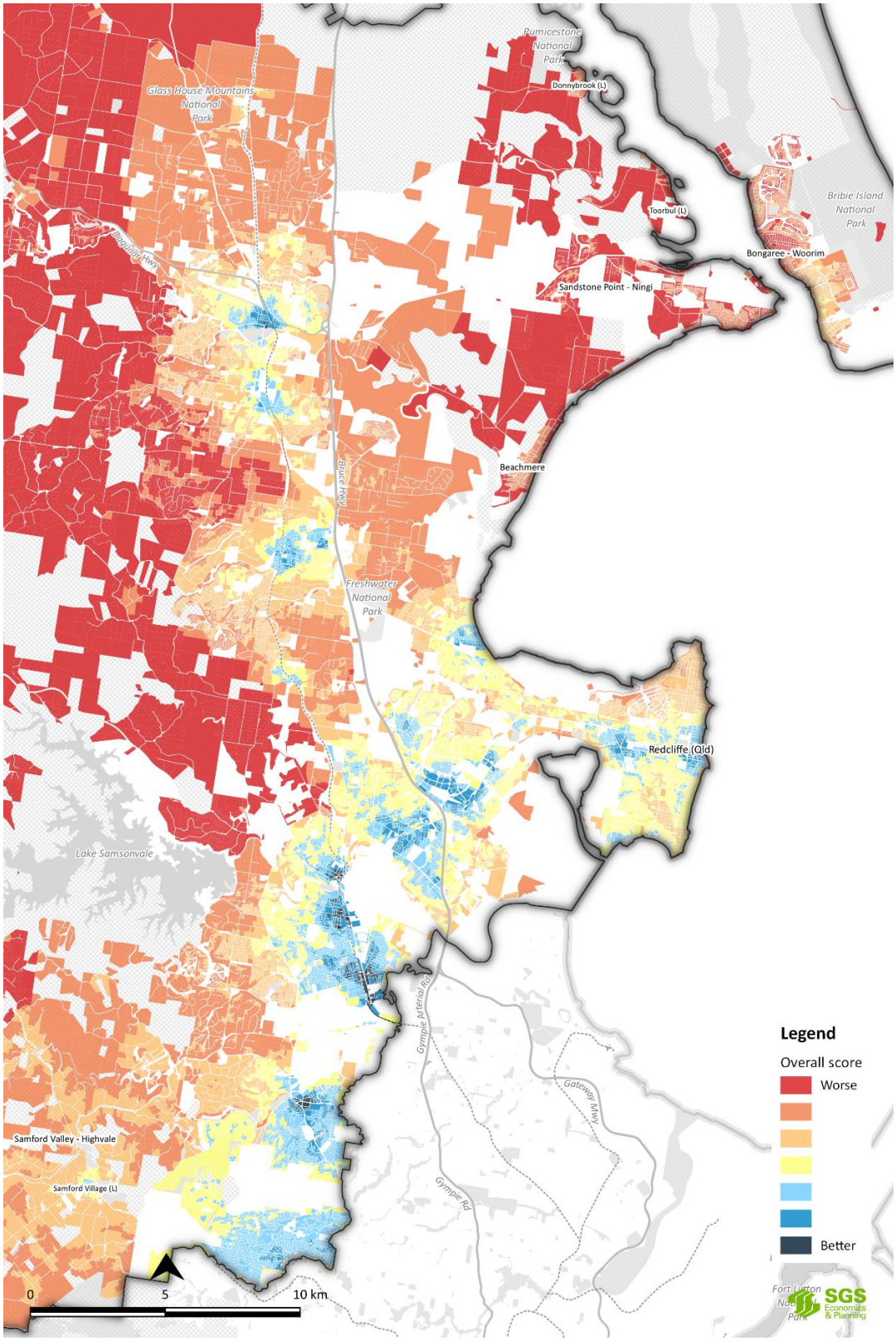
Accessibility to jobs and services usually plays a large part in land price and in driving development. However, in Moreton Bay the locations which are more accessible for jobs and employment and the best serviced are not necessarily those that have the highest land prices. Rather, on a per square metre basis, the Redcliffe Peninsula and Bribie Island have much higher land prices than other parts of Moreton Bay. The perception of these areas is likely to be better than other parts of Moreton Bay, with people willing to pay more to live near the beach.

In combination, these maps reveal that:

- The northern part of Moreton Bay, particularly around Caboolture is very affordable in terms of land price but apart from the established parts of Caboolture is not highly accessible to jobs and housing and does not facilitate affordable living.
- Bribie Island has very high land prices as a result of coastal amenity, but is relatively inaccessible by public transport and has longer travelling distances if people need to frequently travel to employment or services.
- Some of the centres in the southern part of Moreton Bay have relatively affordable housing prices (although more expensive on a per square metre basis) and good accessibility, facilitating affordable living. These include Strathpine, Lawnton, Petrie and Kallangur.

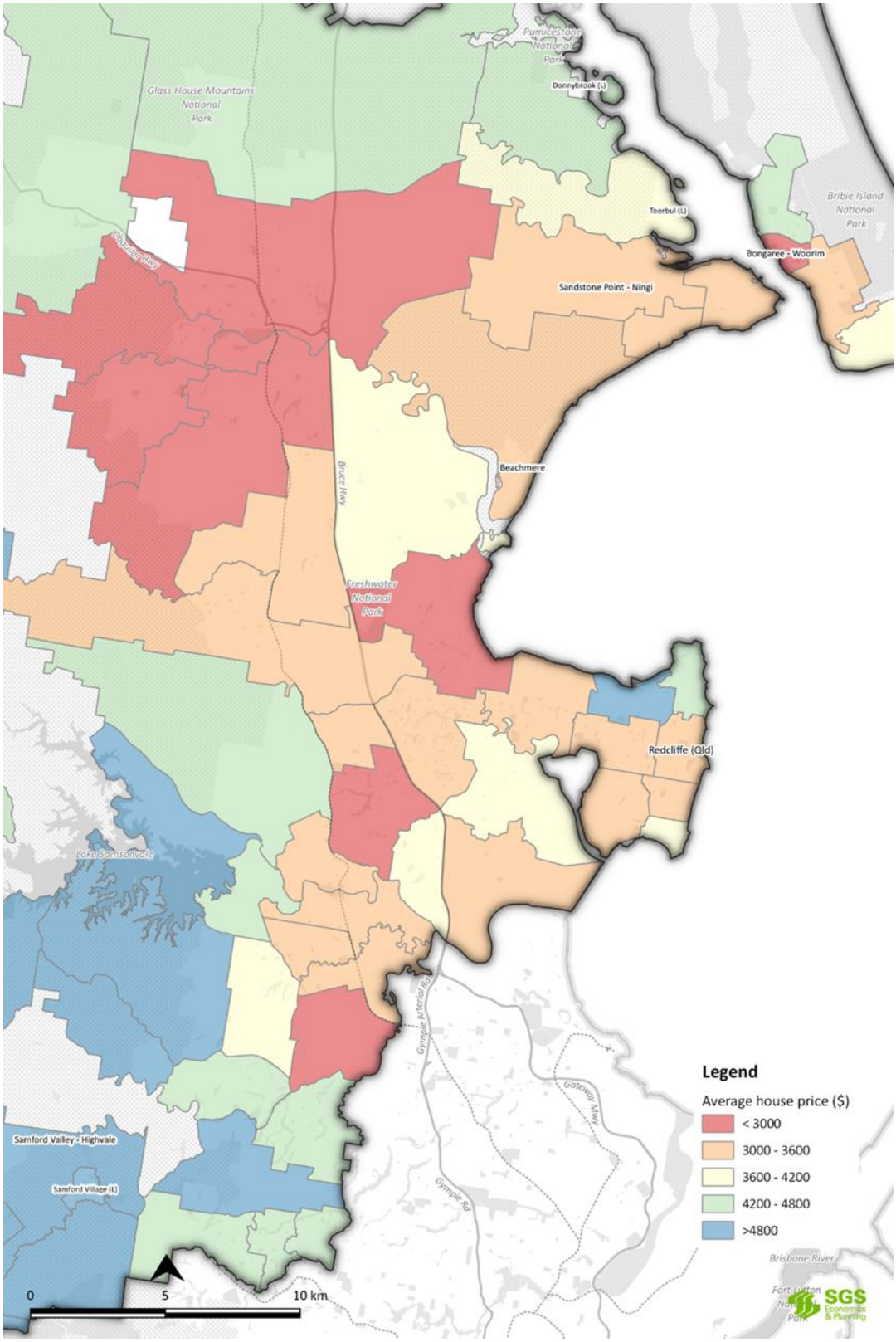
[3] It is generally accepted that if housing costs exceed 30 per cent of a low-income (lowest 40 percent of households across all income bands) household's gross income, the household is experiencing housing stress (30/40 rule) (Australian Institute of Health and Welfare, 2020). That is, housing is unaffordable and housing costs consume a disproportionately high amount of household income.

FIGURE 69: OVERALL SCORING OF BEST SERVICED LOCATIONS IN MORETON BAY



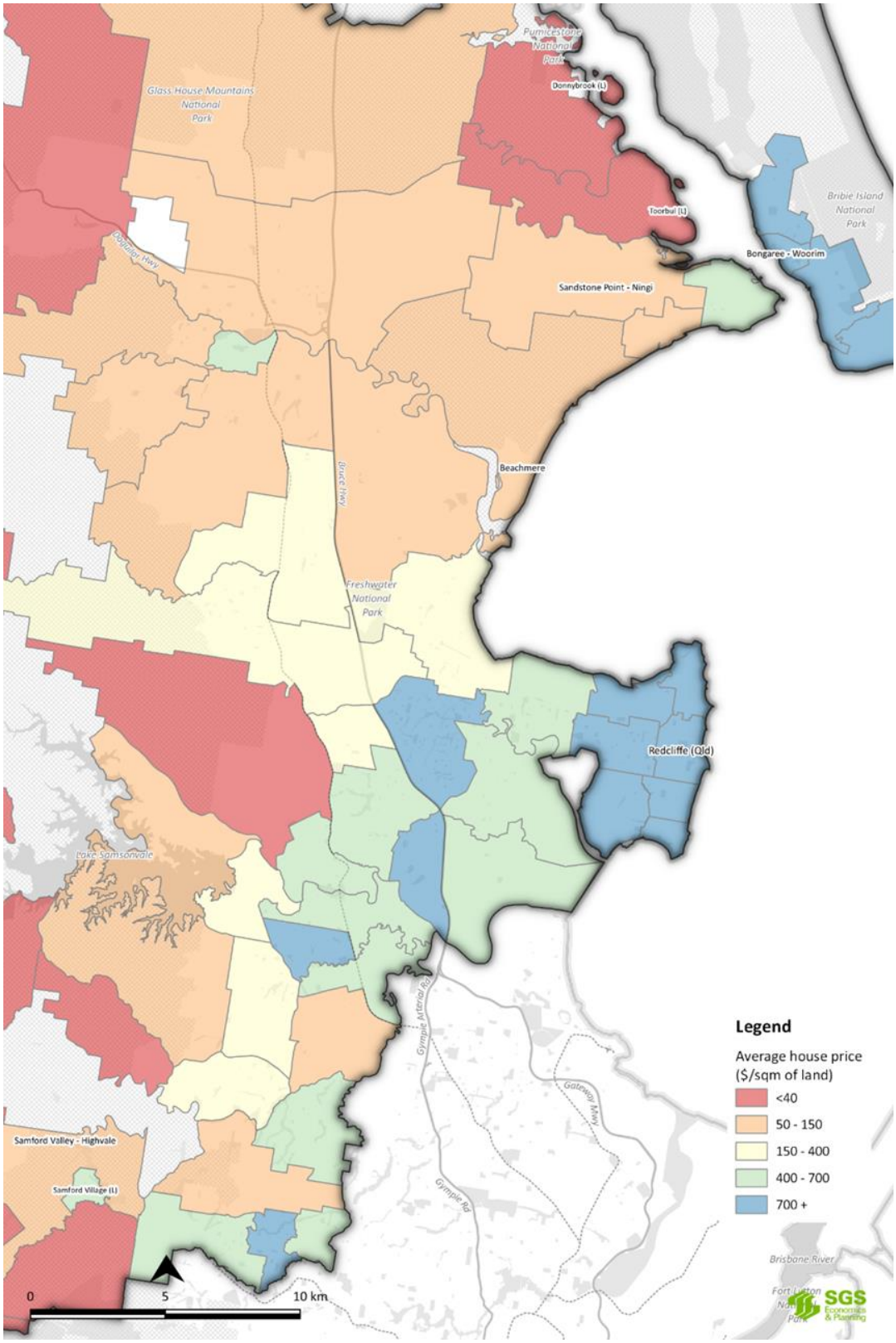
Source: SGS 2021

FIGURE 70: OVERALL SCORING OF BEST SERVICED LOCATIONS IN MORETON BAY



Source: SGS analysis of median sale prices from Realestate.com.au

FIGURE 71: VARIATION IN SEPARATE HOUSE PRICES PER SQM OF LAND ACROSS MORETON BAY



Source: SGS analysis of median sale prices from Realestate.com.au, average property areas

2.4.2 Summary of affordable living data analysis

As discussed above, key findings relating to affordable living include:

- Most new homes are being built greenfield areas, without good access to public transport, shops and services.
- Approximately 35% of renting households are experiencing rental stress.
- 13% of mortgaged households are experiencing mortgage stress.
- Most 3+ bedroom homes have at least two spare bedrooms.

2.4.3 Implications

An important fundamental of affordable living is that a separate house or unit price is not the sole determinant of the cost of living. Factors such as access to schools, shops, medical services and public transport, as well as the cost of housing impact the cost of living. Having the cheapest housing may not result in the most affordable place to live. As a result, having a holistic view about 'affordable living' considers the cost of housing and the cost of living.

Moreton Bay has a level of mortgage and rental stress similar to SEQ as a whole. Housing is more affordable in Moreton Bay than Brisbane City, which continues to attract families to Moreton Bay along with the lifestyle benefits the region offers. However, in many households rents are more than people can reasonably afford and many households may not be able to afford to purchase housing.

Three trends have influenced housing affordability in the region over the last 15 years:

a) Increase in separate house prices and unit prices – historic growth since 2006 to 2016 at about 3.5%

b) Increase in rents for units and separate houses – historic growth of over 4% since 2006 to 2016

c) Lower comparative household incomes over this period – 3% growth year on year 2006 – 2016.

This report has identified that currently approximately 35% of renting households are experiencing rental stress and approximately 13% of mortgaged households are experiencing mortgage stress .

The Moreton Bay Region has higher levels of rental accommodation than SEQ (34% in MBRC). The Part 1 report also found that generally housing affordability occurs distant from services and transport.

Caboolture is the most affordable urban area in the Moreton Bay Region but is not a location with high numbers of jobs. Some communities in the south of Moreton Bay (such as Strathpine, Lawnton, Petrie and Kallangur) display affordable living characteristics, being closer to public transport, services and jobs than other urban areas in the Moreton Bay region.

2.4.4 Strategies

To improve affordable living opportunities, the following strategies are recommended:

4a. Encourage new housing that supports affordable living, in well-serviced locations.

4b. Support more diverse housing stock that is ‘affordable by design’.

2.4.5 Recommendations (overview)

Detailed recommendations are discussed later in this report - including the context for recommendations, as well as timing, importance, and costs associated with recommendations. Notwithstanding, below is an overview of recommended actions to achieve the aforementioned strategies:

- Create guidance material or a suite of case study reference materials, to showcase and define ‘affordable living’, ‘affordable housing’ and ‘affordable by design’ housing outcomes (e.g. smaller homes of 1-2 or 3 bedrooms, efficient floorplans, natural lighting, heating and cooling, self-sufficiency, shared spaces etc) - including roles and responsibilities.
- Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. densities akin to the Next generation neighbourhood precinct). Note this action is also recommended above, to support housing choice and infill development.
- Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. “development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings”).
- Advocate for Commonwealth and State support for affordable housing in Moreton Bay, to meet housing needs.
- Conduct an ‘affordable living done well’ ideas competition to generate collateral, which could be used when educating people and advertising contemporary best practice for affordable living.

2.5 Housing capacity - Accommodating our growing population

This section focuses on Moreton Bay's housing capacity.

2.5.1 Data analysis

2.5.1.1 Theoretical housing capacity

For the purpose of this report, housing capacity is an estimate of the quantum of housing that could be accommodated in an area. It is based on existing planning controls, recent housing supply trends and planned future land-release precincts. It is a theoretical assessment of the maximum number of dwellings that could be developed under current planning controls and development conditions and in future precincts. It follows from a high-level analysis and is intended to be indicative rather than absolute.

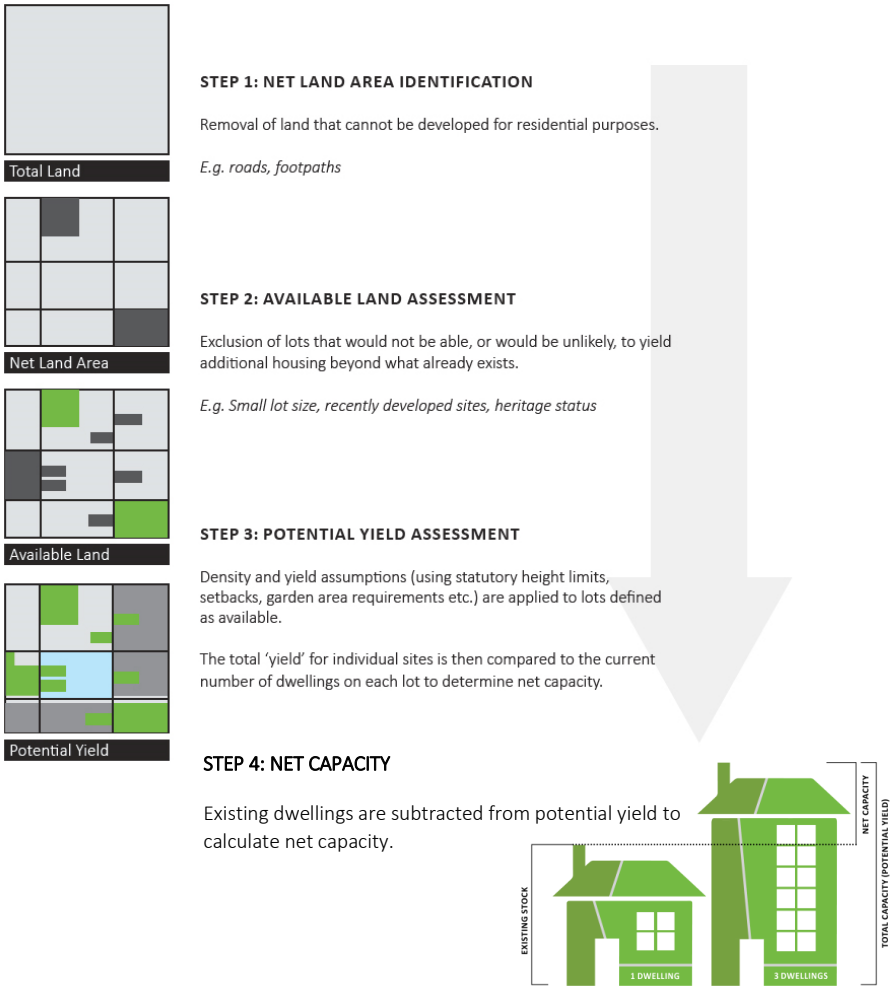
For the purpose of this report, capacity estimates are based on 2016 to ultimate development.

Figure 72 charts the four-step process for determining housing capacity. The logical flow is to firstly identify land where residential development is permitted before filtering out all the lots which are unlikely to be developed/redeveloped, and then calculating the potential development yield of each lot. Each step is discussed in more detail below.

Building approvals and completions data from February 2016 - December 2020 (provided by Council) was used for this exercise, supplemented by publicly available structure plans for the Morayfield South and Caboolture West NDP1 TLPIs as at February 2021. Any Variation Requests lodged or approved by Council after this project commenced in May 2021 are not included in capacity analysis.

Only a small portion of available lots are likely to be developed in any one year and some lots are likely to be withheld from development. For these reasons, greater capacity than (expected) demand is required to ensure that future development is not constrained. There are likely to be site-specific attributes which may affect the development potential of some sites, but which cannot be assessed in an LGA-wide capacity analysis.

FIGURE 72: OVERVIEW OF HOUSING CAPACITY APPROACH



Source: SGS Economics and Planning, 2021.

The key assumptions made in housing capacity are what kinds of properties are included or excluded (step 2), and what densities properties are expected to be developed at (step 3).

This approach differs from the approach adopted to calculate developable area in the LSDM Report by the Queensland Government, as properties are deemed either available or not under SGS's methodology rather than receiving a percentage constraint.

More information on the methodology used to calculate housing capacity is provided in Appendix B.

2.5.1.2 Capacity scenarios

Three housing capacity scenarios have been calculated for Moreton Bay:

- Higher density scenario: Densities slightly higher than Council's October 2019 Planning Assumptions, with adjustments made in some zones to provide a maximum realisable capacity. This capacity is unlikely to be reached but shows how much development the planning controls would

allow for with less consideration of market constraints and demand. In this scenario, higher densities (than what is currently being achieved) are assumed in the Urban neighbourhood precinct, Next generation neighbourhood precinct, Emerging community zone in the Redcliffe Peninsula and in centres.

- Moderate density scenario: Development densities assumptions are in line with Council's October 2019 Planning Assumptions. Density assumptions are reported in Council's Planning Assumptions Extrinsic Material to be based on profiled typical or expected development densities in different zones, suburbs and areas. However, based on SGS' analysis, it would appear that actual dwelling densities have fallen slightly short of these assumptions. Notwithstanding, the number of dwellings assumed for the October 2019 Planning Assumptions appears to have been relatively accurate. This scenario represents a reasonable assumption of capacity, if densities increase slightly.
- Lower density scenario: This scenario is intended to reflect current market activity and a lack of feasibility and developability in multiple precincts. It is intended to provide a reasonable lower bound to development capacity with some (although not all) development constraints.

  Density assumptions generally in line with Councils October 2019 Planning Assumptions have been made, but:

  - Greenfield density assumptions have been lowered to reflect some recent market activity.
  - It has been assumed that infill development will not occur outside of the Redcliffe Peninsula, Bribie Island, the Hills District and 800m catchments of district centres at Kallangur and further south. This reflects current broad-based lack of development feasibility for infill development.
  - A minimum property size of infill development has been introduced (600 sqm and a 12m frontage) to reflect difficulty in development where amalgamation of more than two properties is required.
  - The urban neighbourhood precinct in greenfield areas has been assumed to produce the same densities as the next generation neighbourhood precinct rather than higher densities.

In each scenario similar exclusions have been applied to those in Council's October 2019 Planning Assumptions. These are predominately that properties or sections of properties with environmental constraints will not be available for development. It has also been assumed that no existing multi-unit development will be redeveloped, and that open space and other social infrastructure is unavailable for development.

2.5.1.3 Type of capacity

Properties or parts of properties have been categorised into greenfield, infill, centres and other capacity based on the zone, precinct and strategic place type:

- Greenfield – all available land in properties larger than 1ha, and those between 4,000sqm – 1ha in designated precincts including the Emerging Community Zone and underway greenfield housing estates.
  As noted in Section 1.4, development in greenfield precincts turns broadacre or semi-rural land into new suburbs.
- Centres – all available land on properties smaller than 1ha within centres (as indicated by the Centre Zone), or within designated existing centres larger than 1ha.

- **Infill** – all available land in General Residential Zone or Township Zone on properties under 1ha in area, and in the Emerging Community Zone outside of greenfield precincts on properties with areas up to 4,000sqm.
  In line with Section 1.4's definition of infill development as the 'salt and pepper' redevelopment of existing suburban blocks, infill presented here does not include redevelopment within centres, or of precincts like Petrie Mill.
- **Other** – all other capacity (for example subdivision in the rural residential zone, which would not occur down to the densities required for new suburban development and so is not classed as greenfield development)

Designated precincts and key sites like The Mill have been identified and handled separately, as discussed in Appendix B.

Infill capacity has been further divided into density bands as follows:

- **Lower density** – the Suburban neighbourhood, Coastal village, Hamlet and Township residential precincts and associated strategic place types if the Emerging community zone applies.
- **Medium density** – the Next generation neighbourhood precinct and associated strategic place type if the Emerging community zone applies.
- **Higher density** – The Urban neighbourhood precinct and associated strategic place type if the Emerging community zone applies.

This breakdown is intended to encode the predominant likely type of development, with medium density and mostly attached development in the lower and medium density categories, and high density and apartment development in the higher density category. However, it is noted that a broad range of densities and types of development are possible in multiple precincts under the Moreton Bay Planning Scheme.

The density breakdown is also intended to represent the general likely density of development in order to contextualise the amount of uplift and so inform the difficulty of development and the amount of development likely to occur in different precincts.

2.5.1.4 Overall capacity results

The results across each scenario are summarised overleaf, broken down into the types of capacity categories listed above. Overall Moreton Bay has capacity for around 164,114 additional dwellings to 2051 under the Moderate density scenario, with 101,285 of this for greenfield development and 48,678 for infill development.

Under the Higher density scenario, which assumes higher densities than what is currently being achieved, under the planning controls, capacity for additional housing increases to 198,587 additional dwellings. There is only a small increase in greenfield capacity, but a large increase in infill capacity particularly in the Urban precinct and Next generation precinct. This reflects the relatively low level of density being delivered in these zones compared to the maximum allowable under planning controls.

The Lower density scenario, which represents a conservative estimate for capacity that is achievable with less shifts in the development market, has capacity for 108,315 additional dwellings. This is broken

into capacity for 74,216 additional dwellings in greenfield areas and capacity for 21,293 additional infill dwellings.

Table 28 shows the results in the consolidation and expansion areas. Tables 30-32 provide more detailed results tables which break this capacity down into profile areas and more detailed development types for each scenario. These tables show under every scenario that by far the most capacity is in Caboolture West followed by the Caboolture Area. Infill development capacity is spread between the Caboolture, Deception Bay & Narangba, North Lakes and Redcliffe Peninsula areas, and Strathpine areas.

The following sections examine these greenfield, infill and centres capacity results in more detail, including considering the ease of development.

TABLE 27: HOUSING CAPACITY RESULTS (NUMBER OF DWELLINGS)

Development type		Lower density scenario	Moderate density scenario	Higher density scenario
Greenfield	Urban neighbourhood	1,784	2,929	3,427
	Next generation neighbourhood	11,697	11,842	11,842
	Suburban neighbourhood or coastal communities	2,436	2,436	3,390
	Emerging community zone	57,316	83,095	83,095
	Hamlet or township residential	984	984	984
	Subtotal	*74,216*	*101,285*	*102,738*
Infill	Higher density	10,125	18,880	29,806
	Medium density	10,589	23,422	42,257
	Lower density	579	6,376	6,676
	Subtotal	*21,293*	*48,680*	*78,739*
Centres and other	Centres	5,175	6,520	9,479
	Petrie Mill	3,400	3,400	3,400
	Rural subdivision	4,230	4,230	4,230
	Total	**108,315**	**164,114**	**198,587**

Source: SGS 2022

TABLE 28: HOUSING CAPACITY RESULTS IN CONSOLIDATION AND EXPANSION AREA (NUMBER OF DWELLINGS)

	Development type	Lower density scenario	Moderate density scenario	Higher density scenario
Consolidation	Greenfield	11,246	12,498	13,395
	Centres	4,816	5,944	8,280
	Infill - higher density	7,134	14,247	22,069
	Infill - moderate density	5,710	16,639	30,786
	Infill - lower density	315	3,137	3,286
	Petrie Mill	2,371	2,371	2,371
	Rural subdivision	1,122	1,122	1,122
	Total	**32,713**	**55,958**	**81,309**
Expansion	Greenfield	62,970	88,787	89,343
	Centres	359	576	1,199
	Infill - higher density	2,991	4,632	7,737
	Infill - moderate density	4,879	6,783	11,471
	Infill - lower density	265	3,238	3,390
	Petrie Mill	1,029	1,029	1,029
	Rural subdivision	3,109	3,109	3,109
	Total	**75,601**	**108,156**	**117,278**

Source: SGS 2022

TABLE 29: HOUSING CAPACITY RESULTS, LOWER DENSITY SCENARIO

	Strathpine	North Lakes	Redcliffe Peninsula	Deception Bay & Narangba	Coastal Comm. & Bribie Island	Caboolture (Except Cab. West)	Rural (Except Cab. West)	Cab. West	Total
Greenfield (subtotal)	921	4,753	405	7,578	641	12,954	2,173	44,791	74,216
Urban neighb.	*18*	*1,348*	*0*	*111*	*0*	*306*	*0*	*0*	*1,784*
Next Generation neighb.	*711*	*3,141*	*322*	*2,220*	*170*	*5,134*	*0*	*0*	*11,697*
Suburban neighb. Or coastal communities	*192*	*264*	*83*	*533*	*472*	*726*	*166*	*0*	*2,436*
Emerging community zone	*0*	*0*	*0*	*4,714*	*0*	*6,788*	*1,023*	*44,791*	*57,316*
Hamlet or Township Res.	*0*	*0*	*0*	*0*	*0*	*0*	*984*	*0*	*984*
Centres (subtotal)	1,580	508	1,465	175	27	1,420	0	0	5,175
Higher order centres	*0*	*0*	*0*	*0*	*0*	*1,420*	*0*	*0*	*1,420*
District centres	*298*	*508*	*124*	*175*	*27*	*0*	*0*	*0*	*1,132*
Other centres	*1,283*	*0*	*1,341*	*0*	*0*	*0*	*0*	*0*	*2,624*
Infill - higher density	1,982	3,906	1,872	0	0	2,365	0	0	10,125
Infill - medium density	1,907	4,829	2,995	48	632	167	10	0	10,589
Infill - lower density	200	34	30	0	78	34	204	0	579
Petrie Mill	999	2,401	0	0	0	0	0	0	3,400
Rural subdivision	46	0	0	212	26	1,897	2,049	0	4,230
Total	**7,635**	**16,431**	**6,767**	**8,013**	**1,404**	**18,837**	**4,437**	**44,791**	**108,315**

Source: SGS 2022

TABLE 30: HOUSING CAPACITY RESULTS, MODERATE DENSITY SCENARIO

	Strathpine	North Lakes	Redcliffe Peninsula	Deception Bay & Narangba	Coastal Comm. & Bribie Island	Caboolture (Except Cab. West)	Rural (Except Cab. West)l	Cab. West	Total
Greenfield (subtotal)	1,008	5,723	9,717	407	647	14,161	2,173	67,450	101,285
Urban neighb.	*46*	*2,285*	*293*	*0*	*0*	*306*	*0*	*0*	*2,929*
Next Generation neighb.	*770*	*3,175*	*2,263*	*324*	*175*	*5,134*	*0*	*0*	*11,842*
Suburban neighb. Or coastal communities	*192*	*264*	*533*	*83*	*472*	*726*	*166*	*0*	*2,436*
Emerging community zone	*0*	*0*	*6,628*	*0*	*0*	*7,995*	*1,023*	*67,450*	*83,095*
Hamlet or Township Res.	*0*	*0*	*0*	*0*	*0*	*0*	*984*	*0*	*984*
Centres (subtotal)	1,801	694	226	2,215	66	1,477	41	0	6,520
Higher order centres	*1,484*	*0*	*0*	*0*	*0*	*1,477*	*0*	*0*	*2,962*
District centres	*317*	*581*	*226*	*154*	*66*	*0*	*41*	*0*	*1,386*
Other centres	*0*	*112*	*0*	*2,060*	*0*	*0*	*0*	*0*	*2,173*
Infill - higher density	2,161	4,703	3,197	5,918	0	2,900	0	0	18,880
Infill - medium density	4,367	6,150	1,158	6,769	747	4,192	39	0	23,422
Infill - lower density	1,132	493	1,689	204	345	1,025	1,489	0	6,376
Petrie Mill	999	2,401	0	0	0	0	0	0	3,400
Rural subdivision	46	0	212	0	26	1,897	2,049	0	4,230
Total	**11,513**	**20,162**	**16,200**	**15,513**	**1,831**	**25,653**	**5,792**	**67,450**	**164,114**

Source: SGS 2022

TABLE 31: HOUSING CAPACITY RESULTS, HIGHER DENSITY SCENARIO

	Strathpine	North Lakes	Redcliffe Peninsula	Deception Bay & Narangba	Coastal Comm. & Bribie Island	Caboolture (Except Cab. West)	Rural (Except Cab. West)l	Cab. West	Total
Greenfield (subtotal)	1,126	5,891	10,130	439	823	14,645	2,235	67,450	102,738
Urban neighb.	*77*	*2,346*	*495*	*0*	*0*	*509*	*0*	*0*	*3,427*
Next Generation neighb.	*770*	*3,175*	*2,263*	*324*	*175*	*5,134*	*0*	*0*	*11,842*
Suburban neighb. Or coastal communities	*279*	*370*	*744*	*114*	*648*	*1,006*	*229*	*0*	*3,390*
Emerging community zone	*0*	*0*	*6,628*	*0*	*0*	*7,995*	*1,023*	*67,450*	*83,095*
Hamlet or Township Res.	*0*	*0*	*0*	*0*	*0*	*0*	*984*	*0*	*984*
Centres (subtotal)	2,873	1,462	517	2,455	149	1,930	93	0	9,479
Higher order centres	*2,150*	*0*	*0*	*0*	*0*	*1,930*	*0*	*0*	*4,079*
District centres	*723*	*1,349*	*517*	*387*	*149*	*0*	*93*	*0*	*3,219*
Other centres	*0*	*112*	*0*	*2,069*	*0*	*0*	*0*	*0*	*2,181*
Infill - higher density	3,533	8,236	8,272	5,117	0	4,648	0	0	29,806
Infill - medium density	7,661	10,793	1,363	10,263	1,828	10,309	39	0	42,257
Infill - lower density	1,228	511	1,689	220	426	1,039	1,563	0	6,676
Petrie Mill	999	2,401	0	0	0	0	0	0	3,400
Rural subdivision	46	0	212	0	26	1,897	2,049	0	4,230
Total	**17,466**	**29,294**	**22,182**	**18,495**	**3,251**	**34,468**	**5,981**	**67,450**	**198,587**

Source: SGS 2022

2.5.1.5 Ease of development

Greenfield, infill and centre-based capacity has been categorised based on the likely ease of development at a high level. This categorisation has been based on the kind of development, the property area and in the case of greenfield development the proportion of each property which was identified as constrained through the following land exclusions discussed in the report and also used in Council's October 2019 Planning Assumptions:

- Coastal hazards (erosion or storm time)
- Environmentally sensitive areas
- Extractive offset receiving areas (resource processing area and separate area)
- Flood hazards
- Riparian wetland setbacks
- Community activities and neighbourhood hubs.

It should be noted that 'ease of development' is not intended to suggest whether land *will or won't* be developed. Rather, this is intended to indicate how constrained land is and how easy to assemble into development parcels it is, which will determine what land is more likely to develop in the short term, medium term, and longer term assuming developers will follow 'the path of least resistance'.

GREENFIELD DEVELOPMENT

For greenfield development, developability is ranked between very difficult and very good as shown in the table below, reflecting difficulty in acquiring and amalgamating sites and in delivering sufficient yields and appropriate development layouts on smaller or more constrained sites at likely densities. Sites with "very difficult" rating would be expected to be developed at a slower pace or in some cases not to be developed, while sites designated as "very good" may be able to accommodate moderate to large housing estates by themselves.

TABLE 32: EASE OF DEVELOPMENT SCORING FOR GREENFIELD DEVELOPMENT

Percentage of property constrained	0% - 35% (Few constraints)	35% - 65% (Moderate constraints)	65%+ (Highly constrained)
Property area			
< 1 ha	Very difficult	Very difficult	Very difficult
1 – 2.5 ha	Difficult	Very difficult	Very difficult
2.5 – 10 ha	Good	Moderate	Difficult
10 – 25 ha	Very good	Good	Moderate
25 ha +	Very good	Very good	Moderate

Source: SGS 2022
Cells in this table have been coloured to illustrate scoring

INFILL AND CENTRES DEVELOPMENT

For infill development and development within centres, developability is ranked between very difficult and good as shown in the table below, reflecting difficulty in acquiring and as necessary amalgamating sites and in delivering potentially feasible yields. Very difficult and difficult sites would require amalgamation of multiple properties, while good sites may be able to be developed with no amalgamation and with required yields.

TABLE 33: EASE OF DEVELOPMENT SCORING FOR INFILL DEVELOPMENT AND WITHIN CENTRES

Development type	Infill - lower density	Infill - medium density	Infill - higher density and centres
Property area			
< 600 sqm	N/A	Very difficult*	Difficult
600 – 800 sqm	N/A	Difficult*	Difficult
800 – 1,200 sqm	N/A	Moderate	Moderate
1,200 sqm – 2,500 sqm	Moderate	Moderate	Good
2,500 sqm – 1ha	Good	Good	Good

Source: SGS 2022

Cells in this table have been coloured to illustrate scoring

* These properties are excluded in same cases due to minimum yields in the housing capacity model

2.5.1.6 Detailed greenfield capacity results

The following tables show greenfield capacity broken down by profile area and grouped into the broad precinct type categories of:

- PIA or available for development – Capacity within the PIA or in Caboolture West NDP1 or underway greenfield housing estates outside of the PIA. This capacity is regarded as either immediately available for development or available for development in the short term, with detailed planning and servicing infrastructure generally in place. Morayfield South is not included in this category because only parts of the precinct appear to be fully serviced.
- Other precincts in emerging community areas, which are regarded as likely to be available for development in the longer term, although some of this capacity may be available in the short term (noting that Morayfield South has been rezoned to facilitate development via a TLPI).
- Other greenfield capacity is land not included in the Emerging Community Zone or other nominated growth precincts such as Caboolture West or Morayfield South.

This classification is slightly different to the 'able to be serviced' capacity measure that appears in the ShapingSEQ benchmark. SGS's approach is intended instead to capture and simply categorise all development capacity, including capacity which may come online in the medium-long term but may not be identified in the Queensland Government's intention to service layer. More detail on these differences is provided in Appendix B.

Ease of development is also summarised, with good and very good, and difficult and very difficult grouped together.

The Caboolture West Growth Area contains the most greenfield capacity, most of which has good or very good developability although only a small part of it is currently available for development due to infrastructure servicing. There is also a large amount of greenfield capacity in the Caboolture, North Lakes and Deception Bay and Narangba areas. There is relatively little greenfield capacity in the Coastal Communities and Bribie Island, Redcliffe Peninsula or Strathpine areas. The Rural Area contains the Joyner Growth Area.

TABLE 34: GREENFIELD HOUSING CAPACITY BY PROFILE AREA (MODERATE DENSITY SCENARIO)

Precinct type	PIA or available for development			Other precincts				
Ease of development	Good & V. good (More likely to develop *sooner*)	Mod. (More likely to develop in the *medium-term*)	Diff. or V. diff. (More likely to develop *later*)	Good & V. good (More likely to develop *sooner*)	Mod. (More likely to develop in the *medium-term*)	Diff. or V. diff. (More likely to develop *later*)	Other cap.	Total
Caboolture (Except Caboolture West)	2,617	93	2,881	1,281	266	6,448	576	14,161
Coastal Communities and Bribie Island	96	88	299	0	0	0	164	647
Deception Bay & Narangba	1,863	15	852	1,016	279	5,332	359	9,717
North Lakes	2,598	359	2,766	0	0	0	0	5,723
Redcliffe Peninsula	292	27	88	0	0	0	0	407
Rural (Except Caboolture West)	250	20	313	0	85	937	567	2,173
Strathpine	146	57	428	0	0	0	377	1,008
Caboolture West	5,550	108	546	58,024	620	2,602	0	67,450
Total	**13,412**	**767**	**8,172**	**60,321**	**1,251**	**15,319**	**2,043**	**101,285**

Source: SGS 2022

TABLE 35: GREENFIELD HOUSING CAPACITY BY PROFILE AREA (LOWER DENSITY SCENARIO)

Precinct type	PIA or available for development			Other precincts				
Ease of development	Good & V. good (More likely to develop *sooner*)	Mod. (More likely to develop in the *medium-term*)	Diff. or V. diff. (More likely to develop *later*)	Good & V. good (More likely to develop *sooner*)	Mod. (More likely to develop in the *medium-term*)	Diff. or V. diff. (More likely to develop *later*)	Other cap.	Total
Caboolture (Except Caboolture West)	2,617	93	2,881	1,281	266	6,448	576	14,161
Coastal Communities and Bribie Island	96	88	293	0	0	0	164	641
Deception Bay & Narangba	1,863	15	627	1,016	279	3,419	359	7,578
North Lakes	2,127	304	2,322	0	0	0	0	4,753
Redcliffe Peninsula	292	27	86	0	0	0	0	405
Rural (Except Caboolture West)	250	20	313	0	85	937	567	2,173
Strathpine	146	57	387	0	0	0	332	921
Caboolture West	5,550	108	546	58,024	620	2,602	0	67,450
Total	**10,582**	**712**	**7,226**	**40,890**	**1,251**	**11,559**	**1,997**	**74,216**

Source: SGS 2022

These results show that under the Moderate density scenario:

- Capacity for only 22,352 greenfield dwellings is included within the 'PIA or available for development' area out of total greenfield capacity of 101,285. Together this makes up 22% of total greenfield capacity. Parts of Morayfield South are also likely to be available for development in the short-term.
- Caboolture West makes up the majority of greenfield capacity in Moreton Bay (67,450 out of 102,285 or 67%).

37% of the capacity within the 'PIA or available for development' area has been designated as difficult or very difficult to develop, while the developability of 60% of the capacity has been designated as good or very good. This illustrates that some of the remaining greenfield development properties in the PIA are either relatively small or constrained. Under the Lower density scenario, greenfield capacity drops to 74,216, of which 18,519 is in the 'PIA or available for development' area. There is less capacity in all precinct categories under the Lower density scenario than the Moderate density scenario, with capacity in Caboolture West and in properties with very good developability dropping the most.

More detailed tables breaking these results into precincts are shown in Appendix D, with the following implications:

- Caboolture West is much easier to develop than other precincts, with the developability of most of the capacity in Caboolture West Precinct 1 (89%) and the rest of Caboolture West (95%) designated as good or very good. This illustrates the large properties in Caboolture West, although constraint zoning may become more detailed with more planning.
- Morayfield South, Narangba East, Burpengary East and Joyner are relatively difficult to develop, with 82%, 70%, 93% and 92% respectively of total capacity designated as difficult or very difficult to develop. Joyner contains many small properties of around 1ha, indicating that land assembly may be quite difficult.

These observations on relative developability of different precincts apply in the Lower density scenario as well.

More detailed results tables showing capacity by precinct and suburb for the Lower density and Moderate density scenarios are provided in Appendix D.

2.5.1.7 Detailed infill capacity results

Table 36 and Table 37 show infill capacity broken down by profile area, density and ease of development under the Moderate density and Lower density capacity scenarios.

There is net capacity for 48,678 additional dwellings in Moreton Bay under the Moderate density scenario, with most of this in the medium and higher density dwelling categories. There is a substantial amount of capacity at both medium and higher densities in most profile areas, except the Rural area for both densities and the Coastal Communities & Bribie Island area for higher density dwellings.

Most of identified medium density (64%) and high density (58%) capacity is classified as difficult or very difficult. This leaves net capacity for 8,500 dwellings in medium density areas and 7,986 in higher density areas on properties with moderate or good developability.

Under the Lower density scenario, the amount of net capacity for infill development drops to 21,293 dwellings. The most notable decline is for dwellings at lower densities, with the reduced density assumptions under the Lower density scenario meaning that most properties do not generate enough yield to be counted.

As with the Moderate density scenario, most medium and higher density capacity in the Lower density scenario is designated as difficult or very difficult to develop. This leaves net capacity for only 4,866 dwellings in medium density areas and 4,836 dwellings at high densities on properties with moderate or good developability.

TABLE 36: NET INFILL CAPACITY BY EASE OF DEVELOPMENT (MODERATE DENSITY SCENARIO)

	Precinct	Very difficult (More likely to develop *later*)	Difficult (More likely to develop *later*)	Moderate (More likely to develop in the *medium-term*)	Good (More likely to develop *sooner*)	Total
Lower density	Caboolture			594	431	1,025
	Coastal Communities & Bribie Island			147	198	345
	Deception Bay & Narangba			1,321	367	1,689
	North Lakes			353	139	493
	Redcliffe Peninsula			124	80	204
	Rural			781	709	1,489
	Strathpine			652	479	1,132
	Total			**3,973**	**2,403**	**6,376**
Moderate density	Caboolture	656	2,029	1,076	439	4,200
	Coastal Communities & Bribie Island	98	332	231	87	747
	Deception Bay & Narangba	224	254	182	499	1,158
	North Lakes	433	3,041	2,424	252	6,150
	Redcliffe Peninsula	2,968	1,715	1,948	139	6,769
	Strathpine	171	3,002	787	407	4,367
	Total	**4,551**	**10,372**	**6,663**	**1,837**	**23,422**
Higher density	Caboolture		886	1,454	560	2,900
	Deception Bay & Narangba		1,132	1,346	719	3,197
	North Lakes		3,103	881	719	4,703
	Redcliffe Peninsula		4,511	552	855	5,918
	Strathpine		1,262	616	282	2,161
	Total		**10,894**	**4,850**	**3,136**	**18,880**
Grand total		**4,551**	**21,266**	**15,485**	**7,375**	**48,678**

Source: SGS 2022

TABLE 37: NET INFILL CAPACITY BY EASE OF DEVELOPMENT (LOWER DENSITY SCENARIO)

	Precinct	Very difficult (More likely to develop *later*)	Difficult (More likely to develop *later*)	Moderate (More likely to develop in the *medium-term*)	Good (More likely to develop *sooner*)	Total
Lower density	Caboolture			594	431	1,025
	Coastal Communities & Bribie Island			147	198	345
	Deception Bay & Narangba			1,321	367	1,689
	North Lakes			353	139	493
	Redcliffe Peninsula			124	80	204
	Rural			781	709	1,489
	Strathpine			652	479	1,132
	Total			**3,973**	**2,403**	**6,376**
Moderate density	Caboolture	656	2,029	1,076	439	4,200
	Coastal Communities & Bribie Island	98	332	231	87	747
	Deception Bay & Narangba	224	254	182	499	1,158
	North Lakes	433	3,041	2,424	252	6,150
	Redcliffe Peninsula	2,968	1,715	1,948	139	6,769
	Strathpine	171	3,002	787	407	4,367
	Total	**4,551**	**10,372**	**6,663**	**1,837**	**23,422**
Higher density	Caboolture		886	1,454	560	2,900
	Deception Bay & Narangba		1,132	1,346	719	3,197
	North Lakes		3,103	881	719	4,703
	Redcliffe Peninsula		4,511	552	855	5,918
	Strathpine		1,262	616	282	2,161
	Total		**10,894**	**4,850**	**3,136**	**18,880**
Grand total		**4,551**	**21,266**	**15,485**	**7,375**	**48,678**

Source: SGS 2022

2.5.1.8 Detailed centres capacity results

There is net capacity for 6,520 additional dwellings within centres under the Moderate density scenario, and 5,175 under the Lower density scenario. The following tables break these totals down by profile area and developability score.

The profile areas of Caboolture, Redcliffe Peninsula and Strathpine each have substantial amounts of capacity within centres, with somewhat less capacity in the North Lakes area and relatively little in the Coastal Communities and Bribie Island. There is no identified centres capacity in the Rural Area and so it is not displayed in these tables.

Most of the capacity within centres is in properties with a good developability score, indicating that many properties within centres are large enough to facilitate mixed use development.

TABLE 38: NET CAPACITY IN CENTRES BY EASE OF DEVELOPMENT (MODERATE DENSITY SCENARIO)

Profile area	Difficult (More likely to develop *later*)	Moderate (More likely to develop in the *medium-term*)	Good (More likely to develop *sooner*)	Total
Caboolture	188	241	1,048	1,477
Coastal Communities & Bribie Island	2	4	60	66
Deception Bay & Narangba	13	15	199	226
North Lakes	229	85	380	694
Redcliffe Peninsula	963	327	924	2,215
Strathpine	158	254	1,388	1,801
Total	**1,555**	**931**	**4,035**	**6,520**

Source: SGS 2022

TABLE 39: NET CAPACITY IN CENTRES BY EASE OF DEVELOPMENT (LOWER DENSITY SCENARIO)

Profile area	Difficult (More likely to develop *later*)	Moderate (More likely to develop in the *medium-term*)	Good (More likely to develop *sooner*)	Total
Caboolture	183	226	1,010	1,420
Coastal Communities & Bribie Island	0	4	24	27
Deception Bay & Narangba	0	15	160	175
North Lakes	89	85	334	508
Redcliffe Peninsula	336	281	848	1,465
Strathpine	123	200	1,257	1,580

Profile area	Difficult (More likely to develop *later*)	Moderate (More likely to develop in the *medium-term*)	Good (More likely to develop *sooner*)	Total
Total	731	810	3,633	5,175

Source: SGS 2022

2.5.1.9 Realistic housing capacity

As noted in herein, housing capacity is a high-level and theoretical measure of how many dwellings could be built, and reaching the total capacity would require all properties which are available to be developed (that is which are not impossible to redevelop or highly unlikely to be redeveloped). In practice there may be site-specific factors preventing development occurring, and only a fraction of capacity will be developed over a given time period.

To reflect that only some of the total capacity is likely to be developed, a reduced realistic capacity has been calculated using a percentage of the total capacity that may be developed depending on development type and site characteristics.

The realistic capacity measure is not intended to represent a robust forecast of how much development will occur, which may be influenced by a variety of property market and other factors (for example as discussed elsewhere in the report infill development is generally unfeasible). Rather, it is intended to be a sensitivity test on total housing capacity encoding a reasonable expectation of how much development could occur in a moderately favourable property development market.

The following broad assumptions have been made:

- A higher development proportion has been assigned for properties with higher ease of development.
- A high proportion of greenfield properties can be developed (up to 95% on properties with good or very good developability).
- A much lower proportion of infill development has been assumed to be realistic (between 20% - 40%).

More detail on the proportion of development regarded as realistic is contained in Appendix B.

Results

The following table shows the proportion of overall capacity modelled as realistically capacity for the Moderate density scenario. The high proportion of greenfield capacity included reflects the dominance of sites in Caboolture West with good or very good developability in overall greenfield capacity, while the high total proportion reflects that there is much more greenfield than infill capacity overall.

TABLE 40: PROPORTION OF ADDITIONAL CAPACITY MODELLED AS REALISTIC CAPACITY – MODERATE DENSITY SCENARIO

	Greenfield	Infill Lower and medium density	Infill and centres Higher density	Petrie Mill	Total
% of capacity	89%	35%	47%	100%	73%

Source: SGS 2022

Realistic capacity is shown in the following table for the Moderate density capacity scenario. The total realistic net capacity of 114,989 is somewhat lower than the total net capacity across Moreton Bay of 161,961.

In line with the lower development take-up rates expected for medium density and infill and centres development, the greenfield capacity is only slightly reduced (90,402 vs 101,285) while infill and centres capacity drop more substantially.

TABLE 41: REALISTIC NET CAPACITY RESULTS – MODERATE DENSITY SCENARIO

Profile area	Greenfield	Infill Lower and medium density	Infill and centres Higher density	Total
Strathpine	696	2,954	2,260	5,910
North Lakes	4,848	3,778	2,698	11,324
Redcliffe Peninsula	367	3,406	2,011	5,784
Deception Bay & Narangba	7,803	1,791	884	10,478
Coastal Communities and Bribie Island	472	39	351	862
Caboolture	76,216	2,303	1,668	80,631
Rural		24	421	
Total	**90,402**	**14,294**	**10,293**	**114,989**

Source: SGS 2022

Realistic greenfield capacity is much higher than realistic infill and centres capacity. Within the infill and centres categories, there is more capacity for higher density than medium density development, which is partially a reflection of the higher rates of development take-up expected at higher densities.

Under the Lower density scenario, realistic capacity drops to 80,549, while under the Higher density scenario it increases to 128,349. These totals are broken down by category and profile area in the following tables.

TABLE 42: REALISTIC CAPACITY RESULTS – LOWER DENSITY SCENARIO

Profile area	Greenfield	Infill Lower and medium density	Infill and centres Higher density	Total
Strathpine	643	2,742	1,239	4,623
North Lakes	4,021	3,488	2,167	9,675
Redcliffe Peninsula	365	1,603	1,064	3,032
Deception Bay & Narangba	6,199	103	22	6,324
Coastal Communities and Bribie Island	468	16	252	736
Caboolture	53,958	2,052	84	56,157
Rural		0	63	
Total	**65,654**	**10,004**	**4,891**	**80,549**

Source: SGS 2022

TABLE 43: REALISTIC CAPACITY RESULTS – HIGHER DENSITY SCENARIO

Profile area	Greenfield	Infill Lower and medium density	Infill and centres Higher density	Total
Strathpine	785	4,108	3,345	8,238
North Lakes	4,982	5,718	4,208	14,908
Redcliffe Peninsula	393	3,139	2,959	6,491
Deception Bay & Narangba	8,084	4,272	954	13,310
Coastal Communities and Bribie Island	613	86	708	1,407
Caboolture	76,642	3,335	3,520	83,996
Rural		54	444	
Total	**91,498**	**20,712**	**16,139**	**128,349**

Source: SGS 2022

2.5.1.11 Comparison of demand and capacity

GREENFIELD YEARS OF SUPPLY

ShapingSEQ requires local government planning schemes to have at least 15 years supply of land that has been appropriately zoned and is able to be serviced. In response to this, the following tables identify when capacity will be exhausted under SGS's various scenarios.

As discussed herein infill scenarios are as follows:

- Increased infill scenario – Assuming that some infill development occurs (an increase on current market trends), with almost all new high density and 37% of new medium density development occurring through infill.
- Limited infill scenario – Assuming that very limited infill occurs confined mainly to the Redcliffe Peninsula and Strathpine area, making up only 18% of medium density and 71% of high-density housing demand. At the time of writing, this scenario is the most likely/realistic scenario.

As also discussed herein, 'Lower density' and 'Moderate density' scenarios refer to the density of development achieved. The Moderate density scenario represents a reasonable assumption of capacity, if densities increase slightly in line with October 2019 Planning Assumptions, while the Lower density scenario is intended to reflect current market activity.

In simple terms, the infill scenarios refer to the *number* of infill completions, while the density scenarios refer to the density of those completions.

Ease of development is also noted, as defined herein.

The table does not differentiate between development in the PIA or not, because the PIA does not appear to be determining factor in where greenfield development occurs.

A maximum year of 2051 is shown as housing demand modelling has not been extended past 2051. This value indicates capacity available until 2051 or later. Where 2051 is shown, a percentage in brackets denotes the proportion of the total capacity needed to meet modelled demand until 2051).

Tables 45-47 (below) describe ease of development as good and very good, moderate, and difficult and very difficult. This is intended to indicate what land is more likely develop in the short term, medium term, and longer term, based on how constrained the land is.

In effect, this is a theoretical model – development occurs on land with a range of challenges year on year. The realistic capacity measure is not intended as a robust forecast of how much development will occur, but represents a sensitivity test on total housing capacity encoding a reasonable expectation of how much development could occur in a moderately favourable property development market.

TABLE 44: ESTIMATED TIMING FOR EXHAUSTING GREENFIELD CAPACITY

	Ease of development	Good & v. good (More likely to develop *sooner*)	Moderate or better (More likely to develop in the *medium-term*)	Any (incl. v. diff.) (More likely to develop *later*)
Increased infill	Moderate density scenario (Generally in-line with Oct. '19 Planning Assumptions)	2050	2051 (98%)	2051 (73%)
	Lower density scenario (Based on current market conditions)	2041	2042	2051 (100%)
Limited infill	Moderate density scenario (Generally in-line with Oct. '19 Planning Assumptions)	2043	2044	2051 (96%)
	Lower density scenario (Based on current market conditions)	2036	2037	2043

Source: SGS 2022
Note this table has been colour coded to visually illustrate the years in the cells. Darker values indicate later years, while lighter values indicate earlier years.

This table presents a range of potential outcomes for how many years of greenfield land supply exist in the capacity pipeline.

At present, without any policy intervention or market maturation, the most likely scenario is the Limited infill Lower density scenario - which has greenfield capacity to 2036 before more constrained land will be required for development. Either policy intervention or a maturation of the infill market would be required to achieve greater capacity. In either case the calculations identify that capacity exists, but the Limited infill Lower density scenario illustrates the importance of recommendations associated with stimulating and encouraging increased infill development rates.

This illustrates the reduction in land needed to meet housing demand if higher densities are achieved in greenfield development in line with the October 2019 Planning Assumptions, and if infill development begins to occur.

INFILL AND CENTRES YEARS OF SUPPLY

The tables overleaf quantify when infill and centres capacity would run out in accordance with the aforementioned scenarios, similarly to the table above for greenfield development. These tables display results per the Increased infill scenario discussed above. Results for Limited infill are not shown, but the amount of infill capacity needed would be substantially reduced and the years of supply substantially increased for all locations except the Redcliffe Peninsula if the Limited infill scenario were to continue.

Moderate Density Scenario

Under the Moderate density scenario, there is enough infill and centres capacity across Moreton Bay to facilitate medium density dwelling supply until after 2051 if properties which are moderately developable or better are included, and for high density dwellings if only properties with good developability are included. If all properties are considered, only 39% of capacity would be needed for medium density and 30% for high density. These are relatively achievable percentages, indicating that if the development were feasible across Moreton Bay there would be enough infill and centres capacity overall under this scenario.

Medium density infill capacity is generally sufficient for all profile areas in this scenario, except for the Coastal Communities and Bribie Island where the percentage of development needed may be higher than what could be reasonably achieved. High density infill and centres capacity would not be sufficient to meet demand in Coastal Communities and Bribie Island, and a high development take-up rate would be needed in the Redcliffe Peninsula (64%), but capacity would be sufficient elsewhere.

TABLE 45: ESTIMATED TIMING FOR EXHAUSTING INFILL AND CENTRES CAPACITY (MODERATE DENSITY CAPACITY SCENARIO, INCREASED INFILL)

Dwelling type	Medium density			High density		
Ease of development	**Good** (More likely to develop *sooner*)	**Moderate or better** (More likely to develop in the *medium-term*)	**Any (incl. v. diff.)** (More likely to develop *later*)	**Good** (More likely to develop *sooner*)	**Moderate or better** (More likely to develop in the *medium-term*)	**Any (incl. v. diff.)** (More likely to develop *later*)
Caboolture	2037	2051 (83%)	2051 (41%)	2051 (11%)	2051 (5%)	2051 (4%)
Coastal Communities & Bribie Island	2028	2041	2051 (88%)	2024	2024	2025
Deception Bay & Narangba	2043	2051 (55%)	2051 (45%)	2051 (20%)	2051 (8%)	2051 (5%)
North Lakes	2027	2051 (85%)	2051 (43%)	2051 (76%)	2051 (55%)	2051 (28%)
Redcliffe Peninsula	2023	2047	2051 (37%)	2033	2037	2051 (64%)
Strathpine	2040	2051 (67%)	2051 (32%)	2051 (12%)	2051 (9%)	2051 (6%)
Total	**2034**	**2051 (75%)**	**2051 (39%)**	**2051 (86%)**	**2051 (54%)**	**2051 (30%)**

Source: SGS 2022

Note this table has been colour coded to visually illustrate the years in the cells. Darker values indicate later years, while lighter values indicate earlier years.

TABLE 46: ESTIMATED TIMING FOR EXHAUSTING INFILL AND CENTRES CAPACITY (LOWER DENSITY SCENARIO, INCREASED INFILL)

Dwelling type	Medium density			High density		
Ease of development	Good (More likely to develop *sooner*)	Moderate or better (More likely to develop in the *medium-term*)	Any (incl. v. diff.) (More likely to develop *later*)	Good (More likely to develop *sooner*)	Moderate or better (More likely to develop in the *medium-term*)	Any (incl. v. diff.) (More likely to develop *later*)
Caboolture	2023	2026	2026	2051 (12%)	2051 (6%)	2051 (5%)
Coastal Communities & Bribie Island	2024	2032	2043	2022	2022	2022
Deception Bay & Narangba	2021	2022	2022	2047	2049	2049
North Lakes	2025	2046	2051 (58%)	2051 (75%)	2051 (56%)	2051 (33%)
Redcliffe Peninsula	2022	2039	2051 (86%)	2030	2033	2040
Strathpine	2033	2041	2051 (73%)	2051 (12%)	2051 (9%)	2051 (7%)
Total	**2026**	**2037**	**2051 (99%)**	**2049**	**2051 (71%)**	**2051 (47%)**

Source: SGS 2022

Note this table has been colour coded to visually illustrate the years in the cells. Darker values indicate later years, while lighter values indicate earlier years.

Lower Density Scenario

Under the Lower density scenario, there is still just enough medium density capacity to meet demand until 2051, and enough high-density capacity if properties which are moderately developable or better are considered. However, 99% of medium density infill capacity would be needed, indicating a shortfall in supply given that it would not be possible for this proportion of properties to be developed. 47% of high-density infill and centres capacity would be needed.

In this scenario, medium density infill capacity would be insufficient in the Caboolture, Coastal Communities & Bribie Island and Deception Bay & Narangba areas, and unrealistically high development take-up rates would be needed by 2051 in the Redcliffe Peninsula (86%) and Strathpine (73%) areas, as well as a high but possible achievable rate in the North Lakes area (58%).

High density infill and centres capacity in the Lower density scenario would be insufficient to meet demand until 2051 in the Coastal Communities & Bribie Island, Redcliffe Peninsula and Deception Bay & Narangba Areas even if all properties were to develop. It would be sufficient elsewhere, with achievable take-up rates of up to 33% needed.

Local variations in capacity are to be expected across a range of Moreton Bay's infill and centre localities, which reflect different characteristics and capabilities of each discrete area intended for infill development. The findings links with recommendations that seek to encourage a greater uptake of infill

housing across the Moreton Bay region, and in the longer term, through strategic planning work including neighbourhood planning, exploring suitable areas where infill housing could be increased.

YEARS OF SUPPLY UNDER HIGHER SERIES POPULATION PROJECTIONS

As discussed herein, the QGSO releases low, medium and high series population projections for Moreton Bay. The QGSO 2018 rebased medium series is used as the basis for housing demand modelling in this report as it is the baseline assumption of the QGSO, and more detailed outputs are available than for the other series. However, if higher population growth is experienced than projected under the QGSO 2018 rebased medium series then housing demand will be higher and the years of supply under current planning controls will be decreased.

The following table provides equivalent years which allow the results of this section to be interpreted under the high series population projection. For example, Moreton Bay's forecast population in 2041 under the high series is 5.9 years of growth ahead of the medium series projection and so lies between the medium series projections for 2046 and 2047. If there is sufficient capacity to meet demand until 2047 or later under the QGSO 2018 rebased medium series (modelled demand), then there is likely to be sufficient capacity to meet demand until at least 2041 under the high series. Similar reasoning can be used for other years to interpret the results of the previous sections with respect to the high series population projection.

To meet *ShapingSEQ's* 15-year capacity requirement under the high series population projection, capacity would need to last until 2040-41 as calculated in this report.

TABLE 47: HOW MANY YEARS AHEAD OF THE QGSO 2018 REBASED MEDIUM SERIES POPULATION PROJECTION THE HIGH SERIES PROJECTION IS

Year (high series population projection)	2021	2026	2031	2036	2041
Years difference between high and medium series	0.2	1.0	2.8	4.2	5.9
Equivalent year under medium series	2021-22	2027-28	2033-34	2040-41	2046-47

Source: SGS 2022 .

CAPACITY-DEMAND GAP (INCREASED INFILL)

Comparing realistic capacity to modelled housing demand in each profile area allows an assessment to be made of whether planning controls make sufficient scope for housing development in each part of Moreton Bay if there was a more favourable infill development market.

Overall

There is enough realistic capacity (to meet the ShapingSEQ 15 year benchmark) overall across Moreton Bay (i.e. not considering dwelling type and location) under the Moderate density and Higher density capacity scenario, but a shortfall under the Lower density capacity scenario.

Medium and high density

Under current rates of infill development, there is a shortfall in realistic medium density capacity under the Lower density and Moderate density capacity scenarios.

Although this analysis identified sufficient land included in the Next generation neighbourhood precincts and Urban neighbourhood precincts of the General Residential Zones, much of this land may not realistically develop under current market conditions, with current rates of infill development. Therefore, additional opportunities to increase the rate of infill development would assist the region to increase infill dwelling numbers over time or this shortfall could be met through additional greenfield development.

There is enough realistic capacity across Moreton Bay as a whole for high density housing development under all scenarios, although there is only a small buffer between realistic capacity and demand under the Lower density scenario.

Greenfield

There is enough greenfield capacity across Moreton Bay as a whole under in the Moderate density and Higher density capacity scenarios, but not under the Lower density scenario. While high proportions of development were assumed for greenfield development, there is a substantial buffer in realistic capacity in the Moderate density and Higher density capacity scenarios.

Greenfield demand is the most interchangeable demand type between different parts of Moreton Bay. People moving to a new greenfield housing estate are likely to be interested primarily in buying a new dwelling in a greenfield development, and less concerned about the part of Moreton Bay in which that dwelling is located compared to other kinds of buyers. As a result, different profile areas should be considered as relatively interchangeable from a greenfield demand point of view.

Greenfield housing supply has a significant impact on local character and infrastructure, and the location of greenfield housing development has significant sustainability and strategic planning implications. It is not necessarily appropriate to encourage greenfield development in every part of Moreton Bay.

As a result of the interchangeability of nearby greenfield development areas and the issues with providing greenfield housing capacity everywhere, Council should aim to provide enough greenfield supply across Moreton Bay in general rather than in every profile area. Any modelled shortfall in greenfield capacity in a given profile area should be regarded as a shift in the location of where development is likely to occur, but not necessarily as a constraint on appropriate housing supply.

Strathpine and North Lakes

There is a shortfall in realistic greenfield capacity in the Strathpine area under all scenarios. As noted above, a shortfall in greenfield capacity should not be regarded as problematic, with most greenfield capacity in the Caboolture and Rural areas.

There is an overall shortfall in realistic capacity for the Strathpine area under the Lower density scenario, but enough realistic capacity exists overall under the Moderate density and Higher density scenarios. In the Moderate density and Higher density scenarios, surpluses of medium and high density development capacity could counteract the greenfield shortfall, with the Strathpine housing market for medium and higher density housing maturing in the future.

Redcliffe Peninsula

The Redcliffe Peninsula has a shortfall in realistic capacity under every scenario, despite the presence of higher density land use zones and a designated growth corridor in this profile area.

The Redcliffe Peninsula is predominately built up with few opportunities for greenfield development once the Newport Marina and adjacent development is completed. As such, it is harder to create new capacity in the Redcliffe Peninsula than in other areas.

The Redcliffe Peninsula has historically been almost the only place in which high density housing is provided. These results show that the Redcliffe Peninsula alone cannot accommodate all of the higher density housing demand modelled for Moreton Bay, and that higher density housing will need to begin to occur elsewhere to allow other parts of Moreton Bay to make up for the shortfall in capacity in the Redcliffe Peninsula. In particular, the Petrie Mill is intended to accommodate a significant amount of high-density housing development, and could accommodate a large part of the high-density gap arising from the Redcliffe Peninsula.

Caboolture and Rural

As noted elsewhere, the Caboolture and Rural areas accommodate most of Moreton Bay's greenfield capacity. As a result of this, this area has a large surplus of realistic greenfield housing capacity compared to modelled demand. This does not mean that this area has too much capacity, rather that greenfield development is likely to occur here rather than elsewhere, reflecting the amount of land available for development at Caboolture West.

Caboolture does not have enough realistic medium density capacity to accommodate demand under the Lower density and Moderate density scenarios. This is partly a reflection of the proportion of medium density development which is assumed to be provided in infill areas. This is a high level assumption that may not reflect actual development patterns. The large surplus in greenfield capacity would account for any medium density infill gap.

Deception Bay & Narangba

Deception Bay & Narangba does not have enough realistic greenfield capacity under any scenario, with shortfalls in infill capacity in all cases except higher density capacity under the Higher density scenario. The greenfield shortfall indicates that population projections are overly weighted to this area, with greenfield development instead likely to move to the Caboolture and Rural areas before 2051. As noted

above, this does not necessarily mean that additional greenfield capacity must be created in Deception Bay & Narangba.

Additional infill capacity may be needed in this profile area before 2051. Otherwise, infill capacity take-up rates will need to be higher than assumed or capacity will need to be met elsewhere.

Coastal Communities & Bribie Island

The Coastal Communities & Bribie Island area has a shortfall in both greenfield and infill capacity under every capacity scenario. This is a result of forecast continued population growth in this area, but very limited remaining development capacity and few opportunities for infill development. While housing demand may not keep pace with population forecasts, there is likely to be continued increases in demand for housing in this area as a result of its relatively unique place in the Moreton Bay housing market.

The creation of more capacity here may be appropriate in response to demand. However, the Coastal Communities & Bribie Island area is relatively isolated from services and employment, and is relatively constrained in terms of where development could occur. As a result, creation of additional capacity here may be inappropriate, and that demand should instead be met through the significant development expected in the nearby Caboolture area.

CAPACITY DEMAND GAP (LIMITED INFILL)

The resulting gap between realistic capacity and demand if limited infill development occurs is shown in the table below. In this case there would be a substantial shortfall in realistic greenfield capacity by 2051 under the Lower density Capacity Scenario, and a small shortfall under the Moderate density and Higher density scenarios.

Greenfield development would comprise most of all development. Some new housing would occur in multiple parts of Moreton Bay. However, the significant shortfalls in realistic greenfield capacity in multiple profile areas apart from Caboolture and Rural illustrate that much of Moreton Bay's medium and high density housing demand would be directed to greenfield development (particularly in the Caboolture and Rural area) rather than occurring in other parts of Moreton Bay.

2.5.2 Summary of housing capacity data analysis

As discussed above, key findings relating to housing capacity include:

- Moreton Bay's population is growing twice as quickly as the average across all SEQ local government areas.
- Moreton Bay's population is expected to grow by ~10,000 people and therefore, we will need an additional 3,650 dwellings per year.
- At current estimates Moreton Bay will reach a population of 690,000 by 2041.
- If historic development rates continue, 164,117 additional dwellings can be expected by 2051 (from 2016).
- Moreton Bay is on-track to meet the State Government's ShapingSEQ benchmark of providing 88,300 additional homes by 2041.

- Increasing the density of infill development would be prudent, to support changing demographics and land supply.

2.5.3 Implications

ShapingSEQ (based on QGSO projections) requires the Moreton Bay Region to accommodate approximately 10,000 (on average) new residents each year.

QGSO 2018 rebased medium series growth projections reflect historical rates of growth as the most appropriate long term growth estimates in Moreton Bay, and reflective of ShapingSEQ expectations for the Moreton Bay region. 252,300 persons will need to be accommodated in the region to 2041.

Accommodating housing growth requires providing the opportunities to accommodate a range of housing across the region.

This report has used assumptions generally in line with Moreton Bay's October 2019 Planning Assumptions but with some adjustments:

- Greenfield density assumptions lowered to reflect recent market activity.
- Assumptions about where infill development is likely to occur, which reflects current planning assumptions for medium and high density development, as well as the current lack of feasibility for infill development.
- Assumptions that infill is unlikely to occur on allotment sizes less than 600m2 and 12m frontage.
- Assumptions that the urban neighbourhood precinct in greenfield areas will produce the same densities as the next generation neighbourhood precinct rather than higher densities.

Moreton Bay has enough capacity to meet expected housing demand to 2051 under the Moderate density and Higher density capacity scenarios discussed herein. Overall, Moreton Bay has capacity for around 164,114 additional dwellings with 101,285 of this for greenfield development and 55,198 for infill development.

The findings acknowledge that a greater level of infill housing at well serviced locations is needed to achieve expected medium density housing in well serviced locations.

Greenfield land will be consumed more quickly without increased levels of infill housing serving to reduce pressure for additional greenfield land to be provided.

2.5.4 Strategies

To accommodate Moreton Bay's growing population, the following strategies are recommended:

5a. Maintain the green and leafy character, which Moreton Bay residents value.

5b. Encourage higher density infill housing, to manage land supply and urban encroachment into Moreton Bay's open, green and agricultural spaces.

2.5.5 Recommendations (overview)

- Detailed recommendations are discussed later in this report - including the context for recommendations, as well as timing, importance, and costs associated with recommendations. Notwithstanding, below is an overview of recommended actions to achieve the aforementioned strategies:
- Advocate for clear urban growth boundaries - to maintain natural environment and scenic amenity qualities, productive rural land, and to prevent fragmentation of the urban fringe.
- Add data about the diversity (typology), location and density of building completions to Council's development monitoring reports, to improve oversight of housing being delivered.
- Engage with development industry representatives regularly, to receive advice on real time market trends and issues.
- Continue developing Council's regional planning and growth modelling capabilities, to assist with capacity planning and growth management. Review this report's capacity figures for the Moreton Bay region prior to preparing a new planning scheme, to capture any additional Variation approvals and/ or changes in Caboolture West planning assumptions.
- Repeat this study every 4-8 years, or shortly before preparing a new Planning Scheme (whichever comes sooner), to capture the most current data at the time, and keep mapping up-to-date.
- Consider revising the densities permitted in the Next generation neighbourhood precinct, to align with the densities assumed in Council's October 2019 Planning Assumptions and the 'Moderate density scenario' discussed herein.

3 Recommendations

The recommendations discussed herein have been categorised by importance, timing and cost, as defined below:

Importance

Low The recommendation supports the strategy but is not critical to the overall success of the strategy.

Medium The recommendation is important in meeting the objective or strategy.

High The recommendation is critical in meeting the objective or strategy.

Timing

Short term Approximately 0 to 2 years.

Medium term Approximately 2 to 4 years.

Long term Four years and over. This includes any actions that may be associated with a new planning scheme.

Cost

Low Low cost to Council and usually associated with other Council programs.

Medium Medium costs to Council and may include a stand along program or actions.

High High costs to Council due which require budgeted amounts and budget evaluation.

Note: The importance, timing and costs identified herein are bound to the actions they are listed beside - and do not extend to any subsequent actions which may follow (such as subsequent Planning Scheme amendments).

3.0 Housing choice - Supporting better housing choice for everyone

3.1.1 Recommendations

As discussed herein, to support better housing choice for everyone, the following are recommended:

1a. Encourage greater diversity in housing types and sizes.

1b. Support smaller homes for single-parent families and smaller households.

1c. Promote medium and higher density housing, and a lesser proportion of separate houses.

3.1.2 Actions

Example actions to achieve these outcomes are identified in the table below:

Example actions	Importance	Timing	Cost
Investigate the potential to reduce the minimum site area and separation distances for dual occupancy in the Suburban neighbourhood precinct, where the design can meet intended precinct character outcomes, and clarify these intended outcomes in the purpose statement of the General residential zone code.	Low	Medium term	Low
Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. perhaps densities akin to the Next generation neighbourhood precinct).	Medium	Short term	Medium (assumes investigations to review areas for suitability)
Identify catalyst sites and opportunities for greater intensity residential infill at suitable locations (e.g. through neighbourhood planning processes, structure planning, master planning or a separate exercise).	High	Long term	Medium
Consider ways to clarify expected development typologies throughout Moreton Bay (e.g. through revised zone cards/information sheets, an interactive tool, or amendments to zone/precinct names, codes, or planning scheme structure and strategic framework).	Medium	Short term	Low
Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. “development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings”).	High	Medium term	Low
Consider opportunities to engage with the community around housing choice, diversity and affordable living through the Neighbourhood Planning process	High	Short term	Low
Advocate to the State Government during the review of ShapingSEQ, to better support housing choice and diversity (e.g. through a dwelling diversity benchmark, similar to the current expansion/consolidation benchmark)	Medium	Medium term	Low

3.1 Housing accessibility - Providing options for our ageing and less mobile populations

3.2.1 Recommendations

As discussed herein, to provide options for our ageing and less mobile populations, the following are recommended:

2a. Facilitate more accessible, adaptable and low-maintenance housing.

2b. Encourage housing diversity for 1-2 person households and empty-nesters.

2c. Focus new housing around public transport and services, to support ageing and less mobile populations.

3.2.2 Actions

Recommended actions to achieve these outcomes are identified in the table below:

Example Actions	Importance	Timing	Cost
Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. "development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings"). Note this action is also recommended above, to support housing choice.	High	Medium term	Low
Review, and, if appropriate, support National Construction Code or Queensland Development Code 'Livable housing design' accessible dwelling requirements, if/when implemented (e.g. through guidelines relevant to Moreton Bay).	Medium	Short term	Low
Investigate potential incentive packages for residential care development (e.g. height and density bonuses on larger sites, with appropriate built form transitions for integration with local character) to support Moreton Bay's ageing population.	Medium	Short term	High
Investigate options to better support NDIS housing (e.g. through incentives, levels of assessment, or a dedicated contact person within Council (i.e. a concierge) to support NDIS housing providers through the planning and development process).	Medium	Short term	High
Consider opportunities to better support ageing-in-place throughout Moreton Bay, including appropriate housing diversity in Townships.	High	Medium term	Low

3.2 Housing location - Encouraging the right housing in the right locations

3.3.1 Recommendations

As discussed herein, to encourage the right housing in the right locations, the following are recommended:

3a. Encourage more small-scale 'salt and pepper' infill development in established areas.

3b. Enrich Moreton Bay's centres by encouraging higher density development around existing centres, public transport and job opportunities.

3c. Promote medium and high-density housing in well-serviced, high amenity locations (e.g. the Redcliffe Peninsula).

3.3.2 Actions

Example actions to achieve these outcomes are identified in the table below:

Example actions	Importance	Timing	Costs
Infill			
Create a suite of case study reference materials, to showcase and define successful 'salt and pepper' infill development (prioritising local examples where possible) to developers, landowners, and the community.	High	Short term	Medium
Conduct a market sounding with potential or prospective medium density developers, to understand barriers to medium density development in Moreton Bay.	Medium	Short term	Low
Investigate and compare measures (e.g. infrastructure charge reductions, or application fee waivers) to encourage infill development.	High	Medium term	High
Investigate the opportunity, benefits and feasibility of facilitating higher density residential development in high amenity areas.	High	Short term	Medium
Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. perhaps densities akin to the Next generation neighbourhood precinct). Note this action is also recommended above, to support housing choice).	Medium	Short term	Medium
Identify catalyst sites, opportunities, benefits and feasibility for greater intensity residential infill at suitable locations	High	Long term	Medium

(e.g. through neighbourhood planning processes, structure planning, master planning or a separate exercise). Note: This action is also recommended above, to support housing choice.			
Consider local amenity improvements through Neighbourhood Planning processes, which could improve the attractiveness of centres and promote infill housing.	High	Long term	Low
Greenfield:			
Create a suite of case study reference materials, to showcase and define successful medium density development in greenfield areas (prioritising local examples where possible) to developers, landowners, and the community.	High	Medium term	Low
Investigate options to increase structure planning and collaboration with Unitywater and the State Government, to remain on the forward-foot of planning for greenfield development, including increasing the proportion of medium density housing in greenfield areas (in-line with how well-serviced the land is), coordinating infrastructure, preserving green space, amenity qualities, and planning for schools, centres and facilities.	High	Short term	High
Evaluate recent structure planning processes (conducted throughout Australia), to understand best practice and record lessons learned for future structure planning exercises.	Medium	Medium term	Low

3.3 Affordable living - Improving affordable living opportunities

3.4.1 Recommendations

As discussed herein, to improve affordable living opportunities, the following are recommended:

4a. Encourage new housing that supports affordable living, in well-serviced locations.

4b. Support more diverse housing stock that is 'affordable by design'.

3.4.2 Actions

Example actions to achieve these outcomes are identified in the table below:

Recommendation	Importance	Timing	Costs
Create guidance material or a suite of case study reference materials, to showcase and define 'affordable living',	Medium	Medium term	Low

'affordable housing' and 'affordable by design' housing outcomes (e.g. smaller homes of 1-2 or 3 bedrooms, efficient floorplans, natural lighting, heating and cooling, self-sufficiency, shared spaces etc) - including roles and responsibilities.			
Investigate the opportunity, benefits and feasibility of allowing well-located development in the Suburban neighbourhood precinct (e.g. within 800m walking distance of a train station or centre zoned land) to develop at higher densities (e.g. perhaps densities akin to the Next generation neighbourhood precinct). Note this action is also recommended above, to support housing choice and infill development.	Medium	Short term	Medium
Consider adding a dwelling typology diversity benchmark to the Next generation neighbourhood precinct code, in addition to the existing density benchmark (e.g. "development comprising or facilitating 10 or more dwellings, ensures at least 30% of new dwellings are medium or high density dwellings"). Note this action is also recommended above, to support housing choice.	Medium	Medium term	Low
Advocate for Commonwealth and State support for affordable housing in Moreton Bay, to meet housing needs.	Medium	Medium term	Low
Conduct an 'affordable living done well' ideas competition to generate collateral, which could be used when educating people and advertising contemporary best practice for affordable living..	Medium	Long term	Low
Support the identification and use of surplus State or Moreton Bay Regional Council land for use for affordable housing in partnership with the State Government and a not-for-profit affordable housing provider.	Medium	Medium term	High

3.4 Housing capacity - Accommodating our growing population

3.5.1 Recommendations

As discussed herein, to accommodate Moreton Bay's growing population, the following are recommended:

5a. Maintain the green and leafy character, which Moreton Bay residents value.

5b. Encourage higher density infill housing, to manage land supply and urban encroachment into Moreton Bay's open, green and agricultural spaces.

3.5.2 Actions

Example actions to achieve these outcomes are identified in the table below:

Example actions	Importance	Timing	Costs
Advocate for clear urban growth boundaries - to maintain natural environment and scenic amenity qualities, productive rural land, and to prevent fragmentation of the urban fringe.	High	Short term	Low
Add data about the diversity (typology), location and density of building completions to Council's development monitoring reports, to improve oversight of housing being delivered.	Medium	Medium term	Low
Engage with development industry representatives regularly, to receive advice on real time market trends and issues.	Medium	Medium term	Low
Continue developing Council's regional planning and growth modelling capabilities, to assist with capacity planning and growth management.	Medium	Medium term	High
Repeat this study every 4-8 years, or shortly before preparing a new Planning Scheme (whichever comes sooner), to capture the most current data at the time, and keep mapping up-to-date	Medium	Long-term	Low
Consider revising the densities permitted in the Next generation neighbourhood precinct, to align with the densities assumed in Council's October 2019 Planning Assumptions and the 'Moderate density scenario' discussed herein.	High	Long-term	Low

Appendix A: Housing demand modelling method

Estimates of housing demand in Moreton Bay have been generated using the SGS's best-practice housing demand model. This model estimates *implied* demand for dwellings of each type by analysing the likelihood (or propensity) of various age groups forming different household types, and then the likelihood of those household types residing in different dwelling forms. The operation of the model is illustrated in Figure 73.

FIGURE 73: HOUSING DEMAND METHOD APPROACH

In each step classifications used are consistent with the ABS Census, from which demographic trends are calculated that are used in the model. While the ABS census information is now several years old, with the most recent results from 2016, it is by far the most comprehensive and accurate demographic information available on household types, housing types and how they are related.

The model operates based on trends in propensities, with all propensities (discussed in more detail below) calculated for the Moreton Bay LGA as a whole.

The following sections provide more detail about the operation of each step of the model.

Input

The key driver of housing demand, and the input to this model, is an LGA-wide population projection by year broken down by five-year age groups, in line with the ABS census (0-5 years, 5-10 years and so on).

A projection of estimated residential population (ERP) is used in the housing demand model. ERP is an official population estimate created by the ABS and is the best available estimate of the overall population. In creating ERP estimates, the ABS corrects for undercounts in the ABS census, residents temporarily overseas and other small corrections, and so ERP figures are higher than census counts.

For Moreton Bay, the most recent main series QGSO population projection by age has been used as a baseline population forecast.

Step 1 – Private and non-private dwellings

ERP includes all people usually resident in a given location. People can either live in private or non-private dwellings.

Private dwellings are those which are used principally as the place of residence for a single household or family. These can include a wide of range of dwelling types such as separate houses, townhouses, apartments and caravans or relocatable units.

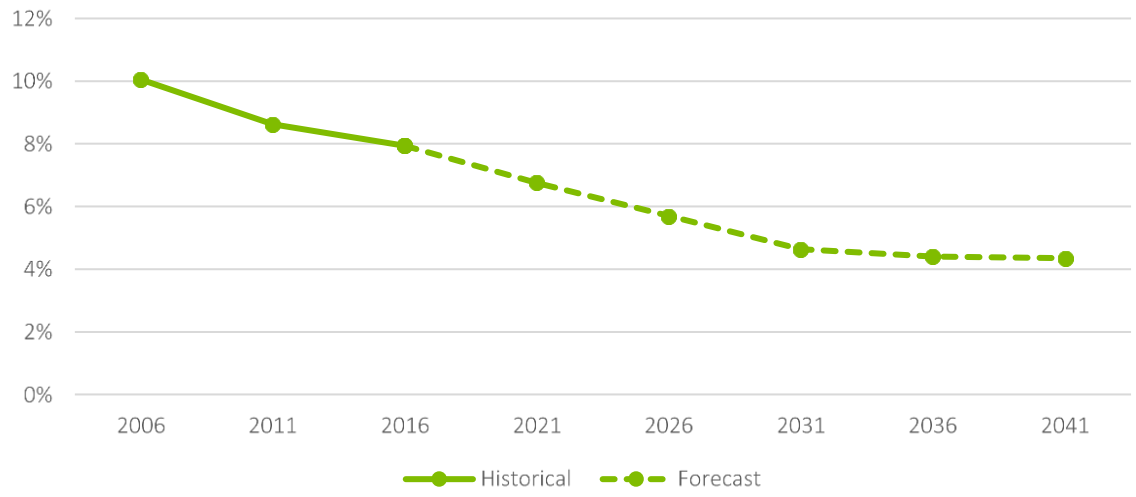
Non-private dwellings are establishments which provide a communal or collective form of accommodation. People who live in non-private dwellings do not occupy self-contained dwellings in traditional single household or family units. Types of non-private dwellings include:

- Hotels, motels and bed and breakfasts
- Staff quarters and nurses' quarters
- Boarding houses
- Boarding schools
- Residential colleges or halls of residence (most commonly associated with tertiary education establishments)
- Hospitals
- Aged care facilities which are not self-contained including nursing homes
- Prisons and corrective institutions
- Immigration detention centres
- Convents and monasteries
- Hostels and refuges for the homeless and other welfare institutions

In the first step of the housing demand model, the ERP is split into people in occupied private dwellings (POPD) and people in non-private dwellings (PNPD). This split is based on data from the 2006-2016 ABS censuses showing the propensity of people in each age group to live in either private or non-private dwellings. Trends in these propensities for each age groups are analysed and extrapolated into the future. An example of such a trend is shown in Figure 74.

The propensity of PNPD in each age group to live in aged care is assessed based on census data between 2006-2016. Trends in this propensity are extrapolated into the future to predict the proportion of people who will live in aged care. Multiplying this by population projections in 5-year age categories gives the implied demand for aged care beds.

FIGURE 74: PROPENSITY OF PEOPLE AGED 80-84 TO LIVE IN NON-PRIVATE DWELLINGS, MORETON BAY



Step 2 – Forecast population by household type

In this step, forecast POPD by age group is converted to a forecast of number of POPD by household type. To perform this conversion, the propensity of POPD in each age group to live in each kind of household is assessed using historical census data from the 2006-2016 censuses. The following household types are used in line with classifications from the ABS census:

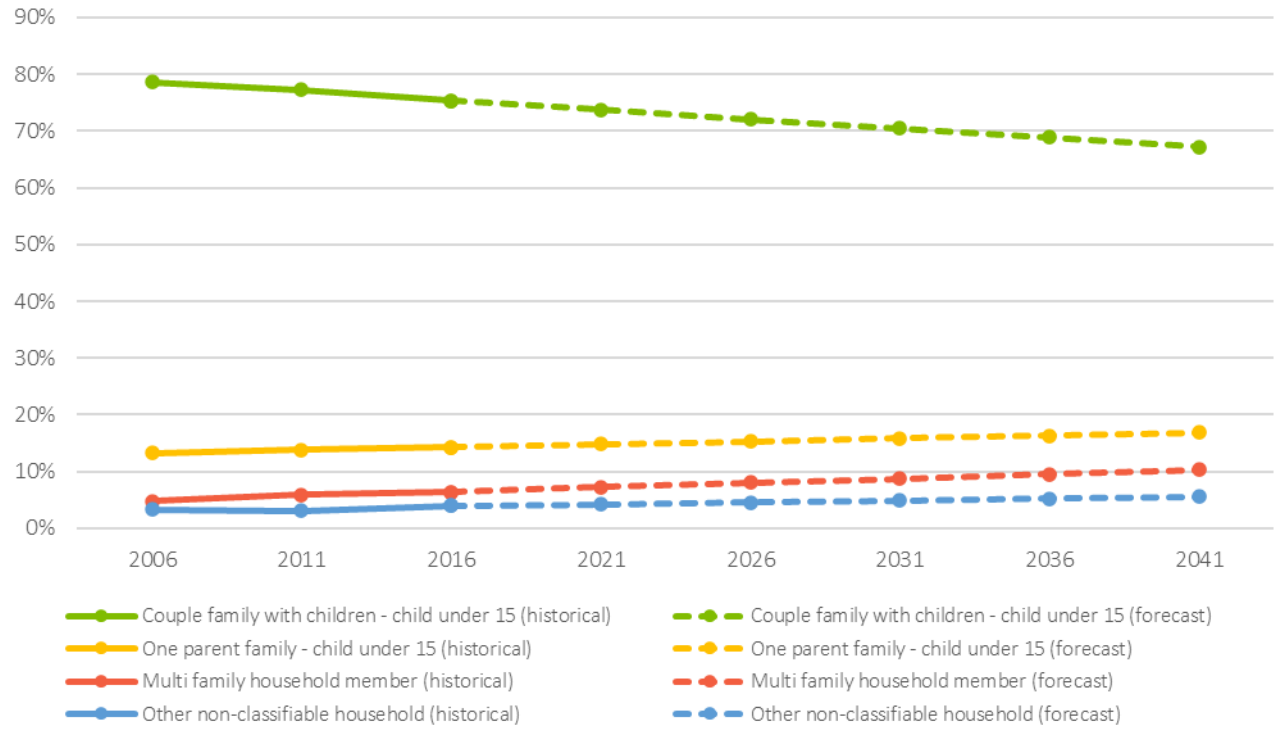
- Couple families with children
- Couple families without children
- One parent families
- Other families in which people are related (for example brother/sister or aunt/niece households)
- Multi family households (these are comprised of two or more families from the above categories)
- Lone person households
- Group households (these are shared households in which there are no family relationships between any household member)
- Other non-classifiable household

Relationship type propensities within each household type are also included in this propensity calculation. For example, the propensity of a person within a couple family with children to be a husband/wife/partner, child under 15, dependent student, non-dependent student or other relationship type is assessed.

The historical trends in each household type and relationship type propensity are extrapolated into the future. These forecast propensities are then applied to the POPD forecast by age group.

An example of the trend in these propensities is shown in Figure 75.

FIGURE 75: HOUSEHOLD TYPE PROPENSITIES FOR POPD AGED 0-4 IN MORETON BAY



Step 3 – Forecast number of households by household type

In this step, a forecast for the number of households by household type is calculated in line with the classification listed in the previous step.

For some household types, this calculation is performed using the forecast number of people by relationship type. There will be two parents per couple family with children, one parent per lone person household, two husband/wife/partners per couple family without children and one lone person per lone person household.

For other families, multi-family households, group households and other non-classifiable households, the average number of people per household in Moreton Bay is calculated from the 2006-2016 censuses. Trends in these average household sizes are extrapolated into the future. The forecast number of people by household type is divided by the forecast average household size for each household type and year to calculate the forecast number of households.

Step 4 – Forecast housing demand by dwelling type

In this step, a forecast of number of households by household type is converted into a forecast of implied dwelling demand by dwelling type and number of bedrooms.

The ABS classification of dwelling types is grouped in the following way:

- Separate houses
- Medium density, including:

- Semi-detached, row or terrace house, townhouse etc. with one storey
- Semi-detached, row or terrace house, townhouse etc. with two or more storeys
- Flat or apartment in a one or two storey block
- Flat or apartment attached to a house

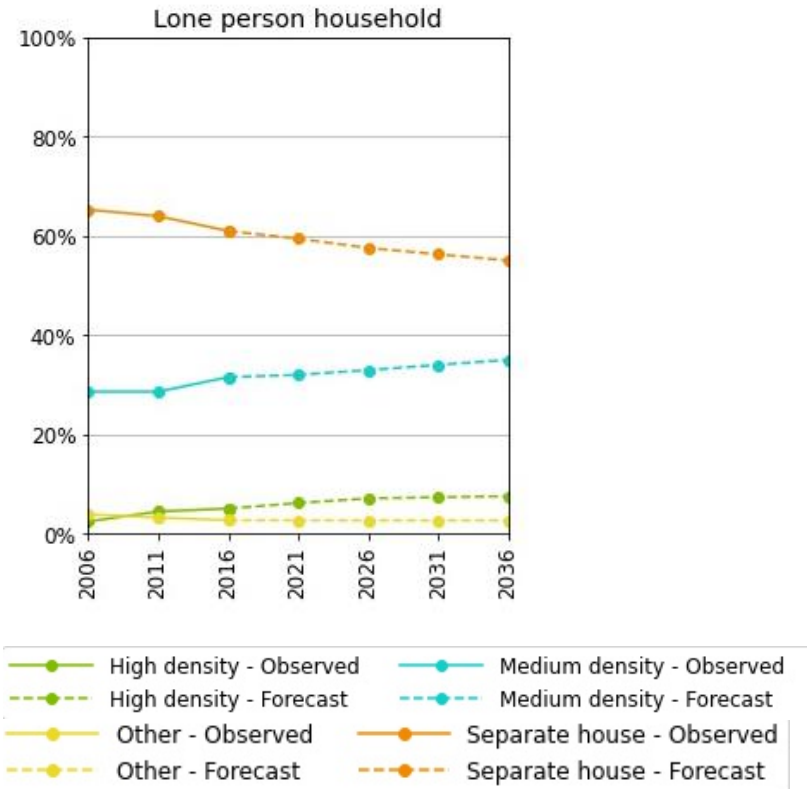
- High density, including:
  - Flat or apartment in a three-storey block
  - Flat or apartment in a four or more-storey block
- Other dwelling, including:
  - Caravan
  - Cabin or houseboat
  - Improvised home, tent, sleepers out
  - House or flat attached to a shop, office etc.

It is also common to group dwellings into separate houses; attached dwellings (including semi-detached, row or terrace house townhouse etc); flat or apartments; and other dwellings. The alternative grouping listed above is used instead because some dwellings swap between the semi-detached, row or terrace house, townhouse etc. with two or more storeys category and the flat or apartment in a one or two storey block category between different censuses, making inter-census comparisons and trends unreliable if these sub-categories are separated.

The propensity of each dwelling type to live in each dwelling type is assessed from each census between 2006-2016. These propensities are also referred to as implied dwelling preferences, as they reflect the constrained housing choices that people within the LGA have made.

Trends in propensities are calculated for each household type and dwelling type and extrapolated into the future. An example of this trend for lone person households is shown in Figure 76.

FIGURE 76: HOUSING TYPE PROPENSITIES FOR LONE PERSON HOUSEHOLDS IN MORETON BAY



This forecast of implied housing preferences represents a base case forecast of preferences in which current trends in how preferences are changing continue in the future. However, as these implied preferences are constrained by the availability of housing, there are multiple reasons for which future preferences may differ from this base case linear trend including that:

- Market failures in the development market may restrict housing supply of particular types of dwellings (for example high density), creating an unmet latent demand for some housing types.
- Shifts in preferences may accelerate over time and more quickly than a linear extrapolation would suggest.
- Major infrastructure or other amenity or accessibility interventions may in the future make a place much more desirable for high density dwelling types that have historically been rare.
- Strategic planning interventions could facilitate particular kinds of housing supply more than others in the future.

In these cases, a different housing preference in the future can be applied instead of the base case linear trend. These trends can be sourced for example from published research, primary research (housing preference surveys of the community) or by using preferences from a benchmark LGA which Moreton Bay is expected to look more like in the future.

In this step, the implied dwelling demand by number of bedrooms is also calculated. This is calculated by assessing the propensity of dwellings of each type to have a given number of bedrooms (for example, what proportion of separate houses have three bedrooms). Data on these propensities is

sourced from the 2006-2016 ABS Censuses. Trends in these propensities are calculated and extrapolated into the future. Forecast preferences are combined with a forecast of housing demand by household type to calculate a forecast for implied housing demand by number of bedrooms.

Alignment with base year

The method described in step 4 above generates a forecast of the number of *households* by dwellings type in private dwellings. However, some private dwellings will be unoccupied at any one time even in a perfectly functioning housing market, and so the number of dwellings needed to accommodate the population will be slightly larger than the number of households.

In the housing demand model, calculated housing demand in the most recent census year (2016) is aligned with the reported number of dwellings and proportional breakdown by type and number of bedrooms from the ABS census. This ensures that the housing demand forecasts accurately reflect observed levels of housing stock, accounting for some level of housing vacancy as well as for any small inaccuracies that arise through the model and the use of population projections that differ slightly from the ABS census in demographic breakdowns.

Checks and corrections

All housing demand outputs are checked to ensure that they are reasonable.

Extrapolated trends become less likely to be accurate the further into the future that a forecast goes. All extrapolated trends calculated in the model are checked to ensure that they do not differ too substantially from the historical average in any case (with the scale of deviation permitted varying depending on the demographic factor in question).

Differences to QGSO projections

SGS's model has a slightly different method of converting a population forecast to a household and housing forecast to the QGSO, however most of the same factors are considered in each case.

As outlined in the QGSO's methodology report, they use a sequential propensity household model, which sequentially splits the population in a series of steps based on assumptions around their living arrangements at the SA2 level. A diagram of this approach from the QGSO is shown below.

SGS does not have multiple steps of accounting for different living arrangement. However, SGS's method does account for each of the steps and factors considered in the QGSO model through modelling the propensity of people of each age living in each household type as well as living arrangement. The QGSO methodology report lists 13 living arrangement types considered in their model:

- Persons in non-private dwellings
- Children under 15 years (state, SA4s)
  - Living with two parents
  - Living with a single parent
- Children aged 15 years and over living with parents
- Partnered with children aged under 15 years

- Partnered with children aged 15 years and over only
- Partnered with no children
- Single parent with children aged 15 years and over only
- Partnered with no children
- Single parent with children under 15 years
- Single parent with children aged 15 years and over only
- Living with a family (related or unrelated individual)
- Living in another family
- Living along
- Living in a group household

SGS accounts for all of these person categories through the relationship and household type propensities, apart from the age of children living with a parent.

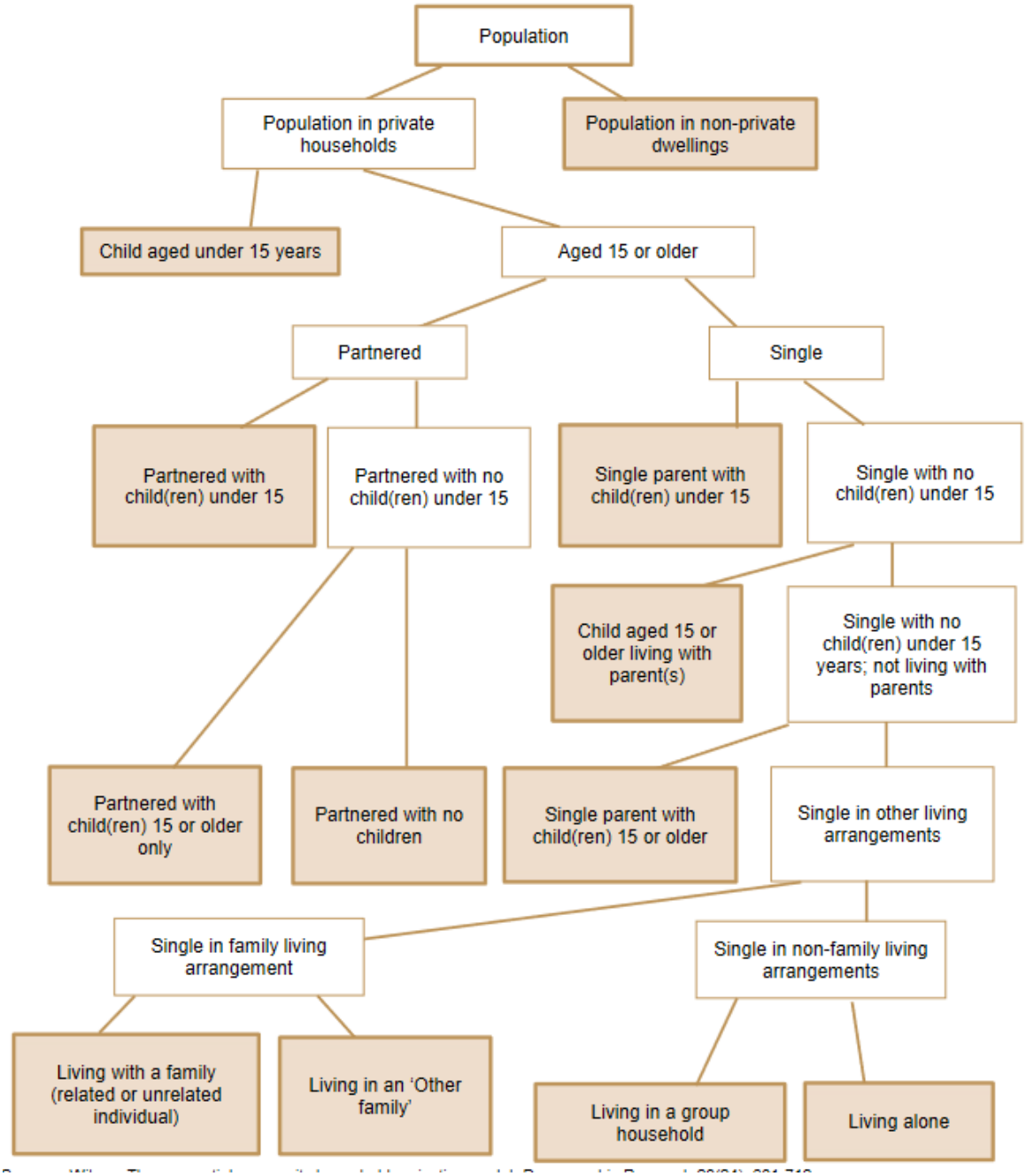
As a result, SGS's model and the QGSO model appear to have similar methods for calculating the number of people by household type and of determining the number of households where a reference person is available (as detailed above in Step 3). It is not clear exactly how QGSO calculate the number of households where no reference person is available.

SGS and QGSO's methods differ in the base geography. QGSO breaks population down to SA2s and then builds back up to LGAs. SGS's calculations operate at the LGA level. While QGSO's SA2 calculation will capture more nuance in the different patterns between different SA2s, SGS consider that housing demand, and many of the population factors impacting it, should be considered at the housing submarket level. As a result, SGS believe that aggregated demographic calculation of households and housing demand (at the LGA or sub-LGA level) and then distribution to SA2s only once the housing market has been further studied to be more appropriate. SA2 level calculations may be sensitive to change based on small-scale variations in development assumptions and consequent changes in population distributions.

QGSO states that their method is performed at the SA2 level. However, it is not clear how many of the demographic factors which feed into the sequential living arrangement calculations are specific to the demographic factors within each SA2. SGS uses propensities, and so living arrangement assumptions, specific to each LGA.

It is not clear how the QGSO's methodology accounts for changes in living arrangement factors, household sizes and housing vacancy factors in the future (it is possible that no change is assumed although this is not specified explicitly). As noted above, SGS's method uses trends to account for continuing change in demographics and living arrangements in the future. SGS believes this to provide a better picture of what living arrangements are likely to like in the future than assuming no change or little change in living arrangements, with some caveats discussed in this appendix.

FIGURE 77: QGSO SEQUENTIAL PROPENSITY HOUSEHOLD MODEL LIVING ARRANGEMENT CALCULATION



Source: QGSO 2018, Queensland Government household projections 2018 edition: Methodology

Adjusted forecast method

The adjusted preference forecast has been created using the following method:

1. Calculate revealed housing preferences from the census for the Brisbane LGA excluding the Brisbane CBD SA2 and for Moreton Bay

2. Forecast housing preferences for Moreton Bay as per the method outlined above for the base case forecast
3. Calculate the difference between separate house preferences for each household type for Brisbane LGA excluding the Brisbane CBD in 2016, and forecast preferences for Moreton Bay in 2051. This is considered as the additional shift away from separate houses that could be achievable in Moreton Bay under the adjusted scenario. Where Moreton Bay has a lower forecast proportion of households living in separate houses in 2051 than Brisbane LGA excluding the Brisbane CBD in 2016, set the difference to zero (this only occurs for one parent families and other families).
4. Set adjusted separate house preferences for Moreton Bay to the baseline forecast for 2051, minus the additional shift, This has the effect of setting them to the minimum of either the 2016 revealed preference for the Brisbane LGA excluding the Brisbane CBD, and the baseline forecast for Moreton Bay.
5. Divide the gap by two, and add this to the baseline revealed preferences forecast for medium density and high density in Moreton Bay in 2051 for each household type.
6. Linearly interpolate preferences for each household type and dwelling type for Moreton Bay between revealed preferences observed in the 2016 census, and the new forecast for 2016. This means that preferences are expected to shift linearly and smoothly between these two values, although in practice the shift is likely to occur later in the time period for this study.
7. Multiple the new housing preferences forecast to the forecasted number of households in Moreton Bay in each year to calculate an adjusted forecast for number of households by dwelling type.
8. Apply a correction factor to ensure alignment with the base year number of dwellings for each dwelling type, accounting for vacancies (in the same way as outlined above for the baseline forecast).
9. Scale the total number of dwellings in each intermediate year between 2016 and 2051 to match the totals from the baseline forecast.

Small area housing demand method

Overall housing demand forecasts have been distributed into profile areas and then SA2s by a process of running the housing demand model individually on the combined profile areas and then each SA2, with population projections from the QGSO, and census data at the SA2 level.

These small area housing demand forecasts have been scaled the match the LGA total, and manual checks and alterations have been made to match the assumed timing of development precincts and expected development outcomes while generally preserving the location and distribution of development by type across the LGA.

Splitting demand into greenfield and infill

These assumptions about what proportion of demand will be infill/centres vs greenfield are shown in the following table.

Note that these are intended to be high level assumptions to allow the suitability of infill and greenfield capacity to be quantified with reference to modelled demand. Actual development outcomes may differ from these percentages.

All additional separate houses are assumed to be delivered through greenfield development. Most additional high density housing is expected to be delivered through infill development. Medium density is expected to be delivered through a mix between greenfield and infill development, with the % depending on the profile area in question.

Caboolture and the Rural area are expected to deliver almost all new housing in greenfield housing given the size of the Caboolture West Growth Area and the aspirations for dwelling diversity within them. By contrast, the Redcliffe Peninsula is expected to deliver all of its new medium and high density housing through infill development.

TABLE A: ASSUMED % OF DEMAND MET THROUGH INFILL (AS OPPOSED TO GREENFIELD) DEVELOPMENT

Profile area	Increased infill scenario			Limited infill scenario		
	Separate house	Medium density	High density	Separate house	Medium density	High density
Strathpine	0%	75%	75%	0%	25%	50%
Redcliffe Peninsula	0%	100%	100%	0%	100%	100%
North Lakes	0%	25%	100%	0%	10%	25%
Deception Bay & Narangba	0%	75%	75%	0%	10%	50%
Coastal Communities & Bribie Island	0%	25%	100%	0%	10%	5%
Caboolture	0%	25%	50%	0%	10%	25%
Rural	0%	0%	0%	0%	0%	0%

Source: SGS 2022

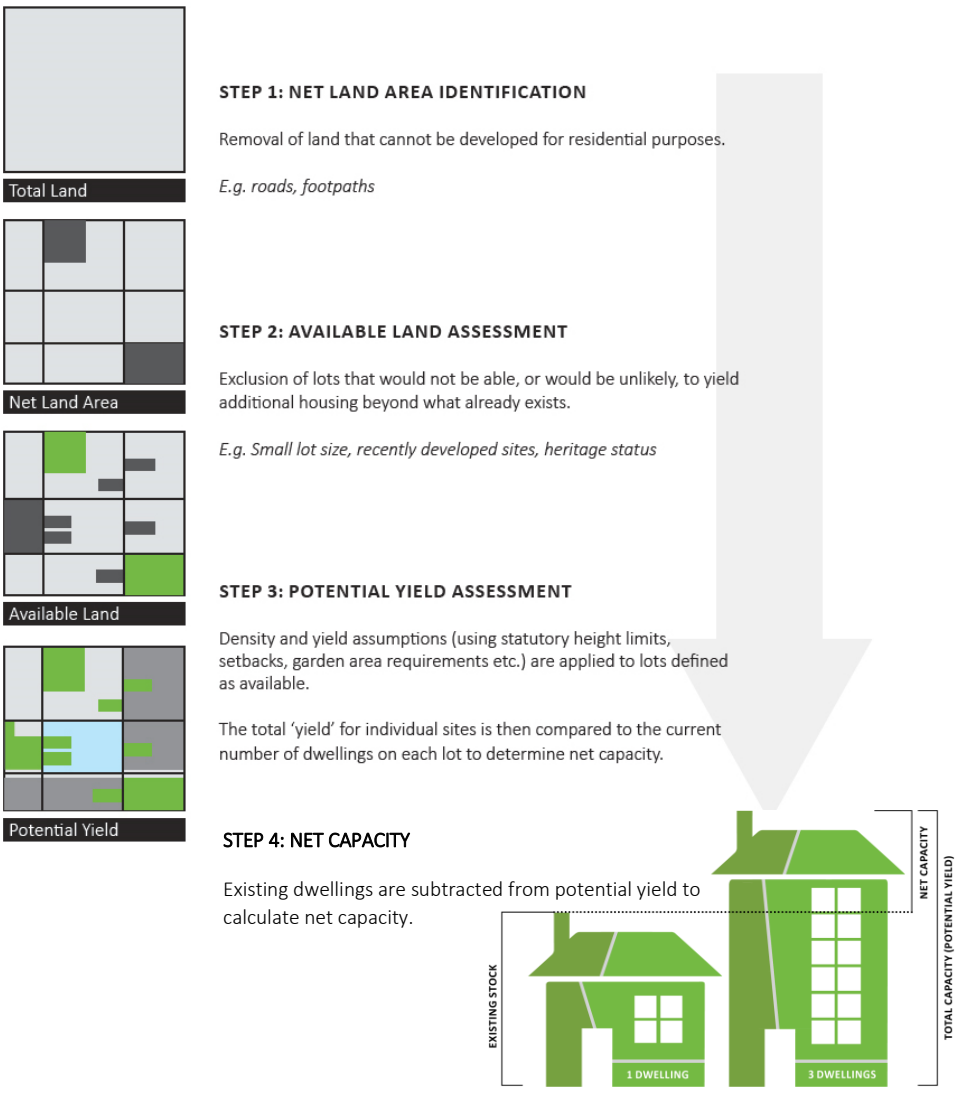
Appendix B: Housing capacity method

Housing capacity is an estimate of the quantum of housing that could be accommodated in an area. It is based on existing planning controls, recent housing supply trends and planned future land-release precincts. It is a theoretical assessment of the maximum number of dwellings that could be developed under current planning controls and development conditions and in future precincts. It follows from a high-level analysis and is intended to be indicative rather than absolute.

Figure 78 charts the four-step process for determining dwelling capacity. The logical flow is to firstly identify land where residential development is permitted before filtering out all the lots which are unlikely to be developed/redeveloped, and then calculating the potential development yield of each lot. Each step is discussed in more detail below.

Only a small portion of available lots are likely to be developed in any one year and some lots are likely to be withheld from development. For these reasons, greater capacity than (expected) demand is required to ensure that future development is not constrained. There are likely to be site-specific attributes which may affect the development potential of some sites, but which cannot be assessed in an LGA-wide capacity analysis.

FIGURE 78: OVERVIEW OF HOUSING CAPACITY APPROACH



Step 1: Net land area identification

Net land refers to total land where residential development is permitted, minus the land that cannot be developed for residential purposes, such as roads and footpaths. The capacity calculation is conducted on a lot-by-lot basis, with only lots where residential development is permissible considered, and so parts of the public domain are automatically excluded.

The base property layer is formed from Council's cadastral rates data, which shows land use and address for each parcel. As there can be multiple parcels per overall property where multi-unit subdivision has occurred, the spatial rates data is dissolved based on the recorded main address to form properties for capacity assessment.

The properties were then intersected with land zones and precincts to form amended spatial units for capacity assessment.

All properties on which residential development is permitted are included in the net land. As properties in other zones may be developed for housing in some cases in Queensland, they can also be included but would need to be discounted to reflect the lower likelihood of residential development.

The following MBRC planning scheme zones support residential use:

- General residential
- Township
- Centre
- Rural residential
- Emerging community
- Rural (Limited)

Step 2: Available land assessment

Available land represents any land that is likely to be able to accommodate additional housing in the LGA. It is derived from the net land, from which lots which cannot be developed, or are relatively unlikely to be developed, are excluded.

Designation of a lot as available land does not mean that development is necessarily feasible or that property owners are ready or willing to develop these sites. Typically, only a small portion of available lots are likely to be developed in any one year. There are also likely to be site-specific attributes which may affect the development potential of some sites, but which cannot be included in an LGA-wide capacity analysis.

The following exclusions were used to determine which lots cannot or are unlikely to be developed.

Environmental and planning exclusions

All environmental and planning land constraints used in Council's October 2020 Planning Assumptions were excluded from development. This includes all properties mapped under the following overlays:

- Coastal hazard – erosion prone area
- Coastal hazard – storm tide inundation (high and medium risk storm tide inundation areas)

- Community activities and neighbourhood hubs (community activity and neighbourhood hub)
- Environmental areas (MLES and MSES)
- Flood hazard (high and medium flood risk hazard areas)
- Infrastructure buffers
- Riparian and wetland setbacks
- Road hierarchy (road corridors for proposed roads)
- Strategic framework – regional infrastructure map (unformed road strategic framework road investigation corridor)
- Rural residential lot sizes

In general, residential development on these properties is either not supported, is not possible, or is not likely over a reasonable timeframe.

Spatial layers representing all of these except rural residential lot sizes were dissolved to form an exclusion/constraint layer. This layer was intersected onto the capacity base layer and the proportion of each site covered determined to calculate the % constrained score for the site. The constrained and unconstrained area of each site was also calculated. Any site (composed of a property/zone/precinct intersection) which is more than 85% constrained was excluded from development.

Lot sizes and frontages

Suburban properties containing single houses are only likely to be redeveloped if either they are large enough to permit redevelopment without significant site amalgamation, or redevelopment densities are high enough to make amalgamation worthwhile. For this reason, properties on which medium density housing development is expected are excluded if they fall below a minimum likely property area and frontage. No minimum areas and frontages are used if properties are expected to be developed at high densities.

A minimum lot size and frontage of 12m and 600sqm was applied to land in centres and infill zones under the lower scenario, reflecting two properties being able to be amalgamated to form a development site of around 1,200sqm and with a frontage of 24m. A smaller frontage or development site may be difficult to develop, while requiring amalgamation of more than two properties may pose a constraint to development. Minimum lot sizes and frontages were not applied in other scenarios.

Multi-unit development

Properties which contain existing multi-unit developments often have distributed strata ownership, making acquisition for redevelopment difficult. They would also be very expensive for a developer to acquire. For both of these reasons, these properties are unlikely to be redeveloped unless very high densities are proposed, and until other development sites are exhausted. Given the low likelihood of development and likely lack of development feasibility, existing multi-unit developments, specifically overall properties containing two or more dwellings (not including properties containing secondary dwellings) have been excluded.

Land uses

Properties with several existing land uses have been excluded. These land uses include infrastructure, social infrastructure and community uses which either should not be redeveloped given the valuable

role they play for the community, or which are unlikely to be redeveloped on a reasonable timeframe. For example, parks, schools, council reserves, hospitals, community centres, aged care facilities and government administration facilities.

Large, enclosed shopping centres have also been excluded as they are considered relatively unlikely to be redeveloped.

In all cases, the existing land use has been assessed using rates data from Council.

Recent development

Properties on which development has recently occurred are often excluded from capacity analysis as they are unlikely to be redeveloped in the short-medium term. Given the timeframe of this project (to 2041-2051), this exclusion has not been applied as some redevelopment may be possible towards the end of the timeframe.

Step 3: Potential yield assessment

Potential property yields have been assessed using development densities. As per Council's October 2020 Planning Assumptions, properties are split into greenfield and redevelopment/infill, with net densities applied for infill where extensive public domain delivery is not expected, and gross densities have been applied for greenfield development with public domain delivery included in the overall density.

The densities of recent building completions between 2016-2021 were reviewed to ensure that the densities in Council's October 2020 Planning Assumptions were appropriate. These assumptions were found to be broadly in within the range of development densities which have occurred (for example, 110 dw/ha is the assumed density of in Redcliffe in the Urban Neighbourhood Precinct, and is within the range of high-density development densities seen), although some densities were higher than average in recent completions, some development types have not been occurred recently meaning there is no base data for testing assumptions, and in many cases development density was not as high as indicated by policy. More detail on recent development densities is contained later in this appendix.

Yields have been calculated by multiplying densities by the overall unconstrained area of any available site.

Three scenarios were created:

- Moderate yield - Development at the densities used in Council's October 2020 Planning Assumptions, which are based on what the market is currently achieving on average or likely to achieve in a particular zone or precinct. This density may be below the maximum permitted density, or an aspirational density desired in the zone. For example, Council notes in explanatory material that observed development trends and approvals indicate densities in the Next Generation Precinct to be 15-50 dw/ha, while the maximum density permitted in 75 dw/ha. As such, this scenario is a status-quo scenario.
- A higher yield scenario with the following changes from the Moderate yield scenario, representing a reasonable maximum density allowable or achievable under current planning controls This shows how much more housing capacity could be created if the housing market shifted to deliver higher densities. The following assumptions were used:

- All urban neighbourhood precincts and place types in an infill setting can be developed up to 110 dw/ha, which would represent a relatively low density apartment development
- All urban neighbourhood precincts and place types in a greenfield setting can be developed up to 75 dw/ha
- All infill next-gen neighbourhood precincts and place types can be developed up to 70 dw/ha
- All development sites in centres yield 100 dwellings/ha, consistent with low-rise mixed use development
- Greenfield suburban precincts and coastal village precincts yield 15 dw/ha, a slight increase in densities assumed in other scenarios.

- A lower yield scenario which is intended to reflect current market activity and a lack of feasibility and developability in multiple precincts. It is intended to provide a reasonable lower bound to development capacity with some (although not all) development constraints. Density assumptions generally in line with Councils October 2020 Planning Assumptions have been made, but:
  - Greenfield density assumptions have been lowered 18 dw/ha for the Next Generation Neighbourhood Precinct and place type, 25dw/ha in the Next Generation Neighbourhood precinct on large lots in existing estates, to reflect some recent market activity.
  - It has been assumed that infill development will not occur outside of the Redcliffe Peninsula, Bribie Island, the Hills District and 800m catchments of district centres at Kallangur and further south. This reflects current broad-based lack of development feasibility for infill development.
  - A minimum property size of infill development has been introduced (600 sqm and a 12m frontage) to reflect difficulty in development where amalgamation of more than two properties is required.
  - The urban neighbourhood precinct in greenfield areas has been assumed to produce the same densities as the next generation neighbourhood precinct rather than higher densities. This reflects that many properties with an urban neighbourhood place type in greenfield estates are developing as separate houses rather than high density

The densities adopted reflecting these assumptions are shown in the table on the following pages.

In cases where there is an approved structure plan or master plan for a precinct (e.g., Petri Mill), this plan provides a better estimate of likely yield than calculations based on benchmarked average development densities, and so the yields in the approved plan are used for the associated properties. Petrie Mill has been assumed to yield 3,400 dwellings, consistent with published yields online.

In all scenarios, recent greenfield development has been identified and excluded from future infill development.

TABLE B: DENSITY ASSUMPTIONS (DW/HA) FOR CAPACITY ANALYSIS
(RED CELLS DEPICT CHANGES FROM THE MODERATE YIELD SCENARIO)

Planning scheme precinct/zone	Criteria	Lower yield scenario		Moderate yield scenario (October 2020 Planning Assumptions)		Higher yield scenario	
		Greenfield	Redevelopment & infill	Greenfield	Redevelopment & infill	Greenfield	Redevelopment & infill
Urban Precinct	All other e.g. Bur., D'Bay etc	18	50 (Redcliffe Pen., Hills, Bribie & Coastal Comm. only)	45	50	75	110
	Surrounding PAC (Cab., Morayfield)	45	85	45	85	75	110
	Surrounding SMAC (Strathpine)	n/a	70	n/a	70	n/a	110
	Redcliffe within 400m of shore	n/a	110	n/a	110	n/a	110
	MBRL & PDA (Lawnton to Kippa)	45	75	75	75	75	110
Next Generation Precinct		18	36*	18	36	18	70
	Redcliffe within 400m of foreshore	25	66	25	66	50	70
	Within 800m of DC	18	50*	25	50	25	70
	Within 800m of train station	25	50*	25	50	25	70
	Large lot in existing housing estate/recent subdivision	n/a	25	(assessed as above)		(assessed as above)	
Suburban Precinct		11	Does not occur	11	23	15	23

Planning scheme precinct/zone	Criteria	Lower yield scenario		Moderate yield scenario (October 2020 Planning Assumptions)		Higher yield scenario	
		Greenfield	Redevelopment & infill	Greenfield	Redevelopment & infill	Greenfield	Redevelopment & infill
Coastal Village Precinct		11	Does not occur	11	11	15	15
Township Residential Precinct		11	Does not occur	11	15	11	15
Hamlet Precinct		11	Does not occur	11	15	11	15
Emerging Community Zone	Next Gen. Place Type	18	Does not occur	18	40	18	40
	Urban Place Type	18	60 (only Redcliffe Pen.)	45	60	45	60 (Redcliffe Pen. 110)
Caboolture Centre Precinct		n/a	85	n/a	85	n/a	100
District Centre Precinct		n/a	45	n/a	45	n/a	100
Morayfield Centre Precinct		n/a	70	n/a	70	n/a	100
Strathpine Centre Precinct		n/a	70	n/a	70	n/a	100
Redcliffe Centre Precinct		n/a	245	n/a	245	n/a	245
North Lakes Activity Centre		n/a	100	n/a	100	n/a	100
Rural Residential Zone	Rural Res RAL Overlay - 2ha	0.5	0.5	0.5	0.5	0.5	0.5
	Rural Res RAL Overlay – 6,000 sqm	1.5	1.66	1.5	1.66	1.5	1.66
	Rural Res RAL Overlay – 3,000 sqm	3	3.33	3	3.33	3	3.33
Cab. West Urban		18	n/a	35	n/a	35	n/a
Cab. West Next Gen.		18	n/a	18	n/a	18	n/a

Planning scheme precinct/zone	Criteria	Lower yield scenario		Moderate yield scenario (October 2020 Planning Assumptions)		Higher yield scenario	
		Greenfield	Redevelopment & infill	Greenfield	Redevelopment & infill	Greenfield	Redevelopment & infill
Cab West Town Centre Res.		70	n/a	70	n/a	70	n/a
Cab West Rural Living		3	n/a	3	n/a	3	n/a

* Only Redcliffe Peninsula, Bribie Island, Hills District or 800m catchments of district centres at Kallangur or further south

Step 4: Net capacity

The existing number of dwellings is estimated based on the number of parcels with a recorded residential land use. Where the recorded main land use is non-residential and no residential parcels within a given property are recorded, Council's October 2020 Planning Assumptions of housing stock for 2016 by property are used to identify the likely number of dwellings.

The existing number of dwellings on each site is subtracted from the potential yield to provide a net housing capacity.

Net housing capacities are grouped by land zone/precinct and broad profile area in the LGA. For each precinct, area and scenario, the likely overall development type is identified out of separate houses, medium density, high density, or a mix of any two categories. The net capacity results are aggregated according to broad profile area and overall indicative dwelling type to provide an estimate of the overall net housing capacity for different housing types.

Achieved densities

Next Generation Neighbourhood Precinct

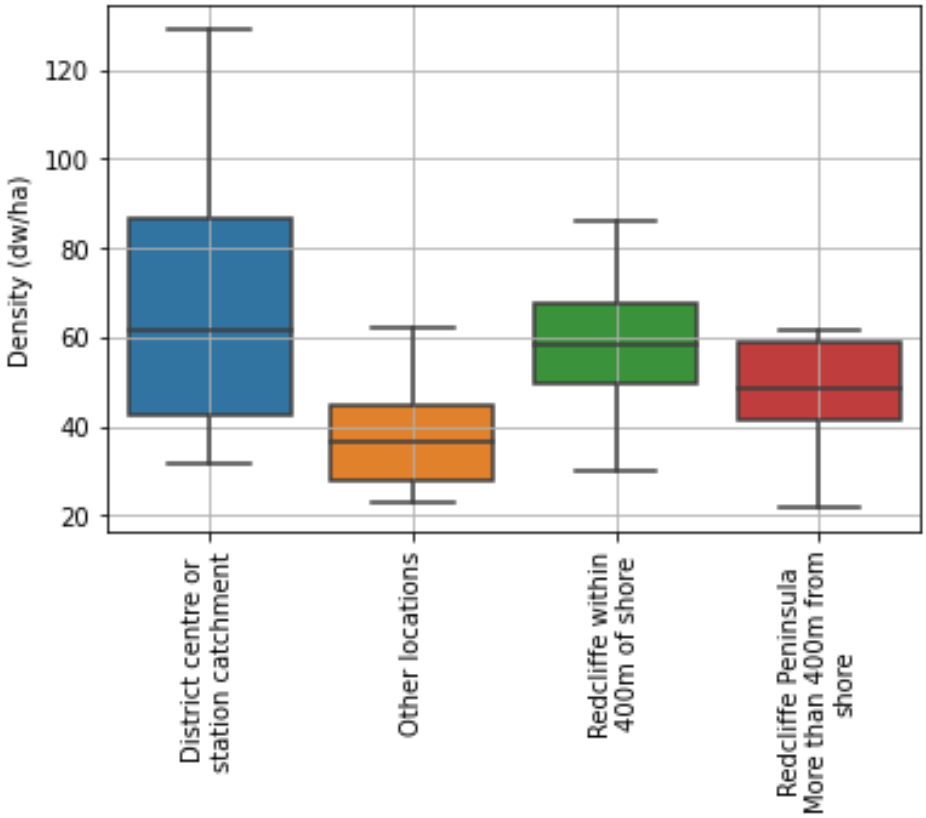
The following table and figure shows densities achieved in dwelling completions in the next generation neighbourhood precinct (not including broadacre subdivision or separate houses) in housing completions since 2016.

TABLE C: STATISTICS FOR DWELLINGS COMPLETIONS IN THE NEXT GENERATION NEIGHBOURHOOD PRECINCT

Location	Number of sites	Number of dwellings	Amount of land (ha)	Average density (dw/ha)	Median density (dw/ha)
Redcliffe Pen. within 400m of shore	6	41	0.7	60	58
Redcliffe Pen. more than 400m from shore	8	37	0.7	49	49
District centre or station catchment	7	291	8.3	35	62
Other locations	15	692	23.8	29	36
Total	**36**	**1,061**	**33.5**	**32**	**45**

Source: SGS 2022 using Council completions data

FIGURE 79: DENSITIES OBSERVED FOR DWELLINGS COMPLETIONS IN THE NEXT GENERATION NEIGHBOURHOOD PRECINCT



Source: SGS 2022 using Council completions data

As noted in this report, very little infill development is happening, and that what infill development is occurring is concentrated on the Redcliffe Peninsula. Otherwise medium density development, including all of the development in the next generation neighbourhood precinct highlighted here, is occurring through greenfield development or first generation subdivision and development of larger properties remaining in otherwise built up areas. Apart from those on the Redcliffe Peninsula, the densities quoted here should not be regarded as infill densities, or necessarily as reflective of development of larger greenfield sites which may be subdivided to facilitate development of separate houses rather than medium density development.

In most cases average densities lie between the assumed redevelopment and greenfield densities from Council's October 2022 Planning Assumptions.

There are a large number of dwellings completed in 'other' locations. Many of these are in the large medium density developments on the north side of Alma Road in Dakabin.

Urban Neighbourhood Precinct

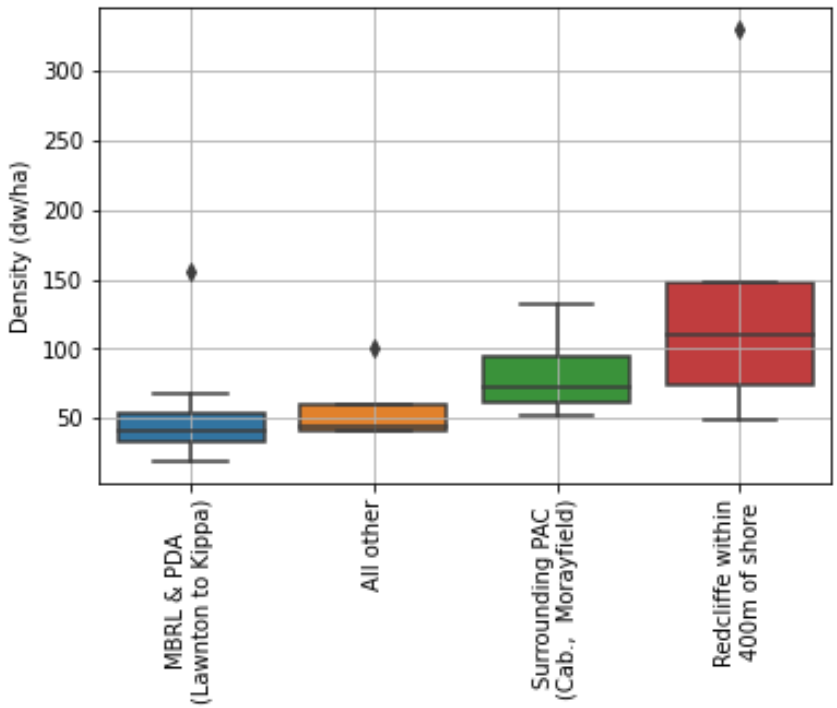
The following table and figure show densities achieved through housing completions since 2016 in the Urban Neighbourhood Precinct, excluding any subdivisions or separate houses completed. These developments constitute a mix of high density (almost exclusively on the Redcliffe Peninsula) and medium density, with medium density development mostly occurring through first-generation development of large sites.

TABLE D: STATISTICS FOR DWELLINGS COMPLETIONS IN THE URBAN NEIGHBOURHOOD PRECINCT

Location	Number of sites	Number of dwellings	Amount of land (ha)	Average density (dw/ha)	Median density (dw/ha)
Redcliffe Pen. within 400m of shore	7	169	1.0	168	110
MBRL & PDA (Lawnton to Kippa-Ring)	7	201	4.8	42	40
Surrounding PAC (Cab. or Morayfield)	4	170	2.3	72	73
All other	4	421	8.8	48	44
Total	**22**	**961**	**16.9**	**57**	**64**

Source: SGS 2022 using Council completions data

FIGURE 80: DENSITIES OBSERVED FOR DWELLINGS COMPLETIONS IN THE URBANB NEIGHBOURHOOD PRECINCT



Source: SGS 2022 using Council completions data

Outside of the Redcliffe Peninsula within 400m of the shore, average densities are generally slightly lower than assumed in the October 2020 Planning Assumptions, although as noted earlier in this section assumed densities do fall within the observed range (as seen in the figure below). This reflects that high density development which is possible under the Urban Neighbourhood Precinct generally has not been occurring outside of the coastal strip of the Redcliffe Peninsula.

The figure below shows the urban neighbourhood precinct next to Mango Hill East Station within the Capestone Development. This precinct has been subdivided and developed as a mix of separate houses and some townhouses. The outlined area in red contains 190 dwellings over around 9.6ha, a gross development density of 20 dw/ha. This is well below the densities assumed for the Urban Neighbourhood Precinct, and the densities envisaged as the policy outcome of the Precinct. This shows the potential for greenfield development within higher density zones which encourage housing diversity to continue to deliver predominately separate at lower densities than anticipated.

FIGURE 81: DEVELOPED GREENFIELD URBAN NEIGHBOURHOOD PRECINCT AT CAPESTONE (OUTLINED IN RED)

Source: Nearmap 2022

Similar outcomes are seen in next generation neighbourhood precincts undergoing greenfield development, where the vast majority of dwellings built are often separate houses, although this is consistent with the October 2020 Planning Assumptions outside of Redcliffe and 800m catchments of district centres and train stations.

Realistic capacity method

Greenfield

The following table show the assumed percentage of greenfield development capacity that could be realised over thirty years.

Very high proportions have been assumed for all property types including those designated as very difficult, with almost complete development of properties with a good or very good development score expected. This reflects the assumption that greenfield development generally has a high level of uplift compared to existing uses and so is quite feasible. There would also be likely to be demand for this kind of development across Moreton Bay. As a result, it is expected that given appropriate market demand and a favourable development market, almost all greenfield development properties could be expected to develop.

TABLE E: ASSUMED % OF REALISABLE GREENFIELD DEVELOPMENT CAPACITY

Ease of development	Good & V. Good	Moderate	Difficult & V. Difficult
PIA or available capacity	95%	85%	75%
Other Precincts	95%	85%	75%
Other capacity	50%		

Source: SGS 2022
Cells in this table have been coloured to reflect the size of take-up expected, with darker red for higher values

Infill and centres

The following table show the assumed percentage of infill development and development of centres that could be expected over thirty years. Lower proportions of development than in greenfield settings have been assumed as there is less of a differential in densities and higher existing use values than in greenfield development settings, leading to slower turnover of potential development sites.

Relatively low proportions of development are expected for lower density infill redevelopment given the relatively low levels of uplift available for this development type.

Higher levels of take-up are possible in higher density infill areas and in centres. Apartment development in these areas would provide relatively high yields that would facilitate site amalgamation and encourage the turnover of potential development sites. Almost complete development of high density development precincts with large development sites would be possible given a favourable development market.

TABLE F: ASSUMED % OF REALISABLE INFILL AND CENTRES DEVELOPMENT CAPACITY

	Ease of development	Good	Moderate	Difficult	V. Difficult
Development type	Dwelling type				
Infill – Lower density	Medium density	30%	25%	20%	20%
Infill – Moderate density	Medium density	50%	40%	30%	20%
Infill – Higher density	High density	90%	50%	30%	30%
Centres	High density	60%	50%	30%	30%

Source: SGS 2022

Cells in this table have been coloured to reflect scoring, with darker colours for higher values, and red for higher values, followed by yellow followed by green

Detailed greenfield capacity classification

Greenfield capacity has been categorised into the following broad precinct type categories:

- **PIA or available for development** – Capacity within the PIA or in Caboolture West Precinct 1 or underway greenfield housing estates outside of the PIA. This capacity is regarded as either immediately available for development or available for development in the short term, with detailed planning and servicing infrastructure generally in place. Morayfield South is not included in this category because only parts of the precinct appear to be fully serviced.
- **Other precincts** in emerging community areas, which are regarded as likely to be available for development in the longer term, although some of this capacity may be available in the short term (noting that Morayfield South has been rezoned to facilitate development via a TLPI).
- **Other capacity** not in emerging community areas of other large precincts

A more detailed mapping of which precincts fall within each category is available in Appendix D.

This categorisation is intended to reflect the timeframe on which this capacity can be built out, which is partly a result of infrastructure availability and the ability to service land.

Shaping SEQ Benchmark

Shaping SEQ contains a benchmark which is related to the availability of infrastructure and servicing, requiring (p. 46)

> "at all times, ShapingSEQ expects local government planning schemes to have at least 15 years supply of land – land that has been appropriately zoned and is *able to be serviced*"

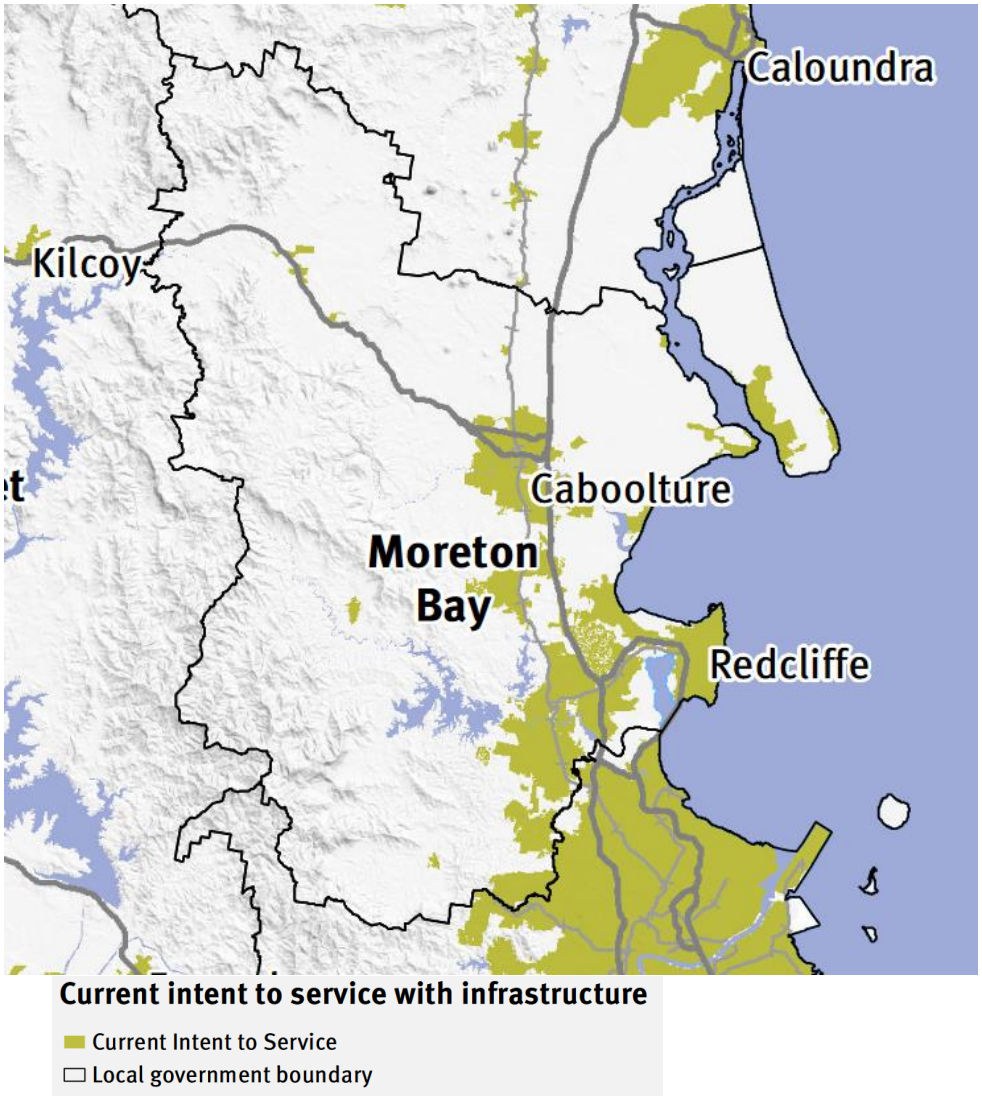
The Queensland Government Land Supply and Development Monitoring Report provides more detail on how years of supply and ability to be serviced have been quantified. Land currently zoned for development has been included, with different discount rates of 25%, 50%, 75% or 100% applied in different scenarios to derive a realistic capacity.

The ability of land to be serviced is captured in the Current Intent to Service Layer, which includes:

- The priority infrastructure area
- Existing and future sewerage connection area (provided by Unity Water)
- Priority development areas
- Infrastructure agreements
- Residential reconfiguring a lot and material change of use preliminary approvals or development permits

The resulting layer is shown in the figure below.

FIGURE 82: CURRENT INTENT TO SERVICE LAYER FOR MORETON BAY USED IN QUEENSLAND LSDM REPORT



Source: Queensland Government 2021, *Current Intent to Service*
https://dsdmipprd.blob.core.windows.net/general/media/SEQ_CurrentIntentToService_2021.PDF

Differences in SGS method

The SGS method is similar in some ways to the "appropriately zoned and able to be serviced" measure, but is intended to be a more detailed and bespoke classification for the purpose of longer term land use planning.

SGS's approach is conceptually simpler and more transparent, with classification on a precinct base provided in Appendix D. A precinct-based approach was viewed as more appropriate given the limited long term sewerage servicing planning information available.

It is considered that infrastructure servicing may extend well beyond current intent to service over a 15-year timeframe, with large amounts of greenfield development likely to occur in multiple parts of Moreton Bay. As a result, the current intent to service layer may underestimate potential land supply. For example, none of Caboolture West is included in the current intent to service layer, while Stage 1 has recently been rezoned with a TLPI, and other parts of the precinct may also be brought forward for development.

SGS has included a broader range of precincts within the PIA or available for development and other precincts categories, including those which are zoned emerging communities but not yet appropriate zoned to facilitate development. It is considered that this provides a more complete picture of potential future land supply under the current planning scheme and Council policies.

Similarities between the approaches include:

- The PIA or available for development category used by SGS is intended to represent areas which are immediately zoned, available for development and currently serviced. It includes land in the PIA, PDAs and large estates currently being developed which must have sewerage connections, all of which would feature in the current intent to service layer and so be identified as able to be serviced.

Differences between the approaches apart from those noted above include:

- SGS has included Stage 1 of Caboolture West in the PIA or available for development category, on the understanding that it will be available for development in the short term.
- Some land in the current intent to service layer may appear in SGS's other precincts category, with parts of Emerging Community Precincts like Narangba East and Burpengary East serviced as evidenced by some subdivisions being approved and occurring, while they have been considered as not available for development by SGS due to more comprehensive planning and infrastructure servicing not being available

Appendix C: Liveability mapping method

Housing intensification should be concentrated in places that are the most accessible and liveable, and that have good access to social infrastructure.

There are many ways that liveability and accessibility can be measured. There are also many different destinations that people may want to live near, and how important these different destinations are considered will vary from person to person.

SGS has assessed the suitability of each property in the Moreton Bay LGA for housing intensification based on the proximity of each area to the following destinations and facilities, using the road network:

Train stations

Other public transport stops (i.e., bus stops) – only stops visited by at least 30 services each day (including weekdays and weekends) are considered.

Supermarkets (intended to act as a proxy for broader retail as well as representing an important destination in themselves).

Open space

Primary schools

Secondary schools, and

Libraries, major community facilities and leisure centres

On-road catchment mapping

On-road catchments have been calculated from every relevant destination in the Moreton Bay and immediate surrounds within three catchment areas: a primary, secondary and tertiary catchment.

The primary catchment is intended to generally reflect an expected walking catchment around the place in question, although in some cases larger primary catchments have been used to reflect that it is not reasonable to expect some facilities to be within walking distance of each residence, even medium and higher density residences.

The secondary catchment is intended to generally represent a longer walk or short driving distance to each place. The tertiary catchment is included to reflect that most people in Moreton Bay drive to facilities like those included in this analysis, and while it is more sustainable to locate housing within walking distance or amenities, it is better to have housing within a short or moderate length drive than a long drive.

The catchment sizes are shown in the following table.

TABLE G48: ON-ROAD CATCHMENT SIZES FOR LIVEABILITY ANALYSIS

Destination	Primary catchment size (m)	Secondary catchment size (m)	Tertiary catchment size (m)
Train stations	800	1,200	2,400
Other public transport stops	400	800	1,200
Supermarkets	800	1,200	2,400
Open space	200	400	800
Primary schools	800	1,200	2,400
Secondary schools	1,200	2,400	3,600
Libraries and major community facilities	800	1,200	2,400
Leisure centres	1,200	2,400	4,800

Each property is given a proximity score for each destination type of 1 if the property is within the primary catchment, 0.5 if within the secondary catchment and 0.25 if within the tertiary catchment.

Supermarkets are ranked according to their size, with major and full-line supermarkets (for example Woolworths and Coles) given the highest scores, smaller supermarkets given a lower score and small convenience style supermarkets given the lowest score. Supermarket scores are modified to reflect the ability of a property to access multiple supermarkets, with a maximum score set when the property is within the primary catchment of two major supermarkets.

Both public and private schools are included in the analysis. However, private schools are only assigned scores half as high as public schools. This reflects that public schools have a greater role in anchoring a community and are more universally available to all parts of the community, while at the same time many children attend private schools.

The other public transport stops and train stations scores are combined, with other public transport stops generating scores only half as high as the train stations score reflecting people's preferences for trains over other forms of public transport. This public transport catchment score is capped so that the highest score is achieved for properties within the primary catchment of a train station.

Overall job and service accessibility

A measure of overall job accessibility has also been included in the liveability score. This measure is called effective job density (EJD), which is an index score for each origin calculated by taking the number of jobs in each other location within the city and dividing them by the time taken to travel to that location, producing a spatial index of accessibility and agglomeration.

Areas with higher EJD are able to access more jobs within a reasonable travel time. This generally presents a greater range of economic opportunities for residents. It also makes these places more attractive prospects for commercial tenants as firms seek a competitive advantage through access to skilled labour, complementary services, formal and informal knowledge transfer, technological trends and a larger customer base.

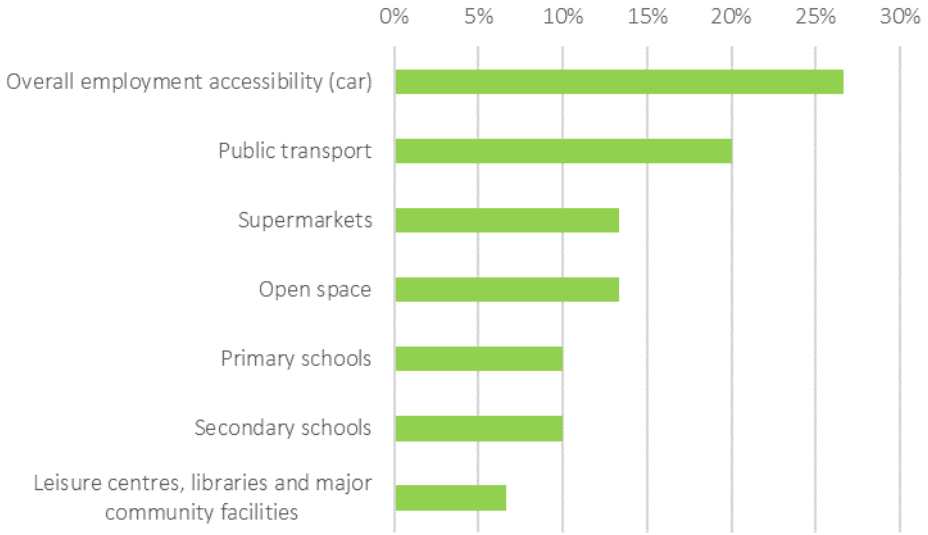
EJD can also be thought of as a measure of accessibility to a wide range of services. Generally, services will be concentrated in the centres, precincts and parts of a city with the most employment. Additionally, major services like hospitals and tertiary retail facilities are associated with high levels of employment, increasing EJD in nearby areas.

EJD scores have been calculated for both travel by car and by public transport at the SA2 level. The car measure is included in the liveability analysis as an overall accessibility metric. The public transport metric constitutes 25% of the overall public transport access measure calculated by adding it to the combined train station and other public transport catchment area score.

Weighting

Each part of the liveability score, including the on-road catchment scores, combined public transport score and overall employment accessibility by car score, is weighted and added to produce an overall score between zero. The weights of each part of the score, shown in terms of their contribution to the final value, are shown in Figure 83. These weightings are intended to reflect the relative importance of different things when determining the relative liveability and housing suitability of different locations. However, different weightings would also be possible.

FIGURE 83: CONTRIBUTION OF EACH PART OF THE LIVEABILITY SCORE



Appendix D: Additional information

Housing suitability

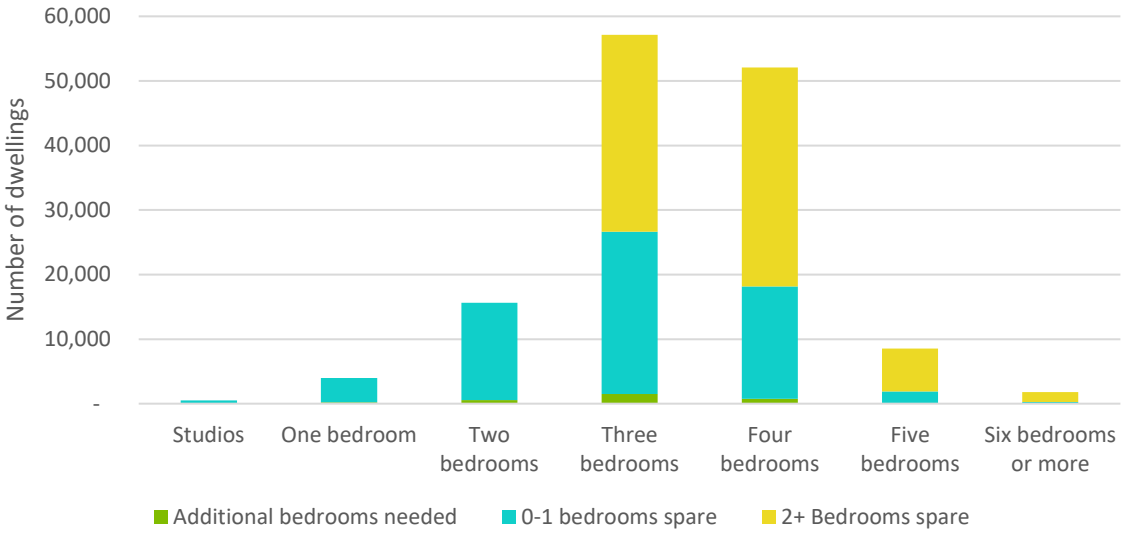
Dwelling suitability is a measure of how suitable the size of dwellings is for their occupants. This is an indication of relative housing affordability as well as of the availability of appropriately sized housing. It is calculated by the ABS based on the usual residents and the number of bedrooms in each dwelling with the following rules:

- One bedroom is needed for each couple or single adult in a household.
- Up to two children of the same sex under 18 can share a bedroom.
- Children of different sexes under five can share a bedroom.

A designation of a bedroom as spare does not mean that is not used, only that the household may be able to live in a smaller dwelling.

Dwelling suitability for the Moreton Bay LGA is shown in the figure below.

FIGURE 77: SUITABILITY OF HOUSING TO ACCOMMODATE OCCUPANTS



Source: ABS Census 2016

Across the LGA there were 3,289 dwellings which had a need for additional bedrooms. This represents just 2% of total dwellings in Moreton Bay. The vast majority of this need is from three-bedroom dwellings (45%), followed by four bedrooms (23%) and two bedroom dwellings (17%). However, of all the three-bedroom dwellings in Moreton Bay, only 2% cited that they had a need for additional bedrooms.

The low proportion of dwellings with additional bedrooms need illustrates that as a whole, few households need to or choose to compromise on the *size* of their housing due to affordability pressures or to live in a more desirable area.

The majority of three or more-bedroom dwellings have 2+ bedrooms spare in Moreton Bay (50 to 80% depending on household type). This suggests that households are choosing larger dwellings than they might need in Moreton Bay. In addition, older families will have had adult children move out, leaving bedrooms spare.

Non-resident workforce housing

According to the 2016 ABS Census, there were 69 people who both worked in Moreton Bay and were recorded in a non-private dwelling in Moreton Bay (such as workers accommodation, a boarding house, motel etc) on Census night. While some people may have been temporarily away on Census night, this is a reasonable estimate of the number of non-resident workers in Moreton Bay. The following table breaks this total down by industry.

Overall, non-resident workers make up a very small proportion of the Moreton Bay workforce. The table below shows that non-resident workers make up the greatest proportion of the workforce in the Agriculture, Forestry and Fishing industry (likely agriculture workers), and in utilities. However, even in these industries less than 1% of workers were recorded in local non-private dwellings.

TABLE H49: NON-RESIDENT WORKERS IN MORETON BAY

Industry	Residents of Moreton Bay non-private dwellings who work in Moreton Bay	Total Moreton Bay workers	% of workers in non-private dwellings
Agriculture, Forestry and Fishing	19	2,406	0.8%
Electricity, Gas, Water and Waste Services	7	1,022	0.6%
Other industries	48	109,552	0.04%
Total	**69**	**112,980**	**0.06%**

Source: SGS 2022

Note that due to randomisation of Census data, the column totals may differ from sums of the columns. In this case the total is more reliable than the sums of the values in the columns.

The ABS randomises small counts in Census results, and so all other industries than those reported have too few workers resident in Moreton Bay non-private dwellings for the ABS to provide reliable statistics. These other industries have been grouped together for this reason.

Moreton Bay has a large and diverse housing stock, with a large amount of rental housing at a variety of price points. Non-resident workforce accommodation is common in areas with limited rental housing availability near jobs such as small towns or large workforces which are not near towns or settlements (for example mining or agriculture), and in which there are many short term workers. As such, non-resident workforce accommodation would be expected to play a minor role in Moreton Bay's overall workforce and population, with workers instead living in rental accommodation.

The industry in which non-resident workforce does play a role in Moreton Bay is agriculture. If ABS 2016 Census data on place on enumeration only is considered (i.e. where people were registered on Census night), 44 people were registered staying in staff quarters who work in the agriculture, forestry and fishing sector, with a further 19 in boarding houses or private hostels. While this is more people than were reported in the place of work data shown in the table above, it is still only 2.5% of people in Moreton Bay on Census night who worked in the agriculture, forestry and fishing sector.

SA2 Housing demand forecasts

SA2s are much smaller than housing submarkets, and so people are likely to make locational trade-offs between adjacent SA2s and may move to one instead of another depending on housing availability,

price and other factors. For this reason, small area housing demand forecasts (like those at the SA2 level) should be treated as a guide to the potential location of growth only, with different projections possible if different policy settings are chosen which change where housing development occurs. Rather than trying to match housing demand forecast results at the SA2 level, strategic planning should aim to ensure that there is enough housing capacity by type in broad parts of the LGA (like the profile areas), and that housing development is being facilitated in high-amenity areas.

In small areas like SA2s demographic and preference trends can be relatively volatile, meaning that housing demand results in smaller areas are less reliable than those at the LGA level or for profile areas.

As noted in the caveats for small-area demand modelling, there are multiple reasons that small-area housing demand results are less reliable than results for the whole of the LGA or profile areas.

As a result of these caveats and those discussed herein, these results should be regarded as indicative and a starting point for modelling and policy-making only.

The following chart shows overall housing demand results by SA2. These results show some increase in housing demand in most SA2s across the LGA. There are more substantial increases in modelled demand in SA2s containing growth areas in line with population projections and development expectations.

TABLE I50: HOUSING DEMAND FORECAST BY SA2

SA2	Profile area	2021	2031	2041	2051	Change	% Change
Burpengary - East	Caboolture	1,702	2,918	3,851	5,000	3,299	194%
Caboolture		11,470	13,951	16,126	17,947	6,477	56%
Caboolture - South		8,339	9,940	11,334	12,315	3,976	48%
Morayfield		2,319	5,037	8,011	12,391	10,072	434%
Morayfield - East		3,744	5,593	6,429	7,205	3,461	92%
Upper Caboolture		1,190	2,150	6,437	10,765	9,575	805%
Wamuran		1,484	2,515	7,637	12,665	11,181	754%
Beachmere - Sandstone Point	Coastal Communities & Bribie Island	7,891	9,328	10,053	11,077	3,186	40%
Bribie Island		10,814	11,947	12,621	13,090	2,276	21%
Burpengary	Deception Bay & Narangba	5,714	7,568	10,038	12,277	6,563	115%
Deception Bay		9,599	10,925	11,753	12,043	2,445	25%
Narangba		7,275	11,243	14,958	19,643	12,368	170%
Dakabin - Kallangur	North Lakes	10,324	12,622	13,897	15,202	4,878	47%
Murrumba Downs - Griffin		8,318	10,277	11,122	12,263	3,945	47%

North Lakes - Mango Hill		13,795	17,095	17,854	18,762	4,967	36%
Petrie		3,630	4,715	4,933	5,048	1,418	39%
Clontarf	Redcliffe Peninsula	3,790	4,115	4,497	4,795	1,005	27%
Margate - Woody Point		6,195	6,545	7,116	7,434	1,240	20%
Redcliffe		6,082	7,125	8,545	9,555	3,473	57%
Rothwell - Kippa-Ring		6,950	7,506	8,025	8,606	1,656	24%
Scarborough - Newport - Moreton Island		6,319	7,492	7,738	8,490	2,171	34%
Cashmere	Rural	7,221	9,582	9,967	10,454	3,233	45%
Dayboro		3,148	3,343	3,383	3,403	255	8%
Elimbah		1,333	1,577	1,665	1,722	389	29%
Samford Valley		4,162	4,490	4,602	4,659	497	12%
Woodford - D'Aguilar		3,130	3,349	3,353	3,367	237	8%
Albany Creek	Strathpine	5,929	5,974	6,018	5,945	16	0%
Bray Park		3,697	3,787	3,893	4,002	306	8%
Eatons Hill		2,672	2,880	3,010	3,192	521	19%
Lawnton		2,815	3,817	4,601	5,791	2,977	106%
Strathpine – Brendale		5,055	5,351	5,904	6,363	1,308	26%
The Hills District		8,649	8,860	9,191	9,374	725	8%
Total		**184,751**	**223,616**	**258,561**	**294,845**	**110,094**	**60%**

Source: SGS 2022

More detailed greenfield capacity results

Greenfield capacity has been divided into precincts as well as by difficulty. The precincts are grouped into the following categories reflecting at a high level the timeframe over which capacity may be available for development, and the extent to which detailed planning has taken place and servicing infrastructure is available.

Planning infrastructure area (PIA)

This category includes all of the greenfield capacity identified within the PIA. This is predominately composed suburbs where land is zoned for development within the PIA, and is large enough to be

considered available for greenfield development. The capacity in these areas is generally on remaining undeveloped parts of existing developments, or on large properties which remain with recent greenfield development nearby or surrounded by existing greenfield developments. Existing housing estates under development within the PIA are also included. Given their location near other existing and recent suburban or urban development and within the PIA, properties corresponding to this capacity are understood to be serviced and available for development in the short term.

Suburbs containing the most capacity of this type are shown in the tables and include Mango Hill, Griffin, Caboolture, Dakabin, Kallangur, Upper Caboolture, Caboolture South, Narangba, Burpengary.

The Township precinct is also included within the PIA, but very limited development is expected in this area.

Not PIA - Available for development

This category includes precincts which are outside of the PIA, but are regarded as currently available for development or available for development in the short term due to existing development and the availability of servicing infrastructure:

- Precinct 1 in Caboolture West which has been recently rezoned to facilitate development and is relatively near servicing water mains and sewerage.
- Remaining properties and parts of housing estates under development outside of the PIA are also included in this category.

Not PIA - Limited infrastructure availability and/or planning

This category includes precincts which are outside of the PIA and which are mostly not immediately available for development, either as a result of servicing infrastructure not being available or necessary planning not having been undertaken. However some development has occurred in these precincts or some parts of them may be available for development in the short-medium term:

- Morayfield South has recently endorsed for further development via a temporary local planning instrument in order to facilitate development. As a result of this rezoning, parts of the Precinct are likely to be available for development in the short term, and a small amount of development within the precinct has already occurred under the current zoning. However, mapping of water and sewerage mains from Unity Water shows that most of the precinct is not serviced, meaning that much of the capacity is likely to be unavailable until such time as additional infrastructure is delivered.
- The Narangba East Emerging Community Area and Burpengary East Emerging Community Area, in which some development has occurred with servicing infrastructure available to some parts of these Precincts. However, these Precinct are still zoned Emerging Community Zone as required detailed planning and infrastructure work has not occurred.

Future precincts

This category contains precincts which are identified for future greenfield development, but in which development has not begun to occur and necessary planning has not occurred or servicing infrastructure is not available. These precincts are considered to be further away from development than other precincts. The precincts included are:

- Caboolture West apart from Precinct 1 which is not zoned for development. Most of Caboolture West is not currently near necessary servicing infrastructure
- The Joyner Emerging Community Area, which is surrounded on three sides by existing development but which has multiple development constraints, required planning has not occurred and in which development has not commenced.

Caveats

Note that the discussions of availability of capacity availability, precinct timeframes, servicing infrastructure and planning status in this section are only for the analytical purpose of categorising precincts. This discussion has been informed only by the best available information which is publicly available.

The discussion and designations should not be understood to indicate Council's intentions or views regarding infrastructure planning, development timeframes, the strategic status or planning of precincts, or where development should occur.

TABLE J51: NET GREENFIELD HOUSING CAPACITY BY EASE OF DEVELOPMENT (MODERATE DENSITY SCENARIO)

Status	Precinct	Very difficult	Difficult	Moderate	Good	Very good	Total
Priority infrastructure area (PIA)	Mango Hill & Griffin	727	1,106	201	1,708	213	3,905
	Caboolture	1,081	344	66	365	723	2,579
	Morayfield	546	320	158	491	158	1,673
	Dakabin & Kallangur	156	612	153	583	0	1,505
	Upper Caboolture & Caboolture South	578	280	15	141	95	561
	Narangba & Burpengary	0	36	0	151	257	445
	Township Precinct	203	85	20	120	100	528
	Other	865	686	47	557	337	3,090
	Subtotal	*4,157*	*3,470*	*659*	*4,116*	*1,883*	*14,284*
Not PIA - Available for development	Cab. West - Precinct 1	25	521	108	1,498	4,053	6,204
	Underway housing estates	0	0	0	243	1,621	1,863
	Subtotal	*25*	*521*	*108*	*1,741*	*5,673*	*8,068*
Not PIA - Limited infrastructure availability and/or planning	Morayfield South	3,072	5,727	319	1,584	0	10,703
	Narangba East	634	1,397	226	437	210	2,903
	Burpengary East	197	753	0	67	0	1,017
	Subtotal	*3,903*	*7,877*	*545*	*2,088*	*210*	*14,623*
Future precincts	Cab. West - Future	953	1,648	620	15,835	42,188	61,245
	Joyner	553	384	85	0	0	1,023
	Subtotal	*1,506*	*2,032*	*706*	*15,835*	*42,188*	*62,268*
Other greenfield capacity – not PIA		*427*	*604*	*256*	*455*	*301*	*2,043*
	Total	**10,018**	**14,504**	**2,274**	**24,234**	**50,255**	**101,285**

TABLE K: NET GREENFIELD HOUSING CAPACITY BY EASE OF DEVELOPMENT (LOWER DENSITY SCENARIO)

Status	Precinct	Very difficult	Difficult	Moderate	Easy	Very easy	Total
Priority infrastructure area (PIA)	Mango Hill & Griffin	601	927	201	1,238	213	3,130
	Caboolture	1,081	344	66	365	723	2,579
	Morayfield	432	294	103	491	158	1,478
	Dakabin & Kallangur	154	569	153	583	0	1,459
	Upper Caboolture & Caboolture South	347	267	20	260	194	561
	Narangba & Burpengary	323	71	15	0	0	409
	Township Precinct	0	36	0	151	257	445
	Other	804	657	47	557	337	2,979
	Subtotal	*3,741*	*3,166*	*603*	*3,645*	*1,883*	*13,039*
Not PIA - Available for development	Cab. West - Precinct 1	13	305	108	814	2,377	3,616
	Underway housing estates	0	0	0	243	1,621	1,863
	Subtotal	*13*	*305*	*108*	*1,056*	*3,997*	*5,480*
Not PIA - Limited infrastructure availability and/or planning	Morayfield South	2,400	4,300	319	1,477	0	8,496
	Narangba East	400	717	226	437	210	1,989
	Burpengary East	197	753	0	67	0	1,017
	Subtotal	*2,997*	*5,770*	*545*	*1,980*	*210*	*11,503*
Future precincts	Cab. West - Future	706	1,148	620	11,016	27,684	41,174
	Joyner	553	384	85	0	0	1,023
	Subtotal	*1,259*	*1,532*	*706*	*11,016*	*27,684*	*42,197*
Other greenfield capacity – not PIA		*389*	*596*	*256*	*455*	*301*	*1,997*
	Total	**8,400**	**11,370**	**2,219**	**18,153**	**34,074**	**74,216**

Detailed capacity results for consolidation and infill areas

TABLE L: GREENFIELD HOUSING CAPACITY IN CONSOLIDATION AND EXPANSION AREAS (MODERATE DENSITY SCENARIO)

Precinct type	PIA or available for development			Other precincts			Other cap.	Total
Ease of development	Good & V. good	Mod.	Diff. or V. diff.	Good & V. good	Mod.	Diff. or V. diff.		
Consolidation	3,120	265	4,108	625	90	3,308	981	12,498
Expansion	10,292	502	4,064	59,696	1,161	12,011	1,062	88,787
Total	**13,412**	**767**	**8,172**	**60,321**	**1,251**	**15,319**	**2,043**	**101,285**

TABLE M52: GREENFIELD HOUSING CAPACITY IN CONSOLIDATION AND EXPANSION AREAS (LOWER DENSITY SCENARIO)

Precinct type	PIA or available for development			Other precincts			Other cap.	Total
Ease of development	Good & V. good	Mod.	Diff. or V. diff.	Good & V. good	Mod.	Diff. or V. diff.		
Consolidation	3,120	265	3,901	625	90	2,308	936	11,246
Expansion	7,461	447	3,324	40,265	1,161	9,250	1,062	62,970
Total	**10,582**	**712**	**7,226**	**40,890**	**1,251**	**11,559**	**1,997**	**74,216**

TABLE N: NET CAPACITY IN CENTRES IN CONSOLIDATION AND EXPANSION AREAS (MODERATE DENSITY SCENARIO)

Profile area	Difficult	Moderate	Good	Total
Consolidation	1,332	899	3,713	5,944
Expansion	222	32	322	576
Total	**1,555**	**931**	**4,035**	**6,520**

TABLE O: NET CAPACITY IN CENTRES IN CONSOLIDATION AND EXPANSION AREAS (LOWER DENSITY SCENARIO)

Profile area	Difficult	Moderate	Good	Total
Consolidation	646	783	3,387	4,816
Expansion	85	27	247	359

TABLE P: NET INFILL CAPACITY IN CONSOLIDATION AND EXPANSION AREAS (MODERATE DENSITY SCENARIO)

	Precinct	Very difficult	Difficult	Moderate	Good	Total
Consolidation	Lower density			1,878	1,260	3,137
	Medium density	4,060	7,292	4,141	1,145	16,639
	Higher density		7,855	4,057	2,335	14,247
	Total	**4,060**	**15,148**	**10,076**	**4,740**	**34,024**
Expansion	Lower density			2,095	1,143	3,238
	Medium density	491	3,080	2,522	691	6,783
	Higher density		3,039	793	801	4,632
	Total	**491**	**6,119**	**5,410**	**2,635**	**14,654**

TABLE Q: NET INFILL CAPACITY IN CONSOLIDATION AND EXPANSION AREAS (LOWER DENSITY SCENARIO)

	Precinct	Very difficult	Difficult	Moderate	Good	Total
Consolidation	Lower density				315	315
	Medium density	7	3,036	2,063	605	5,710
	Higher density		3,184	2,434	1,515	7,134
	Total	**7**	**6,220**	**4,497**	**2,435**	**13,158**
Expansion	Lower density				265	265
	Medium density	21	2,660	1,971	227	4,879
	Higher density		2,105	481	406	2,991
	Total	**28**	**10,984**	**6,949**	**3,332**	**21,293**

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