

Land Supply and Development Monitoring (LSDM) Report 2020

SEQ Growth Monitoring Program (GMP)

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Message from the Housing Supply Expert Panel

Welcome to the third edition of the Land Supply and Development Monitoring Report (LSDM) Report. There is no doubt we are in a period of unprecedented change and disruption, so firstly I would like to thank all stakeholders for their continued efforts to engage and support the program through this difficult time.

The LSDM Report is a vital element in the regional planning framework for South East Queensland (SEQ). The LSDM Report provides continuous feedback to Councils, industry and the community on the implementation of 3 key initiatives in *ShapingSEQ 2017*, namely, ‘focusing 60 per cent of new housing development in the existing urban area’, ‘supporting better and more diverse housing, with a particular emphasis on promoting missing middle forms of housing’ and ‘right sizing our Urban Footprint so land supply constraints do not place unnecessary upward pressure on housing prices’.

This year’s report again shows that almost all areas in SEQ have an adequate supply of land which, on the face of things, has all the necessary pre-requisites for housing development. However, in some locations, particularly in the coastal belt of Gold Coast, Redlands, Moreton, and Sunshine Coast, as a result of a variety of factors, the markers continue to indicate a short-term contraction in supply.

At a time when leadership from government is crucial, bold moves are required to stimulate construction and ensure adequate land supply is available, both the State and local governments need to take a more instrumental role in areas facing this kind of bottleneck in land supply, especially considering stimulus measures and in light of the UDIA Report ‘The Perfect Storm’. The Panel was asked by the Minister for their views on ensuring land supply enables the economic recovery. The Panel provided 17 potential actions categorised over a short-, medium- and long-term horizon. These actions recognised that many needed to occur in parallel and should be a priority for the new government to address.

The initiatives include:

- Addressing the underutilised urban footprint and fragmented land, (through an agency tasked with addressing these issues),
- Utilising Ministerial powers to ensure timely planning scheme amendments,
- Support additional catalyst funding; and
- To fund more social and affordable housing and Build to Rent (BTR).

We look forward to continuing to provide independent advice to the new Minister in 2021 on these potential actions and the broader monitoring program.

The results also highlight ongoing markers continuing to drop below or near the benchmarks. It is recognised that the market has fluctuations but some of these are a repeating trend. The adequate supply figure is further reduced if semi-rural and rural locations are removed from the assumptions. The role of the monitoring program is to highlight these trends and draw attention to a potential issue and call to action. As previously highlighted, and due to the long lead times, government needs to be responsive to these markers and demonstrate timely progress towards addressing this.

There have also been several refinements to the methodologies and additional data sets as part of the latest edition. This has included refinements in the industrial land methodology and further breakdown of the missing middle typology.

The Panel received the second Market factors report that provides a critique of 10 key factors that influence dwelling demand. The full report is available in the [Market factors](#) section. The report concluded that the market is significantly

disrupted from the health crisis. Queensland and SEQ is well positioned to benefit from the stimulus measures. Despite the reduction in international migration flows, internal migration is at a 10-year high (pre COVID). Updated Queensland population and dwelling projections from QGSO are anticipated in the new year. This is important to allow stakeholders to use forecasts for planning purposes, whether they be government or the private sector. The panel suggests COVID-confident population forecasts be given high priority from the Government. The Panel has also asked for more regular updates on key metrics as we navigate through the next 6 to 12 months.

This year has also seen strong engagement with local governments across SEQ. The Panel has undertaken a listening exercise with key local government areas experiencing markers and pressure on land supply. A common theme among the Councils has centred around community concerns about growth, increased density and change and a disconnect between planning strategy and community expectations. A collective approach to education and engaging with communities is essential to bring about change and to achieve the targets identified in *ShapingSEQ 2017*. The panel strongly suggests local government engage in an ongoing narrative with their communities around their future growth strategy.

Public housing and community housing is essential infrastructure for sustainable and prosperous communities. The report shows that the stock of this housing in SEQ increased by some 7% between 2006 and 2016 based on Census data. This is in some contrast to Australia as whole where the total supply of this form of housing actually shrunk over the decade in question. Nevertheless, SEQ has a comparatively low proportion of public and community housing. 3.3% of the total regional stock comprises this form of housing compared to 4.2% for the nation.

The Panel has continued to focus on housing affordability and supply of social housing as important components of overall housing supply. COVID 19 has only further highlighted the importance of, and unmet demand for, housing that is accessible to vulnerable individuals and families. The Panel will continue to work with State Government to encourage the development of benchmarks and investment strategies to increase and maintain adequate supply of social and affordable housing as a percentage of overall housing stock. See the [Housing Supply Expert Panel](#) section of the report for more information on this initiative.

Finally, many thanks to all involved for your ongoing commitment to this work. I commend the third edition to you in this unique period we find ourselves in.

Regards

Julie Saunders

Chair on behalf of the Housing Supply Expert Panel

Introduction

The 2020 Land Supply and Development Monitoring (LSDM) Report tracks residential and industrial land supply and development activity and land and house prices for South East Queensland (SEQ). It compares residential and industrial development activity and land supply in SEQ to the dwelling supply benchmarks, employment planning baselines and policy objectives of *ShapingSEQ 2017*.

The report has been prepared using data provided by local governments, utility providers, the Queensland Government Statistician's Office, and the Australian Bureau of Statistics (ABS) and has been reviewed in consultation with key stakeholders including, local governments, utility providers, state agencies and the development industry.

The 2020 LSDM Report is the third annual report of the Growth Monitoring Program (GMP) and will be subject to review and improvement as an ongoing program of government.

The primary objective of the report is to work progressively towards a shared understanding for land supply and development activity data in SEQ and to better inform infrastructure planning and land supply planning and policy as part of the GMP. The long-term benefits of improved planning and policy are:

- being able to afford somewhere to live
- having access to employment and other services
- continuing to enjoy the unique SEQ lifestyle.

This established and ongoing monitoring program will streamline future regional plan reviews and provide the robust evidence to inform future policy decisions.

The 2020 LSDM Report reflects ongoing program improvements designed to:

- update existing data
- enhance data accuracy
- action best practice research
- inform better decision making
- continue to collaborate with stakeholders
- produce more refined reporting.

The publication of an annual LSDM Report provides the opportunity to compare additional data year on year. The department recognises that results will fluctuate on an annual basis, but the GMP continues to present data against the long-term dwelling supply benchmarks, employment planning baselines and policy objectives of *ShapingSEQ 2017*.

Annual monitoring and reporting of the region's land supply and development activity continues to provide an evidence base of increasingly valuable data that can be utilised to inform decision making, particularly in times of uncertainty.

Background

The Growth Monitoring Program (GMP) is a key implementation action of *ShapingSEQ 2017* and includes three core deliverables, including the preparation of an annual Land Supply Development Monitoring (LSDM) Report, the updating of the Measures that Matter (MtM) dashboard and the continuation of the SEQ Housing Supply Expert Panel (HSEP), all of which were established in 2018.

The LSDM Report is a key implementation action of *ShapingSEQ 2017*. It compiles a wide range of data in one easy-to-use location to annually monitor land supply and development activity across the SEQ region. This report's interactive online format acts as a central information point to help better monitor land supply across the region. It has been designed to deliver complex data in an easily understood way, through the use of graphs, maps and supporting explanations of technical concepts. Through this format users are able to tailor their experience to the level of detail they desire.

The 2020 LSDM Report is a key deliverable of the SEQ GMP. In 2020, the GMP has built on and refined its 2019 reporting including annual data updates and the progression of best practice research and priority actions.

Considering the impacts of COVID-19

COVID-19 has, and continues to have, impacts across the globe and many aspects of our daily lives here in SEQ. In this context, there is a heightened need to understand the impacts it may have on housing and development demand. Since the release of the 2019 Land Supply and Development Monitoring (LSDM) Report, the pandemic has emerged and continues as an evolving risk to health and economic activity.

There is no event in recent history that is directly comparable to the COVID-19 pandemic, which makes forecasting the magnitude and length of the economic impacts of the crisis difficult. The Growth Monitoring Program, and the annual LSDM reporting, will play a role in exploring and understanding the impacts of the pandemic as data and information becomes available.

Through an update of the [Market factors](#) Report for the 2020 LSDM, preliminary commentary on the possible impacts and flow on effects of COVID-19 indicated:

- Government and market sentiment may recover relatively quickly from the current economic downturn
- From Government data that two-thirds of all businesses reported decreases in revenue to end of June 2020
- Flow on impacts into consumer spending.

The residential development sector in SEQ is likely to be impacted by the economic flow on effects from the pandemic, with housing construction being an initial focus for economic stimulus. However, due to the reporting period for the 2020 LSDM Report (to 30 June 2020) the impact of COVID-19, on land supply and development activity monitoring matters, may not be fully reflected in this report.

Recent work by the federal government's Centre for Population (December 2020) estimated that, due to COVID-19, it is likely that Queensland will experience a reduction in its population growth rate, based on changes in net overseas and interstate migration, and net natural increase in the short-term. That trend is reflected in Australian Bureau of Statistics population estimates to June 2020 (December 2020), showing a decline in overall growth, comprising declines in net overseas migration and natural increase and increased net interstate migration compared to recent years.

Despite recent commentary on increases in interstate migration, there would need to be a significant increase in this form of migration to offset the expected reduction in net overseas migration.

Further, the State of Nation's Housing 2020 report, the first such report released by the National Housing Finance and Investment Corporation (December 2020), reflects its expectation of the effect of government stimulus measures on housing construction activity over the short-term. Growth in underlying housing demand across Queensland overall is expected to decline to significantly lower levels in the next two years, due primarily to the decline in net overseas migration, before recovering (around 2024) to be close to pre-COVID-19 levels. In contrast, facilitated by government stimulus measures, net growth in dwellings is expected to decline much less significantly than demand in 2021.

Presently there is insufficient information and data to accurately predict the effects of COVID-19, however, in light of the COVID-19 pandemic, now more than ever continual and ongoing data collection and evidence-based reporting is needed to inform future decision making about land supply and development.

Further information considering the impacts of COVID-19 and recovery are [provided here](#).

Key reporting changes from 2019 to 2020

The department has been working to improve land supply and development activity monitoring and reporting since the release of the first Land Supply and Development Monitoring (LSDM) Report in 2018, with the support of key stakeholders. These improvements have resulted in updated, new and amended data in the 2020 version of the Land Supply and Development Monitoring Report as outlined in the table below.

For more detail about the Growth Monitoring Program's subprograms which led to a number of these improvements, see [Program Delivery](#).

<p>Updated data to 2020</p>	<ul style="list-style-type: none"> • Updated building approval data in Planned Dwelling Supply, Dwelling Growth and Changes in Housing Type sections. • Updated lot registration and median lot size data in Changes in Dwelling Density section. • Updated sales volume and price data in Sales and Price section, including upper and lower quartile sales price for all categories. • Updated uncompleted lots, lot creation, years of approved supply and operational works approvals in the Approved Supply section. • Revised impact of new constraints analysis. • Updated planned industrial land take-up for 2011 to 2019 using a refined methodology to achieve a consistent and repeatable methodology for the 2020 and future LSDM Reports. • Refinement of industrial land categories. • Consultation with local governments on methodology improvements, including a land use visual guide for Planned Industrial Land Supply/Take-up sections. • Updated industrial zoning/precinct and constraints (state and local) information. • Updated Current Intent to Service mapping to identify residential land that is currently committed to be serviced based on: <ul style="list-style-type: none"> ○ residential development approvals ○ residential preliminary approvals ○ priority infrastructure areas ○ existing and future water and sewer connection areas ○ infrastructure agreements
<p>New/additional data and Best practice research in 2020</p>	<ul style="list-style-type: none"> • Finer grained reporting in the Housing Type section of the proportion of dwelling approvals for each middle housing type annually. • New component of the Market Factors Report to discuss COVID-19 impacts and what these may mean for residential development in SEQ. • Collaborating with academia on new approaches to understand market changes and implications from COVID-19. • Improved assessment and identification of the industrial planning intent layer.

	<ul style="list-style-type: none"> • Improved constraints information from State and local government planning instruments. • Inclusion of new and amended local planning instruments.
<p>Ongoing development</p>	<ul style="list-style-type: none"> • Updates to Market Factors for elements affecting the region’s ongoing development. • The ‘Moving Forward’ section of the 2019 LSDM Report has been renamed ‘Program Delivery’ to better reflect the GMP as an established program. • Further best practice research, including: <ul style="list-style-type: none"> ○ Ability to service (consolidation) ○ Developable area and land supply types, including planned industrial land supply and take up ○ Measuring development ○ Regional Planning Model, formerly the Small Area Growth Assumptions. • Aim to include interactive mapping of selected land supply and development information (e.g. dwelling approval and historical lot subdivision).

ShapingSEQ 2017 policy objectives – land supply

Planned dwelling and employment supply

The South East Queensland (SEQ) Regional Plan, *ShapingSEQ 2017*, was released in 2017 following extensive consultation with government agencies and the community. The plan establishes a desired growth allocation pattern to accommodate expected dwelling and employment growth in SEQ to 2041, through dwelling supply benchmarks and employment planning baselines for each local government area.

ShapingSEQ 2017 sets an objective for planning instruments to accommodate the 2041 dwelling supply benchmarks and employment planning baselines. *ShapingSEQ 2017* also establishes an objective that there will always be at least 15 years' supply of land that is appropriately zoned and able to be serviced. The 2041 benchmarks and baselines are static supply objectives, while the 15-year policy objective is a rolling assessment of supply each year which considers recent growth, remaining supply, and the expected rate at which supply will be consumed. *ShapingSEQ 2017* also establishes that supply will be measured based on its realistic availability for development, not only its ultimate long-term capacity for development.

To measure whether these policy objectives are being met, the Land Supply and Development Monitoring (LSDM) Report provides an estimate of the capacity and the realistic availability of planned dwelling supply and planned industrial employment supply for each local government area, and an estimate of the number of years it will take for growth to consume each estimate of supply. The LSDM Report compares these estimates to the 2041 benchmark or employment planning baseline and the 15 years of zoned and able to be serviced supply objective in the Planned dwelling supply and Planned industrial employment supply sections for SEQ and each local government area.

The LSDM Report's estimate of supply will serve to inform evidence-based decision making in accordance with the land supply framework identified in *ShapingSEQ 2017* (p.47). In its third year, the Growth Monitoring Program (GMP) is building a stronger evidence base, demonstrating continuous improvement and refinement in annual reporting; laying the foundation to inform future policy development and support the next regional plan review, anticipated to occur between 2022 and 2024.

The integrated relationship between regional and local land supply monitoring will be reinforced with a number of local governments, including Gold Coast, Moreton Bay, Toowoomba and Scenic Rim, beginning work on growth management strategies or similar projects. Other Councils, including Brisbane, are progressing policy and strategy with respect to housing supply and diversity. The GMP will play an important role in the development of these strategies, as a best practice monitoring program providing a consistent regional methodology.

Short term supply

ShapingSEQ 2017 focuses on long term supply providing a 25-year plan with identified benchmarks, baselines, and years of supply objectives for planned supply – monitored through annual LSDM reporting. However, it also has short-term land supply objectives. These are identified through the preferred future for a minimum of four year's approved supply. This measure provides an indication of the level of approvals available to support the pipeline of construction in the region and each local government area.

A number of responses to activating short-term land supply in SEQ, in addition to the stimulus available through the Queensland government's Building Acceleration Fund, will continue to be explored in partnership with the Housing Supply Expert Panel and other key stakeholders, including infrastructure coordination, land fragmentation, and incentives for housing diversity and urban consolidation.

Such measures to provide adequate land supply seek to avoid placing upward pressure on prices, however there are factors besides land supply that can impact on housing affordability over time. These can include rapid changes in demand in some areas, housing finance availability and interest rates, incentives provided by the taxation system for housing as an investment, other housing investment subsidies, and exchange rates and the level of foreign investment.

SEQ

Summary

ShapingSEQ 2017 establishes that SEQ's expected population growth will require about 794,000 additional dwellings between 2016 and 2041, through its dwelling supply benchmarks, and the creation of about 1 million more jobs.

The capacity and realistic availability of planned dwelling supply in SEQ consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about 4.2 years of supply of uncompleted lot approvals in SEQ, which is slightly above the minimum four years of supply sought by *ShapingSEQ 2017*. There are 8.7 years of supply of material change of use approvals for multiple dwellings in the SEQ consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*.

Cumulative dwelling approvals in both the consolidation and expansion areas of SEQ have aligned with *ShapingSEQ 2017's* average annual benchmarks on average since 2016/17, despite annual approvals decreasing in 2018/19 and 2019/20.

Housing in SEQ is becoming more diverse and dwelling density is increasing in accordance with SEQ's preferred future. While housing diversity and density is increasing, middle and high-rise dwelling approvals have decreased in percentage share since 2016/17. It will be important to monitor this closely in future years as any decrease in middle dwelling types may have an impact on delivery and promotion of housing choice and diversity and 'missing middle' forms of housing, as sought by *ShapingSEQ 2017*.

The residential median sales prices have increased across SEQ since 2011/12 despite a decline in price for attached dwellings in the expansion area in 2019/20. The number of sales across SEQ have also increased across all categories in 2019/20, except attached dwellings in the expansion area.

The capacity and realistic availability of planned industrial employment supply in SEQ provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*. The estimated take-up of developed industrial land between 2011 and 2019 in SEQ was about 2066 hectares, with about 8830 hectares of planned industrial land existing as at 2019.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

Note: The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – SEQ

Planned dwelling supply – SEQ

The region has more than *ShapingSEQ 2017*'s required minimum of 15 years of dwelling supply in the pipeline.

The capacity and realistic availability of planned dwelling supply in the SEQ consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides land supply scenarios that consider whether capacity is realistically available by 2041.

The realistic availability scenarios consider factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

The realistic availability scenario for the expansion area uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the SEQ consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 561,500 dwellings, which exceeds the consolidation 2041 dwelling supply benchmark of 474,900 dwellings. However, the realistic availability of this supply may be lower, with an indicative range of:

- about 377,400 dwellings (around 15 years of supply) if 50 per cent of the capacity, that is not yet built or approved, is not available for development by 2041¹
- about 469,400 dwellings (around 20 years of supply) if 25 per cent of the capacity, that is not yet built or approved, is not available for development by 2041.²

Major sources of consolidation planned dwelling supply in SEQ include the following local government areas:

- Brisbane
- Gold Coast
- Moreton Bay.

In the SEQ expansion area, the capacity of planned dwelling supply is about 548,300 dwellings, while the realistic availability is about 358,000 dwellings. These figures exceed the 2041 expansion dwelling supply benchmark of 318,800 dwellings.

Major sources of expansion planned dwelling supply in SEQ include the following local government areas:

- Ipswich
- Logan

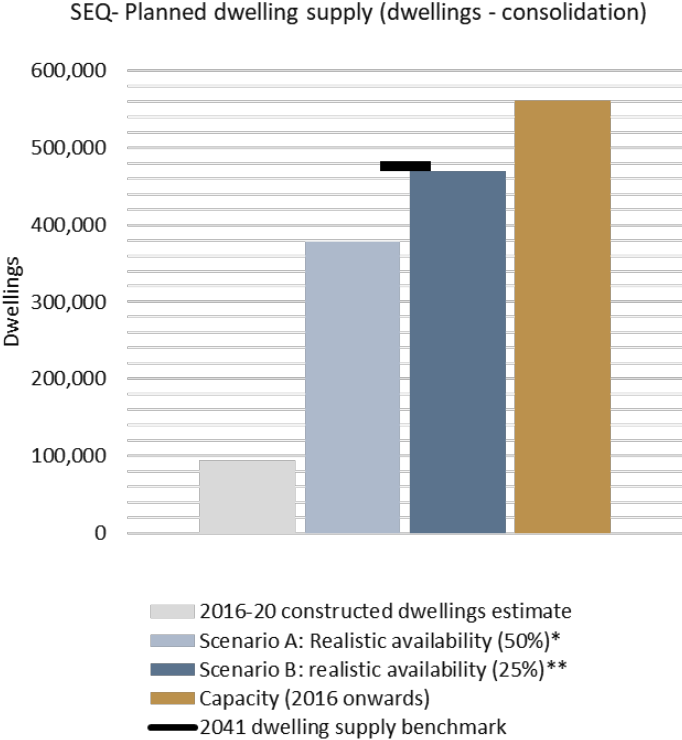
¹ Scenario A: Assumes that 50 per cent of the capacity, that is not yet built or approved, is not available for development by 2041.

² Scenario B: Assumes that 25 per cent of the capacity, that is not yet built or approved, is not available for development by 2041.

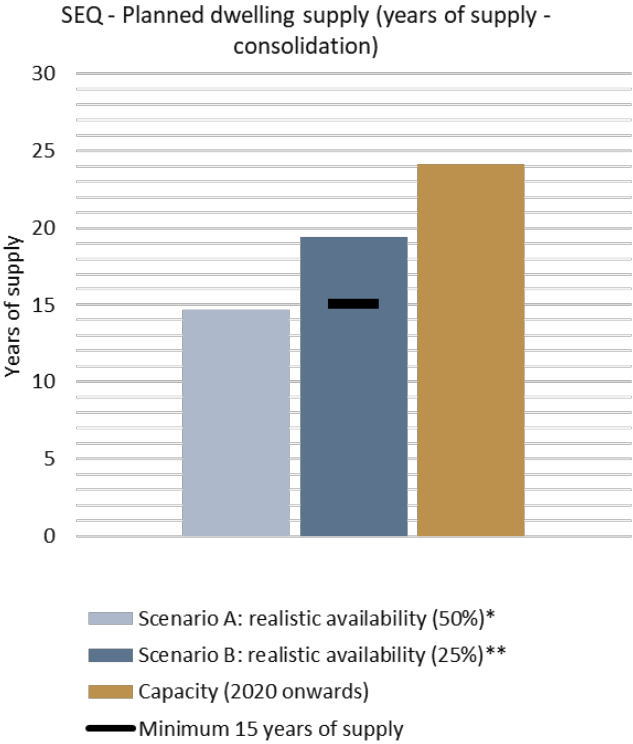
- Moreton Bay.

The amount of planned dwelling supply and the comparisons to the 2041 dwelling supply benchmarks vary across local government areas, as does the status of infrastructure projects that would support realisation of the supply. Further detail is provided in each local government section.

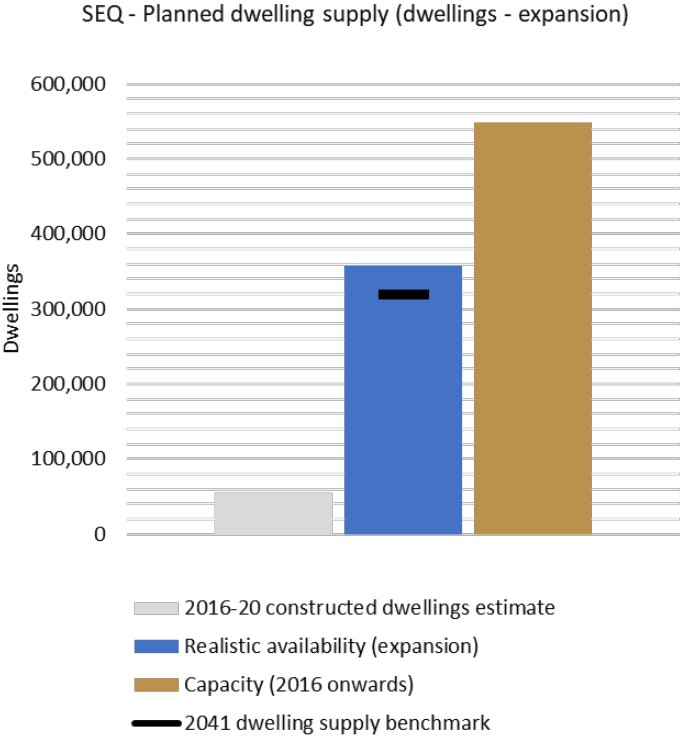
For more detail about the calculation of planned dwelling supply, see the [Technical notes](#).



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against the 2041 dwelling supply benchmark within consolidation areas.

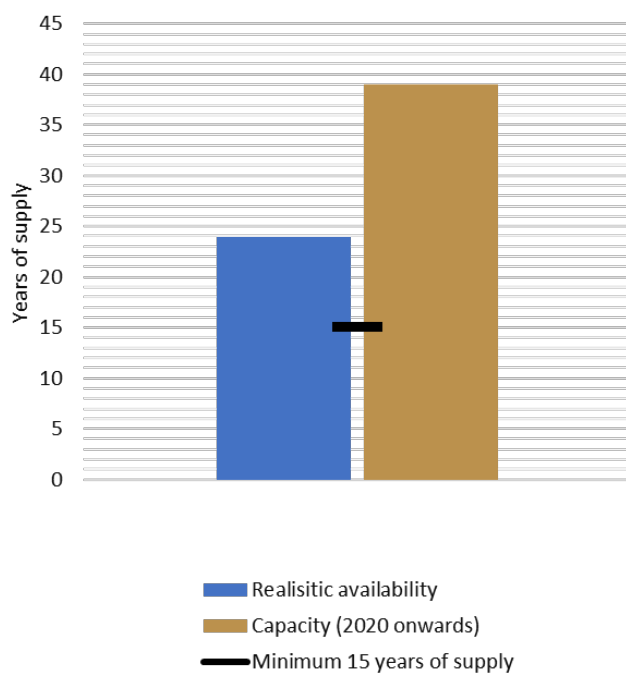


This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent compared against the 2041 dwelling supply benchmark within consolidation areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against the 2041 dwelling supply benchmark within expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).

SEQ - Planned dwelling supply (years of supply - expansion)



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent compared against the 2041 dwelling supply benchmark within expansion areas.

Note:

The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – SEQ

There is about 4.2 years of uncompleted lot approvals (overall) and about 8.7 years of multiple dwelling approvals (consolidation).

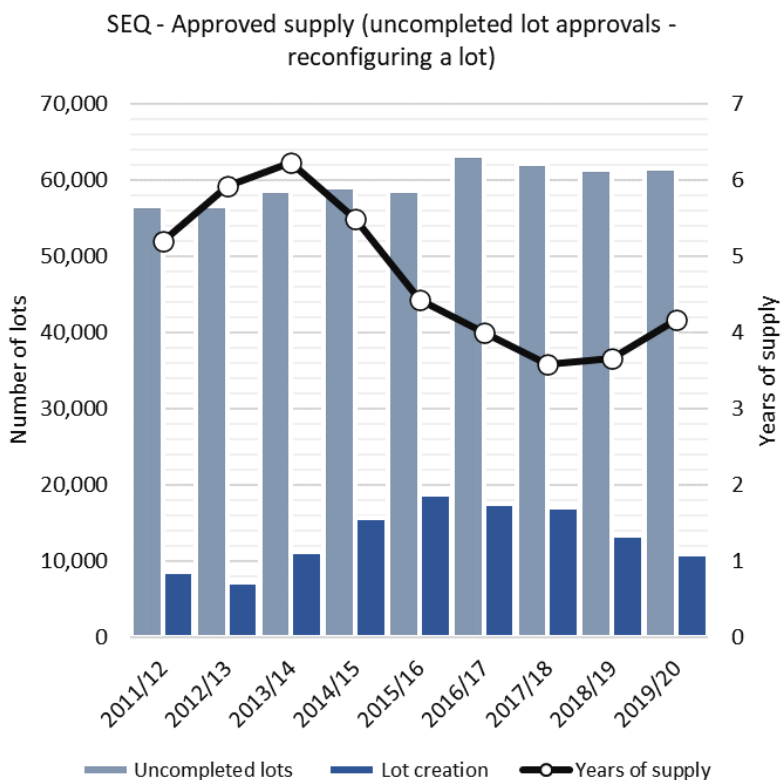
Approved supply is measured by analysing uncompleted lot approvals and uncompleted multiple dwelling approvals across the region.

There are about 4.2 years of supply of uncompleted lot approvals across the SEQ consolidation and expansion areas overall. This is marginally higher than the minimum four years of supply sought by *ShapingSEQ 2017*, with the total number of current uncompleted lot approvals at 61,535. The number of uncompleted lots that have operational works approvals has slightly increased to be about 42 per cent for the 2019/20 period.

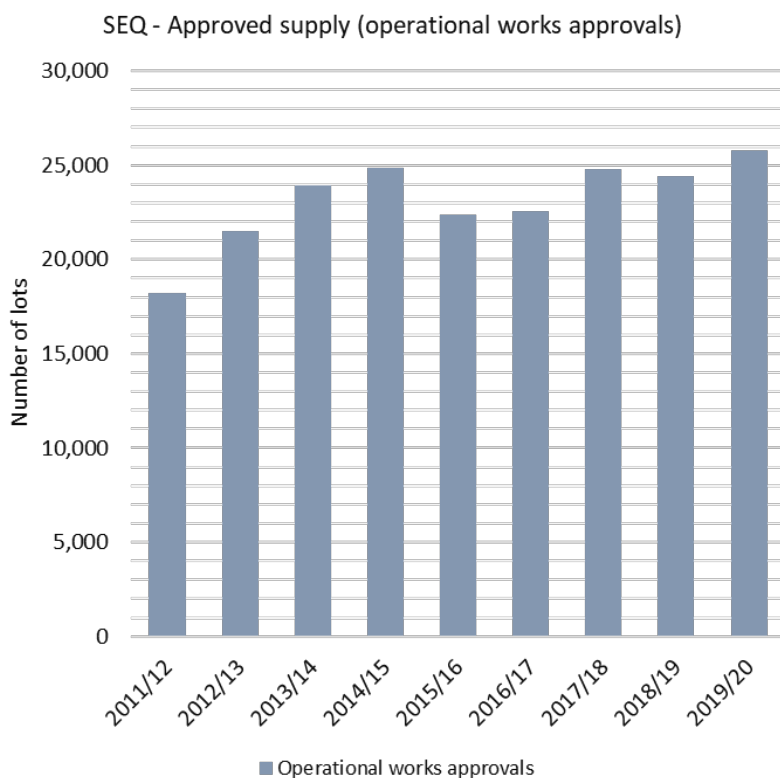
The very high rate of lot creation from 2015/16 to 2017/18 increased the average annual demand figure used in calculating years of supply and contributed to a slightly lower years of supply figure for 2018/19. However, the decreasing rate of lot creation since 2017/18 has contributed to a slight increase in the years of supply figure for 2019/20.

There are about 8.7 years of supply of uncompleted multiple dwellings approvals in the SEQ consolidation area. This exceeds the minimum four years of supply sought by *ShapingSEQ 2017*. The number of uncompleted multiple dwelling approvals fell slightly from June 2019 to June 2020, but the years of supply has increased because of the fall in attached dwelling approvals, decreasing the assumed level of demand in the years of supply calculation. A similar trend can be observed in many local government areas.

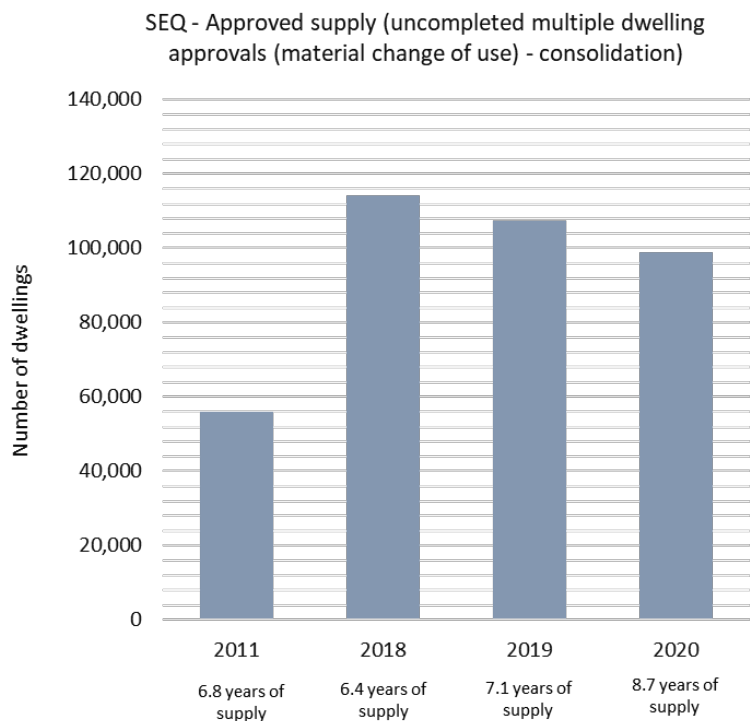
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year and the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years. The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – SEQ

SEQ is in line with *ShapingSEQ 2017* benchmarks for dwelling growth, on average.

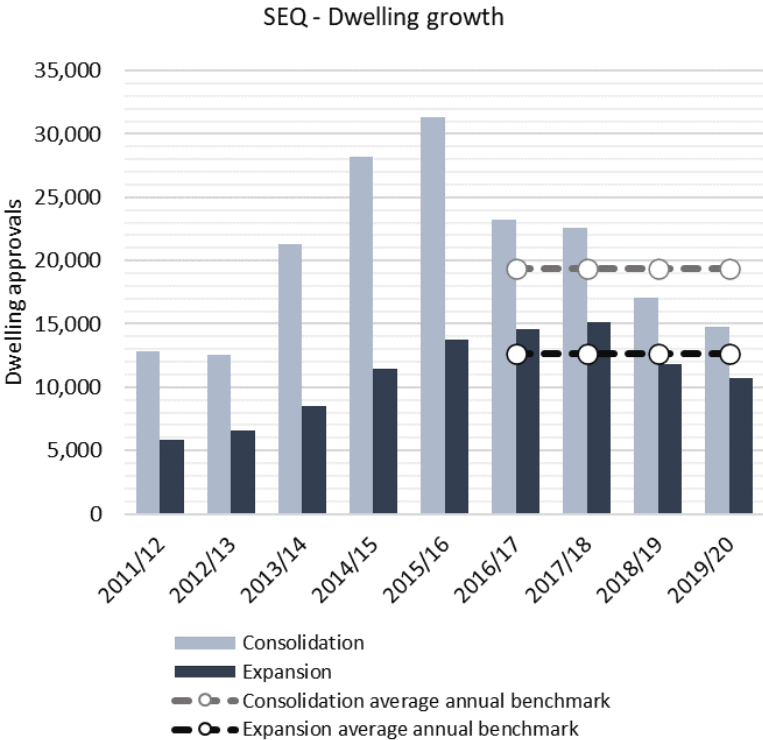
On average, dwelling approvals (used to measure dwelling growth) in the SEQ consolidation and expansion areas have remained in line with the average annual benchmarks since 2016/17. Following higher growth during 2016/17 to 2017/18, in 2019/20 there were 14,747 dwelling approvals in the SEQ consolidation area, which was approximately 4580 dwellings less than the consolidation average annual benchmark of 19,333 additional dwellings. There were 10,698 dwelling approvals in the SEQ expansion area in 2019/20, which was approximately 1950 dwellings less than the expansion average annual benchmark of 12,646 additional dwellings.

While cumulative dwelling growth aligned with the average annual benchmark in both the consolidation and expansion areas, there is a recent downward trend in the yearly data. This will be monitored in future reporting, particularly in light of potential COVID-19 impacts.

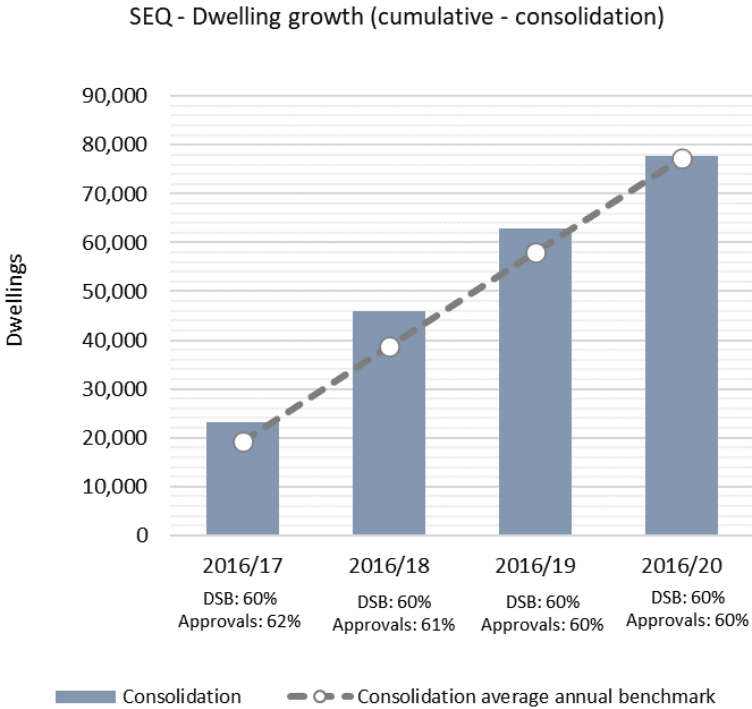
Approximately 60 per cent of dwelling approvals were in the SEQ consolidation area for 2016/17 to 2019/20, which is the same as its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017*. Approximately 40 per cent of dwelling approvals over the same period were in the expansion area, which is also the same as its expected share identified in *ShapingSEQ 2017*.

Despite the decline in the number of dwelling approvals in the 2019/20 period, the actual number of dwelling approvals for 2016/17 to 2019/20 in the consolidation and expansion areas are aligned with the average annual benchmarks. SEQ is currently on track to be able to accommodate the 2041 dwelling supply benchmarks, however the downward trend in the yearly data will be monitored against the average annual benchmarks over future years.

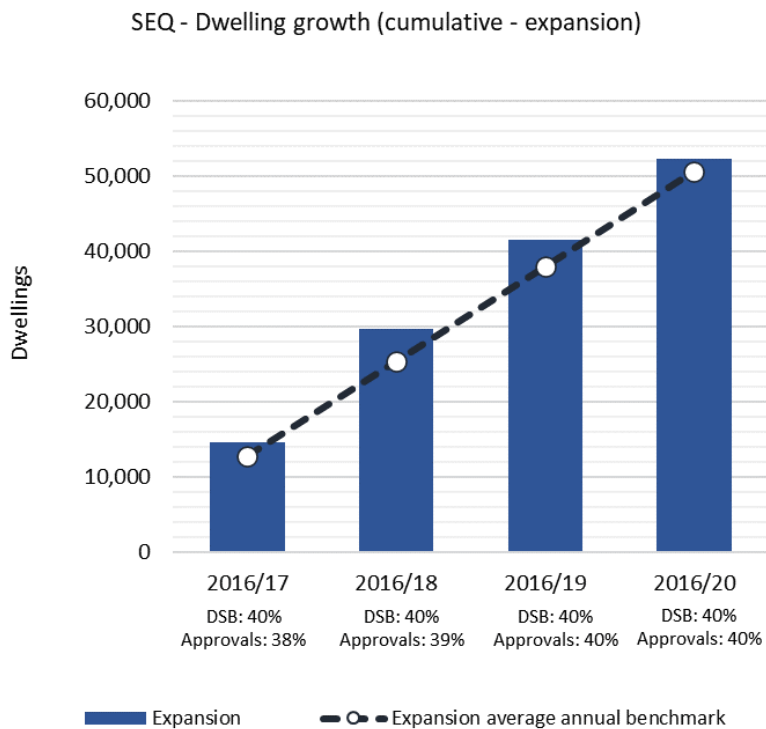
For more information about improvements to the measurement of dwellings and net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017's* average annual benchmarks.



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017's* consolidation average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

Changes in dwelling density – SEQ

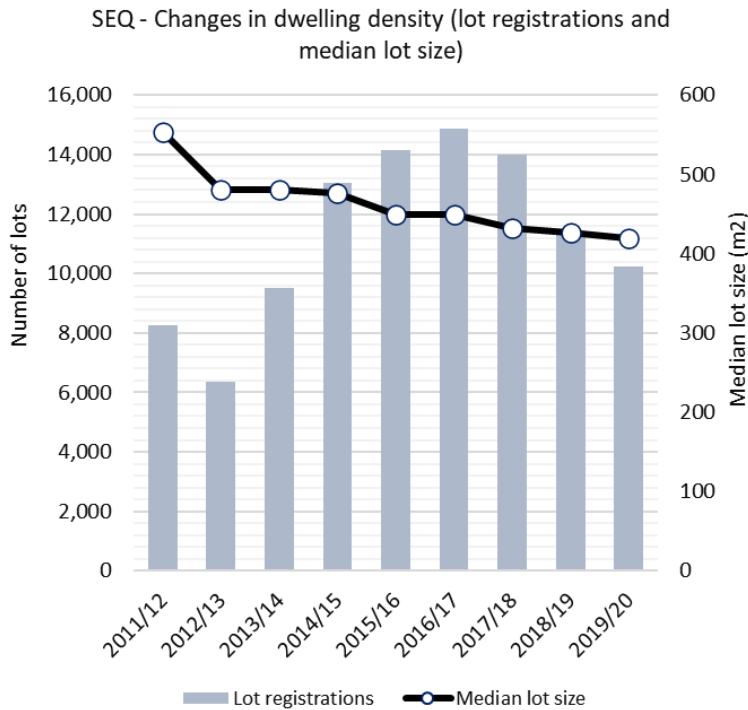
Dwelling density in the region is increasing.

Overall dwelling density (measured through median size of new lots and mean population-weighted dwelling density) is increasing across SEQ in accordance with SEQ's preferred future for higher dwelling densities and smaller lots.

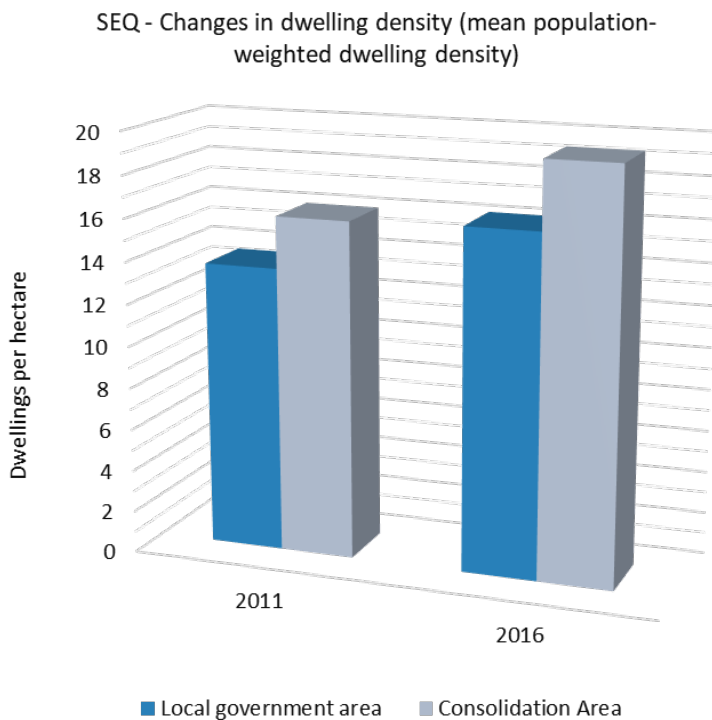
Mean population-weighted dwelling density increased across SEQ between 2011 and 2016, from 13.6 to 16.2 dwellings per hectare. This represents the average dwelling density at which the population of SEQ lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density increased from 16.1 to 19.4 dwellings per hectare.

Between 2011/12 and 2019/20, the median size of new lots in SEQ decreased from 553m² to 420m². This was supported by an upward trend in the volume of lot registrations to 2016/17, followed by a decline since. This trend is generally consistent across most local governments in SEQ, with smaller median lot sizes indicative of higher dwelling densities in subdivisions over time.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – SEQ

Diversity of housing approvals across the region is increasing housing choice when compared to existing housing stock from the 2016 Census.

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals in SEQ indicate an increase in housing diversity. This is consistent with SEQ’s preferred future to provide a greater diversity of housing across the region. The data also shows houses remain the predominant housing type and that the proportion of dwelling house approvals has increased since 2015/16.

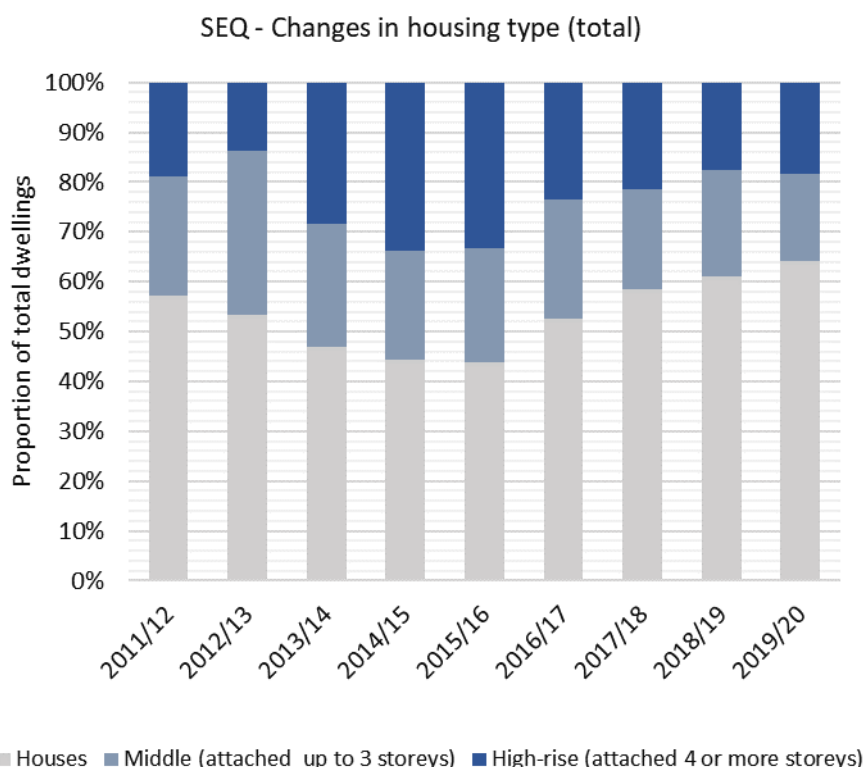
Houses in SEQ comprised about 59 per cent (75,980 dwellings) of new dwelling approvals between 2016/17 and 2019/20, which was less than existing dwelling stock as at the 2016 Census (72 per cent). The proportion of dwelling approvals for middle (21 per cent or 27,205 dwellings) between 2016/17 and 2019/20 is similar to the existing dwelling stock at the 2016 Census (22 per cent). The proportion of dwelling approvals for high-rise (about 21 per cent or 26,746 dwellings) exceeded existing dwelling stock (6 per cent as at the 2016 Census) over the same period.

Whilst comprising about 41 per cent of all approvals from 2016/17 to 2019/20, middle and high-rise dwelling types have declined in percentage share of approvals since 2016/17. Any continued decrease in the proportion of middle dwelling type approvals may have an impact on the delivery and promotion of ‘missing middle’ forms of housing, consistent with the outcomes sought in *ShapingSEQ 2017*.

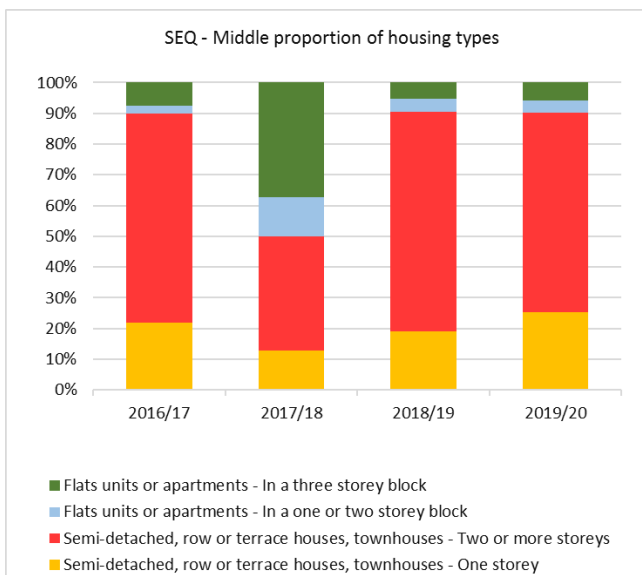
The predominant middle housing type approved since 2016/17 across the region are semi-detached, row or terrace houses and townhouses that are two or more storeys (about 68 per cent or 18,426 dwellings).

About 70 per cent (19,085 dwellings) of all middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area, with about 30 per cent (8120 dwellings) located within the expansion area.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of 'missing middle' in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – SEQ

The residential median sales prices across SEQ have increased since 2011/12.

Residential sales numbers across SEQ have started to increase following a decline in 2018/19.

The median sales price for all categories increased from 2018/19 to 2019/20, with the exception of attached dwellings in the expansion area, which decreased.

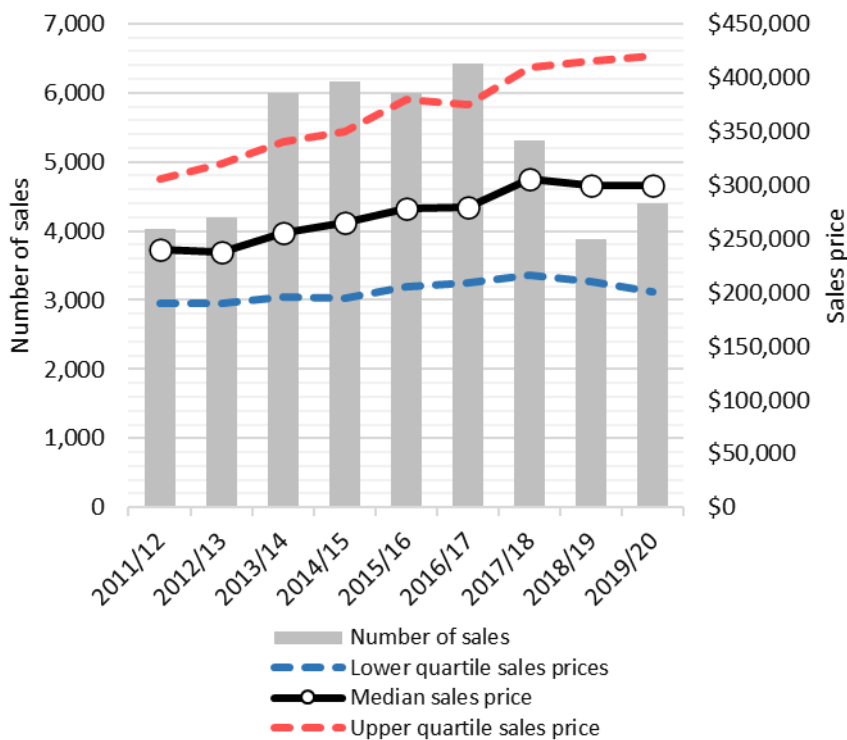
The lower quartile sales price has generally grown at a slower or similar rate to the median sales price for most categories between 2011/12 and 2019/20. The exception is price per lot and per square metre of vacant lots in the expansion area, where the lower quartile sales price has increased by approximately 7.5 per cent (per lot) and 37 per cent (per square metre) more than the median.

The general trend in the number of sales across all categories in SEQ was that sales peaked between 2014/15 and 2016/17 and declined in 2017/18 and 2018/19. The number of sales in 2019/20 have increased in all categories except attached dwellings in the consolidation and expansion area. The rate of growth in median sales price from 2011/12 to 2019/20 was greater or similar in the consolidation area than for the expansion area across all categories.

Across SEQ, median sales price is higher across all categories in the consolidation area compared to the expansion area. However, there is variation where some local government areas depart from this general trend. For example, the major expansion growth areas of Ipswich, Logan, Moreton Bay and Redland, which generally have greater median sales prices in the expansion area than in their consolidation areas.

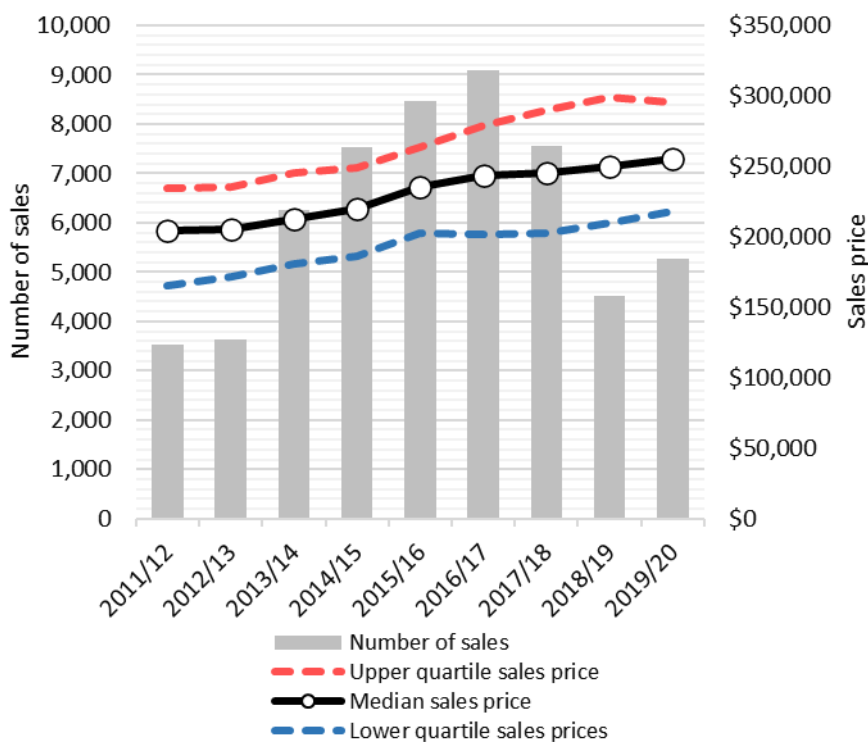
For more detail about the median sales price and number of sales, see the [Technical notes](#).

SEQ - Sales and price (vacant - number of sales and sales price - consolidation)

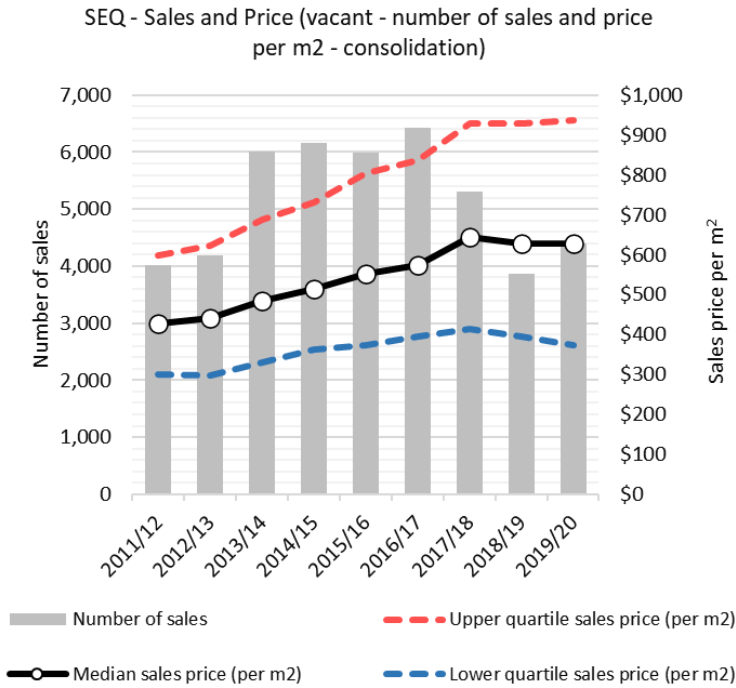


This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.

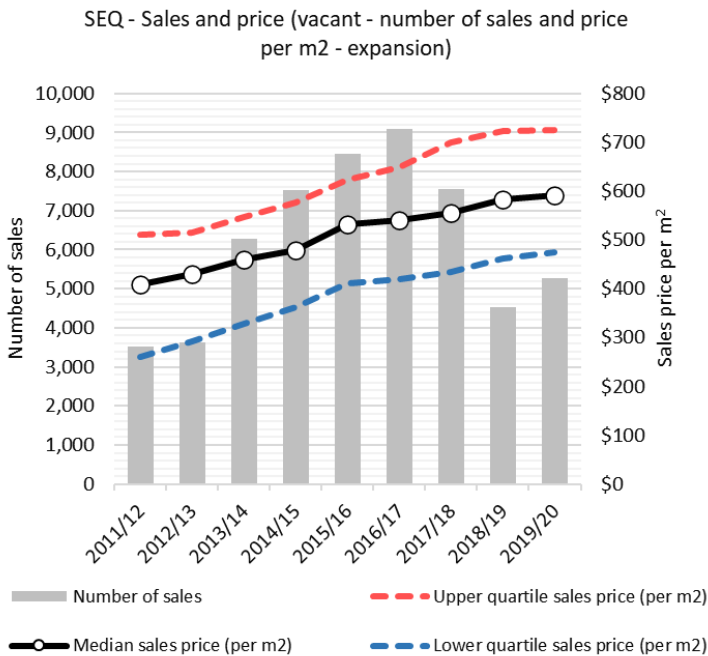
SEQ - Sales and price (vacant - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.

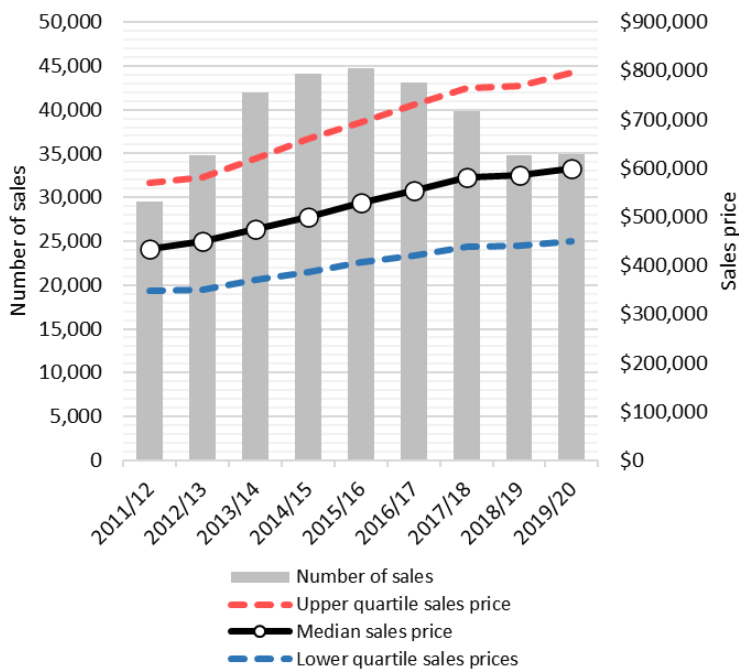


This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.



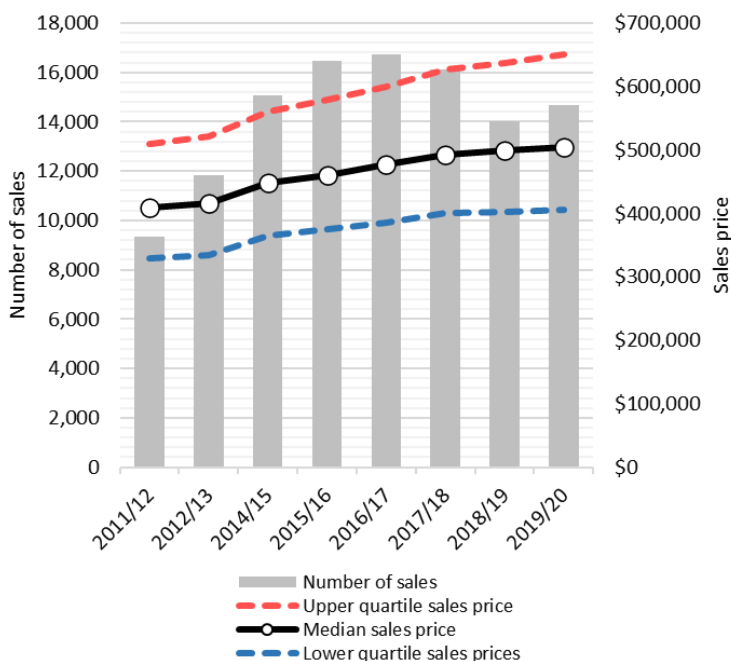
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

SEQ - Sales and price (houses - number of sales and sales median price - consolidation)



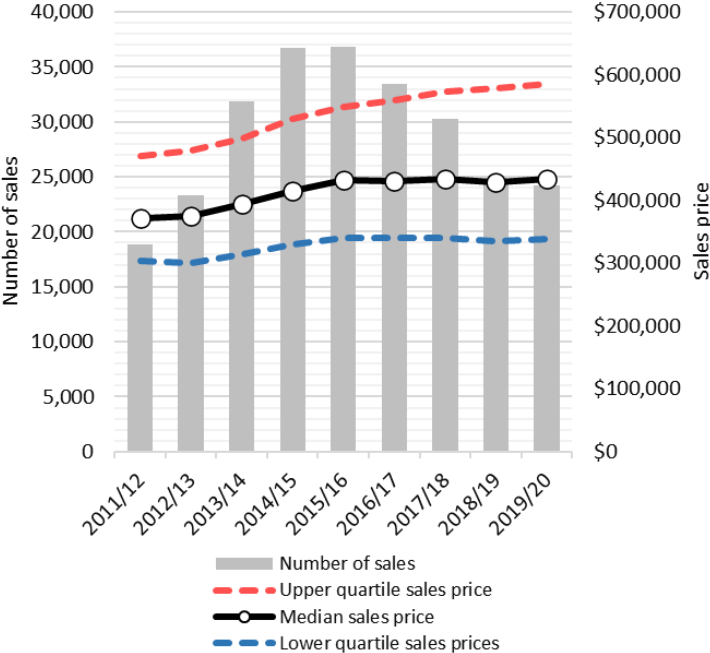
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.

SEQ - Sales and price (houses - number of sales and sales price - expansion)



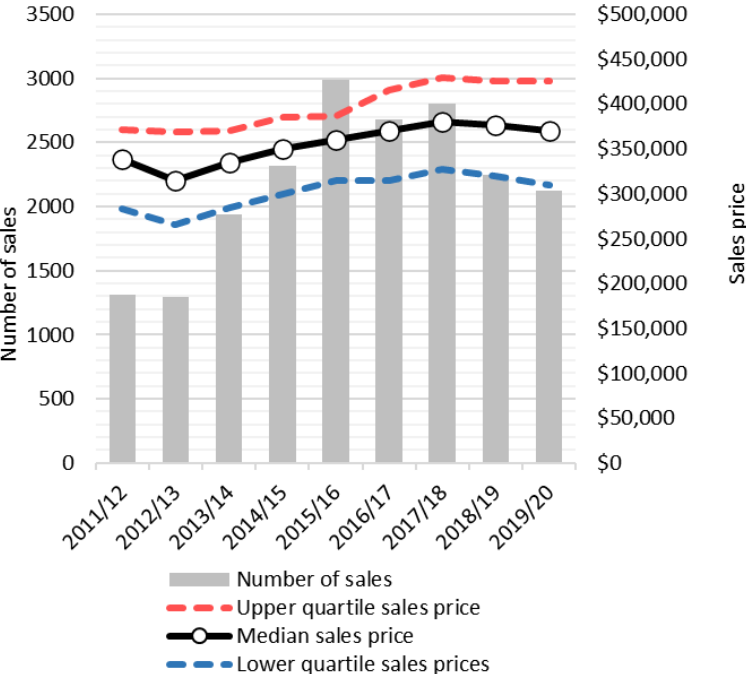
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.

SEQ - Sales and price (attached - number of sales and sales price - consolidation)

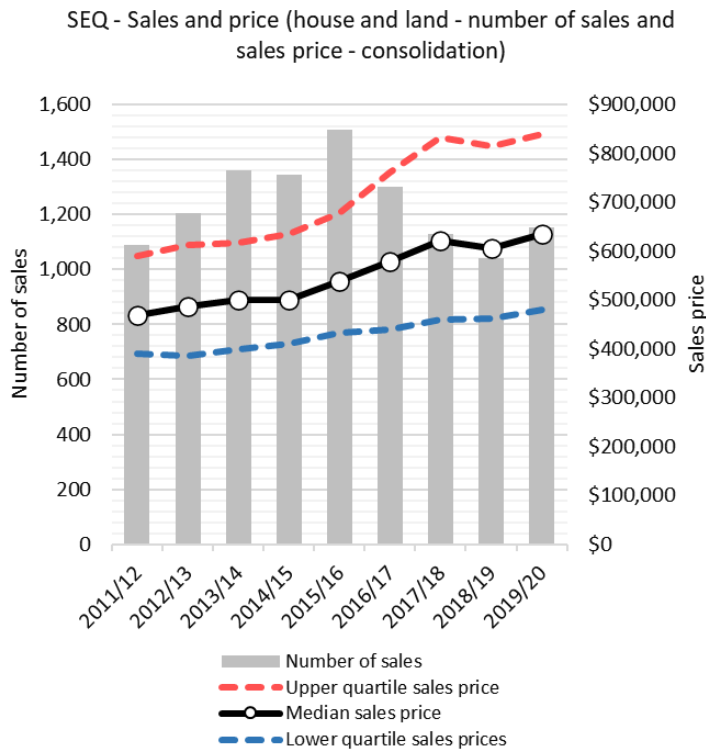


This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.

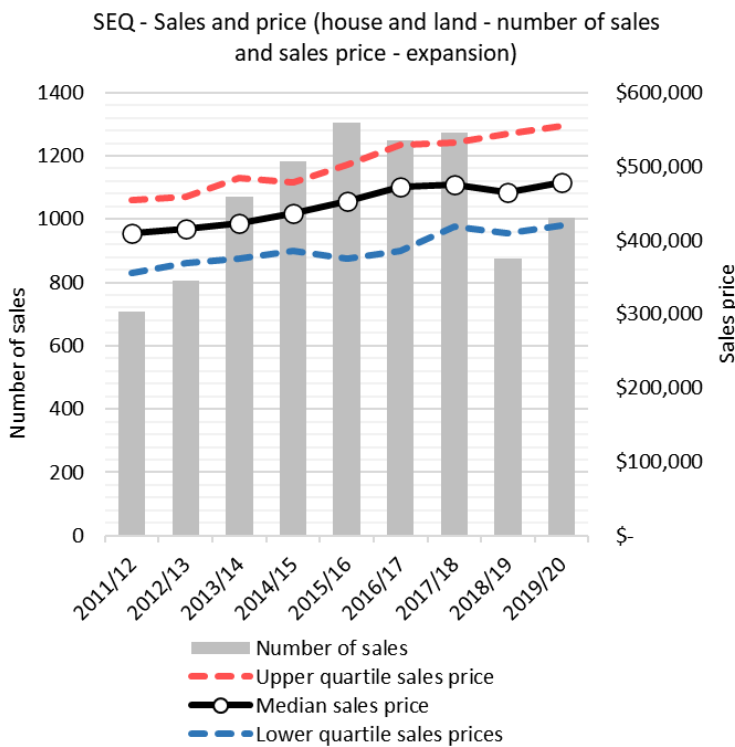
SEQ - Sales and price (attached - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Industrial – SEQ

Planned industrial land supply/take-up – SEQ

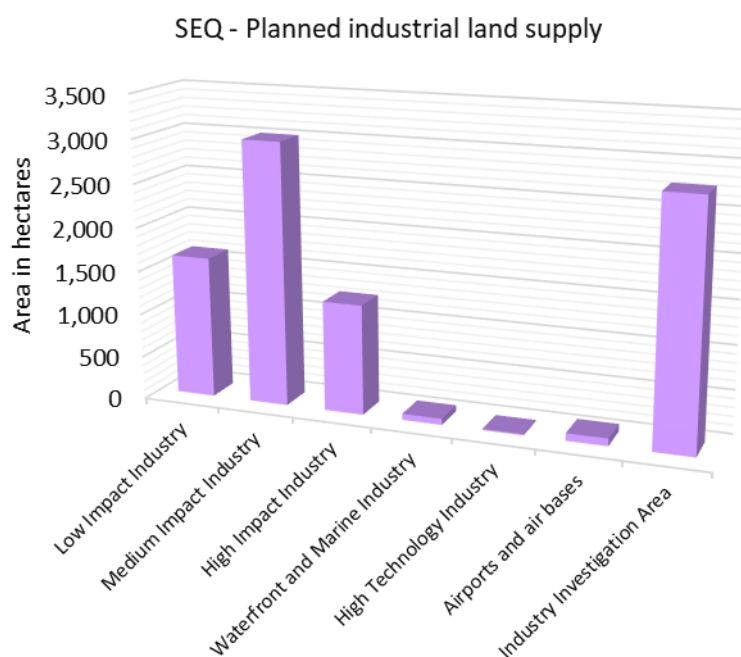
The region has about 8830ha of vacant land planned for industrial purposes.

The estimated take-up of developed industrial land between 2011 and 2019 in SEQ was about 2066 hectares, the majority of which occurred on land zoned low, medium or high impact industry, as well as industry investigation. The four areas of greatest take-up were Toowoomba, Brisbane, Gold Coast and Ipswich.

There were about 8830 hectares of planned industrial land in SEQ as at 2019, including serviced and un-serviced land. This planned industrial land comprised land across all types, including land intended for low, medium and high impact industry, waterfront and marine industry and airports and airbases. It also included a substantial amount (approximately 2770 hectares) of industry investigation areas.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



8831ha of developable land
2066ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may

constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – SEQ

The region has more than *ShapingSEQ 2017*'s required minimum of 15 years of industrial employment supply in the pipeline.

The capacity and realistic availability of planned industrial employment supply in SEQ provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that assumes some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

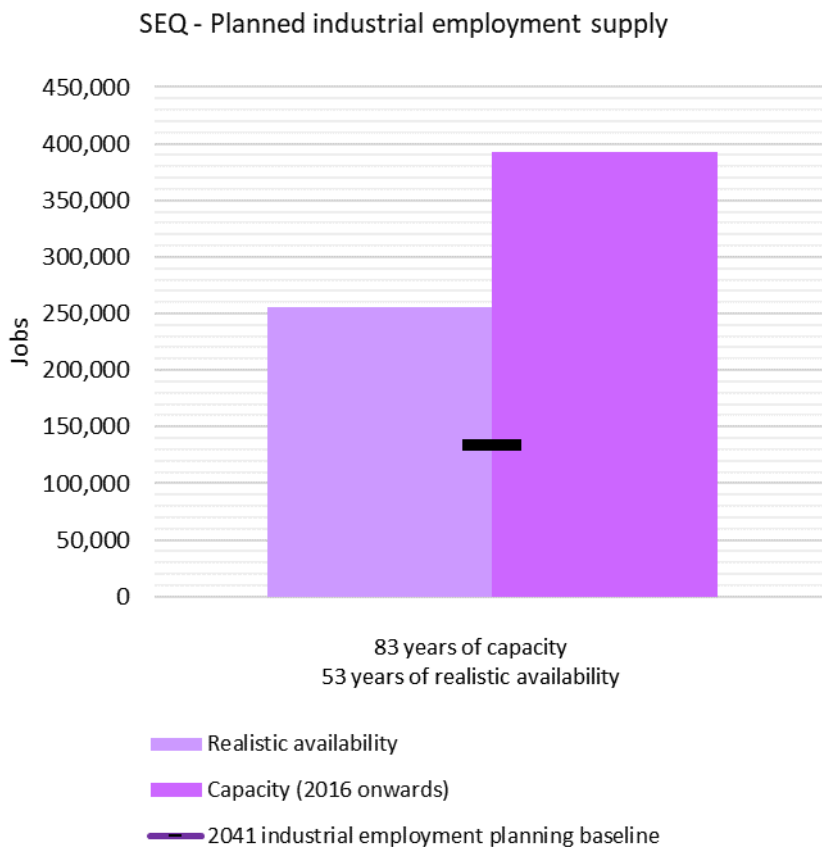
The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply in SEQ is about 392,000 employees, while the realistic availability of this supply is about 255,400 employees. These figures are markedly above the 2041 industrial employment planning baseline of about 134,000 employees. However, some excess of planned industrial employment supply may be appropriate to facilitate strategic economic development opportunities when they arise. This need was recognised by the Best practice research in the 2018 LSDM Report.

The main local government areas contributing to industrial employment supply in SEQ are Ipswich, Brisbane, Toowoomba and Logan.

The planned industrial employment supply and 2041 industrial employment planning baselines vary across local government areas, as does the status of infrastructure projects that would support realisation of the supply. Further detail is provided in each local government section.

For more detail about the calculation of planned industrial employment supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Brisbane

Summary

ShapingSEQ 2017 establishes that Brisbane's expected population growth will require an additional 188,200 dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Brisbane consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*. However, the capacity of planned dwelling supply in the Brisbane consolidation area is less than the 2041 dwelling supply benchmark.

There are about three years of supply of uncompleted lot approvals in Brisbane, which is less than the minimum four years of supply sought by *ShapingSEQ 2017*. However, Brisbane has continued to provide on average around three years of supply each year since 2011/12. The total number of uncompleted lot approvals has slightly declined from the 10-year peak of 2018/19. There are about eight years of supply of uncompleted multiple dwelling approvals in the Brisbane consolidation area, which exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

Annual dwelling approvals in the consolidation area have continued to decline in 2019/20 and remain below the average annual benchmark in the consolidation area. Dwelling approvals in the expansion area have slightly increased and remain above the benchmark in the expansion area. Notwithstanding the downward trend in the yearly data, the cumulative dwelling growth exceeds the average annual benchmark in both the consolidation and expansion areas for 2016/20. Growth in the consolidation area should proportionately increase as expansion land supply diminishes and consolidation capacity increases through amended planning and development schemes. This could be supported by the provision of key regional transport infrastructure.

When compared to existing dwelling stock at the 2016 Census, housing in Brisbane has become increasingly diverse. However, the proportion of dwelling approvals for houses in 2019/20 in Brisbane has increased and the proportion of middle has reduced. Of middle dwelling approvals since 2016/17, the predominant middle housing type in Brisbane are semi-detached, row or terrace houses and townhouses of two or more storeys. Dwelling density in Brisbane has increased in accordance with SEQ's preferred future.

Brisbane City Council has commenced work to support development of a housing strategy for the city. The housing strategy will provide the opportunity for Council to consider how to achieve the right mix of housing types to meet the lifecycle need of residents as the city's population grows and household types change.

There are more than 15 years of planned industrial employment supply in Brisbane, however the capacity and realistic availability of planned industrial employment supply fall slightly below the 2041 employment planning baseline sought by *ShapingSEQ 2017*. The realisation of this planned industrial employment supply would be supported by the development of the Melbourne to Brisbane Inland Rail and improved connections to the Port of Brisbane.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

Note: The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Brisbane

Planned dwelling supply – Brisbane

The capacity and realistic availability of planned dwelling supply in the Brisbane consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the Brisbane consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 163,000 dwellings. This represents 16 years of supply and is about 14,000 dwellings less than the consolidation 2041 dwelling supply benchmark of 176,800 dwellings.

In the Brisbane expansion area, the capacity and realistic availability of planned dwelling supply are about 13,000 and 12,000 dwellings respectively. These figures are slightly more than the expansion 2041 dwelling supply benchmark of 11,400 dwellings.

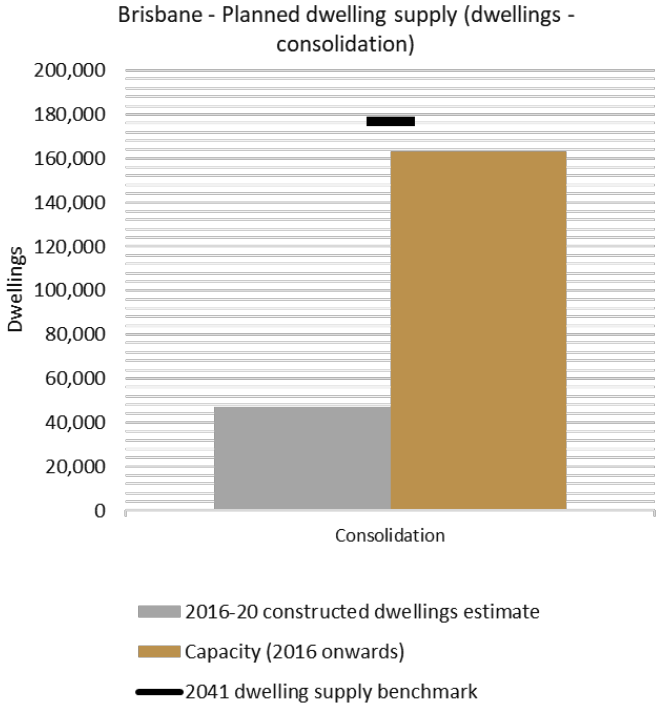
Realisation of the planned dwelling supply in the Brisbane consolidation area is expected to be supported by the provision of key regional transport infrastructure including Brisbane Metro and Cross River Rail as well as transport infrastructure identified in *ShapingSEQ 2017* and the State Infrastructure Plan, including busway extensions and other high-frequency public transport connections.

Brisbane City Council has commenced work to support development of a housing strategy for the city. The housing strategy will provide the opportunity for Council to consider how to achieve the right mix of housing types to meet the lifecycle needs of residents as the city's population grows and household types change.

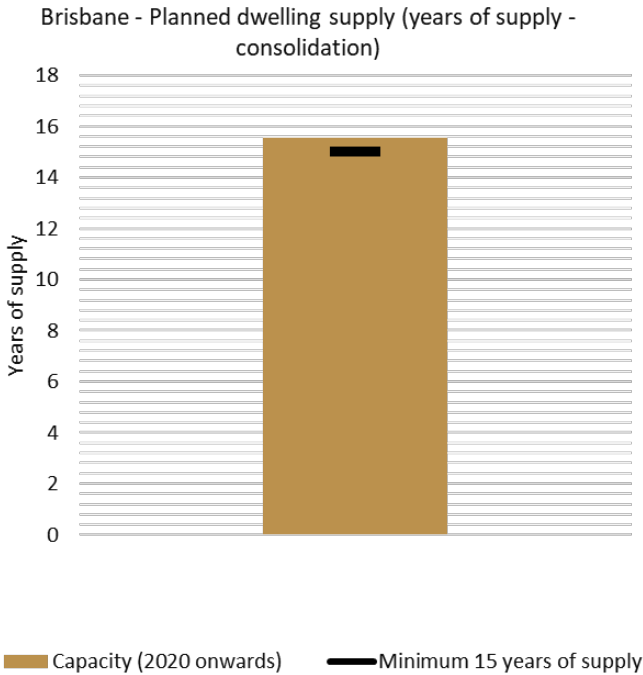
Brisbane City Council has also nominated future growth nodes in the strategic framework of Brisbane City Plan 2014 as areas to investigate potentially higher dwelling densities. Future neighbourhood planning and any resulting planning scheme amendments in these areas could support the increase of planned dwelling supply over time. Where

amendments proceed, and data sources are updated, their effect on planned dwelling supply will be included in future years of LSDM Reporting.

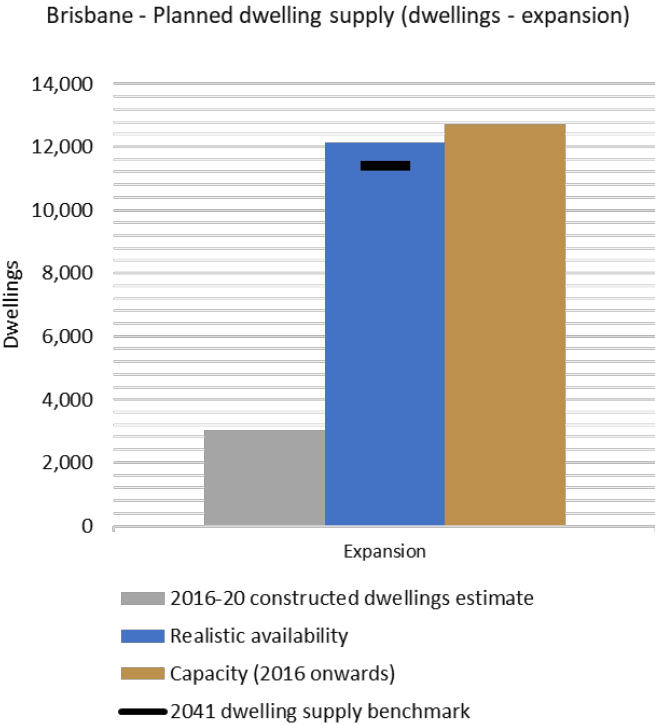
For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning and development scheme amendments recently adopted or in process for Brisbane, see the [Technical notes](#).



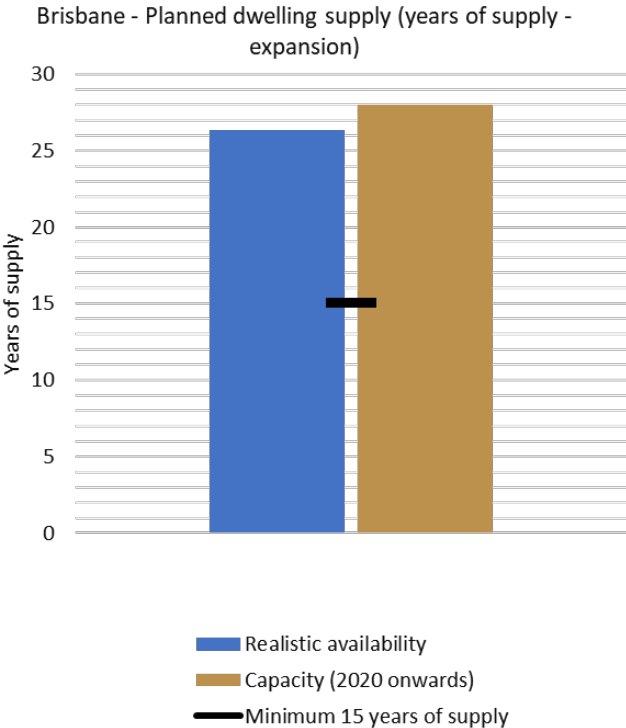
This graph shows the number of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* dwelling supply benchmarks in consolidation areas.



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in consolidation areas.



This graph shows the number of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Brisbane

There are about three years of supply of uncompleted lot approvals in the Brisbane consolidation and expansion areas overall, which is less than the minimum four years of supply sought by *ShapingSEQ 2017*.

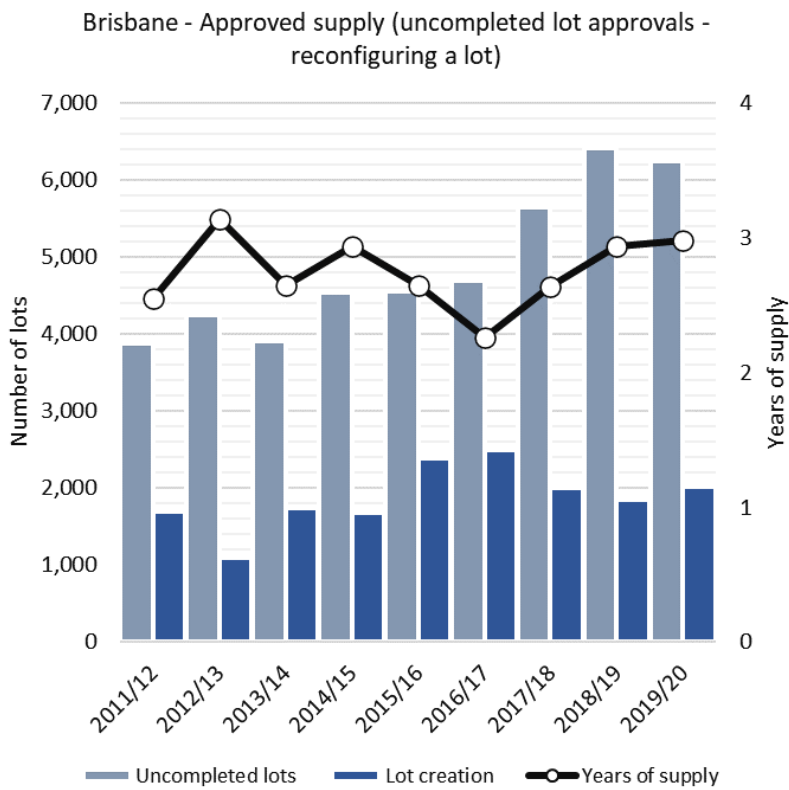
However, Brisbane has continued to provide on average around three years of supply each year since 2011/12. There is currently a total of 6247 uncompleted lot approvals, a slight decline from the 10-year peak in 2018/19.

Of these uncompleted lots, approximately 29 per cent have operational works approvals for the 2019/20 period. The lower rate of lot creation from 2017/18 to 2019/20 has contributed to the slightly higher years of supply figure.

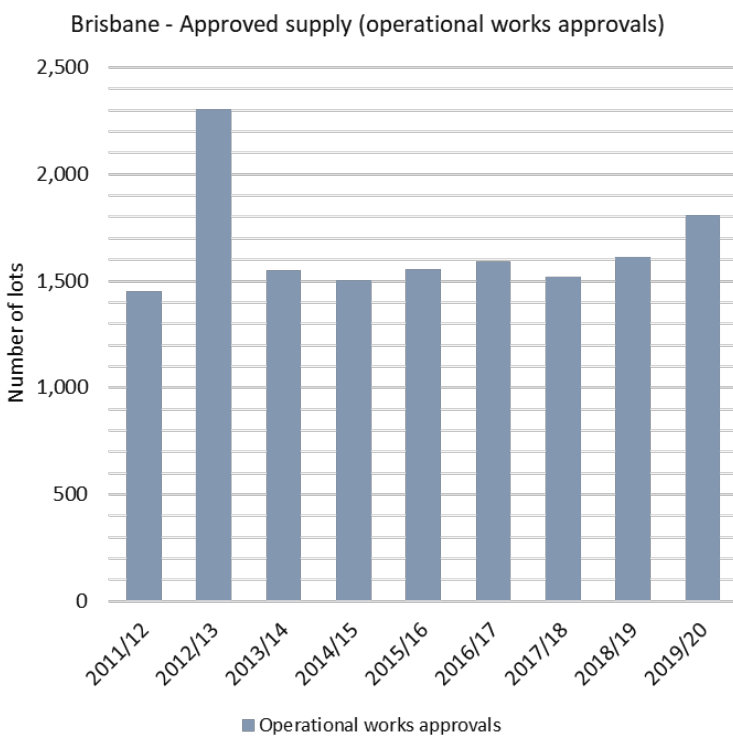
There are about eight years of supply of uncompleted multiple dwelling approvals in the Brisbane consolidation area. This is more than the minimum four years of supply sought by *ShapingSEQ 2017*.

The number of uncompleted multiple dwelling approvals fell slightly from June 2018 to June 2020, but the years of supply has increased because of the fall in the rate of attached dwelling approvals, decreasing the assumed level of demand in the years of supply calculation.

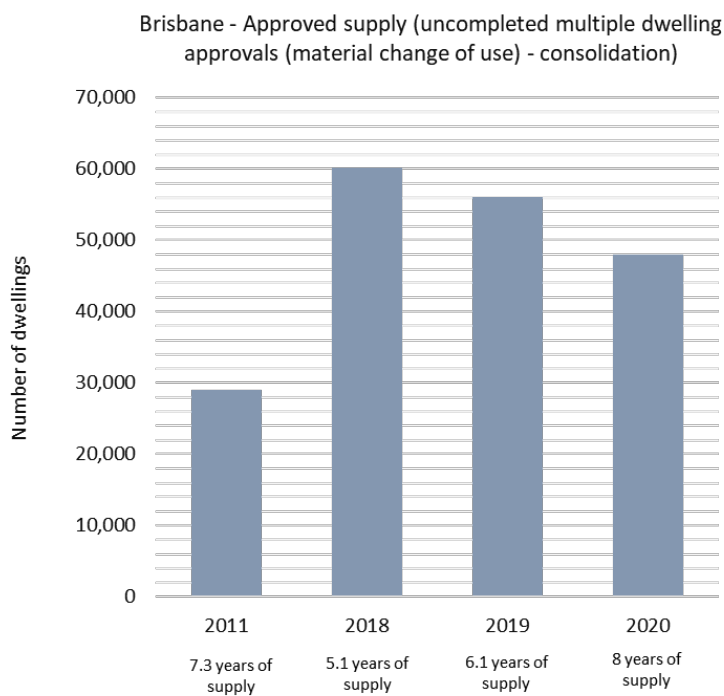
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years. The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Brisbane

In the Brisbane consolidation area, dwelling approvals (used to measure dwelling growth) for 2018/19 and 2019/20 have been below the average annual benchmark. In the expansion area, dwelling approvals have exceeded the expansion average annual benchmark in recent years.

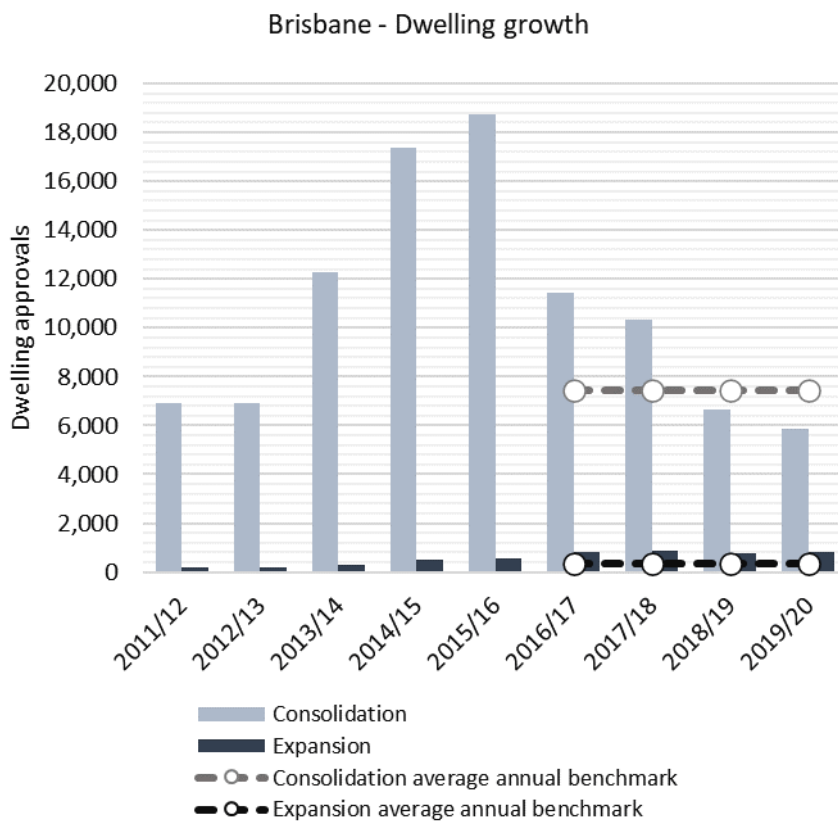
Following higher growth during 2016/18, in 2019/20 there were 5857 dwelling approvals in Brisbane’s consolidation area, which was approximately 1600 dwellings less than the consolidation average annual benchmark of 7463 additional dwellings. There were 835 dwelling approvals in Brisbane’s expansion area in 2019/20, which was approximately 490 dwellings more than the expansion average annual benchmark of 346 additional dwellings.

Dwelling approvals in the Brisbane consolidation and expansion areas for 2016/17 to 2019/20 were similar to its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017*. Approximately nine per cent of dwelling approvals were in the Brisbane expansion area for 2016/17 to 2019/20, more than its expected share of four per cent. Approvals in the consolidation area (about 91 per cent) over the same period were less than its expected share of 96 per cent.

Whilst there is a decrease in dwelling growth in the consolidation area, it is still expected to proportionately increase as expansion land supply diminishes and consolidation capacity increases through amended planning and development schemes. This could be supported by the provision of key regional transport infrastructure.

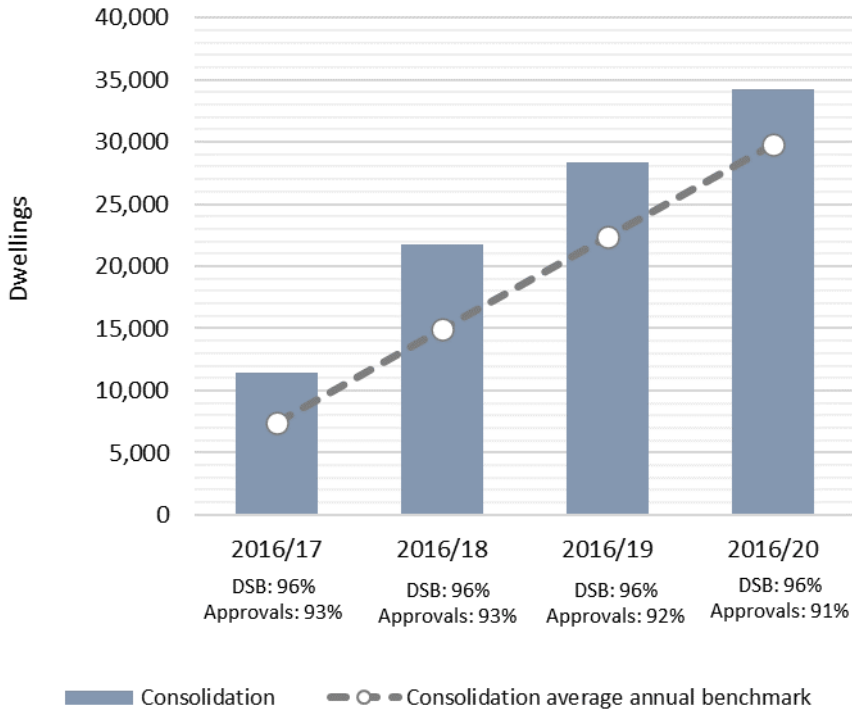
Despite the decrease in dwelling growth in the 2019/20 period, the actual number of dwelling approvals for 2016/17 to 2019/20, in the consolidation and expansion areas, are above the average annual benchmarks.

For more information about improvements to the measurement of dwellings and net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



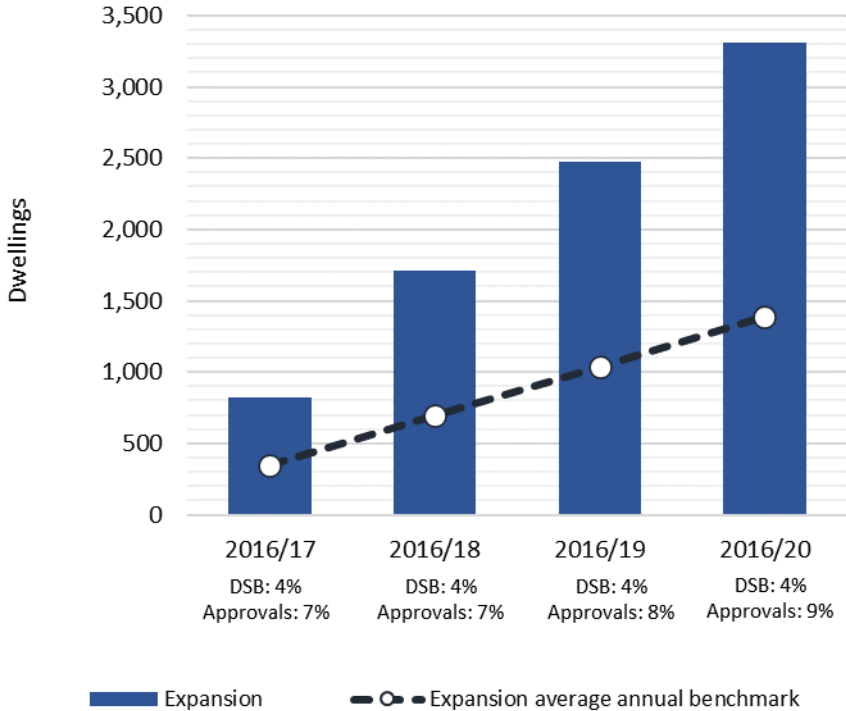
This graph shows annual dwelling approvals compared against *ShapingSEQ 2017*'s average annual benchmarks.

Brisbane - Dwelling growth (cumulative - consolidation)



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Brisbane - Dwelling growth (cumulative - expansion)



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s expansion average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

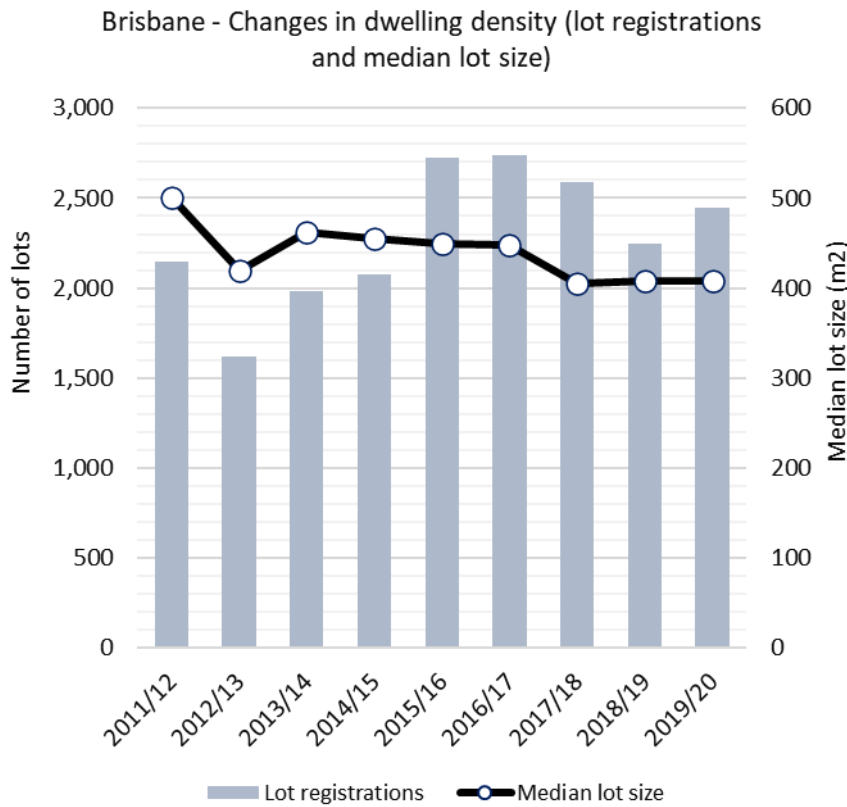
Changes in dwelling density – Brisbane

Overall dwelling density (measured through median size of new lots and mean population-weighted dwelling density) has been increasing in Brisbane in accordance with SEQ's preferred future for higher dwelling densities and smaller lots.

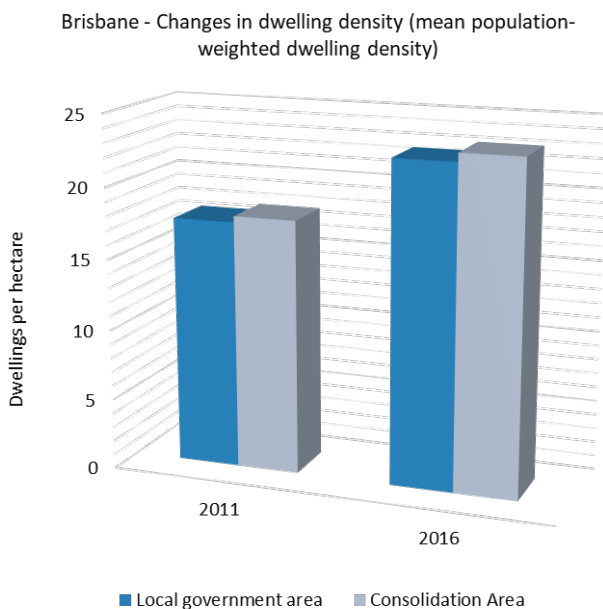
Mean population-weighted dwelling density increased in Brisbane overall between 2011 and 2016, from 17.5 dwellings per hectare to 22.6 dwellings per hectare. This represents the average dwelling density at which the population of Brisbane lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density increased from 17.9 to 23.2 dwellings per hectare.

The median lot size for 2019/20 has remained the same as 2018/19, slightly increasing from 2017/18. The median size of new lots in Brisbane decreased overall from 500m² to 408m² from 2011/12 to 2019/20. This was associated with a general trend to higher lot registrations up to 2016/17, followed by a decline to 2018/19 and increase in 2019/20. This measure is indicative of increased dwelling densities in new urban subdivisions in Brisbane.

Changes to Brisbane's planning scheme and Priority Development Area development schemes over time have contributed to increased planned dwelling densities and encouraged smaller lots. For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Brisbane

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate an increase in housing diversity in Brisbane, consistent with SEQ’s preferred future.

Dwelling approvals for 2019/20 indicate an increase in the proportion of house approvals in Brisbane and a reduction in the proportion of middle dwelling approvals.

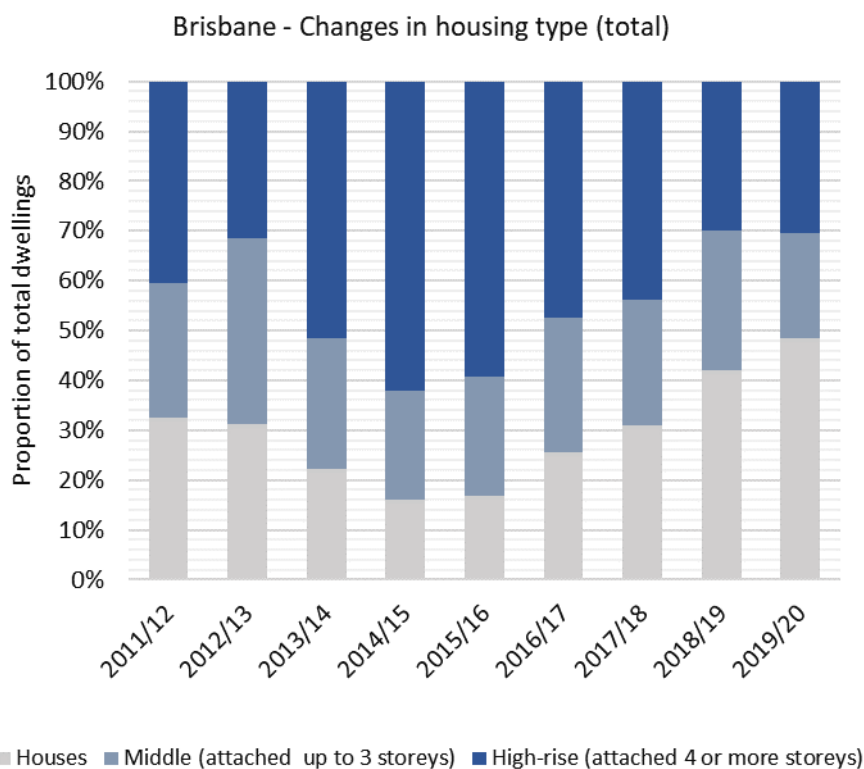
Houses in Brisbane comprised about 35 per cent (12,956 dwellings) of all new dwelling approvals for 2016/17 to 2019/20, which was less than the proportion of existing dwelling stock as at the 2016 Census (66 per cent). Dwelling approvals for middle (26 per cent or 9610 dwellings) over the same period were about the same as their share of the 2016 dwelling stock (25 per cent) with high-rise (40 per cent or 14,973 dwellings) exceeding its exiting share (nine per cent) as at the 2016 Census.

Houses remain the predominant housing type and the proportion of house approvals has increased each year since 2015/16.

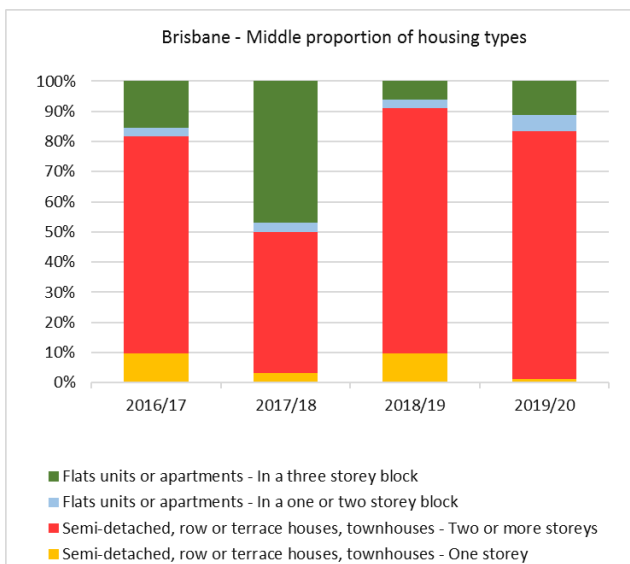
The predominant middle housing type approved in Brisbane since 2016/17 are semi-detached, row or terrace houses and townhouses of two or more storeys (about 76 per cent or 7272 dwellings).

About 95 per cent (9155 dwellings) of middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and about five per cent (455 dwellings) were in the expansion area for the same period.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of 'missing middle' in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Brisbane

The number of sales has increased from 2018/19 to 2019/20 for all categories in Brisbane except houses and attached dwellings in the consolidation area, which have decreased.

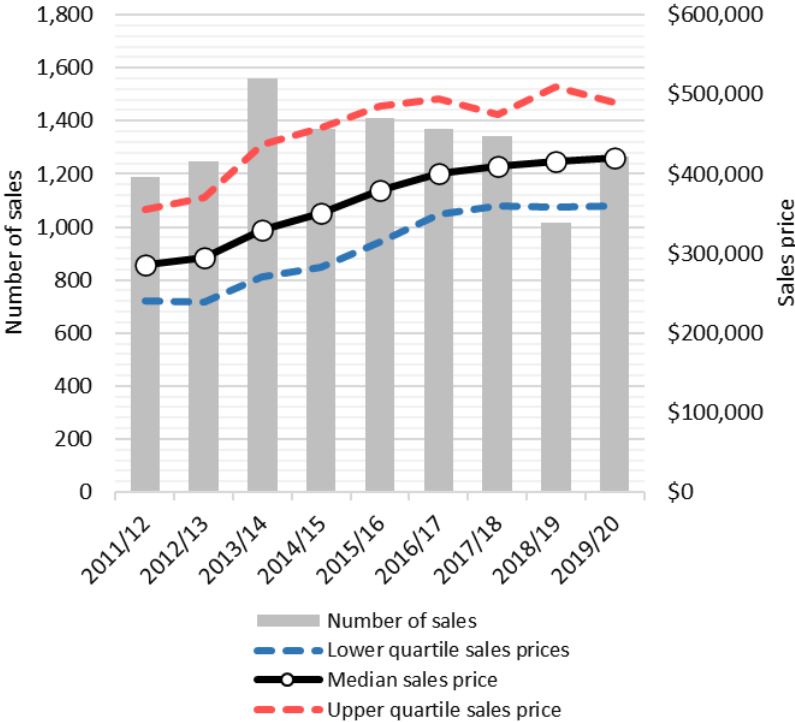
The median sales price for all categories is higher in Brisbane than for South East Queensland (SEQ). The rate of median price growth was also higher in Brisbane than for SEQ for all categories; except vacant lots (per lot and per square metre) in the expansion area and attached dwellings in the consolidation and expansion areas.

In the Brisbane consolidation area, from 2011/12 to 2019/20, the greatest growth in median sales price was for house-land packages (44.4 per cent) and vacant lots (47.2 per cent per lot and 61.5 per cent per square metre).

The rate of median price growth was higher in the Brisbane consolidation area than the expansion area for all categories.

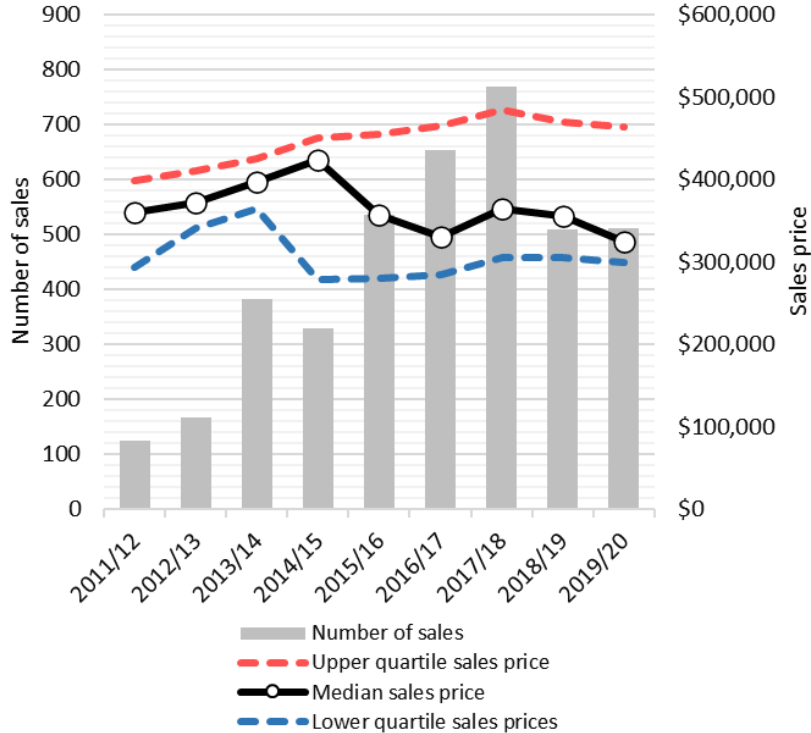
For more detail about the median sales price and number of sales, see the [Technical notes](#).

Brisbane - Sales and price (vacant - number of sales and sales price - consolidation)

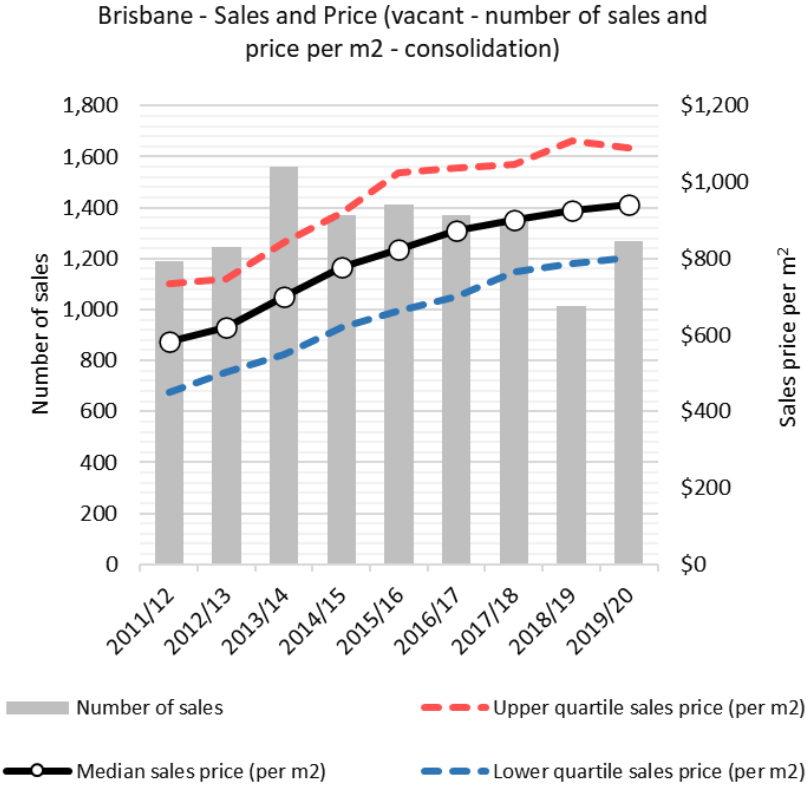


This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.

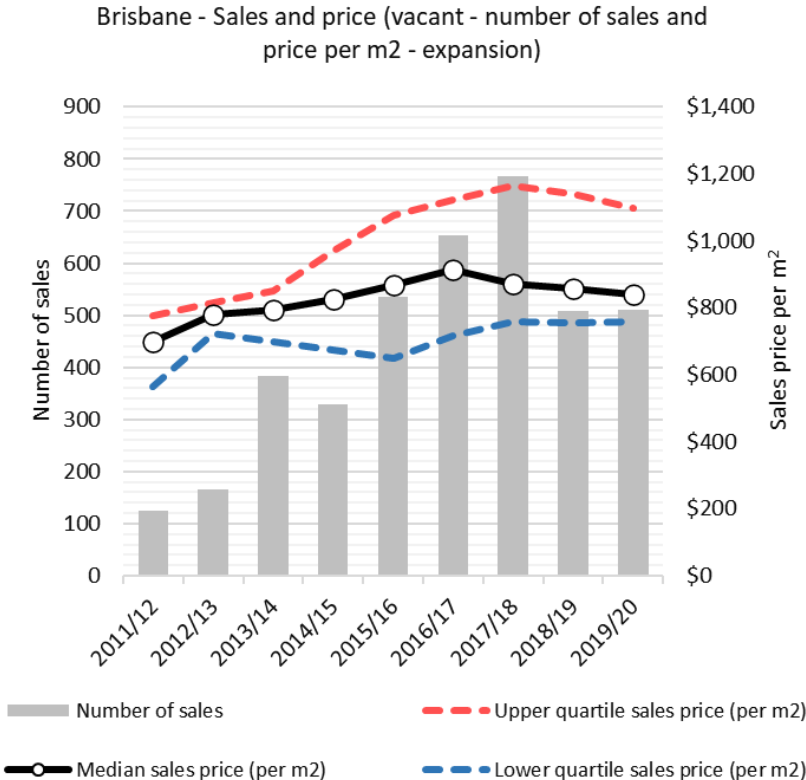
Brisbane - Sales and price (vacant - number of sales and sales price - expansion)



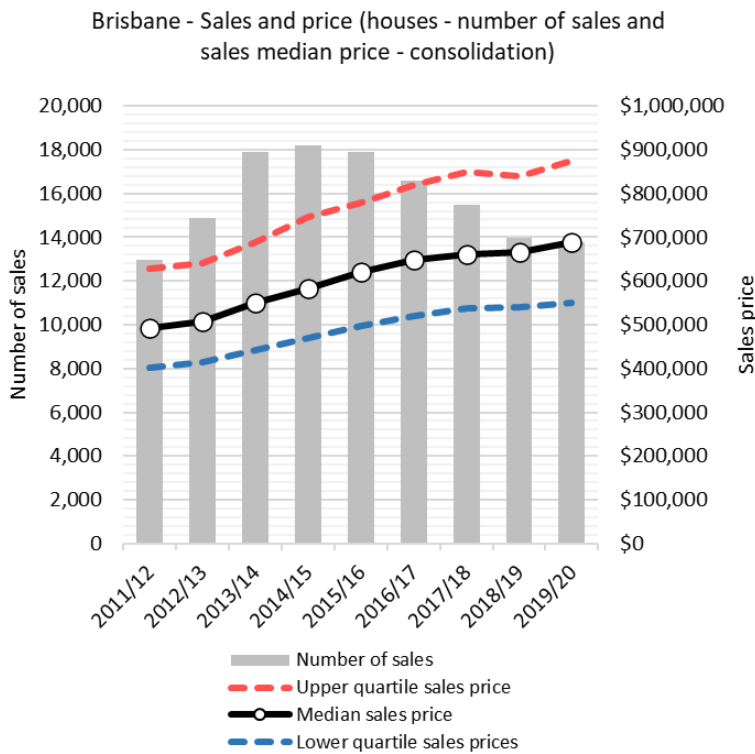
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.



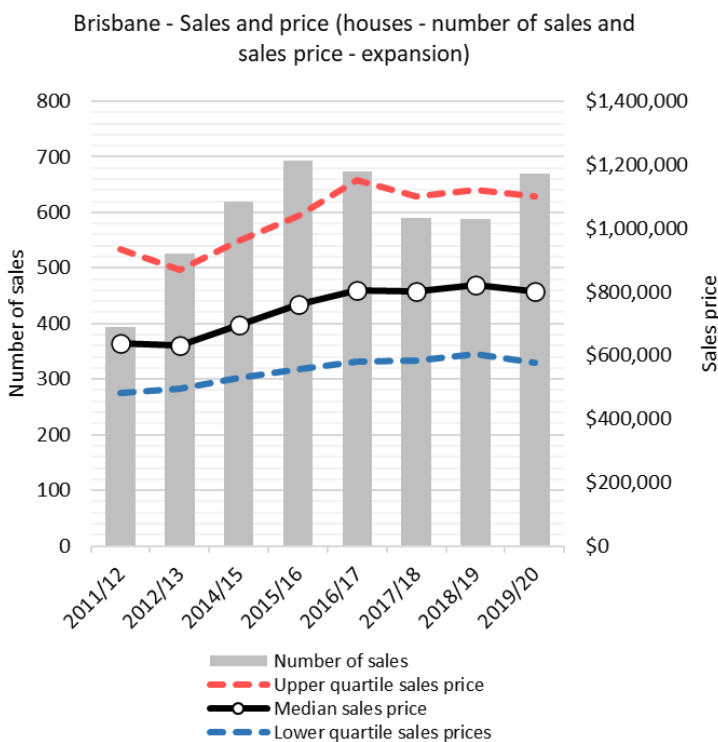
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

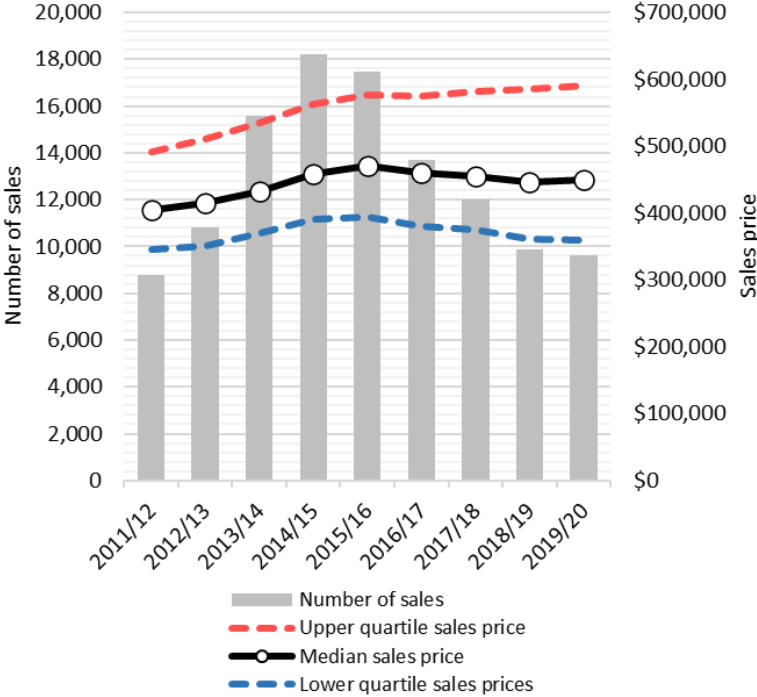


This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.



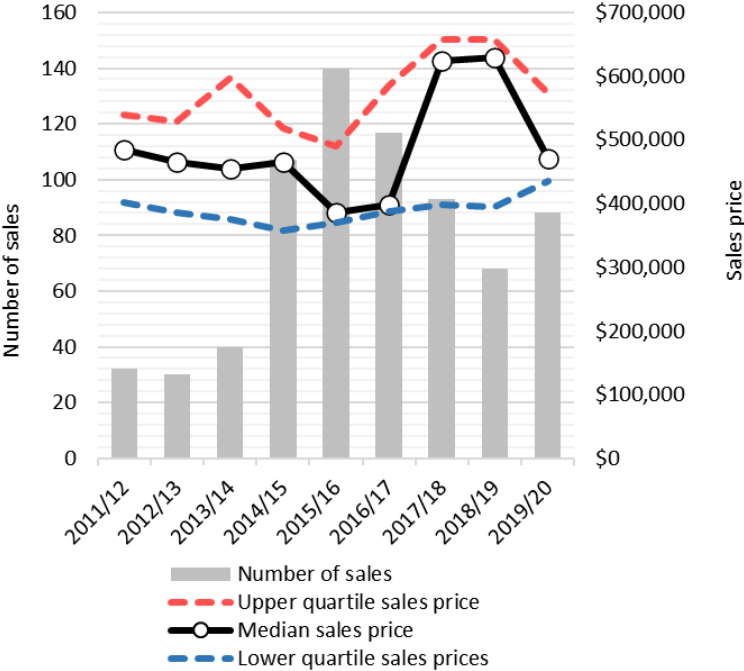
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.

Brisbane - Sales and price (attached - number of sales and sales price - consolidation)

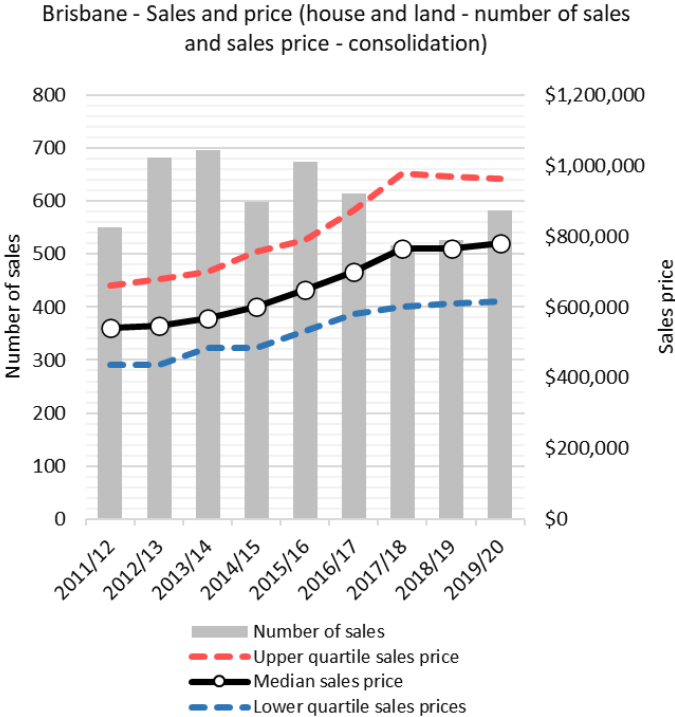


This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.

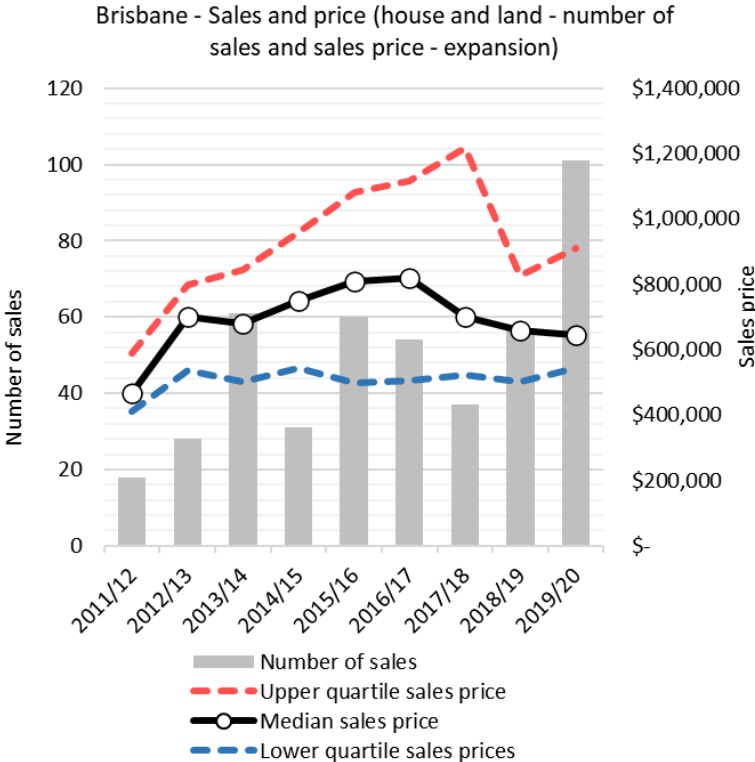
Brisbane - Sales and price (attached - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Industrial – Brisbane

Planned industrial land supply/take-up – Brisbane

The estimated take-up of developed industrial land between 2011 and 2019 in Brisbane was about 499 hectares. The majority of this take-up was on land intended for medium impact industry, followed by low impact industry, industry investigation and airports and air bases, and then high impact industry

There were about 497 hectares of planned industrial land in Brisbane as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for high, medium and low impact industry and other land categories, including airports and airbases and about 103 hectares of industry investigation area.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



497ha of developable land
499ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Brisbane

The capacity and realistic availability of planned industrial employment supply in Brisbane provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that assumes some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

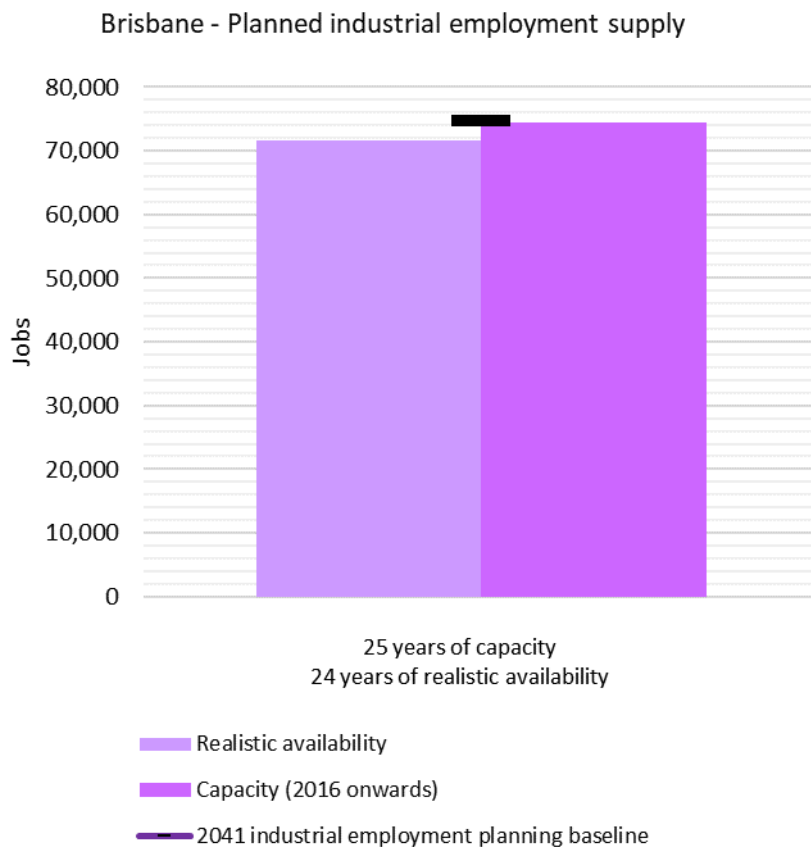
The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply in Brisbane is about 74,500 employees, while the realistic availability of this supply is about 71,560 employees, both figures are very slightly below the 2041 industrial employment planning baseline of about 74,700 employees. The capacity figure represents about 25 years of supply with the realistic availability figure about 24 years of supply.

The realisation of this planned industrial employment supply in Brisbane would be supported by the development of the Melbourne to Brisbane Inland Rail and improved connections to the Port of Brisbane.

There are planning and development scheme amendments, either recently adopted or in process, that may affect planned industrial employment supply in Brisbane. Where amendments proceed, and data sources are updated, their effect on industrial employment supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned industrial employment supply, and identification of relevant planning and development scheme amendments, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Gold Coast

Summary

ShapingSEQ 2017 establishes that Gold Coast's expected population growth will require an additional 158,900 dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Gold Coast consolidation and expansion areas provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are 1.8 years of supply of uncompleted lot approvals on the Gold Coast, which is below the minimum four years of supply sought by *ShapingSEQ 2017*. The total number of uncompleted lot approvals has been declining since 2011/12. As the supply of expansion land diminishes, it is expected that the supply of uncompleted lot approvals and lot creation would reduce to lower levels. In contrast, there are about 12 years of supply of uncompleted multiple dwelling approvals in the Gold Coast consolidation area.

Annual dwelling approvals have continued to decline in 2019/20 and remain below the consolidation average annual benchmark in the Gold Coast consolidation area and above the benchmark in the expansion area. Growth in the consolidation area should proportionately increase as expansion land supply diminishes and consolidation capacity increases through amended planning and development schemes. This could be supported by the provision of key regional transport infrastructure, and will require, in some locations, the redevelopment of existing attached dwellings.

Recent dwelling approvals on the Gold Coast indicate a lower proportion of house approvals and a higher proportion of middle and high-rise approvals, relative to existing dwelling stock, consistent with SEQ's preferred future. Of middle dwelling approvals since 2016/17, the predominant middle housing type on the Gold Coast is semi-detached, row or terrace housing and townhouses of two or more storeys. Dwelling density on the Gold Coast has increased in accordance with SEQ's preferred future.

The capacity and realistic availability of planned industrial employment supply on the Gold Coast exceed the 15 years of supply sought by *ShapingSEQ 2017* and exceed the 2041 industrial employment planning baseline.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Gold Coast

Planned dwelling supply – Gold Coast

The capacity and realistic availability of planned dwelling supply in the Gold Coast consolidation and expansion areas provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

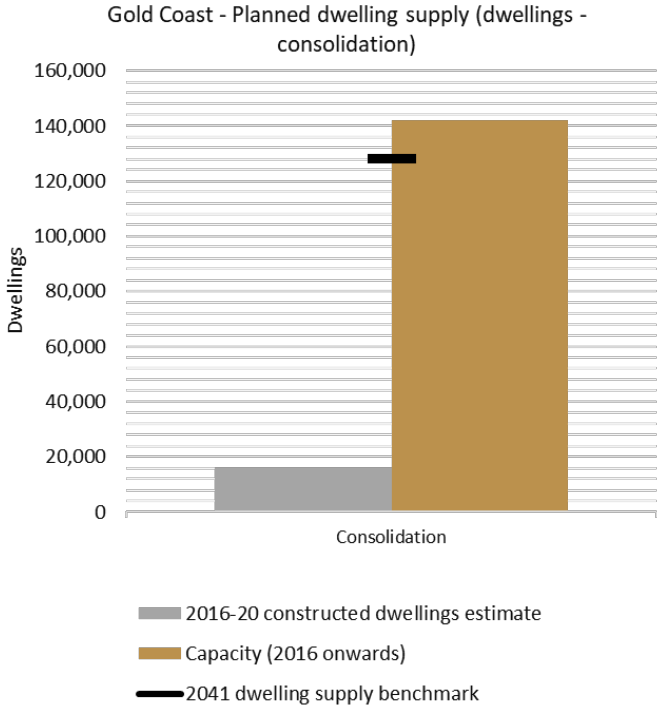
The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the Gold Coast consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 141,900 dwellings. This represents 25 years of supply, about 14,000 more than the consolidation 2041 dwelling supply benchmark of 127,900 dwellings.

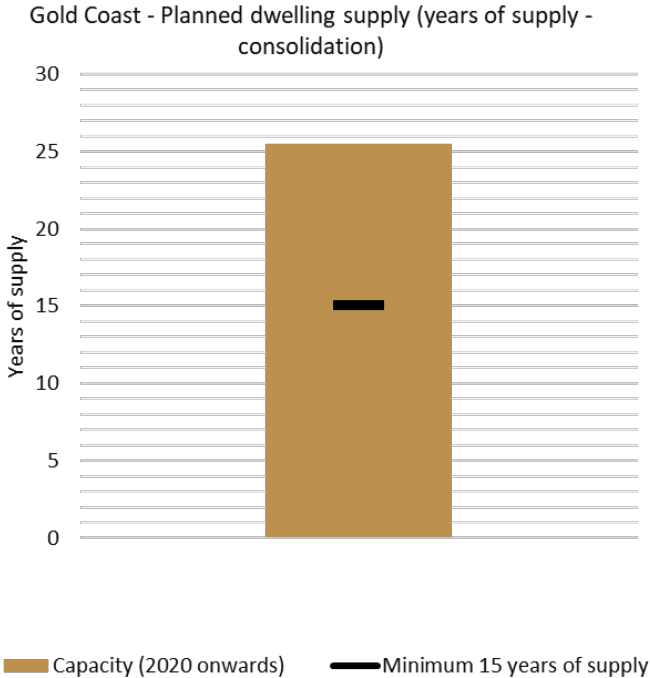
In the Gold Coast expansion area, the capacity and realistic availability of planned dwelling supply are about 47,000 and 45,000 dwellings respectively. The capacity and realistic availability of planned dwelling supply are above the expansion 2041 dwelling supply benchmark of 31,000 dwellings.

Realisation of planned dwelling supply in the Gold Coast consolidation area will require, in some locations, the redevelopment of existing attached dwellings, and would be supported by extension of high-frequency public transport connections, including light rail services from Broadbeach to Coolangatta, as identified in *ShapingSEQ 2017* and the State Infrastructure Plan.

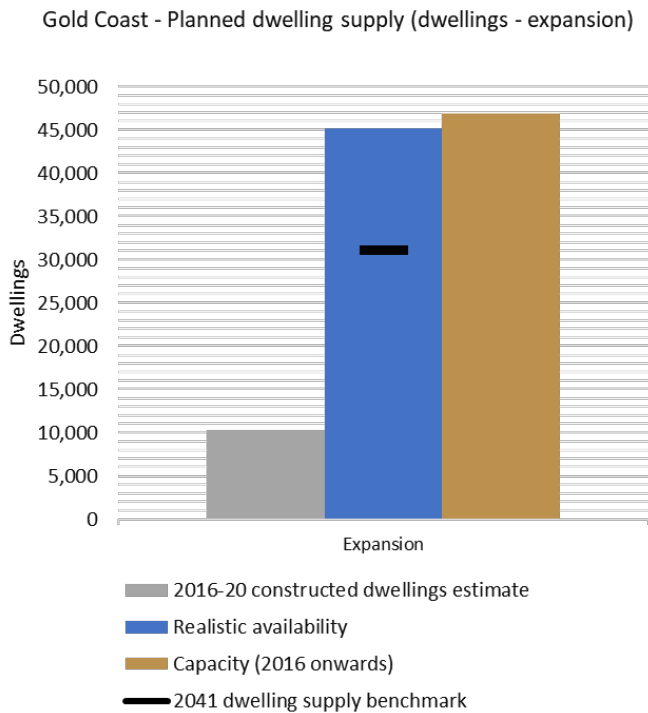
For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning and development scheme amendments recently adopted or in process for Gold Coast, see the [Technical notes](#).



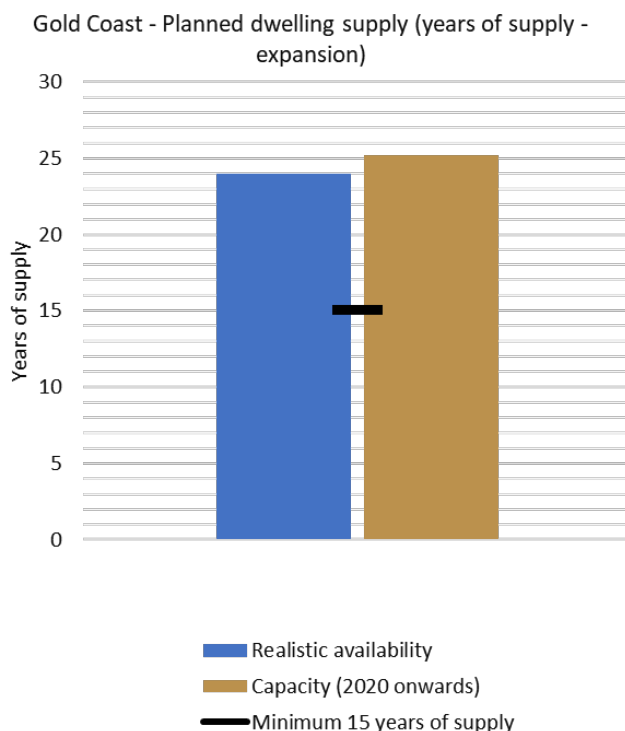
This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in consolidation areas.



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in consolidation areas.



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time.

These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

The City of Gold Coast Council (CoGC) in collaboration with the Griffith University Cities Research Institute (GU-CRI) has been working on a new urban growth model called Planning & Urban Growth (PUG); with the intention of this information being used by CoGC, once approved by council, to inform a major amendment to the Local Government Infrastructure Plan (LGIP). The PUG is also jointly funded by the Queensland Government Round 2 Innovation Funding program to assist CoGC in developing a more reliable and consistent urban modelling framework to inform future amendment to City Plan and LGIP. The PUG modelling framework, once finalised, could also be utilised by other councils for similar purposes.

Significant re-baselining of the existing land use database against the ABS 2016 Population Census data was completed by the project to ensure the model is as consistent with the Census as possible. The PUG model has also taken into consideration all development and building approvals up to a point in time (being February 2019) to ensure investments by the development industry sector are captured and accounted for in development projections. CoGC, with support of the GU-CRI, has also recalibrated the realistic estimation of development yields at small area level across all land use designations and zonings on the Gold Coast in order to establish a more reliable and realistic ultimate development scenario. This is a clear shift in the consideration of development capacity from the conventional “ultimate capacity at 50 years horizon” nominal approach adopted by various councils and utility providers.

The preliminary findings and assessment of the PUG model works have revealed that CoGC has more realistic ultimate development capacity post 2041 and 2066 horizons based on designations in the current City Plan. It should be noted that as a result of CoGC recalibrating its baseline, the model works have departed from the conventional “ultimate capacity at a 50-year horizon” nominal approach used previously.

Once finalised, outputs from the PUG model are expected to inform future LSDM reports.

Approved supply – Gold Coast

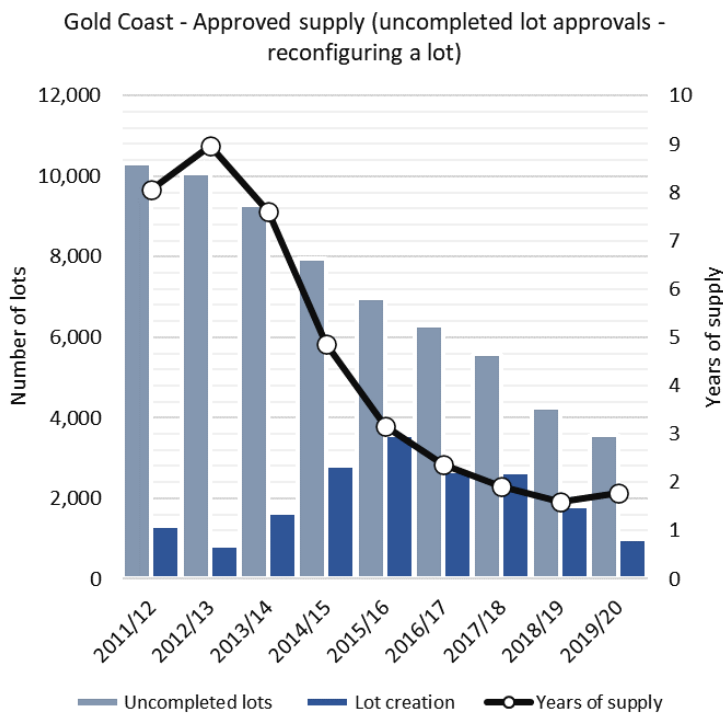
There are 1.8 years of supply of uncompleted lot approvals in the Gold Coast consolidation and expansion areas overall, less than the minimum four years of supply sought by *ShapingSEQ 2017*.

The total number of uncompleted lot approvals has continued to decline in 2019/20. Lot creation has also declined over the past four years, with the total number of current uncompleted lot approvals at 3587 for 2019/20. Of these uncompleted lots, about 36 per cent have operational works approvals. This decline is being monitored and the department is working with City of Gold Coast to understand this trend and any measures that might address it.

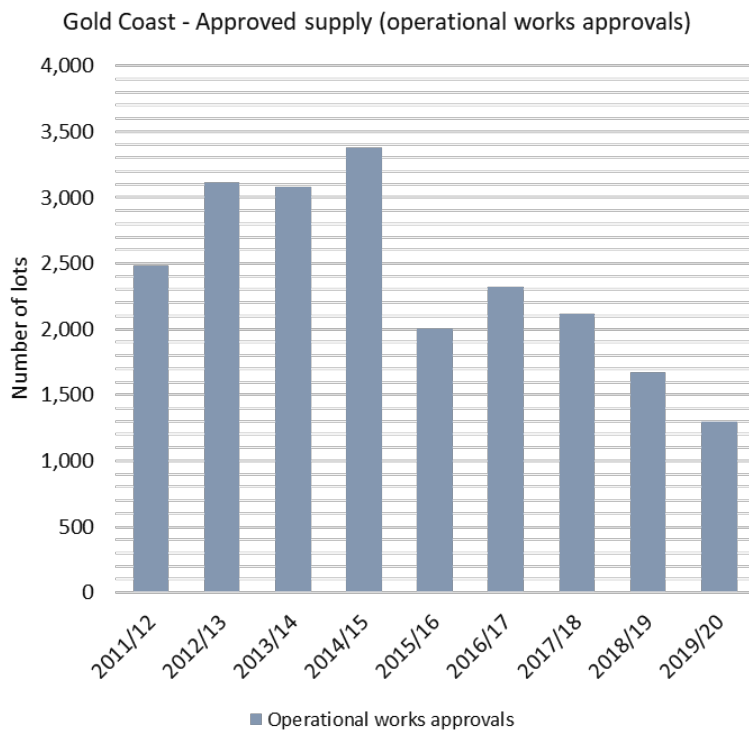
As the supply of expansion land diminishes, it is expected that the supply of uncompleted lot approvals and lot creation would reduce to lower levels, similar to the circumstances in Brisbane where there is limited remaining expansion land.

In contrast, Gold Coast has about 12 years of supply of uncompleted multiple dwelling approvals in the consolidation area, well above the minimum four years of supply sought by *ShapingSEQ 2017*. The number of uncompleted multiple dwelling approvals increased from June 2019 to June 2020.

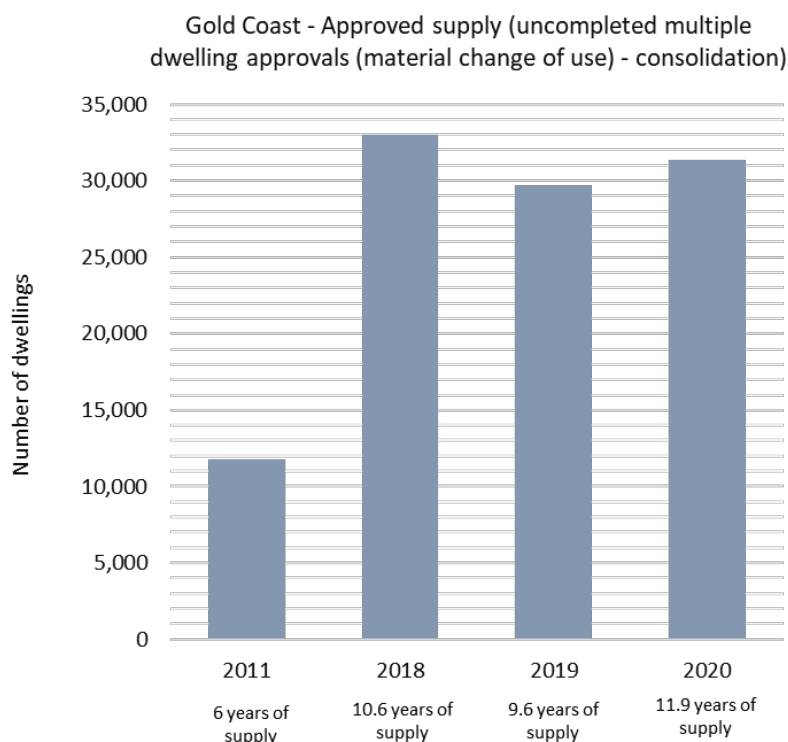
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years. The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Gold Coast

In the Gold Coast consolidation area, dwelling approvals (used to measure dwelling growth) have been below the consolidation average annual benchmark since they were set under *ShapingSEQ 2017*.

This matter has been monitored and the department is working with City of Gold Coast to understand the trend and any measures that might address it.

In the Gold Coast expansion area dwelling approvals have exceeded the expansion average annual benchmark in recent years despite declining from a peak in 2015/16.

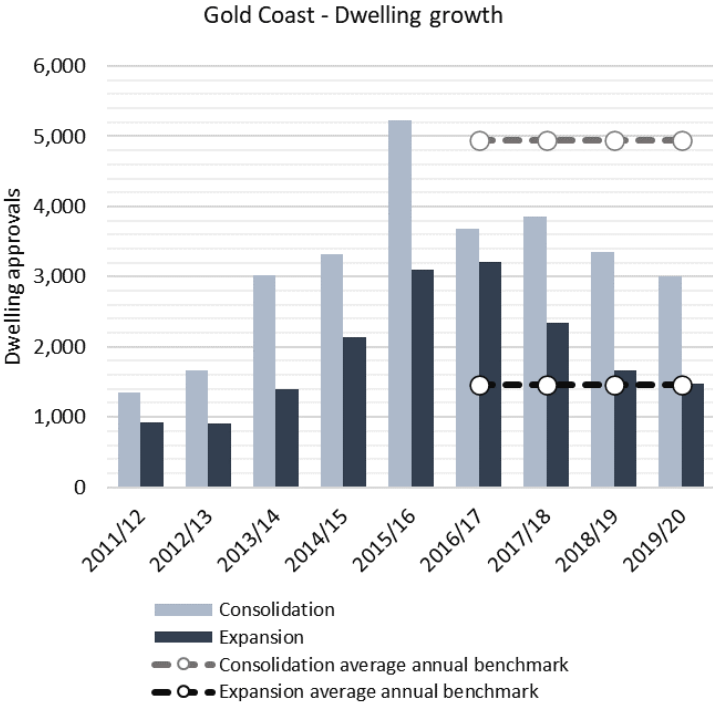
This trend and resulting impacts will be closely monitored in future reporting.

There were 3000 dwelling approvals in the Gold Coast consolidation area in 2019/20, which was approximately 1940 fewer than the consolidation average annual benchmark of 4943 additional dwellings. Over the same period, there were 1481 dwelling approvals in the Gold Coast expansion area, which was 27 dwellings more than the expansion average annual benchmark of 1455 additional dwellings.

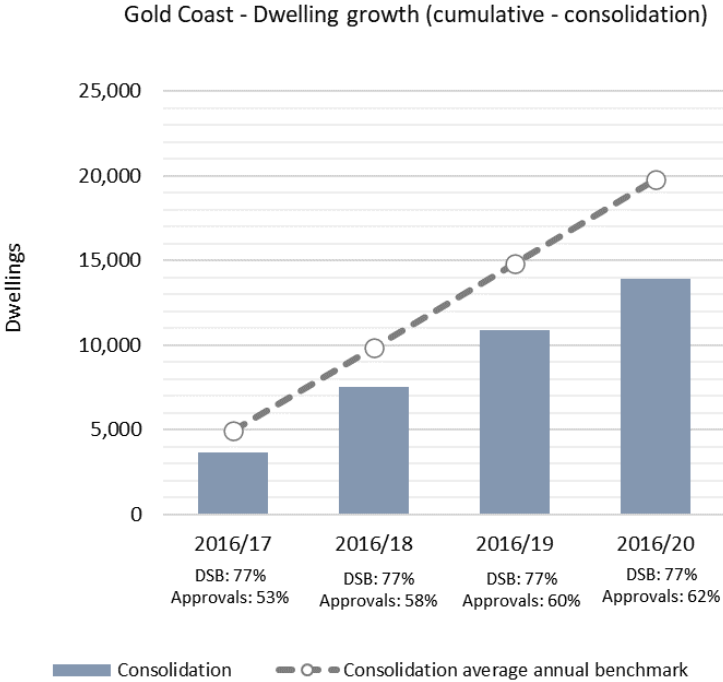
From 2016/17 to 2019/20 approximately 62 per cent of dwelling approvals were in the consolidation area which is less than its expected share of 77 per cent. Approximately 38 per cent of dwelling approvals were in the Gold Coast expansion area over the same period, which exceeded its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017* (23 per cent).

The data shows the gap between dwelling growth figures and the *ShapingSEQ 2017* benchmarks, which may lead to a challenge in addressing this shortfall into the future. However, growth in the consolidation area should proportionately increase as expansion land supply diminishes and consolidation capacity increases through amended planning and development schemes. This could be supported by the provision of key regional transport infrastructure, and will require, in some locations, the redevelopment of existing attached dwellings.

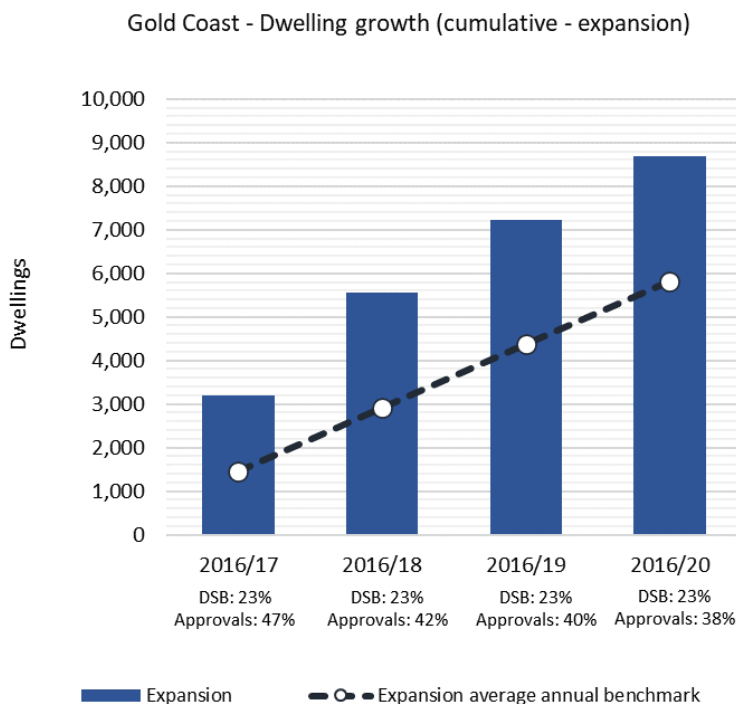
For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017*'s average annual benchmarks.



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017*'s consolidation average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s expansion average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

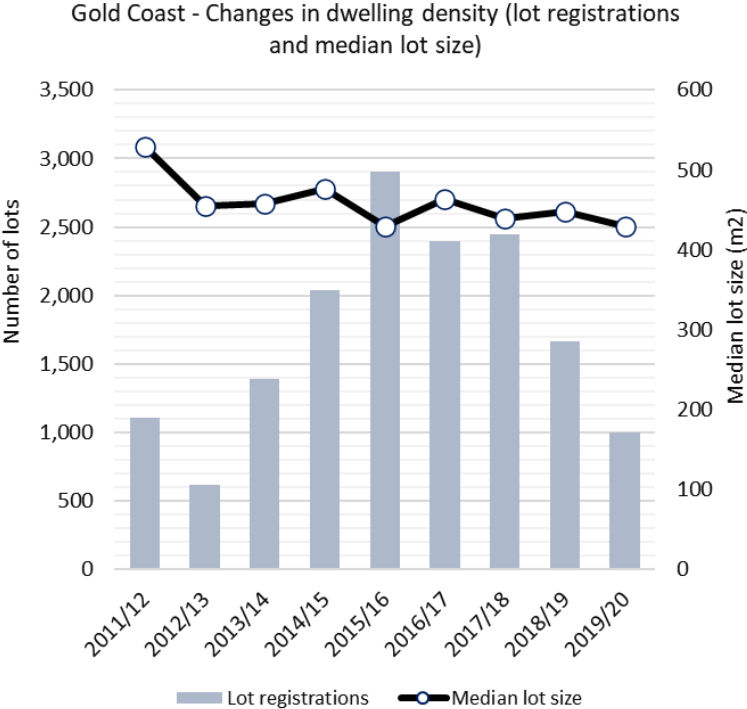
Changes in dwelling density – Gold Coast

Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) is increasing on the Gold Coast in accordance with SEQ's preferred future for higher dwelling densities and smaller lots.

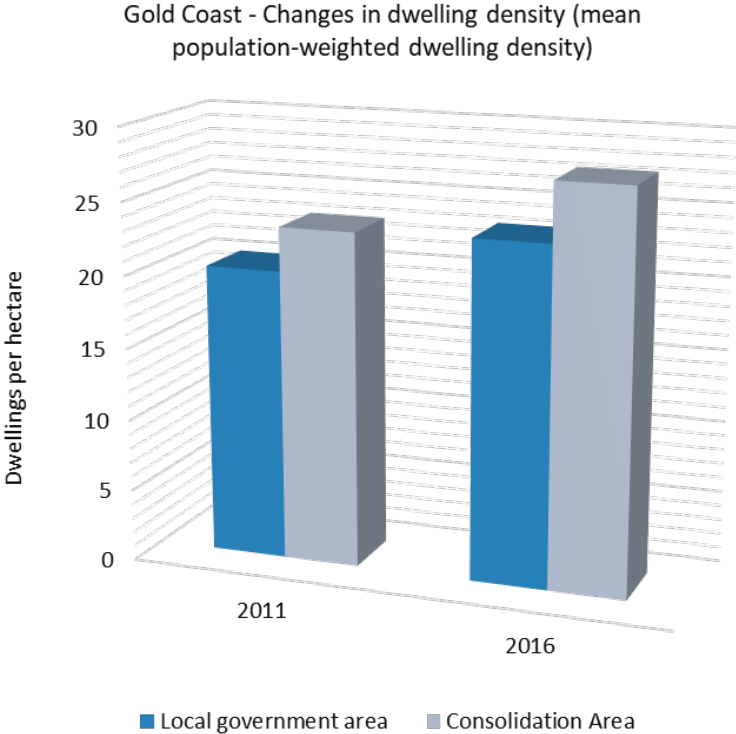
Mean population-weighted dwelling density increased on the Gold Coast overall between 2011 and 2016, from 20.2 to 23.4 dwellings per hectare. This represents the average dwelling density at which the population of Gold Coast lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density increased from 23.2 to 27.5 dwellings per hectare.

The median size of new lots decreased from 529m² to 429m² from 2011/12 to 2019/20 on the Gold Coast. This was associated with a general trend to higher lot registrations up to 2015/16 followed by a general decline since.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Gold Coast

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate a decrease in the proportion of houses and an increase in the proportion of high-rise on the Gold Coast.

This is consistent with SEQ’s preferred future to provide greater diversity of housing.

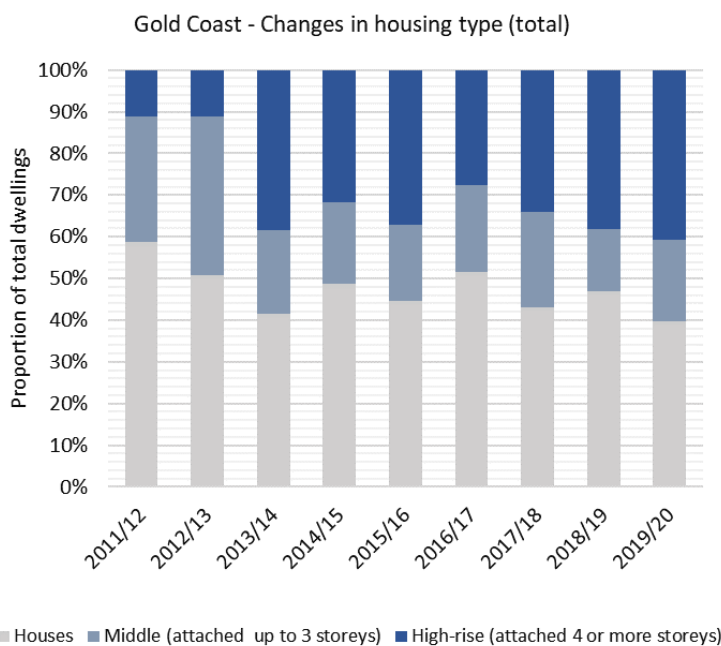
Forty-six per cent (10,360 dwellings) of new dwelling approvals on the Gold Coast for 2016/17 to 2019/20 were for houses, which was less than their proportion of the existing dwelling stock (56 per cent as at the 2016 Census).

Dwelling approvals for middle (20 per cent or 4498 dwellings) were proportionately less than the share of existing dwellings as at the 2016 Census (32 per cent). The proportion of dwelling approvals for high-rise (34 per cent or 7731 dwellings) exceeded their proportion of the existing dwelling stock (12 per cent).

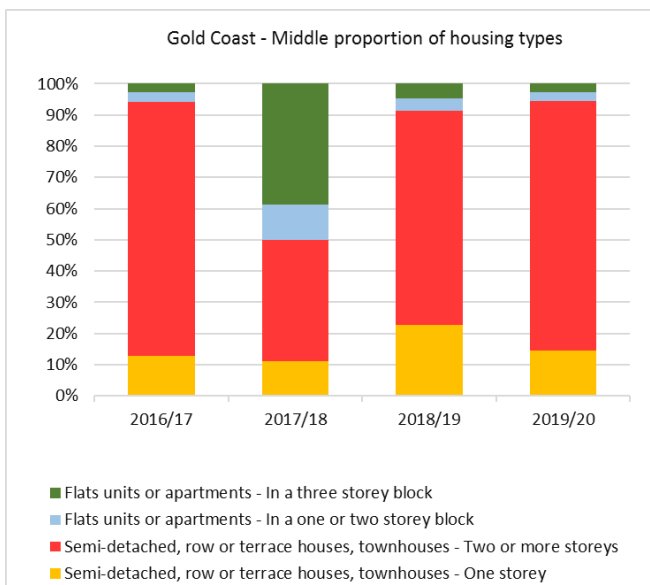
The predominant middle housing type dwellings approved since 2016/17 on the Gold Coast are semi-detached, row or terrace houses and townhouses of two or more storeys (about 76 per cent or 3429 dwellings).

About 62 per cent (2775 dwellings) of middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and about 38 per cent (1723 dwellings) were located within the expansion area for the same period.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of 'missing middle' in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

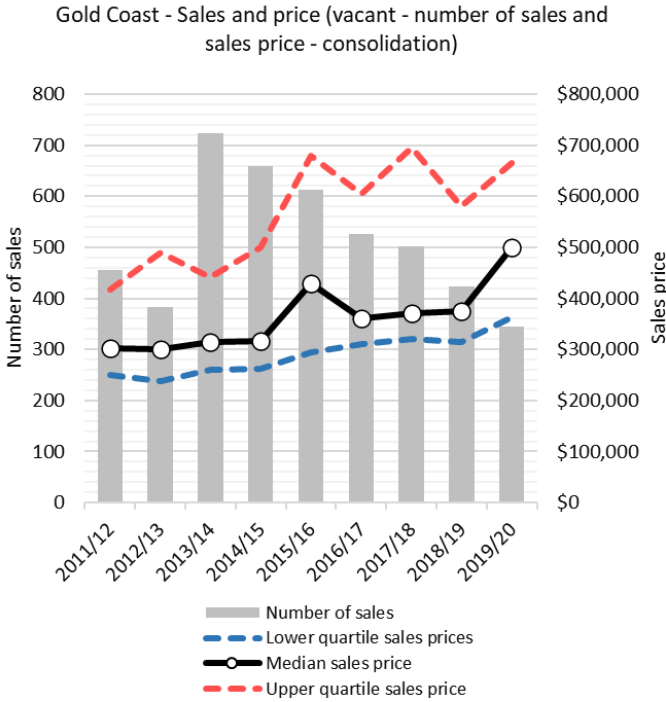
Sales and price – Gold Coast

The number of sales has increased from 2018/19 to 2019/20 for all categories on the Gold Coast, except vacant lots in the consolidation area, and attached dwellings in the consolidation and expansion areas, which have decreased.

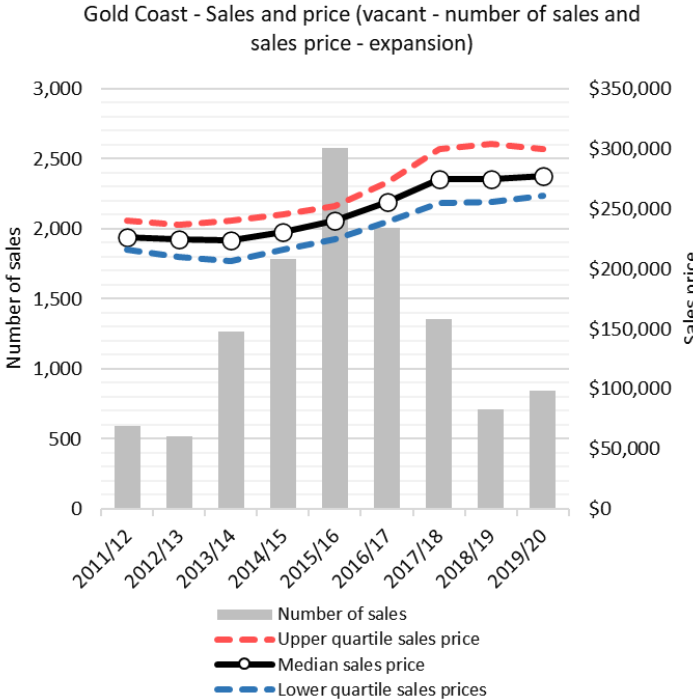
The median sales price for all categories is higher on the Gold Coast than for South East Queensland (SEQ). The rate of median price growth was also higher on the Gold Coast than SEQ for all categories, except for vacant lots (per lot and per square metre) and houses in the expansion area.

Over the 2011/12 to 2019/20 period, the greatest growth in median sales price within Gold Coast was for vacant lots (65.6 per cent per lot and 99.2 per cent per square metre) in the consolidation area.

For more detail about the median sales price and number of sales, see the [Technical notes](#).

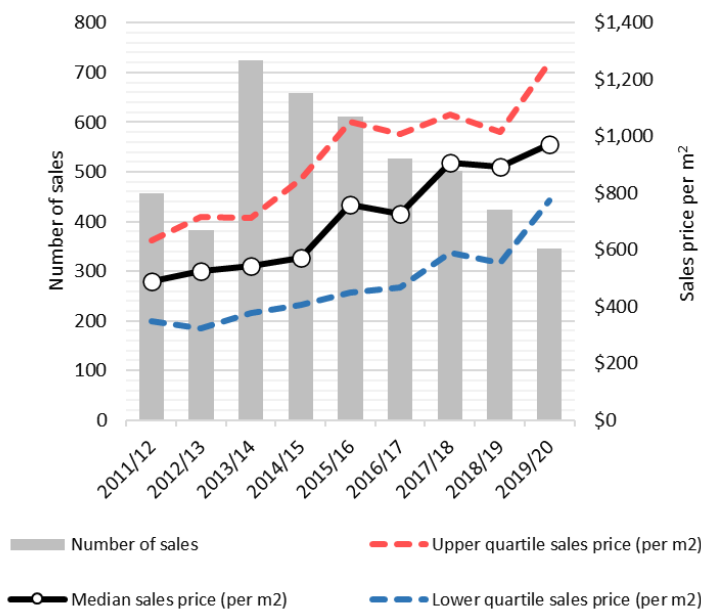


This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.



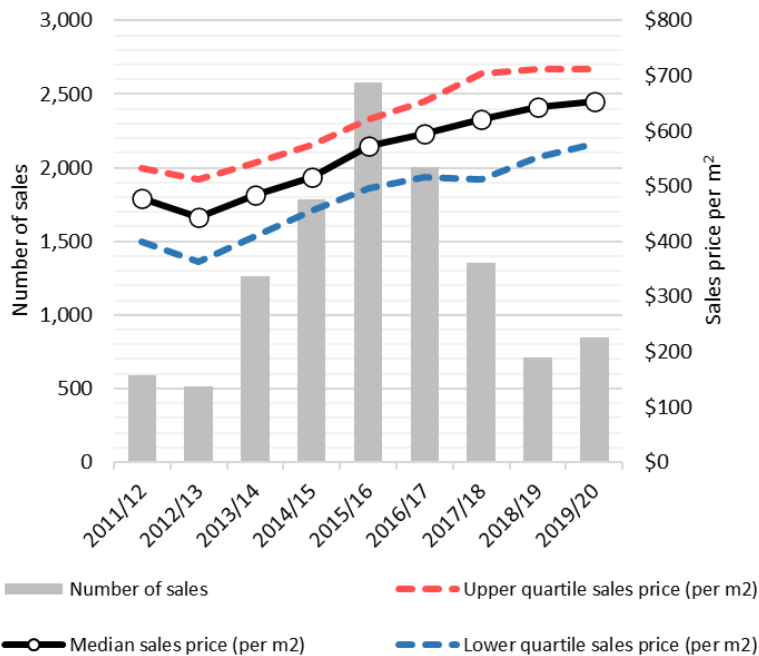
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.

Gold Coast - Sales and Price (vacant - number of sales and price per m2 - consolidation)



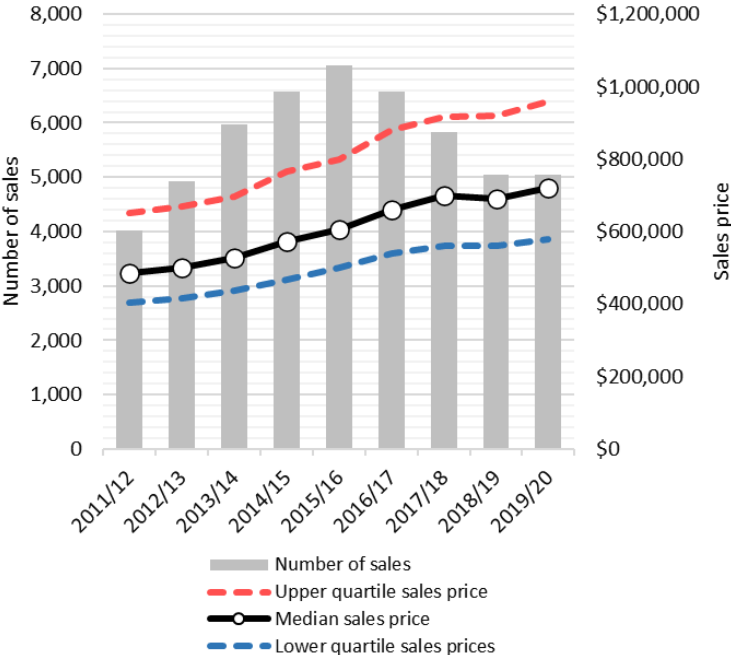
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.

Gold Coast - Sales and price (vacant - number of sales and price per m2 - expansion)



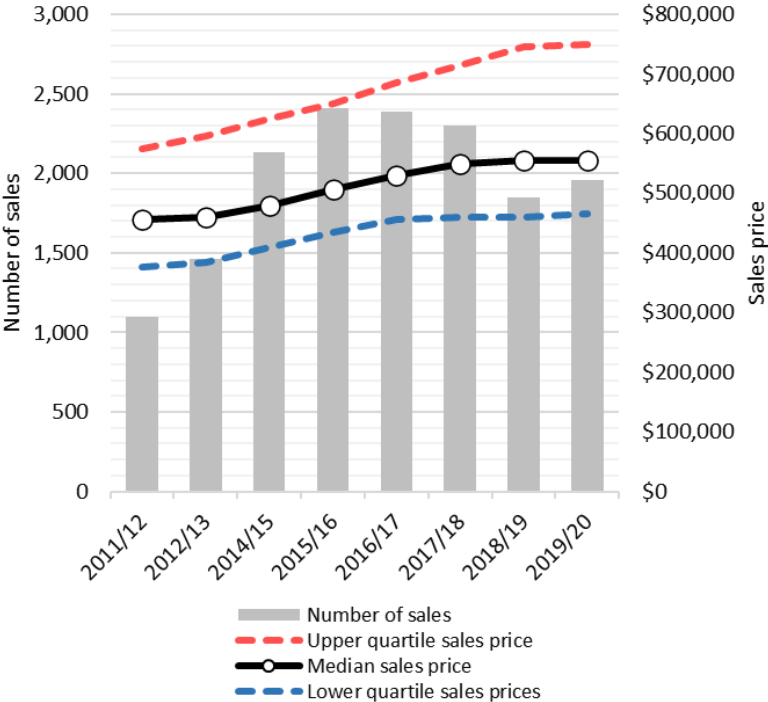
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

Gold Coast - Sales and price (houses - number of sales and sales median price - consolidation)



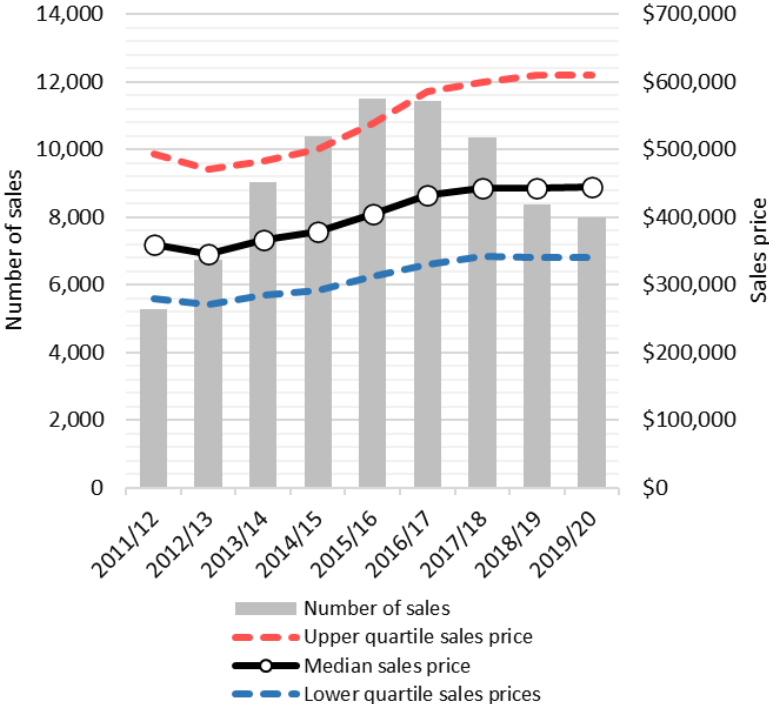
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.

Gold Coast - Sales and price (houses - number of sales and sales price - expansion)



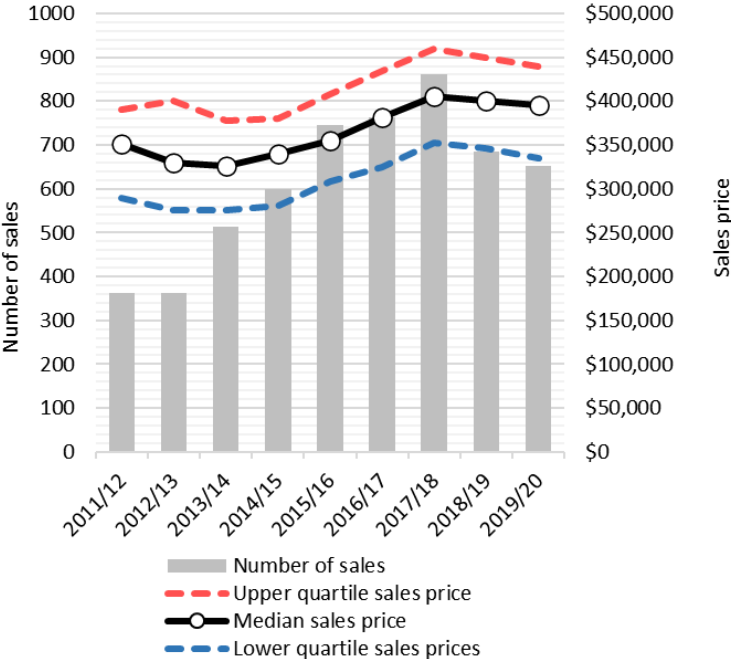
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.

Gold Coast - Sales and price (attached - number of sales and sales price - consolidation)

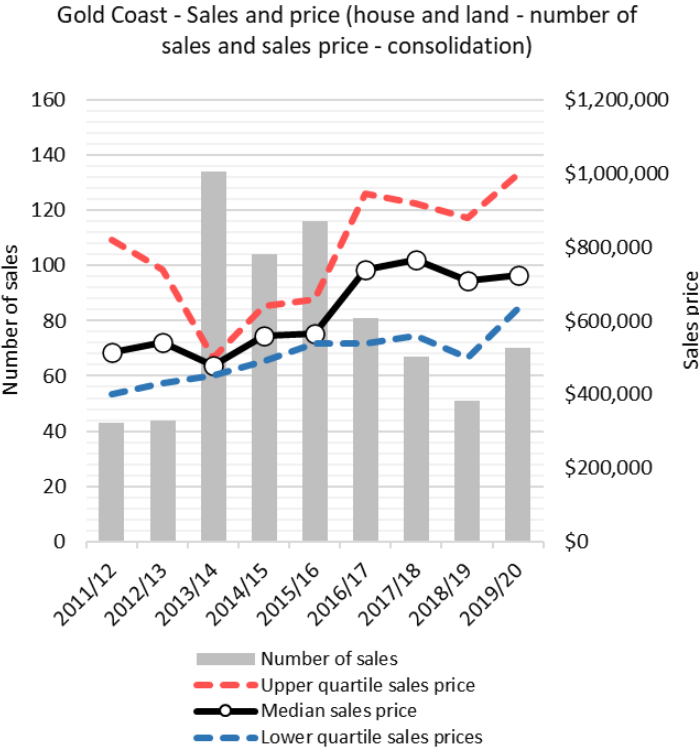


This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.

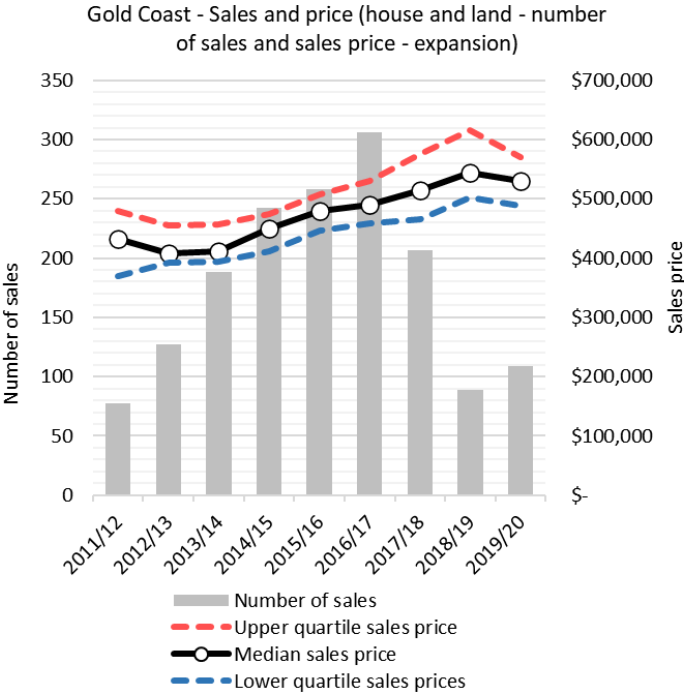
Gold Coast - Sales and price (attached - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Industrial – Gold Coast

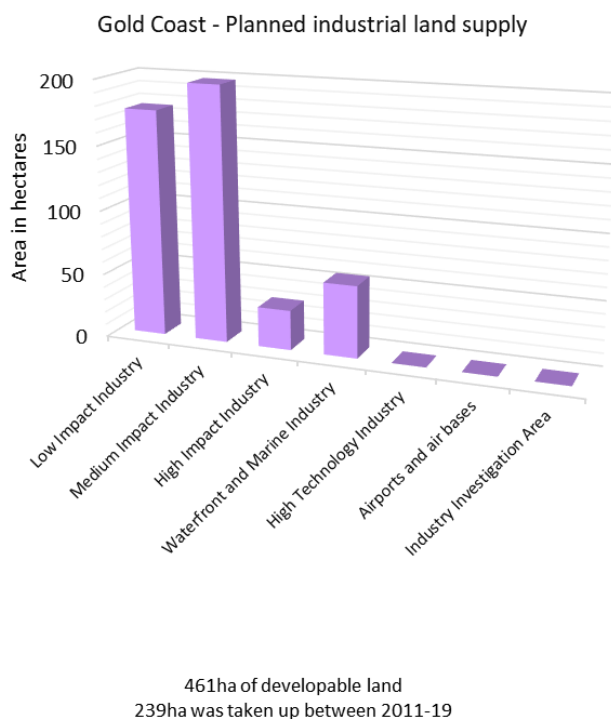
Planned industrial land supply/take-up – Gold Coast

About 239 hectares of developed industrial land was taken-up on the Gold Coast between 2011 and 2019. The take-up occurred mostly on land intended for low, medium and high impact industry and then waterfront and marine industry.

There were about 461 hectares of planned industrial land on the Gold Coast as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for low, medium and high impact industry, and waterfront and marine industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and the meaning and calculation of the planned industrial land and take-up measures, see the [Best practice research](#) and [Technical notes](#).



This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Gold Coast

The capacity and realistic availability of planned industrial employment supply on the Gold Coast provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

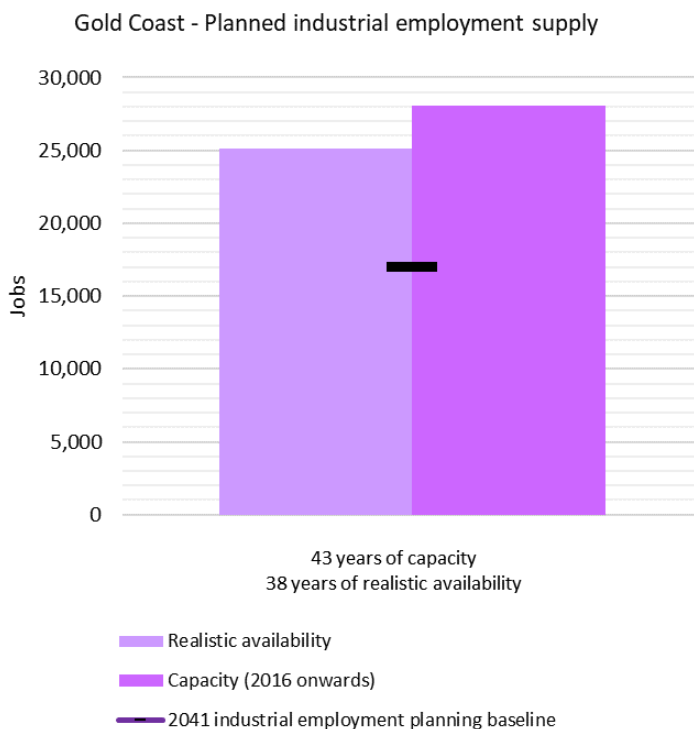
The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply on the Gold Coast is about 28,000 employees, while the realistic availability of this supply is about 25,100 employees. The capacity figure represents about 43 years of supply and is above the 2041 industrial employment planning baseline of 17,000 employees. The realistic availability figure represents about 38 years of supply and is also well above the 2041 industrial employment planning baseline.

The realisation of this planned industrial employment supply on the Gold Coast, in particular at Yatala-Stapylton, may be supported by improved connections to the Port of Brisbane.

For more detail about the calculation of planned industrial employment supply, and identification of planning scheme amendments that may affect supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The City of Gold Coast Council (CoGC) in collaboration with the Griffith University Cities Research Institute (GU-CRI) has been working on a new urban growth model called Planning & Urban Growth (PUG); with the intention of this information being used by CoGC, once approved by council, to inform a major amendment to the Local Government Infrastructure Plan (LGIP). The PUG is also jointly funded by the Queensland Government Round 2 Innovation Funding program to assist CoGC in developing a more reliable and consistent urban modelling framework to inform future amendment to City Plan and LGIP. The PUG modelling framework, once finalised, could also be utilised by other councils for similar purposes.

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with support of the GU-CRI has also recalibrated the realistic estimation of development yields at small area level across all land use designations and zonings on the Gold Coast in order to establish a more reliable and realistic ultimate development scenario. This is a clear shift in the consideration of development capacity from the conventional “ultimate capacity at 50 years horizon” nominal approach adopted by various councils and utility providers.

The preliminary findings and assessment of the PUG model works have revealed that CoGC has more realistic ultimate development capacity post 2041 and 2066 horizons based on designations in the current City Plan. It should be noted that as a result of CoGC recalibrating its baseline, the model works have departed from the conventional “ultimate capacity at a 50 year horizon” nominal approach used previously.

Once finalised, outputs from the PUG model are expected to inform future LSDM reports.

Ipswich

Summary

ShapingSEQ 2017 establishes that Ipswich's expected population growth will require an additional 111,700 dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Ipswich consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about 6.6 years of supply of uncompleted lot approvals in Ipswich, which exceeds the minimum four years of supply sought by *ShapingSEQ 2017*. There are about 15 years of supply of uncompleted multiple dwelling approvals in the Ipswich consolidation area, which also exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

Annual dwelling approvals in Ipswich have continued to decline in 2019/20. Dwelling approvals in the Ipswich consolidation area have been below the consolidation average annual benchmark in recent years, while dwelling approvals in the Ipswich expansion area exceeded the average annual benchmark in 2017/18 for the first time and have declined below the benchmark since. Increased dwelling growth in the consolidation area may be supported over time by planning scheme changes to increase planned dwelling supply. High rates of expansion dwelling growth are expected as urban development momentum gathers and continues in the major growth areas of Ripley Valley and Springfield.

Dwelling density is increasing, which is consistent with SEQ's preferred future. Recent dwelling approvals also indicate that housing in Ipswich is increasing in diversity, when compared to existing dwelling stock at the 2016 Census. However, the proportion of house approvals in Ipswich has increased and the proportion of middle and high-rise approvals has reduced in recent years.

Ipswich City Council has begun the process of preparing a new planning scheme, in accordance with the requirements of the *Planning Act 2016*. Feedback from consultation on the Statement of Proposals, including the draft Strategic Framework, has been considered and will inform preparation of a full draft of the planning scheme by Council.

The capacity and realistic availability of the planned industrial employment supply in Ipswich provide the minimum 15 years of supply sought by *ShapingSEQ 2017* and substantially exceed the 2041 industrial employment planning baseline. Council has also recently commissioned studies to inform the new Ipswich Planning Scheme, including an Industrial and Employment Land Needs Analysis and Centres Strategy Update. These studies will provide additional technical information and analysis of current trends and approaches to inform the new Ipswich Planning Scheme.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting

period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Ipswich

Planned dwelling supply – Ipswich

The capacity and realistic availability of planned dwelling supply in the Ipswich consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the Ipswich consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 31,700 dwellings. This figure is above the consolidation 2041 dwelling supply benchmark of 27,900.

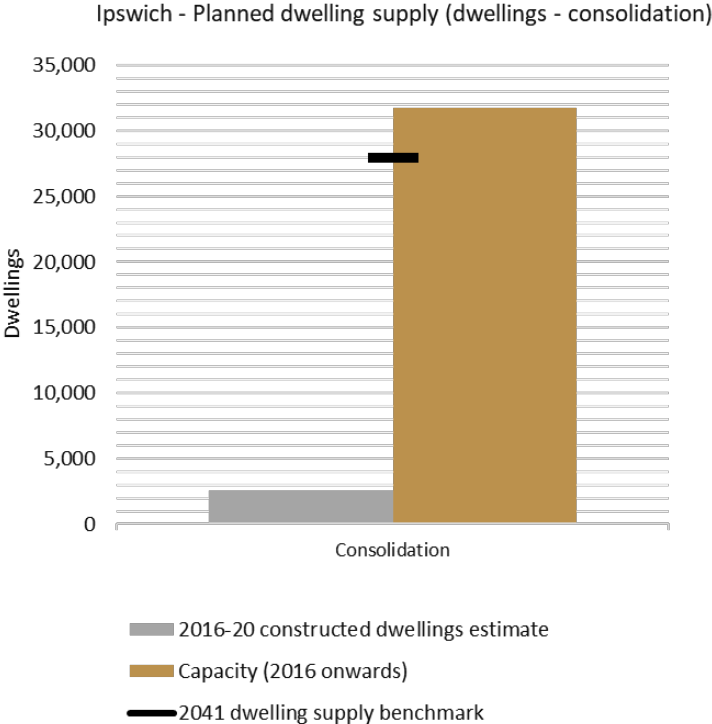
In the Ipswich expansion area, the capacity of planned dwelling supply is about 124,000 dwellings and significantly above the expansion 2041 dwelling supply benchmark of 83,800 dwellings. The realistic availability of this supply is about 81,400 dwellings, which equates to about 23 years of supply and is above *ShapingSEQ 2017*'s 15 years of supply policy objective.

Realisation of the planned dwelling supply in the expansion area needs to be supported by sub-regional sewerage and local road upgrades for the Ripley Valley Priority Development Area. It would also be supported by region-shaping infrastructure identified in *ShapingSEQ 2017* and the State Infrastructure Plan, including the Ipswich to Springfield Public Transport Corridor (I2S Corridor). The I2S Corridor Strategic Assessment was completed in July 2020 and identifies the strategic importance and the opportunities the delivery of mass transit and public transport through the Ipswich region will provide.

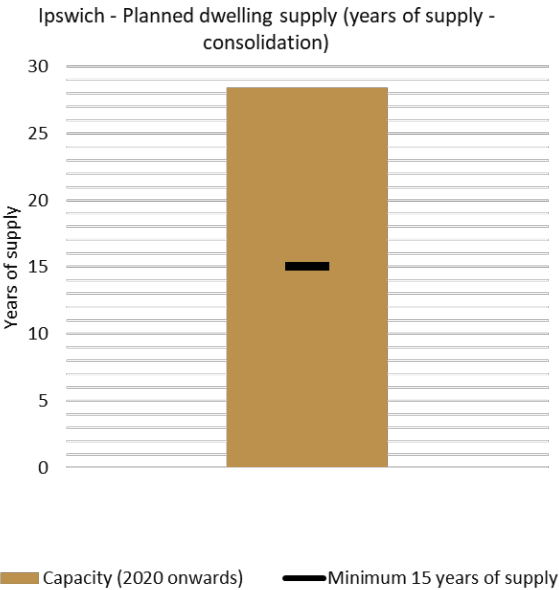
Ipswich City Council is currently preparing a new planning scheme, including additional key informative studies, which may affect and better inform planned dwelling supply in Ipswich. In the draft strategic framework of its new planning scheme, council has identified a variety of areas for further investigation to encourage increased planned dwelling supply in the Ipswich consolidation area.

Where the scheme proceeds, and source data is updated, its effect on planned dwelling supply will be included in future years of LSDM Reporting

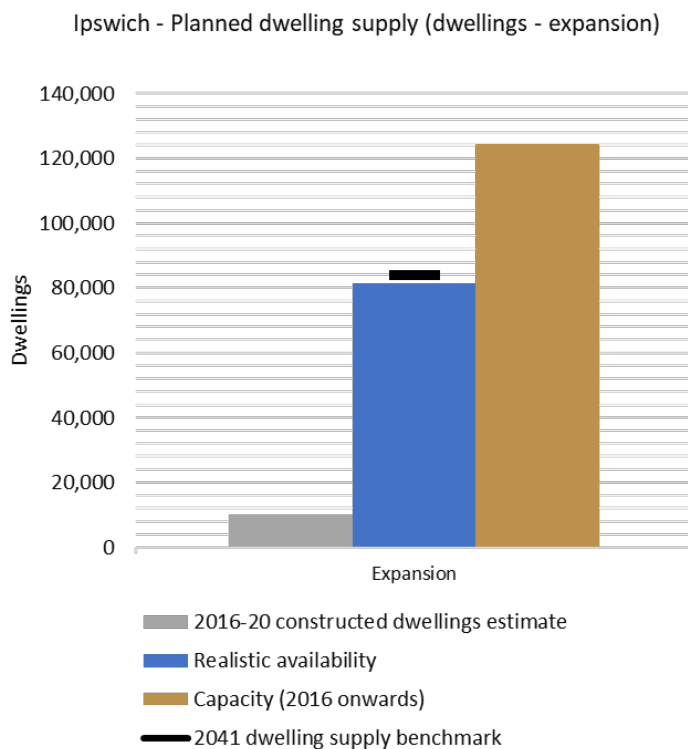
For more detail about the calculation of planned dwelling supply, including years of supply, see the [Technical notes](#).



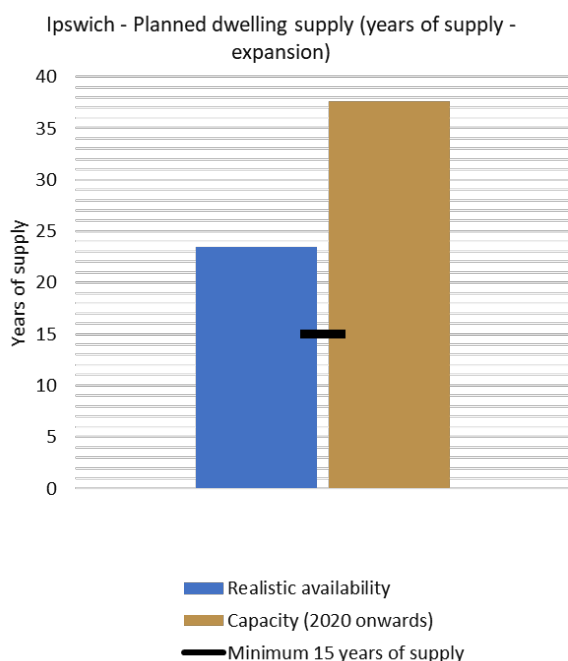
This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017's* dwelling supply benchmarks in consolidation areas.



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* minimum 15 years of supply policy objective in consolidation areas.



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017's* dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to

improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Ipswich

There are about 6.6 years of supply of uncompleted lot approvals in the Ipswich consolidation and expansion areas overall, which exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

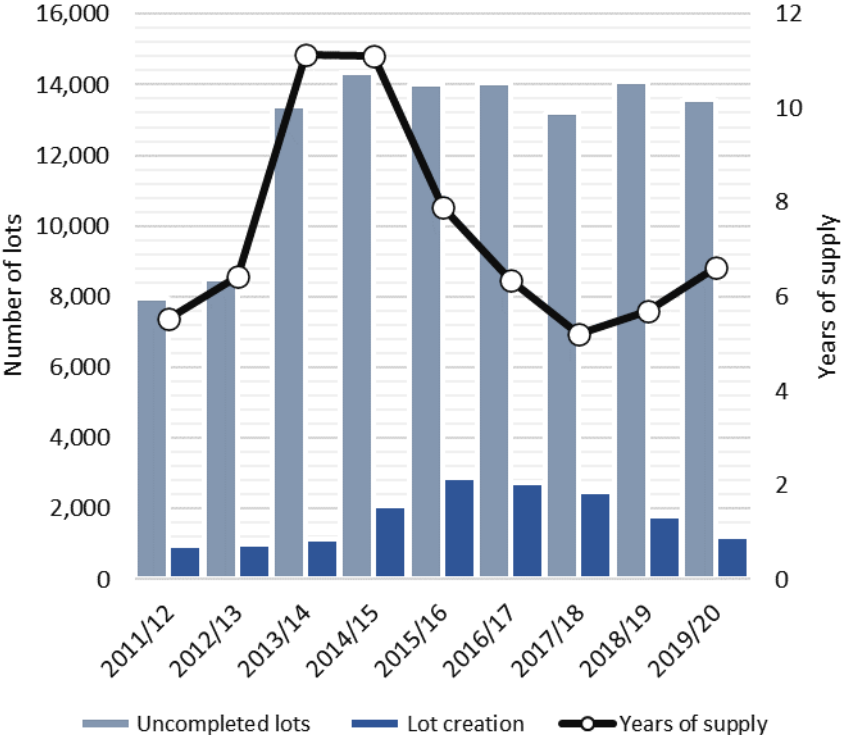
The total number of uncompleted lot approvals for 2019/20 is about 13,570. Of these uncompleted lots, approximately 42 per cent have operational works approvals for the 2019/20 period.

Ipswich also has about 15 years of supply of uncompleted multiple dwelling approvals in the consolidation area, well above the minimum four years of supply sought by *ShapingSEQ 2017*.

The number of uncompleted multiple dwelling approvals fell slightly from June 2019 to June 2020, but the years of supply has increased because of the fall in the rate of attached dwelling approvals, decreasing the assumed level of demand in the years of supply calculation.

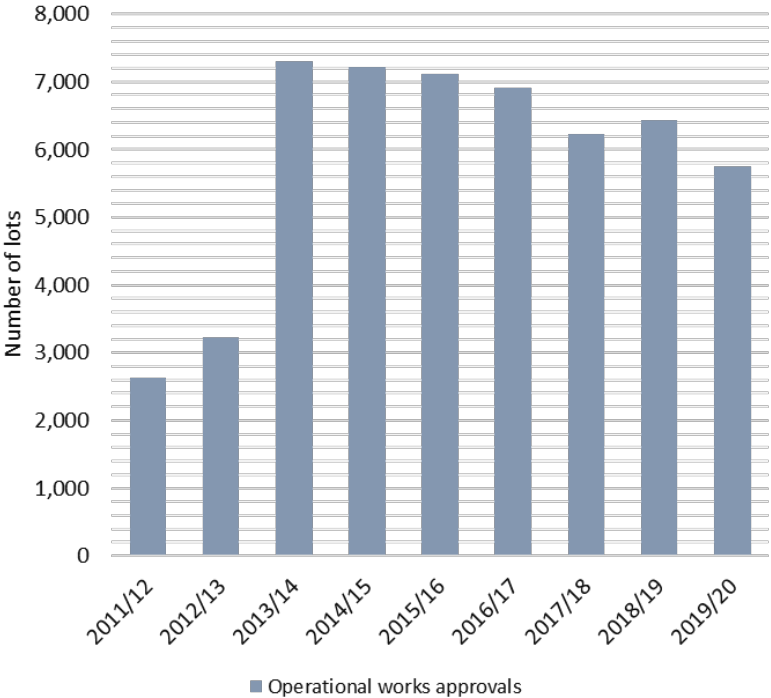
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).

Ipswich - Approved supply (uncompleted lot approvals - reconfiguring a lot)

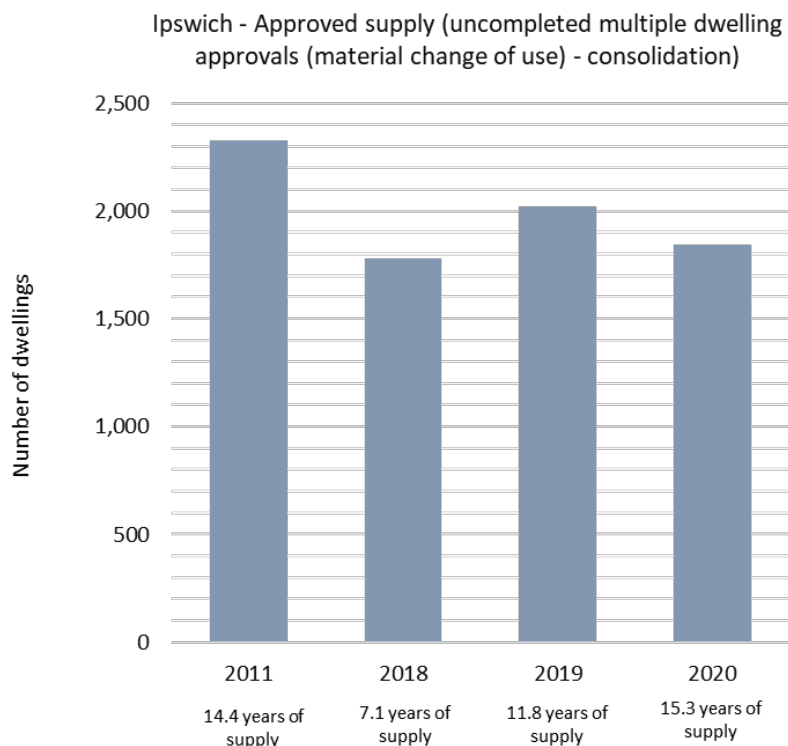


This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year and the number of lots that have been created in the 12 months up to 30 June each year.

Ipswich - Approved supply (operational works approvals)



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years. The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Ipswich

In the Ipswich consolidation area, dwelling approvals (used to measure dwelling growth) have been below the consolidation average annual benchmark in recent years.

This matter is being monitored and the department will work with Ipswich City Council to understand the trend and any measures that may address it.

In the Ipswich expansion area, dwelling approvals slightly exceeded the expansion average annual benchmark in 2017/18 following an upward trend but declined below the benchmark in 2018/19 and 2019/20.

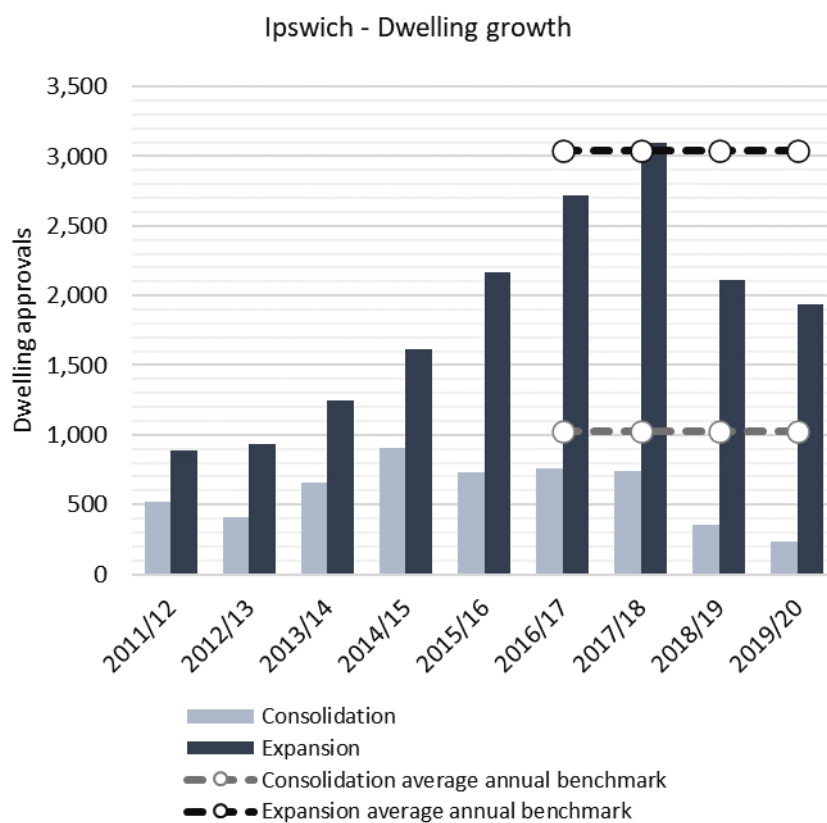
There were 232 dwelling approvals in the Ipswich consolidation area in 2019/20, which was approximately 790 dwellings less than the consolidation average annual benchmark of 1024 additional dwellings. Over the same period, there were 1936 dwelling approvals in the Ipswich expansion area, which was approximately 1100 dwellings less than the expansion average annual benchmark of 3036 additional dwellings.

Approximately 17 per cent of dwelling approvals from 2016/17 to 2019/20 were in Ipswich’s consolidation area, which is less than its expected share of 25 per cent. Approximately 83 per cent of dwelling approvals were in Ipswich’s expansion area over the same period, which is more than its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017* (75 per cent).

A higher share of expansion area dwelling growth is still expected as urban development momentum gathers and continues in the major growth areas of Ripley Valley and Springfield. Council has advised the Ipswich to Springfield Corridor (I2S Corridor) Strategic Assessment was completed in July 2020 and identifies the strategic importance and the opportunities the delivery of mass transit and public transport through the Ipswich region will provide.

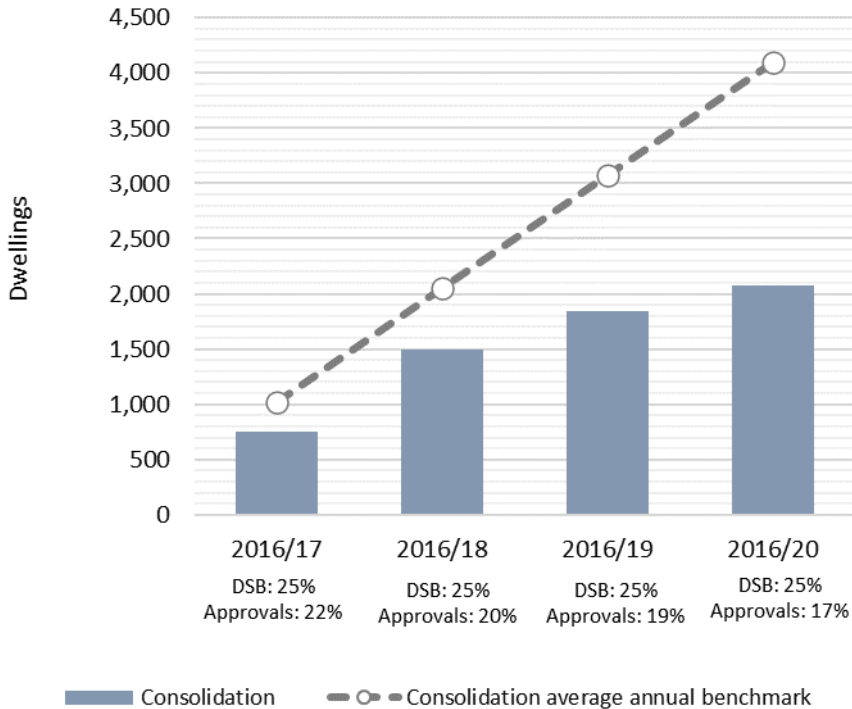
Increased dwelling growth in the consolidation area is expected to be supported over time by investigations for planning scheme changes to increase planned dwelling supply.

For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



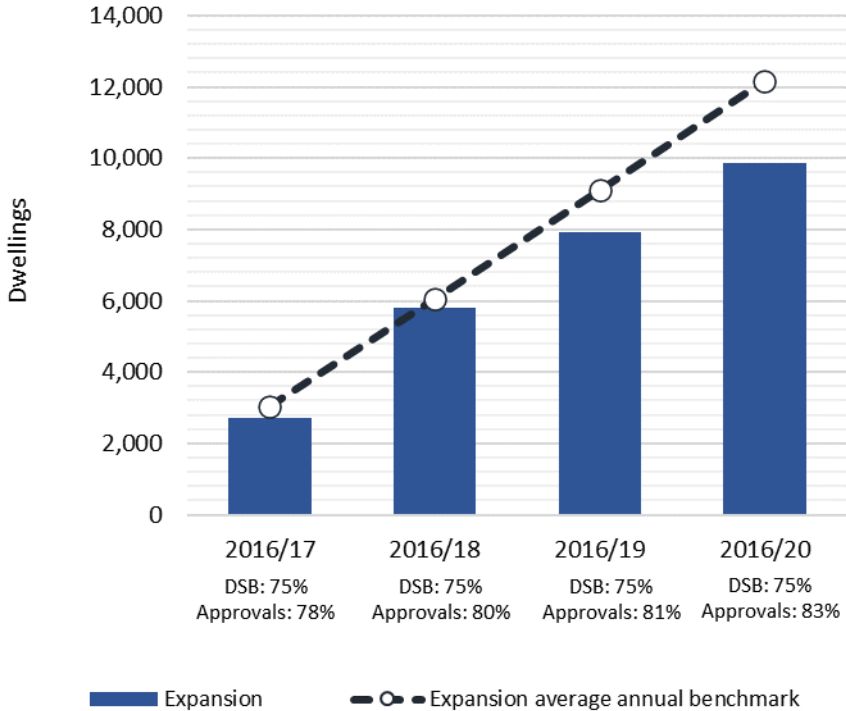
This graph shows annual dwelling approvals compared against *ShapingSEQ 2017*'s average annual benchmarks.

Ipswich - Dwelling growth (cumulative - consolidation)



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Ipswich - Dwelling growth (cumulative - expansion)



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s expansion average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

Changes in dwelling density – Ipswich

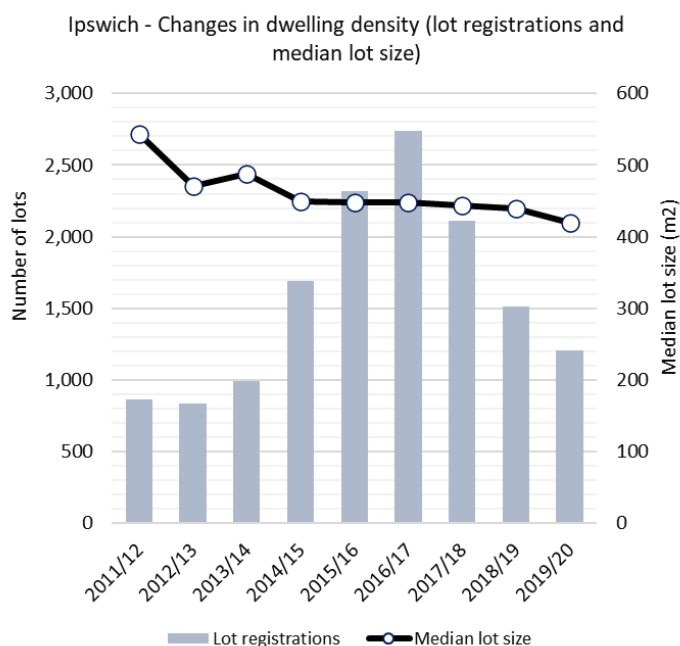
Overall dwelling density (measured through median size of new lots and mean population-weighted dwelling density) is increasing in Ipswich in accordance with SEQ's preferred future for higher dwelling densities and smaller lots.

Mean population-weighted dwelling density increased in Ipswich between 2011 and 2016, from 8 to 8.7 dwellings per hectare. This represents the average dwelling density at which the population of Ipswich lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density increased from 8.6 to 9.1 dwellings per hectare.

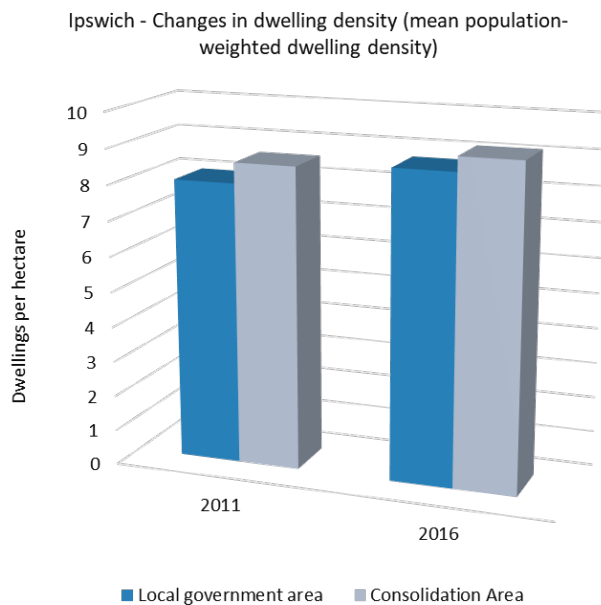
The median size of new lots in Ipswich decreased from 544m² to 420m² from 2011/12 to 2019/20. This was accompanied by a trend to higher lot registrations up to 2016/17 followed by a decline since. This measure indicates increased dwelling densities in new urban subdivisions in Ipswich.

Ipswich's planning framework has supported increased dwelling densities and smaller lots over time.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Ipswich

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate an increase in housing diversity in Ipswich.

This is consistent with SEQ's preferred future. However, dwelling approvals for 2019/20 indicate an increase in the proportion of houses in Ipswich and reduction in the proportion of middle and high-rise.

Ipswich City Council has begun the process of preparing a new planning scheme. As identified in the Statement of Proposals, including a draft Strategic Framework, the new Ipswich Planning Scheme will continue to encourage and support the delivery of a mix of housing types and forms across Ipswich.

Eighty-seven per cent (10,395 dwellings) of all new dwelling approvals in Ipswich for 2016/17 to 2019/20 were for houses, which was less than the existing dwelling stock (89 per cent as at the 2016 Census). Dwelling approvals for middle (12 per cent or 1389 dwellings) and high-rise (one per cent or 154 dwellings) over the same period were higher than their share of the dwelling stock (middle 11 per cent, high-rise zero per cent) as at the 2016 Census.

Houses remain the predominant housing type and the percentage of approvals that are for houses has increased since 2015/16.

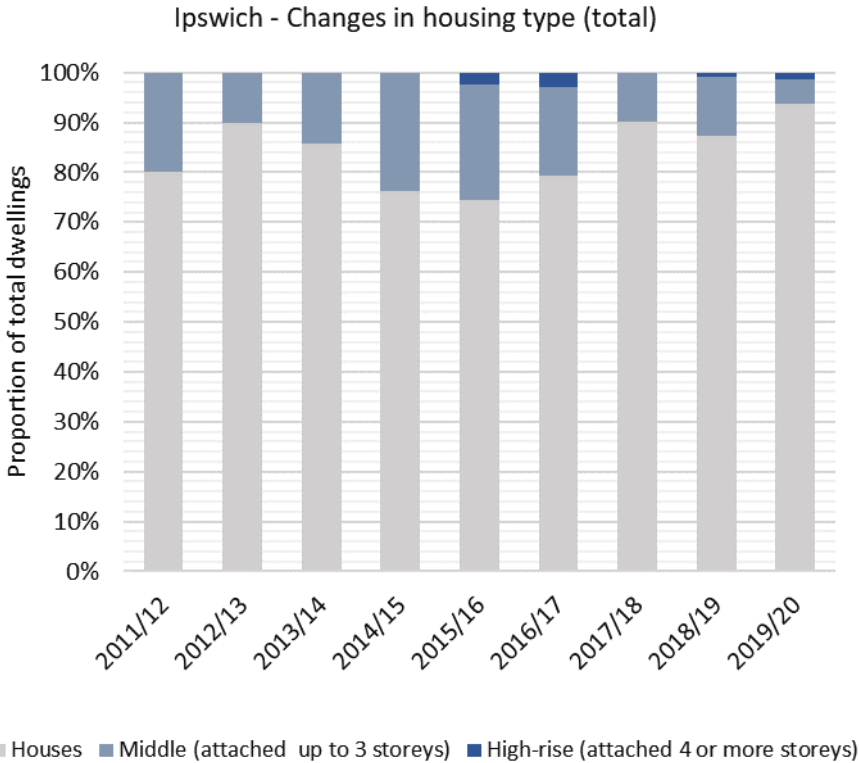
The predominant middle housing type dwellings approved since 2016/17 in Ipswich are semi-detached, row or terrace houses and townhouses of one storey (about 60 per cent or 839 dwellings).

About 31 per cent (432 dwellings) of middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and about 69 per cent (957 dwellings) were located within the expansion area for the same period.

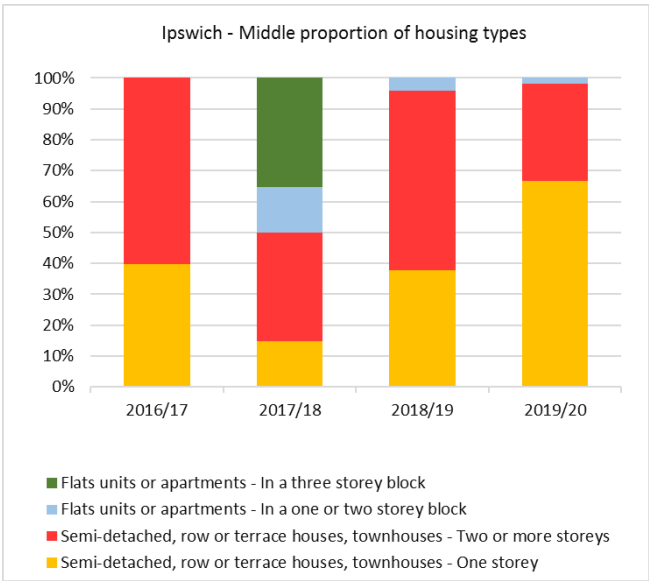
Further, the Ipswich to Springfield Public Transport Corridor (I2S Corridor) Strategic Assessment was completed in July 2020. The assessment has highlighted that the delivery of mass transit would reduce congestion and support

significant population growth, efficient productivity and economic growth, key factors to improving housing diversity and delivery of middle and high-rise dwelling types.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of ‘missing middle’ in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Ipswich

The number of sales has decreased from 2018/19 to 2019/20 for all categories in Ipswich, except houses and vacant lots in the expansion area which slightly increased.

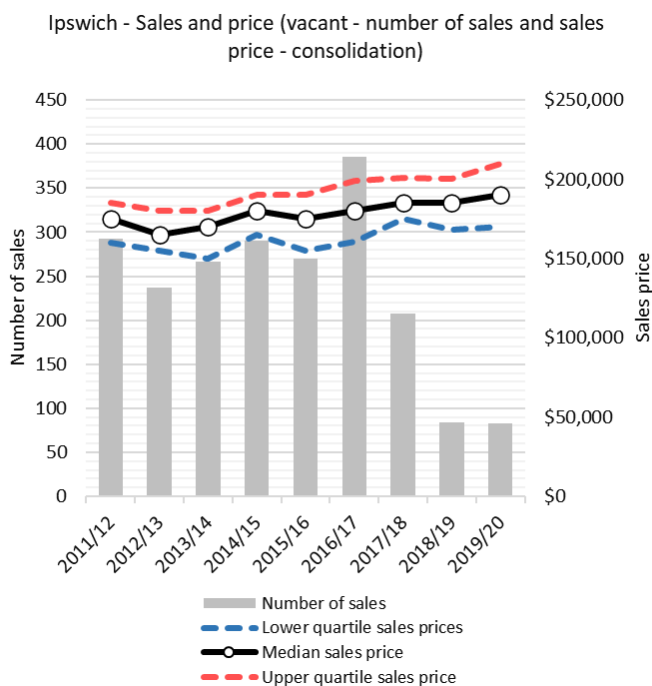
The median sales price for all categories is lower in Ipswich than for South East Queensland (SEQ).

The rate of median sales price growth between 2011/12 and 2019/20 was lower for Ipswich than SEQ for all categories except attached dwellings in the expansion area.

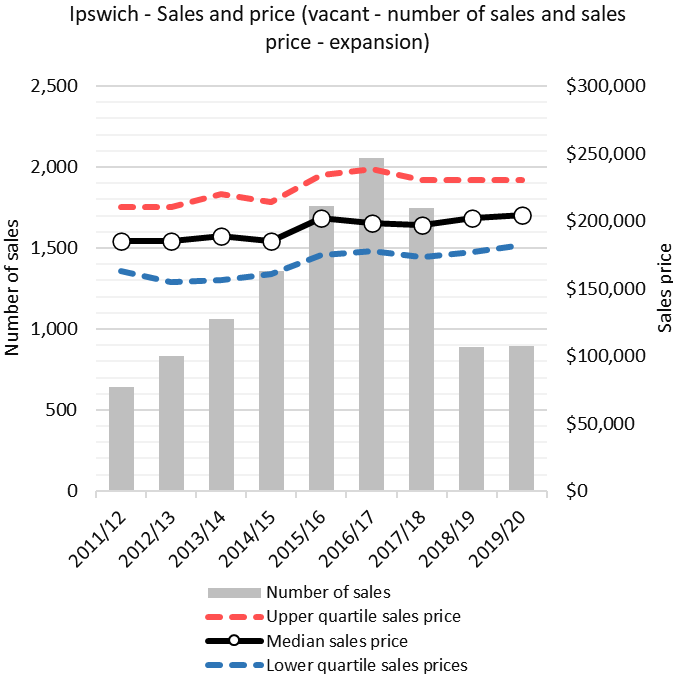
Over the 2011/12 to 2019/20 period, the greatest growth in median sales price within Ipswich was for vacant lots per square metre in the consolidation area (31.3 per cent).

The rate of median price growth and actual prices for all categories except vacant lots per square metre are higher in the expansion area than in the consolidation area within Ipswich. This is contrary to the outcome for SEQ.

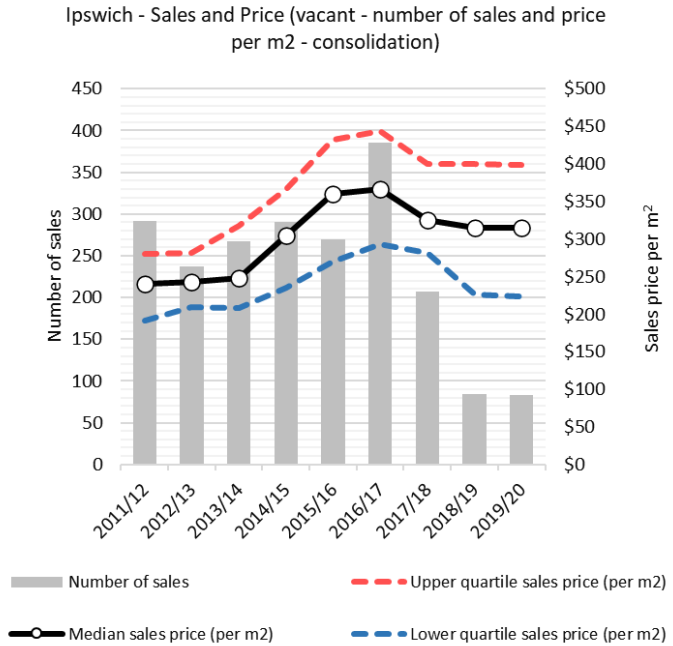
For more detail about the median sales price and number of sales, see the [Technical notes](#).



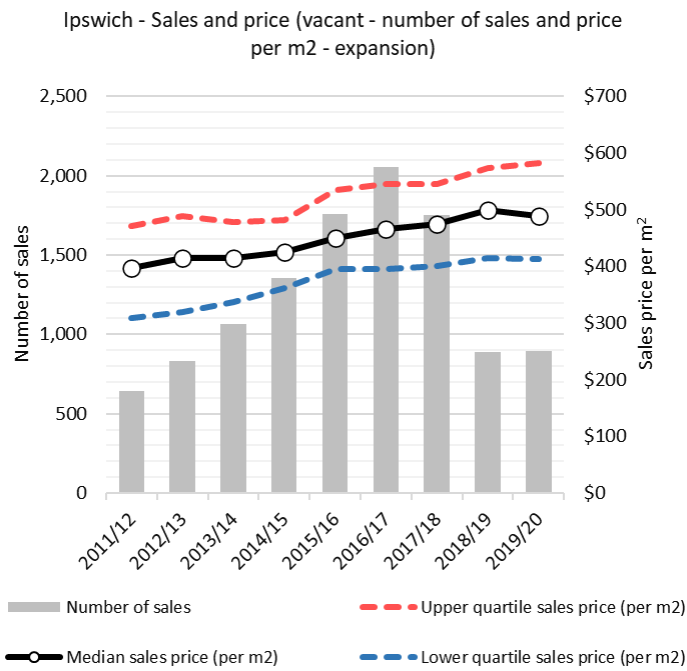
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.



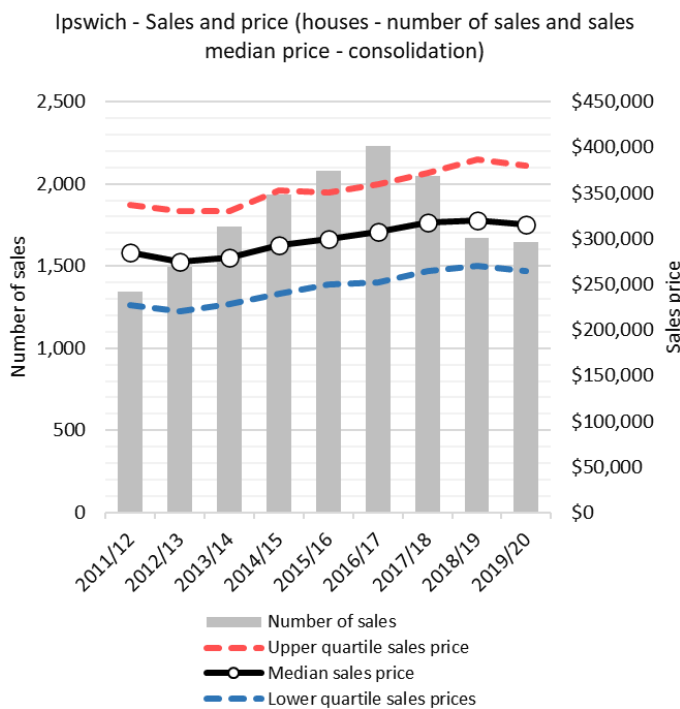
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.

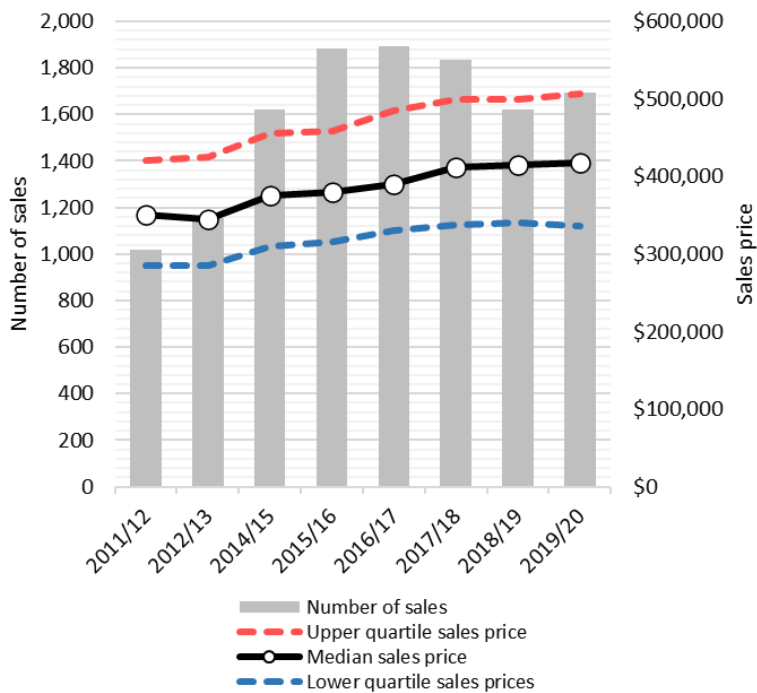


This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.



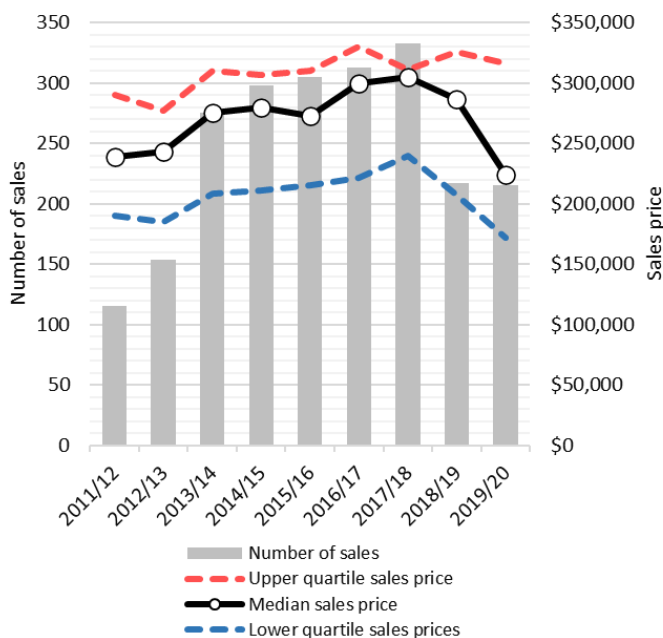
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.

Ipswich - Sales and price (houses - number of sales and sales price - expansion)



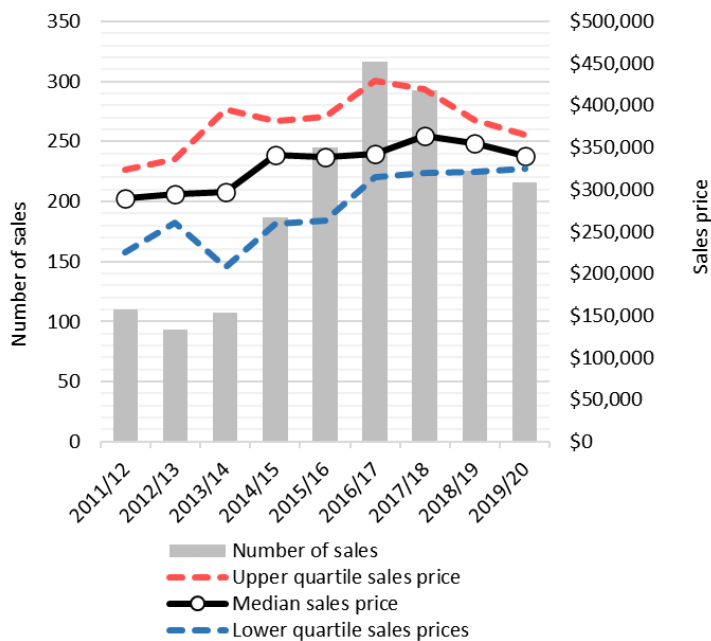
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.

Ipswich - Sales and price (attached - number of sales and sales price - consolidation)



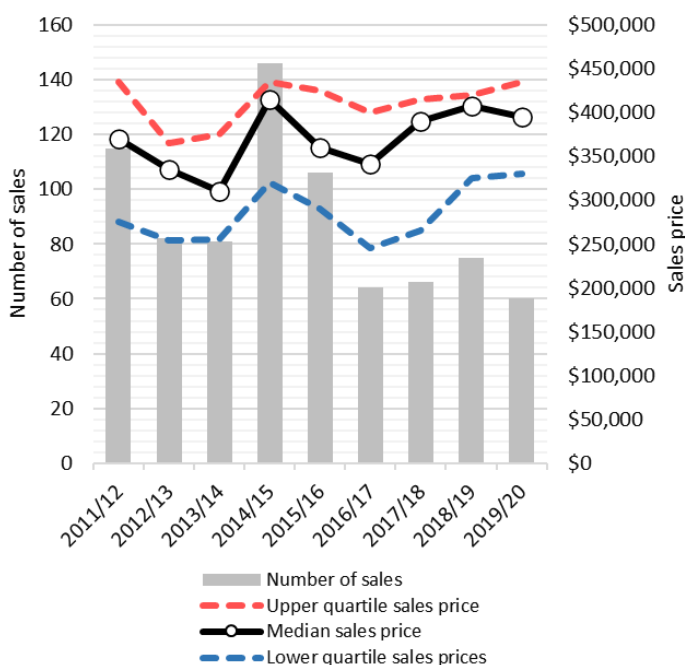
This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.

Ipswich - Sales and price (attached - number of sales and sales price - expansion)

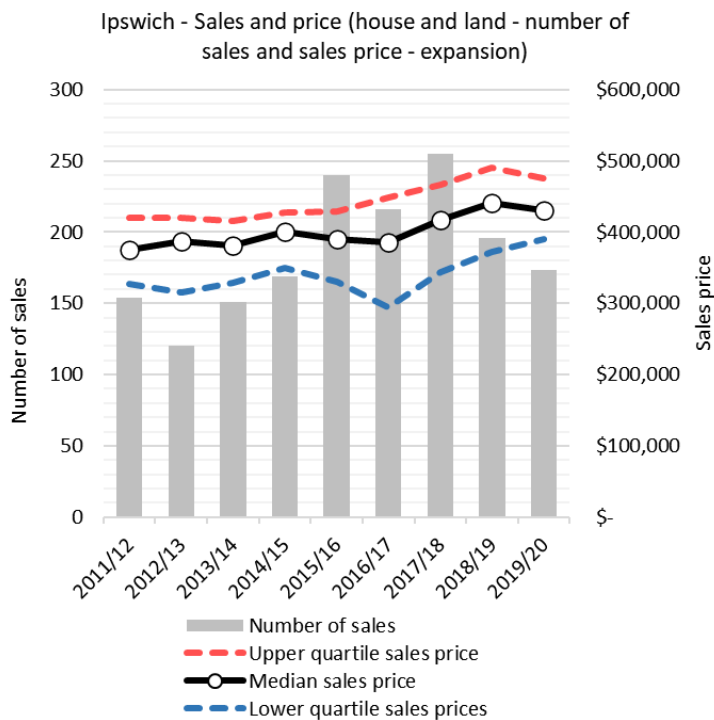


This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.

Ipswich - Sales and price (house and land - number of sales and sales price - consolidation)



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Industrial – Ipswich

Planned industrial land supply/take-up – Ipswich

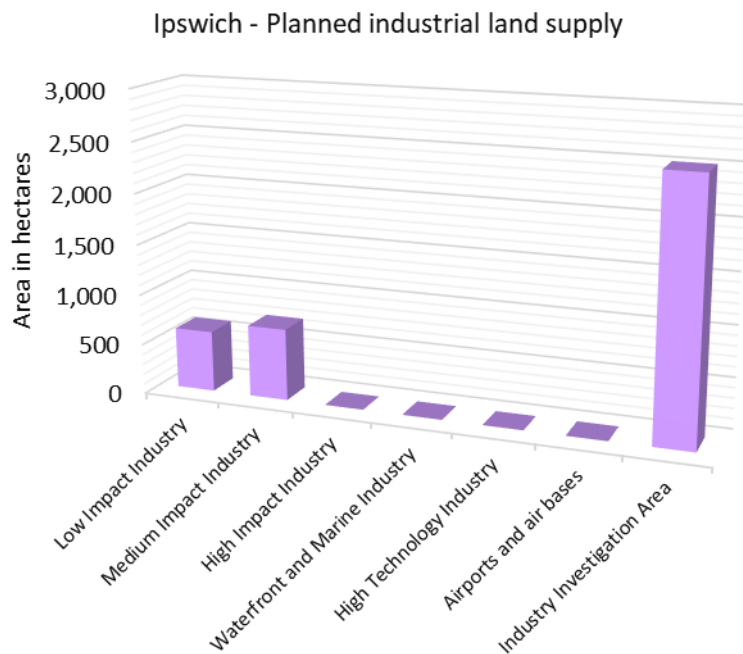
The estimated take-up of developed industrial land between 2011 and 2019 in Ipswich was 258 hectares. The take-up occurred on land intended for low and medium impact industry and industry investigation.

There were 3830 hectares of planned industrial land in Ipswich as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for medium and low impact industry, and industry investigation areas of 2518 hectares.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

The Council’s recently commissioned Industrial and Employment Land Needs Analysis report is expected to provide improved technical information to support the new Ipswich Planning Scheme and future LSDM reporting.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



3830ha of developable land
258ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Ipswich

The capacity and realistic availability of planned industrial employment supply in Ipswich provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

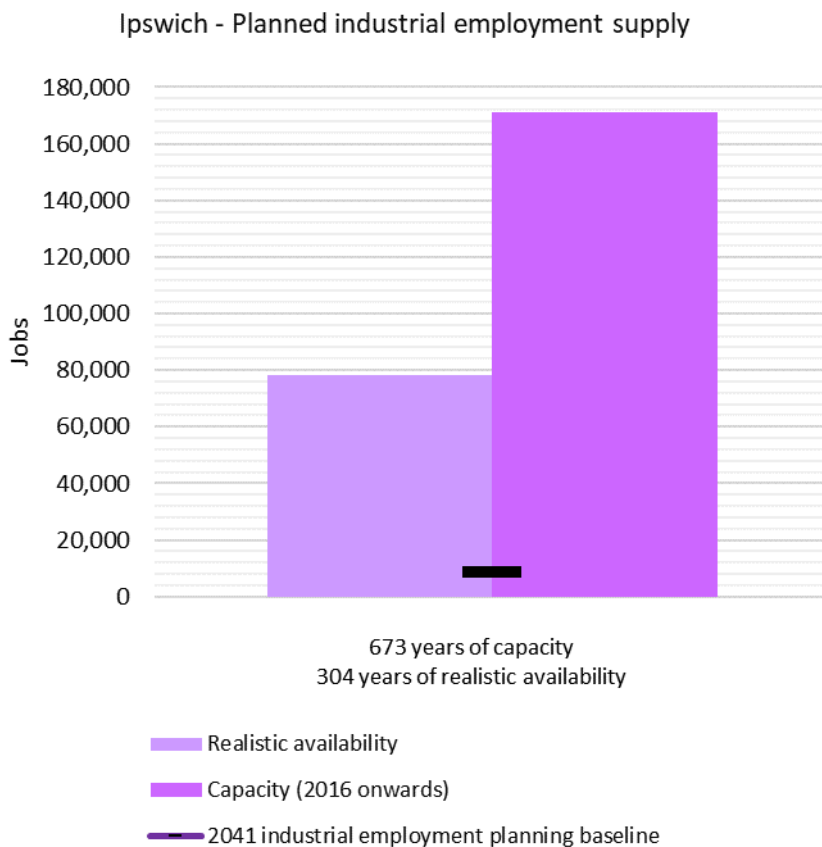
The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply in Ipswich is about 171,200 employees, while the realistic availability of this supply is about 78,000 employees. Most of the capacity of this supply is at Ebenezer and Swanbank. These figures are considerably greater than the 2041 industrial employment planning baseline of about 8700 employees. However, some excess of planned industrial employment supply may be appropriate to facilitate strategic economic development opportunities when they arise. This need was recognised by the Best practice research in the 2018 LSDM Report.

The realisation of this planned industrial employment supply would be supported by the development of the Melbourne to Brisbane Inland Rail and the associated long-term opportunities for a transport and logistics hub. In addition, a potential link to support freight movement between the Logan Motorway and Ebenezer may also support realisation of the planned industrial employment supply.

Ipswich City Council is currently preparing a new planning scheme which may affect planned industrial employment supply in Ipswich. Where the scheme proceeds, and source data is updated, its effect on planned industrial employment supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned industrial employment supply see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Lockyer Valley

Summary

ShapingSEQ 2017 establishes that Lockyer Valley's expected population growth will require an additional 9600 dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Lockyer Valley expansion area provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The area currently has 19.3 years of supply of uncompleted lot approvals, which far exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

Dwelling approvals in the Lockyer Valley have been consistently below the expansion average annual benchmark (there is no consolidation area in the Lockyer Valley). However, dwelling growth in the Lockyer Valley may increase as availability of and access to local employment opportunities and services increases.

Recent dwelling approvals continue the dominance of houses in the Lockyer Valley, and dwelling density has not changed significantly, contrary to SEQ's preferred future for increased dwelling densities and smaller lot sizes.

The capacity and realistic availability of planned industrial employment supply in the Lockyer Valley provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

Note: The local government areas of Lockyer Valley, Scenic Rim and Somerset do not have a consolidation area.

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Lockyer Valley

Planned dwelling supply – Lockyer Valley

The capacity and realistic availability of planned dwelling supply in Lockyer Valley, which is wholly within the expansion area, provide more than the 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

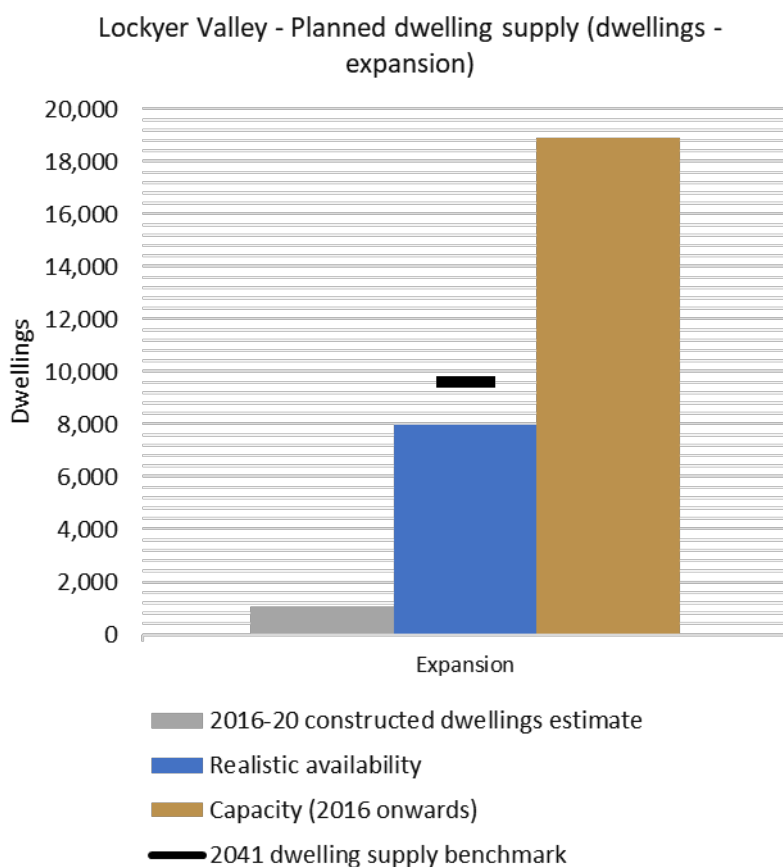
The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

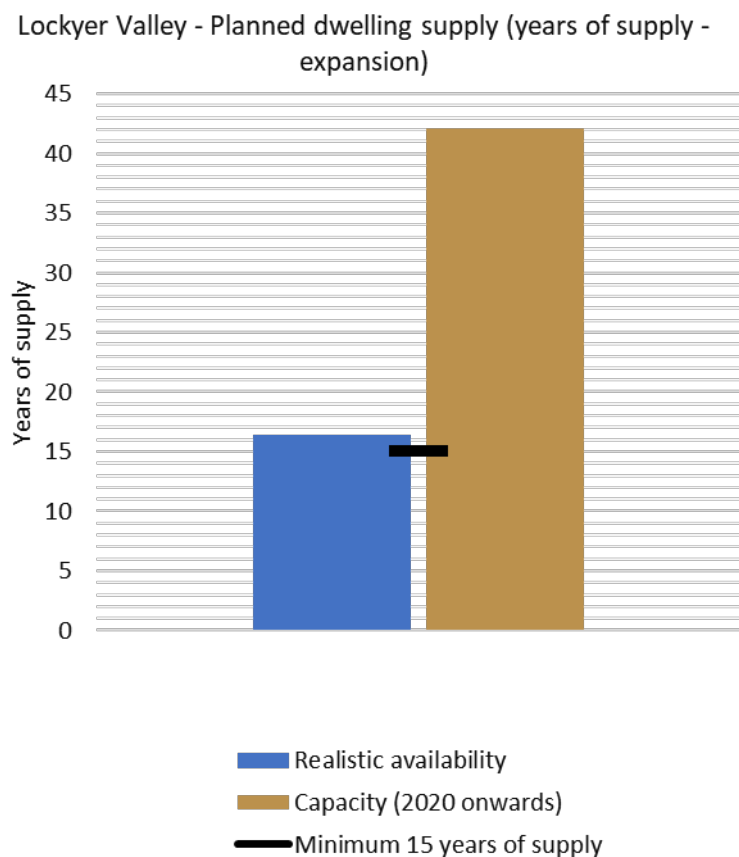
The capacity of planned dwelling supply in Lockyer Valley, from 2016 onwards, is about 18,900 dwellings, which is significantly above the expansion 2041 dwelling supply benchmark of 9600 dwellings. The realistic availability of this supply is about 8000 dwellings, which equates to about 16 years of supply and is above *ShapingSEQ 2017*'s 15 years of supply policy objective.

Lockyer Valley Regional Council is preparing a new planning scheme which may affect planned dwelling supply. Where the scheme proceeds, and source data is updated, its effect on planned dwelling supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned dwelling supply, including years of supply, see the [Technical notes](#).



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Lockyer Valley

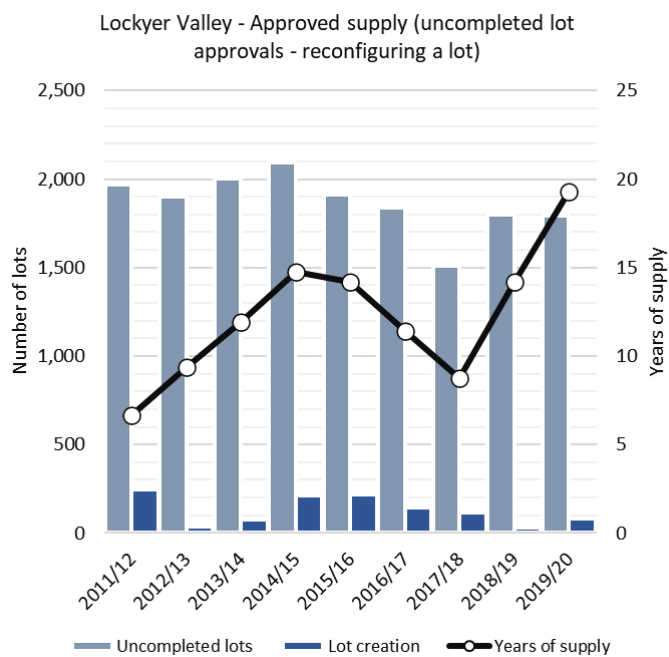
Lockyer Valley has 19.3 years of supply of uncompleted lot approvals. This is well above the minimum four years of supply sought by *ShapingSEQ 2017*.

The total number of current uncompleted lot approvals is 1791. Of these lots, approximately 20 per cent have operational works approvals for the 2019/20 period.

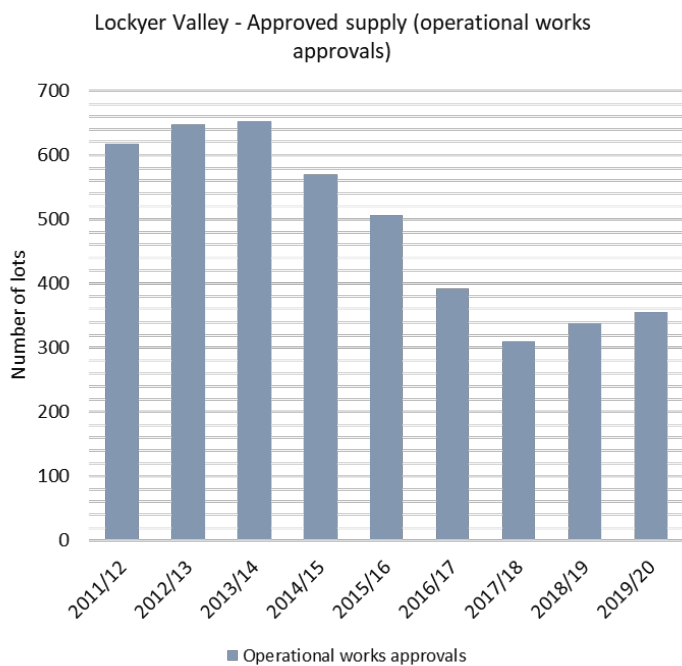
The total number of uncompleted lot approvals was similar in 2018/19 and 2019/20, but the lower rate of lot creation since 2015/16 has contributed to an increase in the years of supply.

There are no uncompleted multiple dwelling approvals to report for Lockyer Valley because it has no consolidation area.

For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year, as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.

Note: The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Lockyer Valley

The expansion area applies to the whole of the Lockyer Valley, and this report indicates that there is more than 15 years of planned dwelling supply.

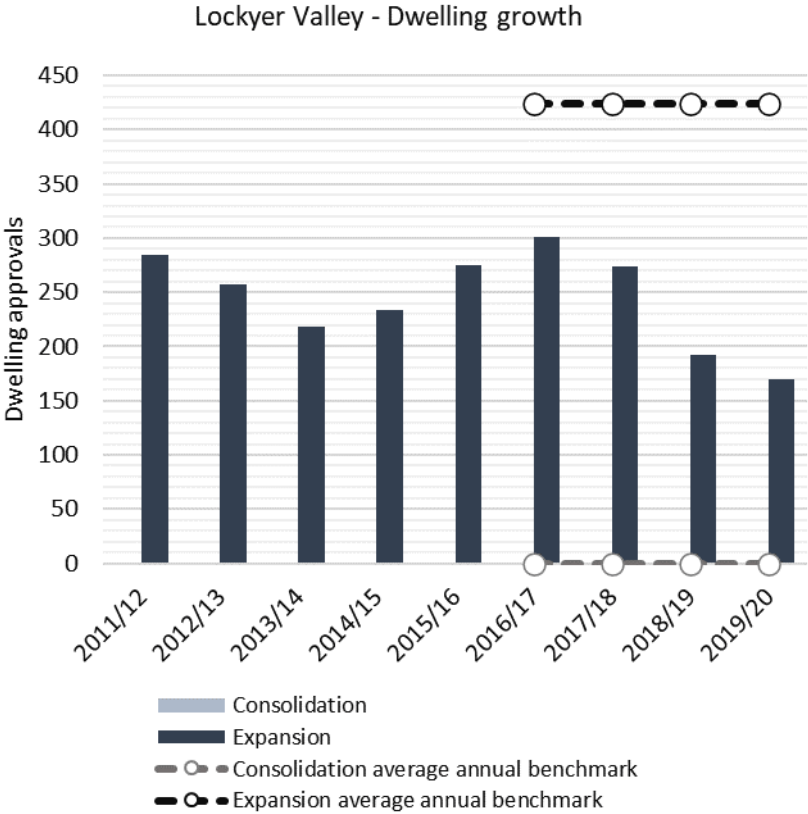
Dwelling approvals (used to measure dwelling growth) in Lockyer Valley have been consistently below the expansion average annual benchmark.

There were 170 dwelling approvals in the Lockyer Valley expansion area in 2019/20, which was 254 fewer than the expansion average annual benchmark of 424 additional dwellings.

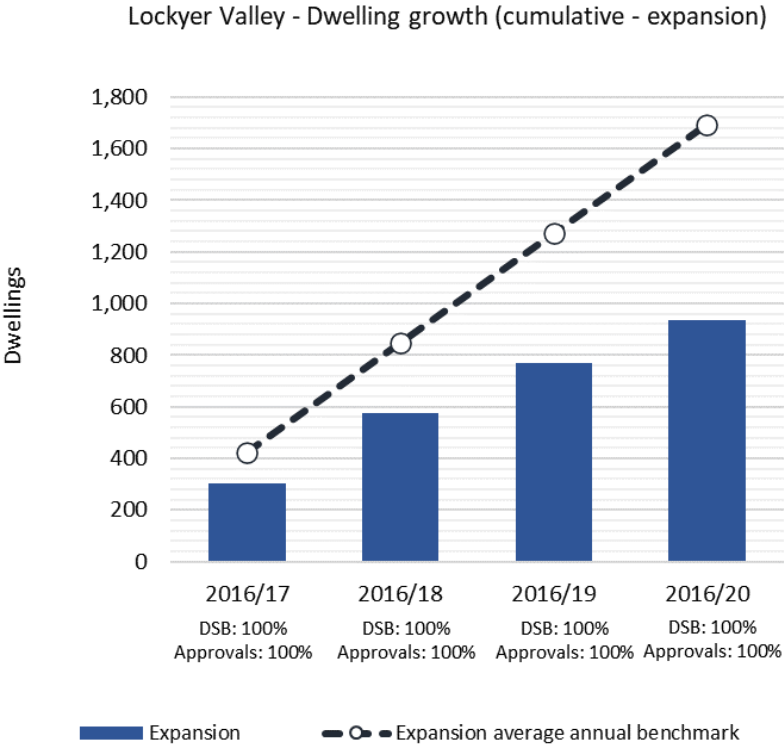
The data shows the gap between dwelling growth figures and the *ShapingSEQ 2017* benchmarks, which may lead to a challenge in addressing this shortfall into the future.

Dwelling growth in the Lockyer Valley may increase as availability of and access to local employment opportunities and services increases.

For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017*'s average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s expansion average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

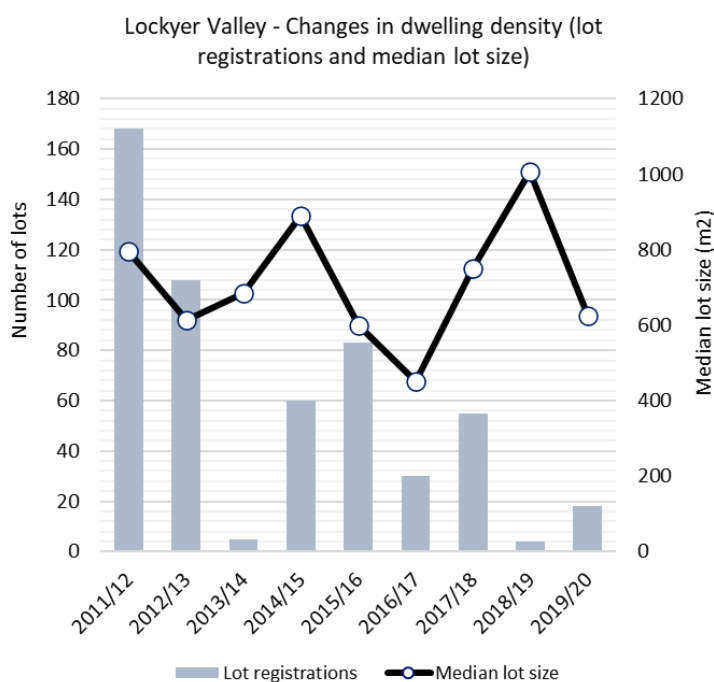
Changes in dwelling density – Lockyer Valley

Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) has not changed significantly in Lockyer Valley in recent years and has not contributed to SEQ’s preferred future for increased dwelling densities and smaller lot sizes.

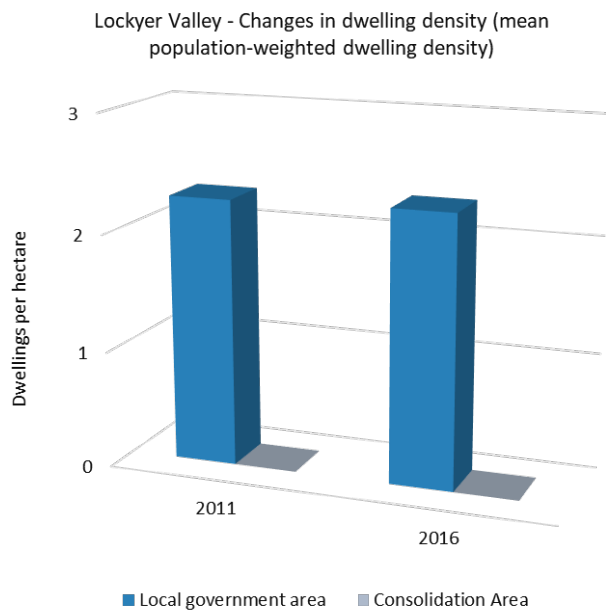
Mean population-weighted dwelling density in the Lockyer Valley remained static between 2011 and 2016, at 2.3 dwellings per hectare. This represents the average dwelling density at which the population of Lockyer Valley lives and is comparable to the net residential density used by *ShapingSEQ 2017*.

The median size of new lots in the Lockyer Valley fluctuated from 2011/12 to 2019/20. This fluctuation may be due to the small number of lot registrations each year. Median lot size is generally larger in rural council areas, relative to coastal and urban local governments in SEQ.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

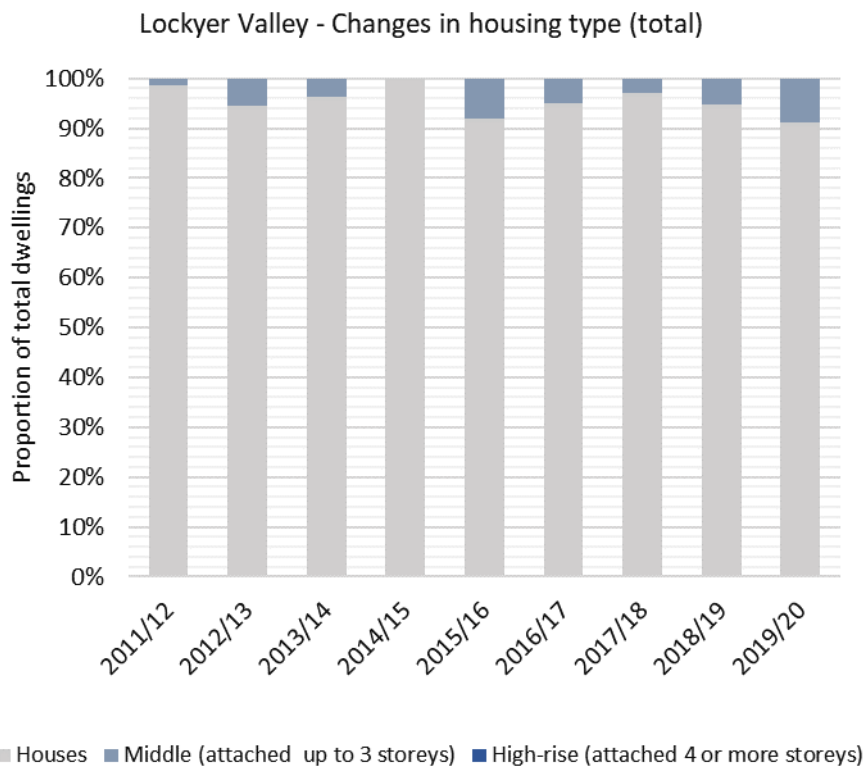
Changes in housing type – Lockyer Valley

Housing in the Lockyer Valley is predominantly houses in urban and rural residential environments. Recent dwelling approvals indicate continuation of this characteristic.

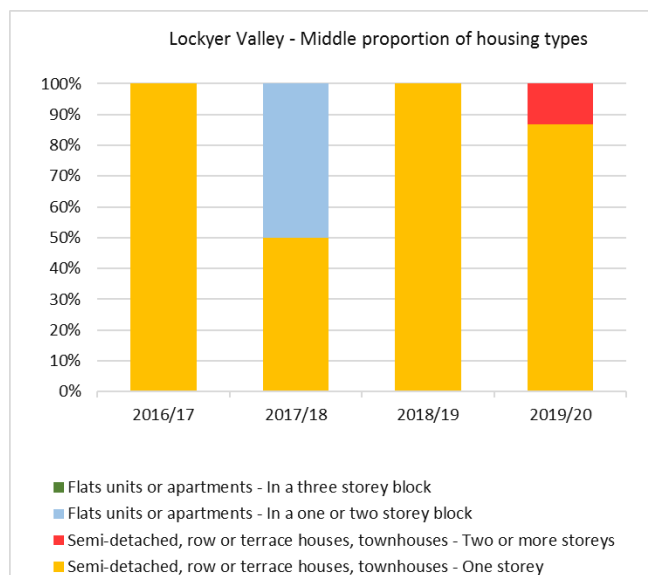
Ninety-five per cent (889 dwellings) of all new dwelling approvals in Lockyer Valley for 2016/17 to 2019/20 were for houses, which is consistent with the proportion of existing dwelling stock as at the 2016 Census (95 per cent). Dwelling approvals for middle were five per cent (48 dwellings) over the same period, which is consistent with the dwelling stock as at the 2016 Census (five per cent).

The predominant middle housing type dwellings approved since 2016/17 in the Lockyer Valley are semi-detached, row or terrace houses and townhouses of one storey. All middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the expansion area as Lockyer Valley does not have a consolidation area.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of ‘missing middle’ in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Lockyer Valley

The number of sales has increased from 2018/19 to 2019/20 for houses and attached dwellings, showing an upturn after a decline from the peak in 2016/17. The number of sales has decreased from 2018/19 to 2019/20 for vacant land and house-land, continuing a downward trend from 2016/17.

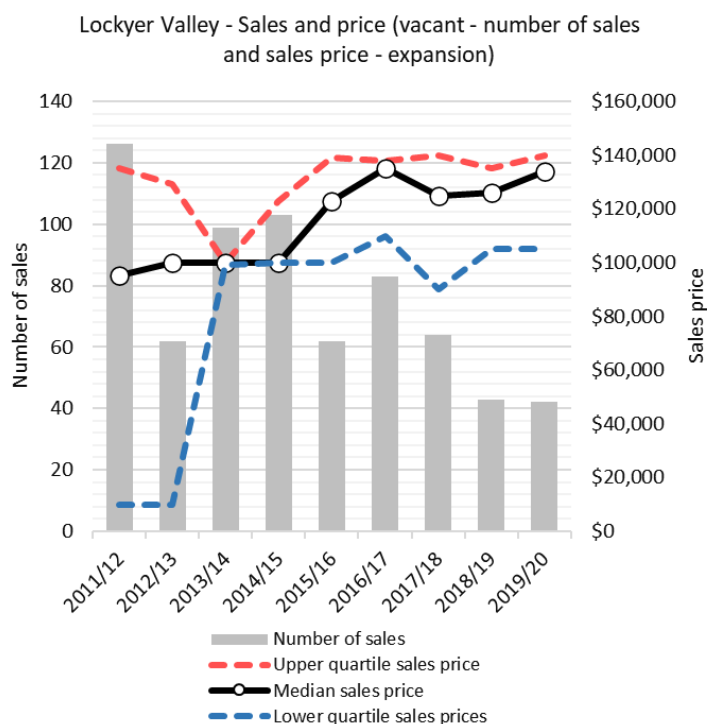
The median sales price for all categories is lower in Lockyer Valley than for South East Queensland (SEQ).

The rate of growth in median sales price from 2011/12 to 2019/20 was higher than SEQ for all categories, except houses and house-land packages. Vacant lots are about half the median sales price of SEQ but experienced a high rate of median price growth since 2011/12 (41.1 per cent per lot and 131.1 per cent per square metre).

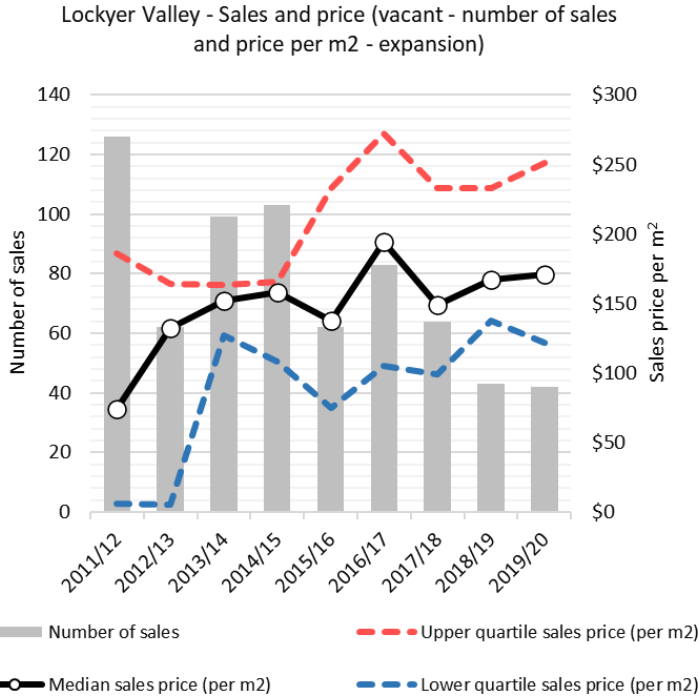
The number of sales for Lockyer Valley is low, particularly for vacant lots, house-land packages, and attached dwellings. This is typical for rural local government areas in SEQ and contributes to more variation in median sales price from year to year.

Sales prices and the number of sales have only been reported for the expansion area because no consolidation area is identified for Lockyer Valley. Sales prices have also only been reported for years with 10 or more sales.

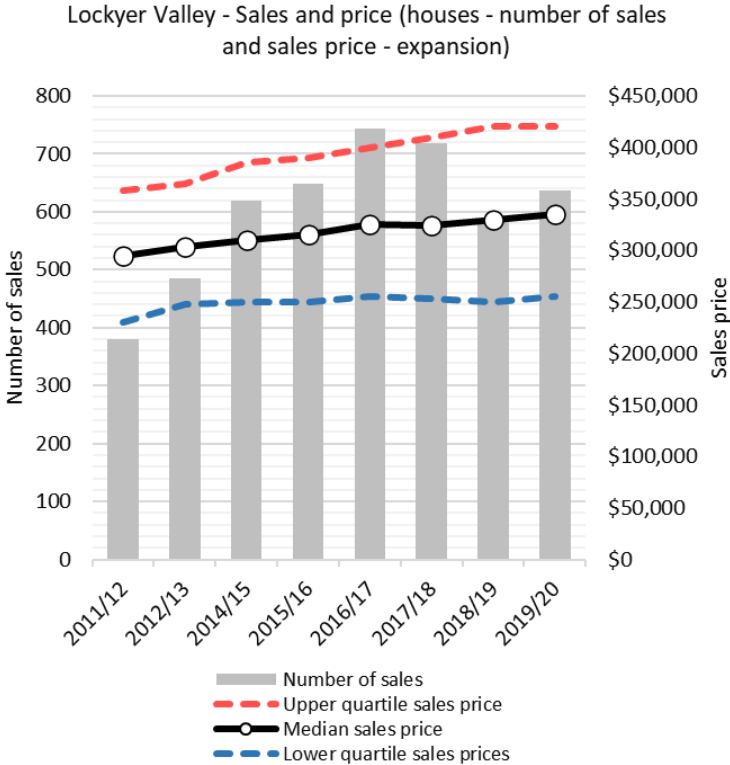
For more detail about the median sales price and number of sales, see the [Technical notes](#).



This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.

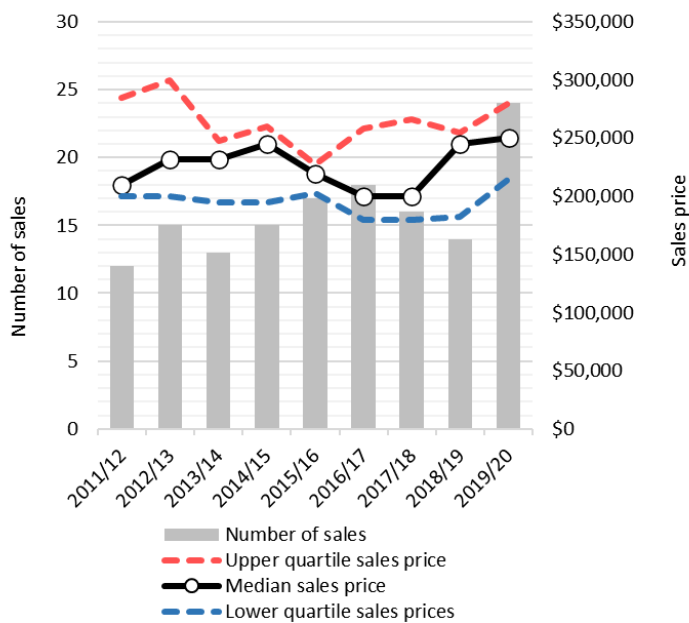


This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.



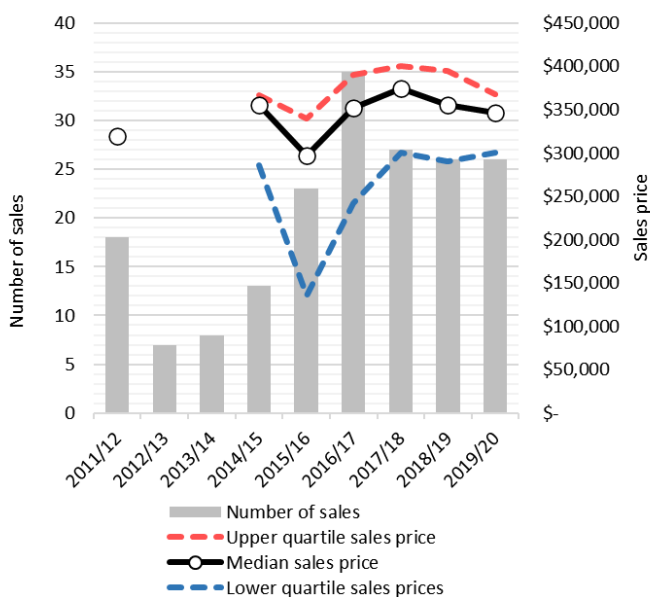
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.

Lockyer Valley - Sales and price (attached - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.

Lockyer Valley - Sales and price (house and land - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Note: Sales prices have also only been reported for years with 10 or more sales. For more details, see the [Technical notes](#).

Industrial – Lockyer Valley

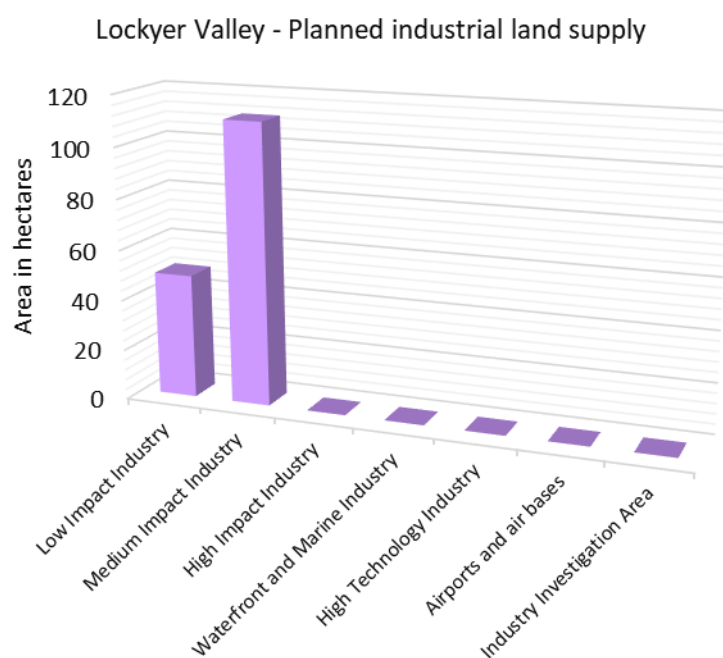
Planned industrial land supply/take-up – Lockyer Valley

The estimated take-up of developed industrial land between 2011 and 2019 in Lockyer Valley was about 4 hectares. The take-up occurred on land intended for high and low impact industry.

There were 160 hectares of planned industrial land in Lockyer Valley as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for low, medium and high impact industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see [Best practice research](#) and the [Technical notes](#).



160ha of developable land
4ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated

differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Lockyer Valley

The capacity and realistic availability of planned industrial employment supply in Lockyer Valley provides the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

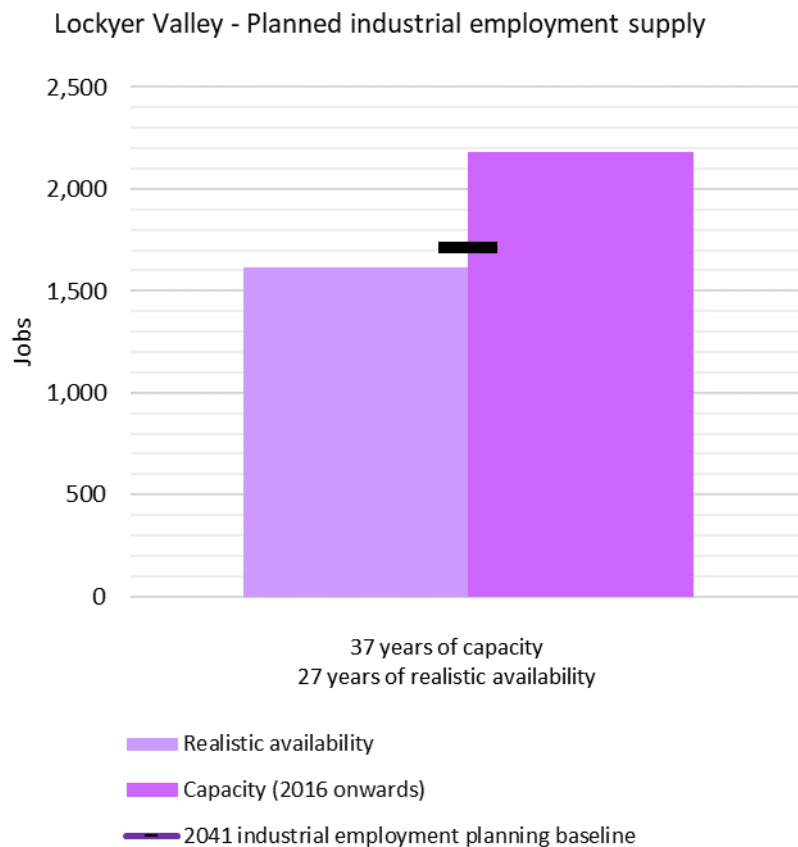
The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply in Lockyer Valley is about 2200 employees, which represents about 37 years of supply and is above the 2041 industrial employment planning baseline of about 1700 employees. The realistic availability of this supply is about 1600 employees, which represents about 27 years of supply and is slightly below the 2041 employment planning baseline.

Lockyer Valley Regional Council is preparing a new planning scheme which may affect planned industrial employment supply. Where the scheme proceeds, and source data is updated, its effect on planned industrial employment supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned industrial employment supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Logan

Summary

ShapingSEQ 2017 establishes that Logan's expected population growth will require 89,900 additional dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Logan consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about five years of supply of uncompleted lot approvals and around 10.5 years of uncompleted multiple dwelling approvals in Logan, which are above the minimum four years of supply sought by *ShapingSEQ 2017*.

Dwelling approvals in the Logan expansion area have been below the expansion area average annual benchmark since they were set under *ShapingSEQ 2017*, however approvals from 2016/17 to 2019/20 indicate an upward trend towards the benchmark. Dwelling approvals in the consolidation area have on average exceeded the consolidation average annual benchmark over the 2016/17 to 2019/20 period. Increased expansion area dwelling growth is now supported by a subregional infrastructure arrangement for sewerage provision and upgrades to local roads for the Greater Flagstone and Yarrabilba Priority Development Areas.

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate an increase in housing diversity in Logan. The predominant middle housing type approved in Logan since 2016/17 is semi-detached, row or terrace houses and townhouses of two or more storeys. New housing contributing to housing diversity in Logan has predominately been a house with an auxiliary unit. Dwelling density has increased, in accordance with SEQ's preferred future.

The capacity and realistic availability of planned industrial employment supply in Logan provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017* and exceed the 2041 industrial employment planning baseline.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Logan

Planned dwelling supply – Logan

The capacity and realistic availability of planned dwelling supply in the Logan consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the Logan consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 46,500 dwellings, which is significantly greater than the consolidation 2041 dwelling supply benchmark of 19,900 dwellings.

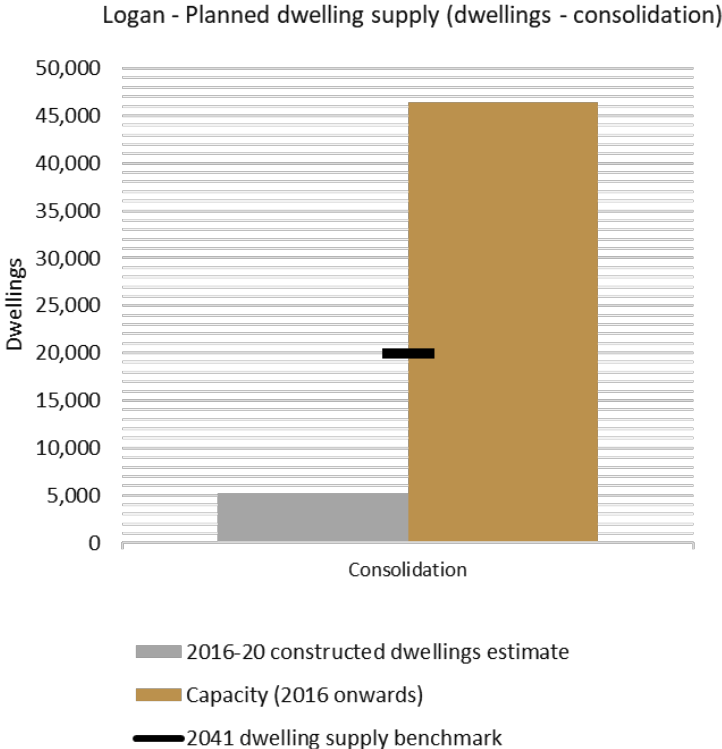
In the Logan expansion area, the capacity of planned dwelling supply is about 132,300 dwellings, which is also significantly greater than the expansion 2041 dwelling supply benchmark of 70,000 dwellings. The realistic availability of this supply is about 69,300 dwellings which equates to around 27 years of supply and is above *ShapingSEQ 2017*'s 15 years of supply policy objective.

Much of the planned dwelling supply in the Logan expansion area is located within Park Ridge, Logan Reserve, Bahrs Scrub, Greenbank and Logan Village, as well as the Greater Flagstone and Yarrabilba Priority Development Areas (PDA). Realisation of the planned dwelling supply in the PDAs of Greater Flagstone and Yarrabilba is now supported by a sub-regional infrastructure agreement for sewerage provision and upgrades to local roads.

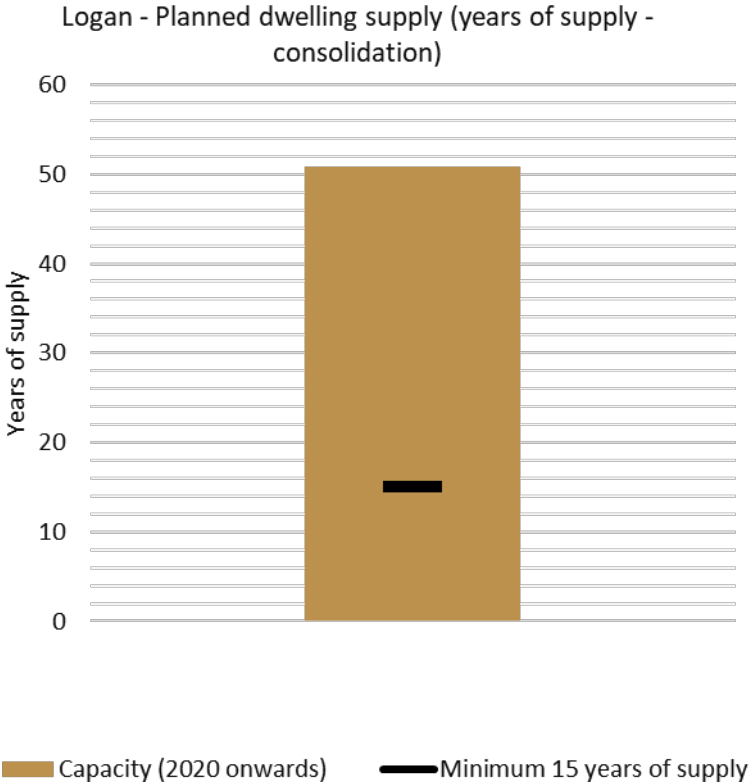
Planned dwelling supply also needs to be supported by upgrades to state roads and the Salisbury to Beaudesert rail corridor and would be supported by frequent public transport services as identified by *ShapingSEQ 2017*.

A number of planning scheme amendments in Logan, either recently adopted or in process, are expected to affect planned dwelling supply. Where planning scheme amendments proceed, and source data is updated, the effect on planned dwelling supply will be included in future years of LSDM Reporting.

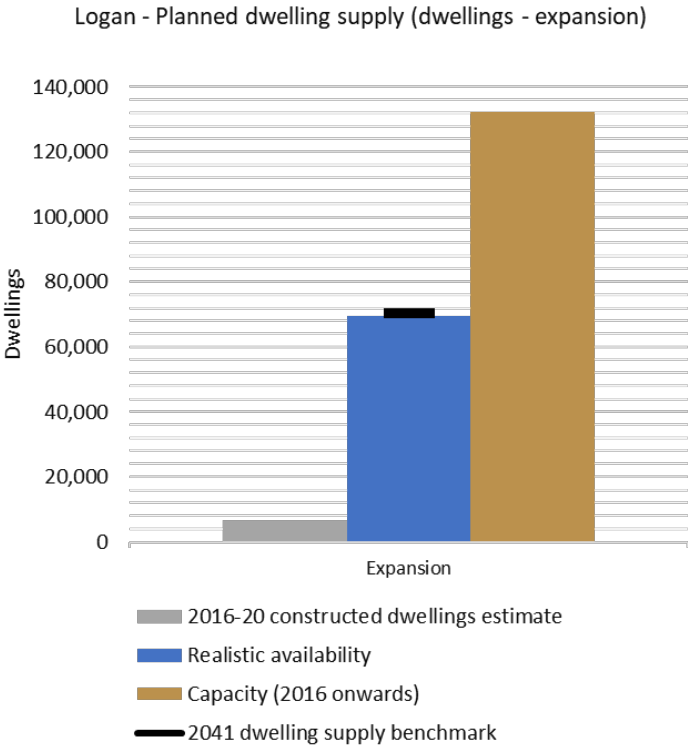
For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning scheme amendments either recently adopted or in process for Logan, see the [Technical notes](#).



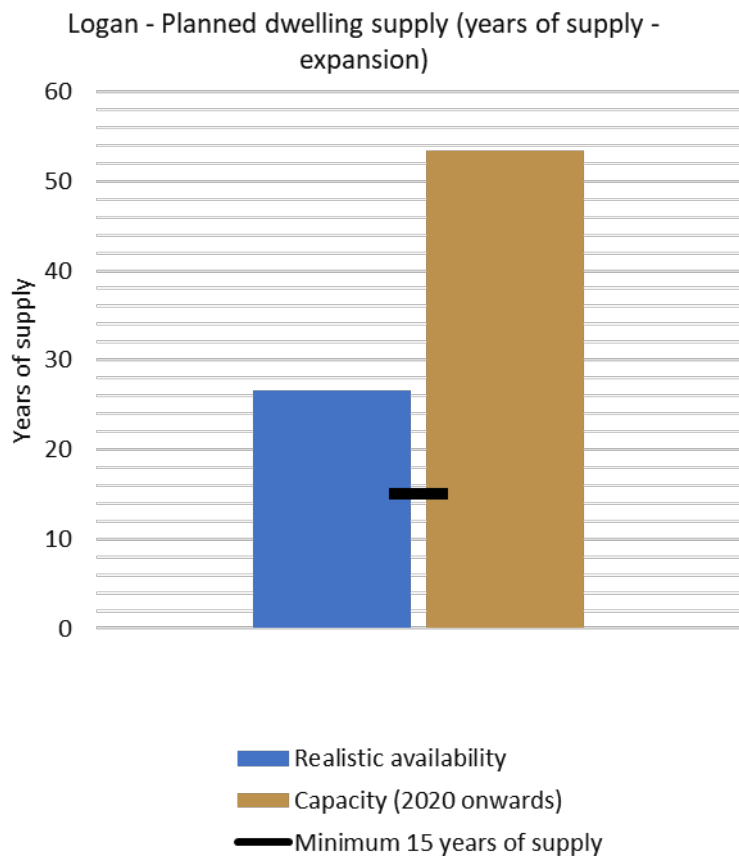
This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in consolidation areas.



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in consolidation areas.



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Logan

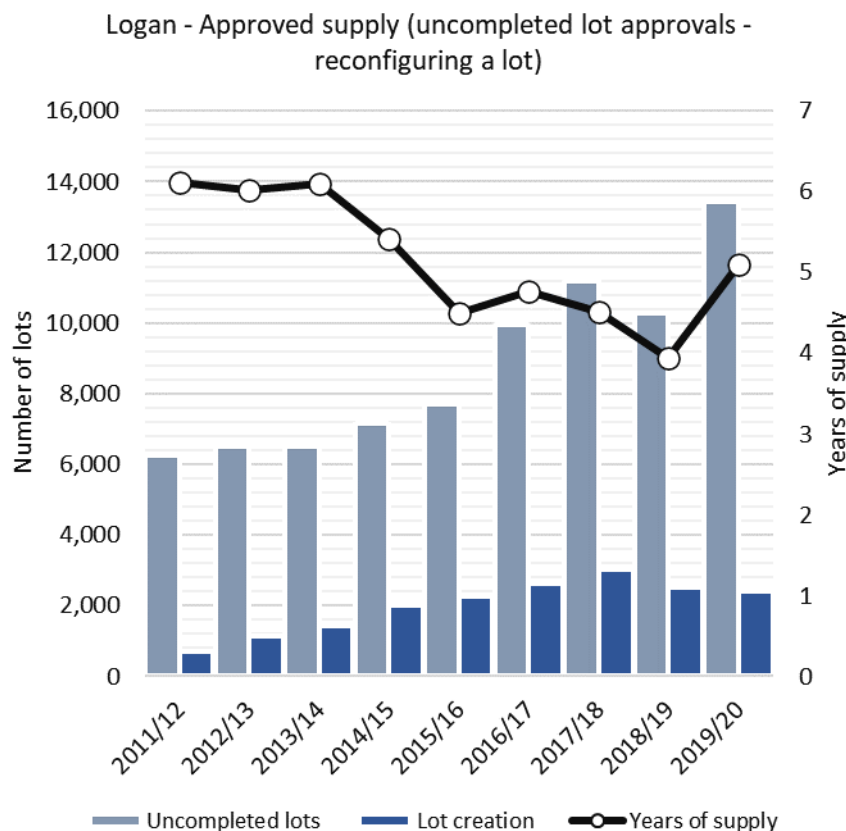
There are about five years of supply of uncompleted lot approvals in the Logan consolidation and expansion areas overall, which is above the minimum four years of supply sought by *ShapingSEQ 2017*.

The total number of uncompleted lot approvals currently is 13,444, which is a long-term historical high for Logan, surpassing the previous high in 2017/18 by 2263 lots. Of the uncompleted lots, approximately 58 per cent have operational works approvals for the 2019/20 period.

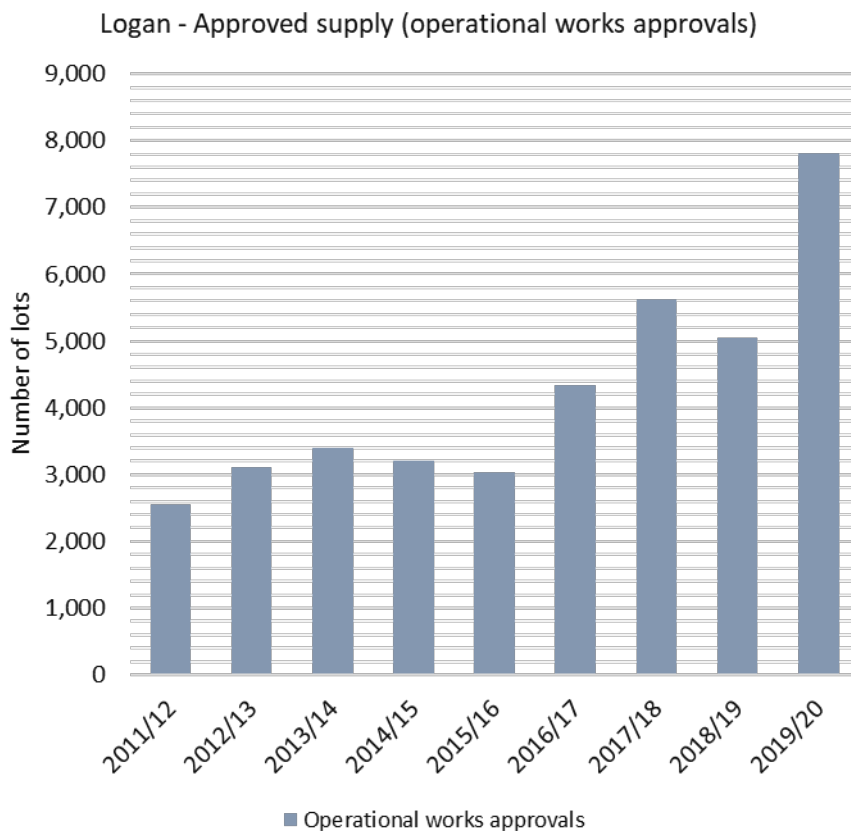
The years of supply of lot approvals have consistently been above or about four years of supply since 2011/12. In 2019/20 there was an increase in the years of supply, reversing the previous downward trend seen in recent years. The rate of lot creation has continued to decline since a peak in 2017/18, which has also contributed to an increase in the years of supply.

Logan has about 10.5 years of supply of uncompleted multiple dwelling approvals in the consolidation area, which is well above the minimum four years of supply sought by *ShapingSEQ 2017*. The supply of uncompleted multiple dwelling approvals fell slightly from June 2019 to June 2020.

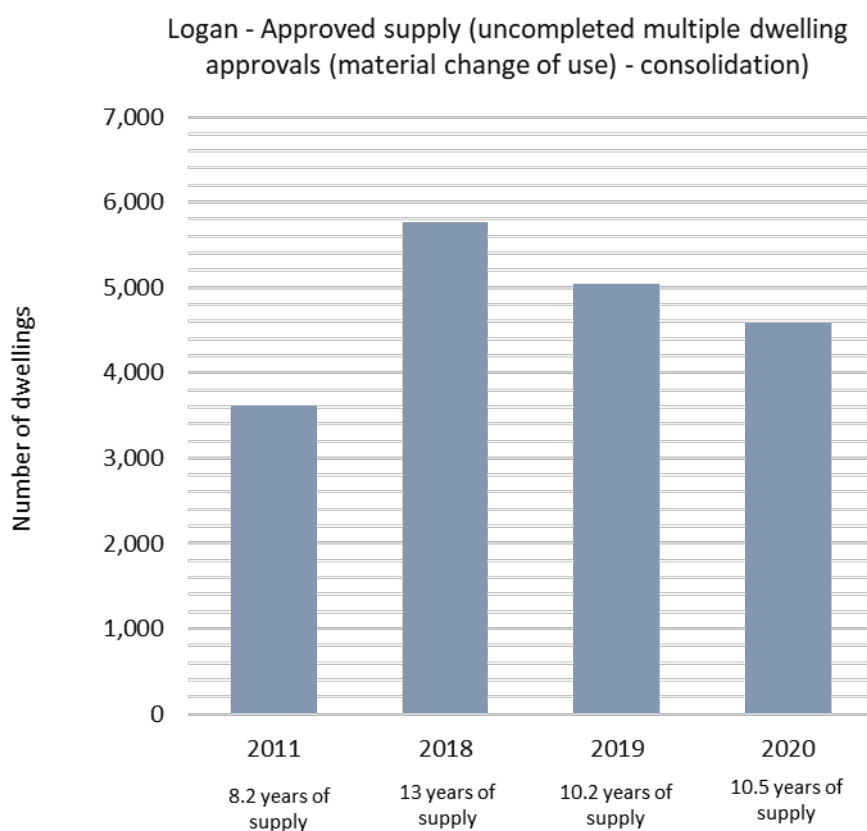
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year and the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years. The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Logan

In the Logan consolidation area, dwelling approvals (used to measure dwelling growth) have on average exceeded the consolidation average annual benchmark over the 2016/17 to 2019/20 period.

Approximately 40 per cent of dwelling approvals from 2016/17 to 2019/20 were in Logan's consolidation area, which is significantly more than its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017* (26 per cent).

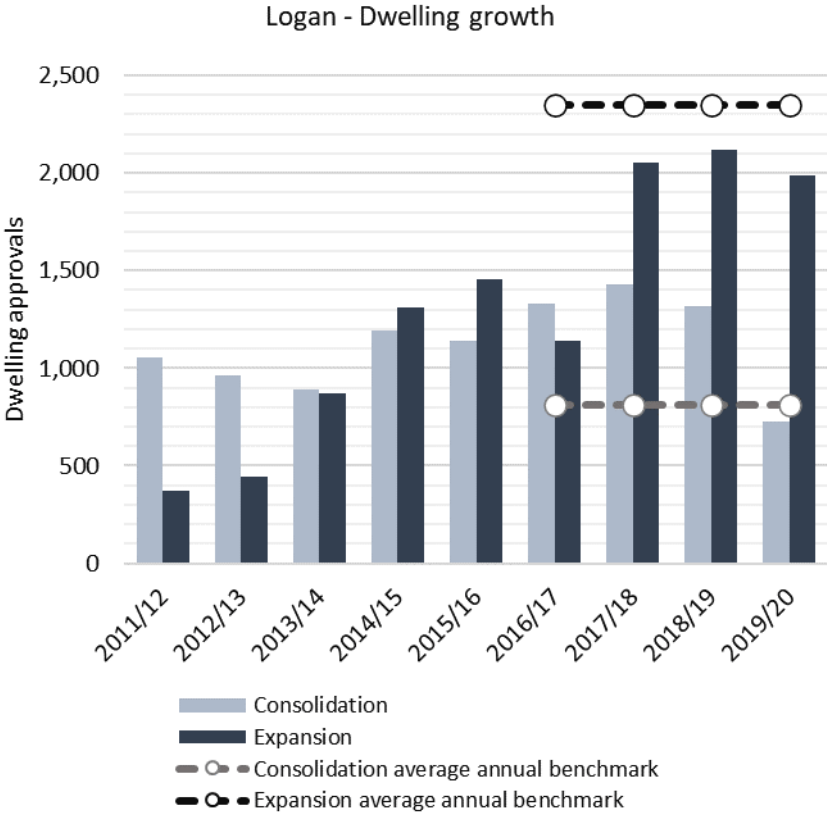
In the Logan expansion area, dwelling approvals have been below the expansion average annual benchmark since they were set under *ShapingSEQ 2017*.

Total expansion area approvals from 2016/17 to 2019/20 indicate an upward trend towards the benchmark. Further, as seen in the Approved supply section, there was a significant increase in uncompleted lot approvals, including operational works approvals, in Logan in 2019/20 and this may flow through to increased expansion area dwelling growth in future years.

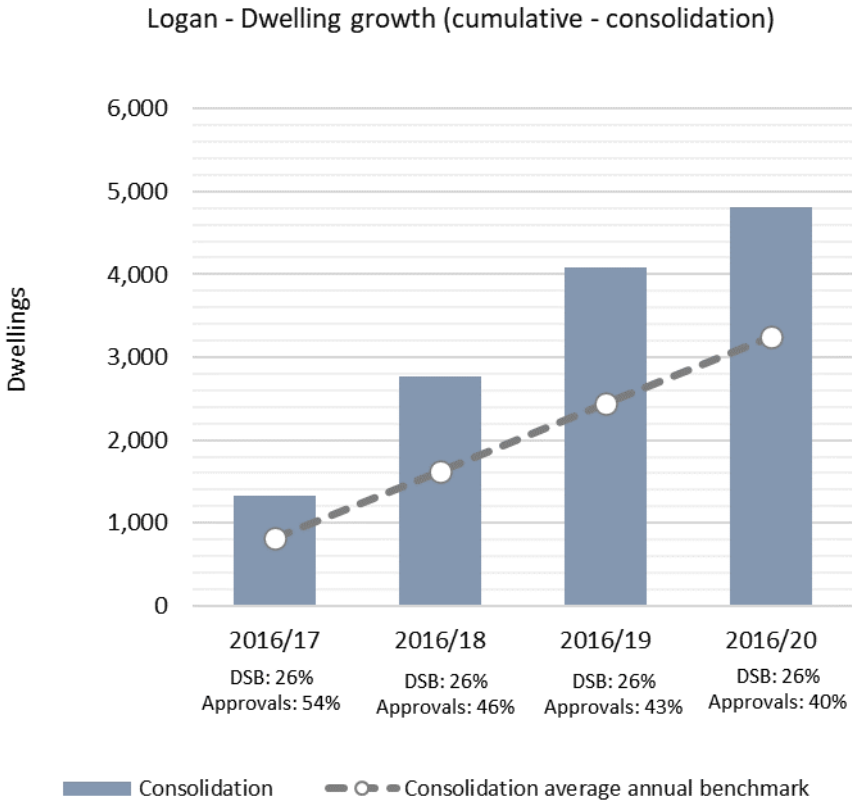
There were 727 dwelling approvals in the Logan consolidation area in 2019/20, which was 85 dwellings less than the consolidation average annual benchmark of 812 additional dwellings. There were 1985 dwelling approvals in the Logan expansion area in 2019/20, which was 366 dwellings below the expansion average annual benchmark of 2351 additional dwellings.

Increased expansion dwelling growth is now supported by a sub-regional infrastructure arrangement for sewerage provision and upgrades to local roads for the planned dwelling supply in the Greater Flagstone and Yarrabilba Priority Development Areas.

For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).

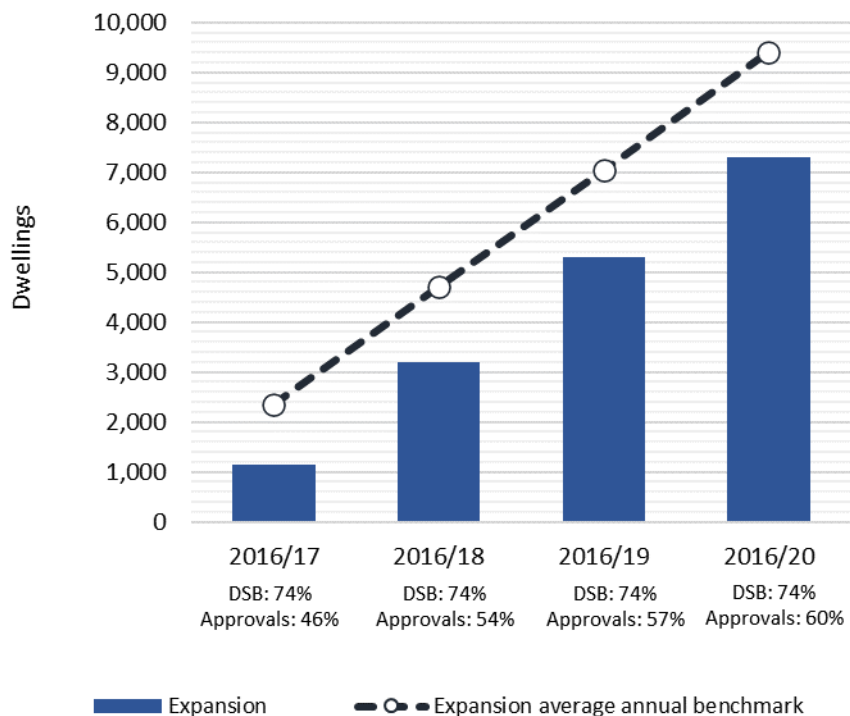


This graph shows annual dwelling approvals compared against *ShapingSEQ 2017*'s average annual benchmarks.



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Logan - Dwelling growth (cumulative - expansion)



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s expansion average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

Changes in dwelling density – Logan

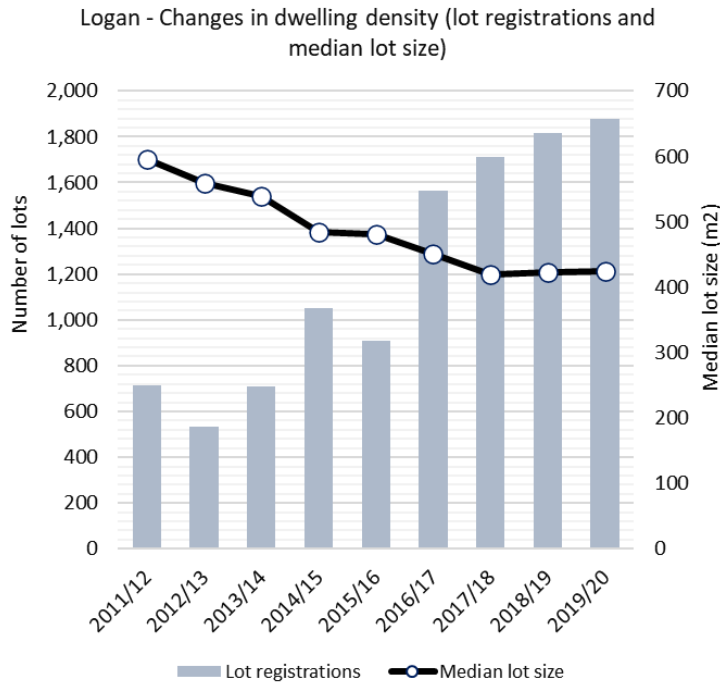
Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) is increasing in Logan in accordance with SEQ's preferred future for higher dwelling densities and smaller lots.

Mean population-weighted dwelling density in Logan increased between 2011 and 2016, from 8.9 to 9.7 dwellings per hectare. This represents the average dwelling density at which the population of Logan lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density increased from 10.8 to 11.7 dwellings per hectare.

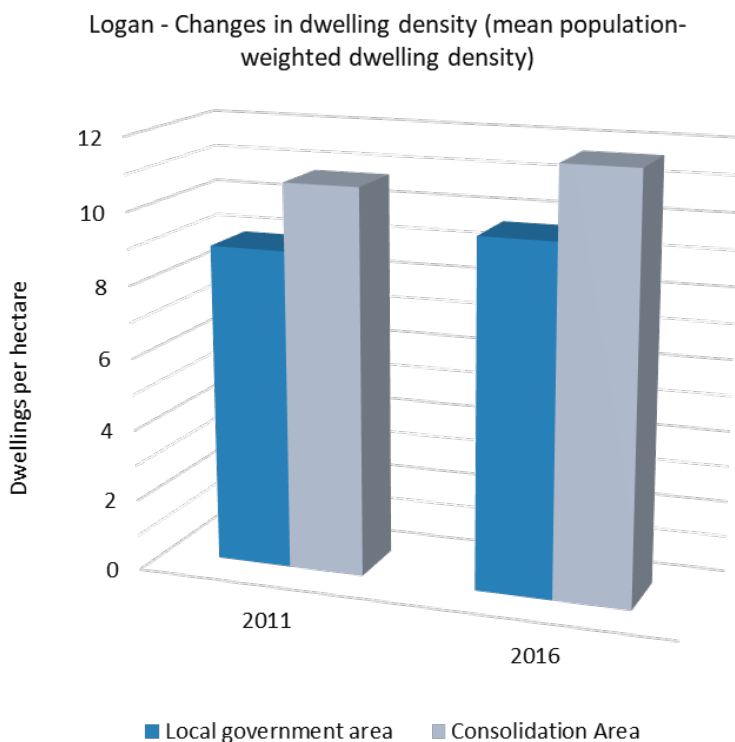
Although slightly higher in 2019/20 than the previous year, the median size of new lots in Logan decreased from 595m² to 424m² from 2011/12 to 2019/20. This was accompanied by a significant increase in lot registrations over the same period. This measure is indicative of increased dwelling densities in new urban subdivisions in Logan.

The Priority Development Area development schemes in place across Logan have supported increased dwelling densities and smaller lots over time.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Logan

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate an increase in housing diversity in Logan, consistent with SEQ’s preferred future.

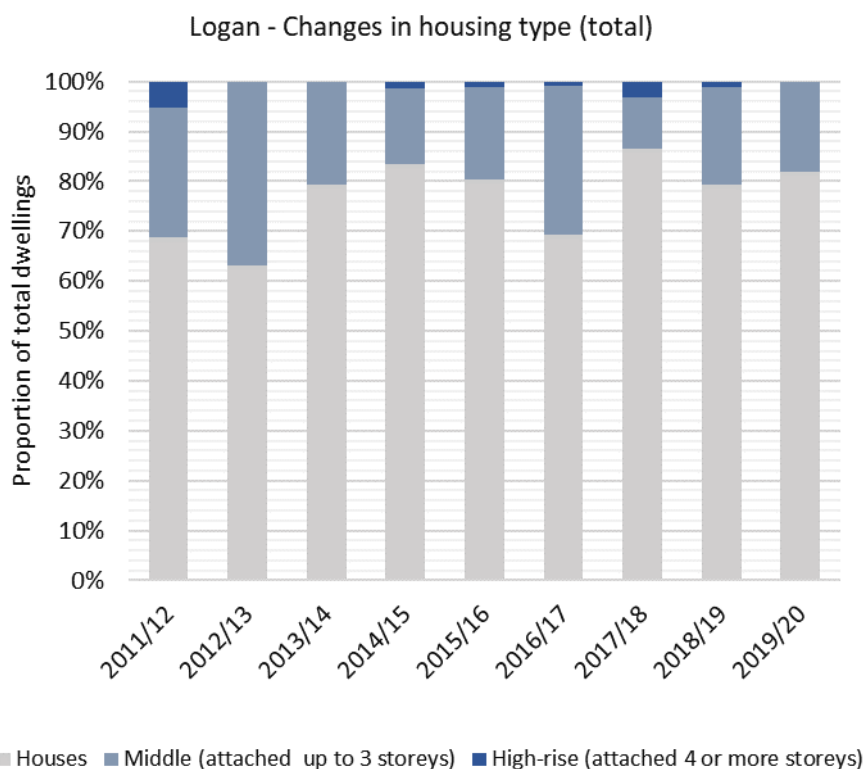
It should be noted that new housing contributing to housing diversity in Logan has predominately been a house with an auxiliary unit.

Eighty per cent (9669 dwellings) of all new dwelling approvals in Logan from 2016/17 to 2019/20 were for houses, which was less than for the existing dwelling stock (86 per cent as at the 2016 Census). Dwelling approvals for middle (about 19 per cent or 2264 dwellings) and high-rise (about one per cent or 169 dwellings) over the same period were higher than their share of the dwelling stock as at the 2016 Census (middle 14 per cent, high-rise zero per cent).

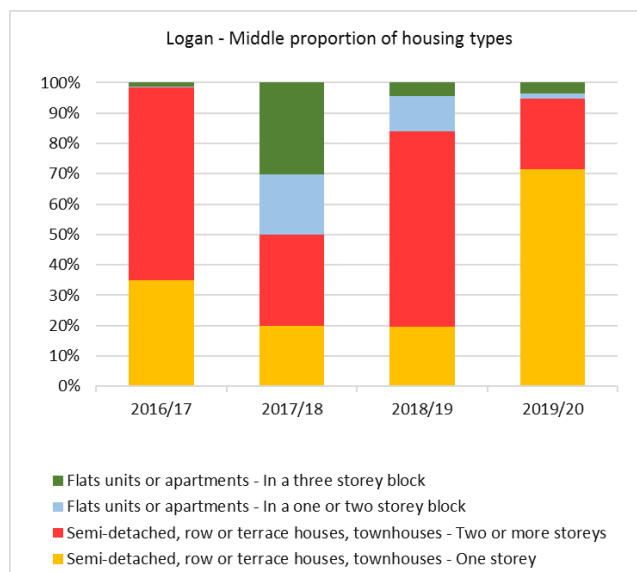
The predominant middle housing type dwellings approved since 2016/17 in Logan are semi-detached, row or terrace houses and townhouses of two or more storeys (about 54 per cent or 1215 dwellings).

Seventy per cent (1589 dwellings) of middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and 30 per cent (675 dwellings) were located within the expansion area for the same period.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of ‘missing middle’ in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Logan

The number of sales has increased from 2018/19 to 2019/20 for all categories in Logan except houses and house-land packages in the consolidation area and attached dwellings in the expansion area.

The median sales price for all categories is lower in Logan than for South East Queensland (SEQ).

The rate of growth in median sales price from 2011/12 to 2019/20 was lower in Logan than SEQ for all categories except for vacant lots per square metre in the expansion area which increased by 86.3 per cent.

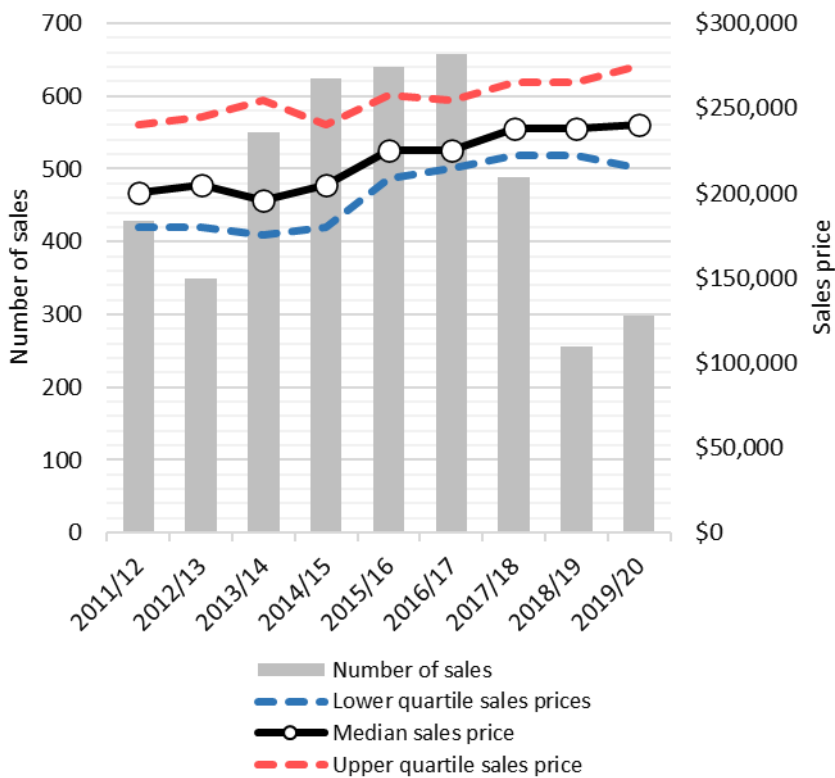
The next highest rate of median sales price growth was for vacant lots per square metre in the consolidation area (about 35 per cent). Unlike SEQ as a whole, attached dwellings in the consolidation area experienced a decline in median sales price from 2011/12 to 2019/20.

Median sales price for houses, attached dwellings and vacant lots per square metre are higher in the Logan expansion area than the consolidation area when compared to SEQ.

Sales prices have not been reported for years with fewer than 10 sales.

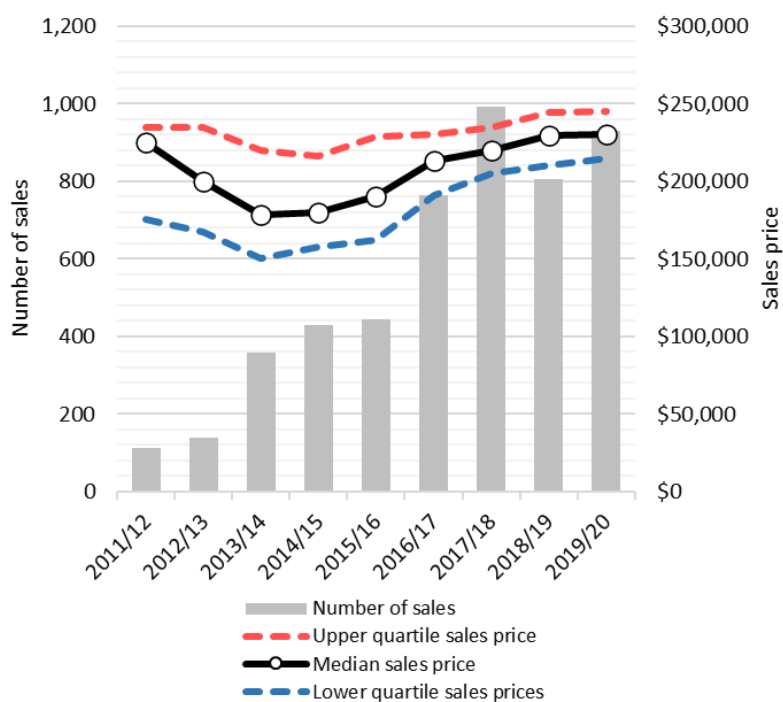
For more detail about the median sales price and number of sales, see the [Technical notes](#).

Logan - Sales and price (vacant - number of sales and sales price - consolidation)

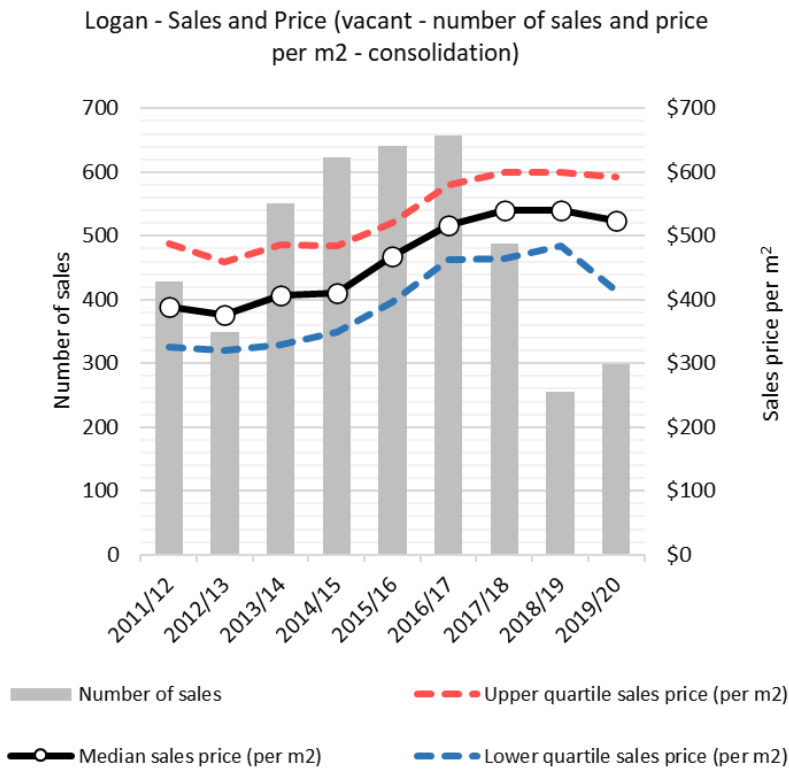


This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.

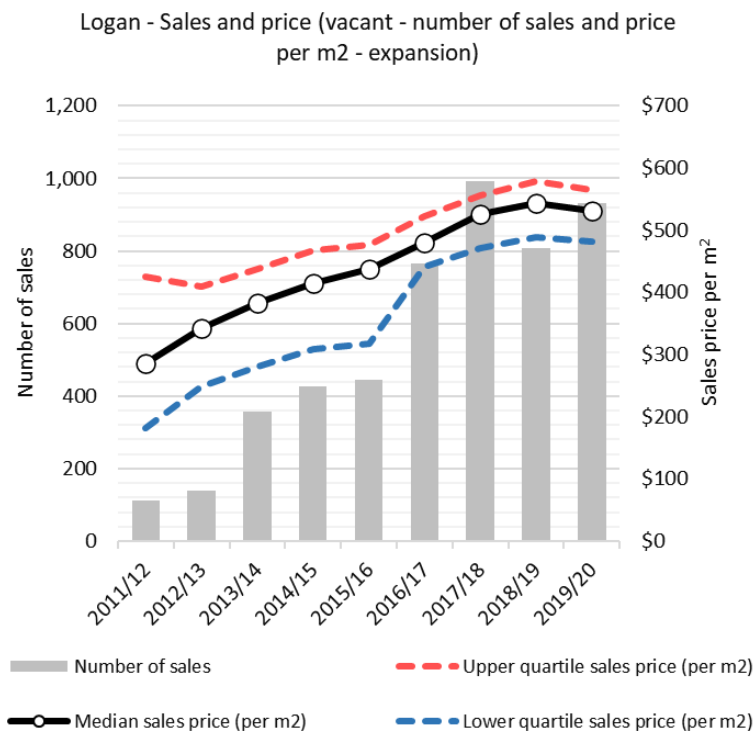
Logan - Sales and price (vacant - number of sales and sales price - expansion)



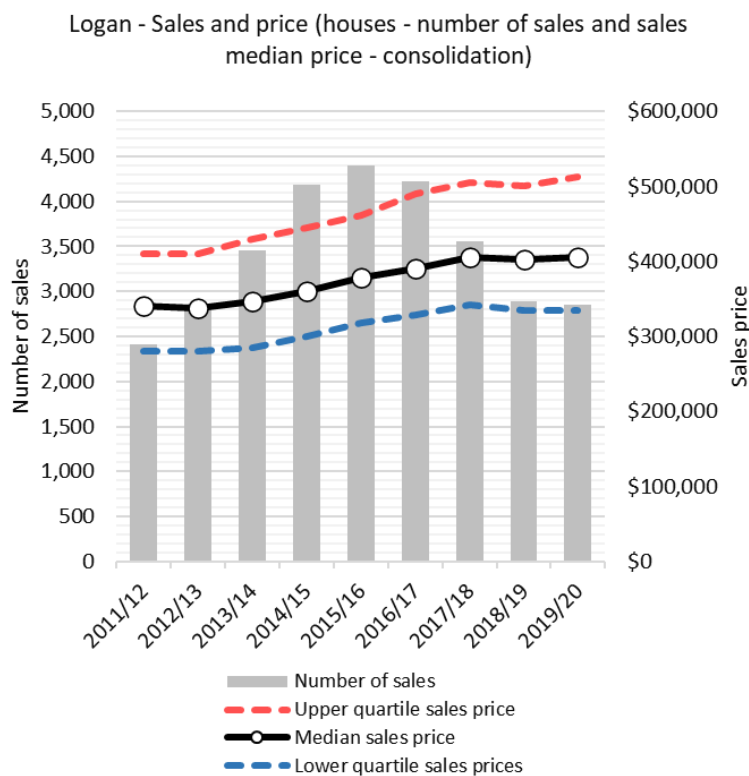
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.



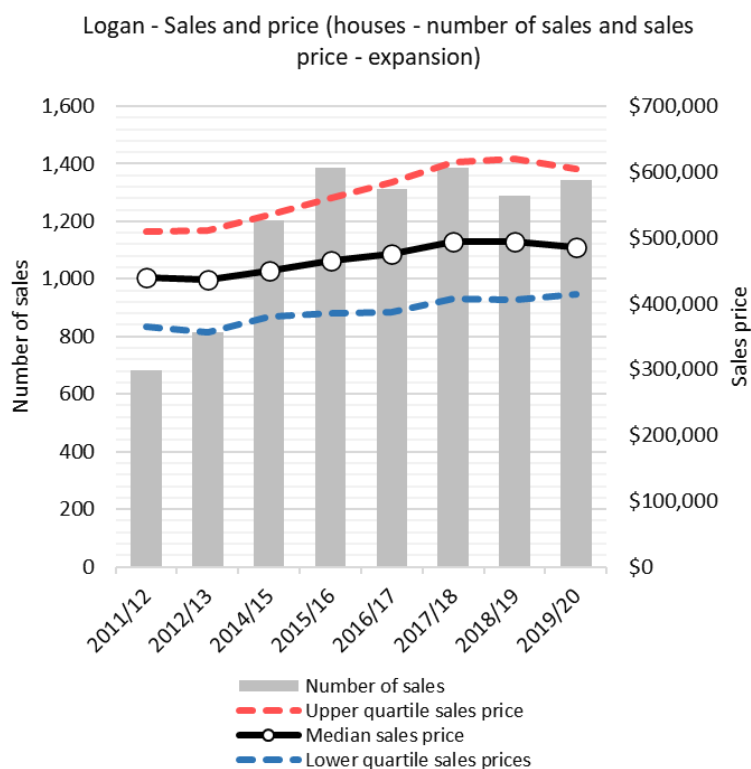
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.



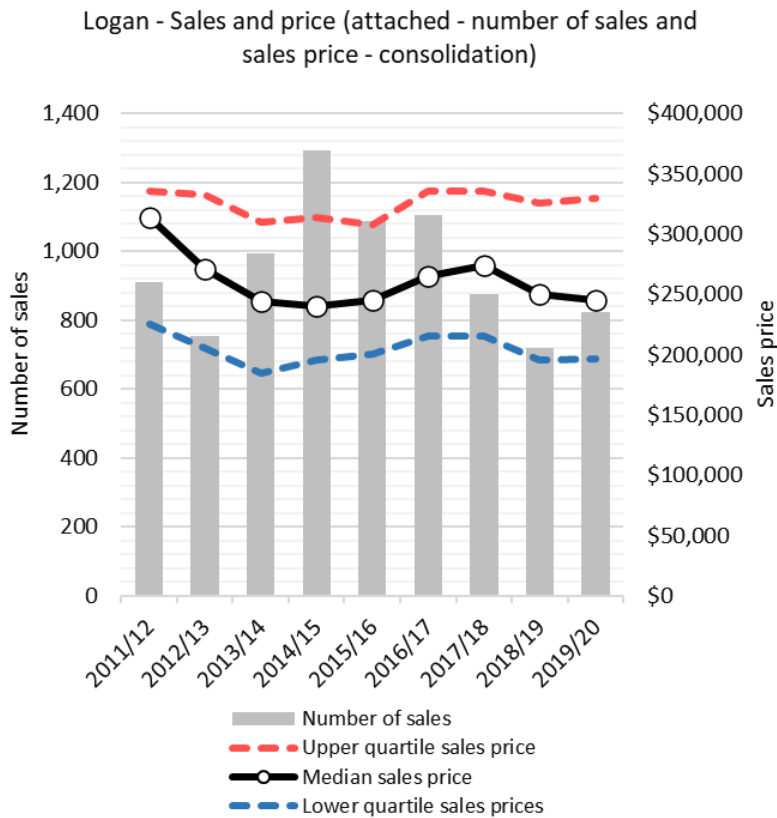
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.



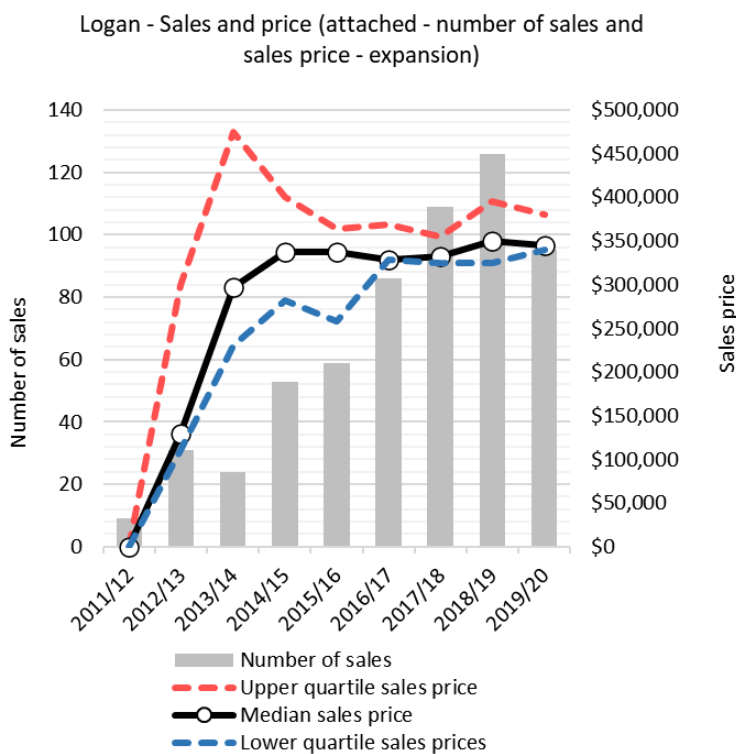
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.



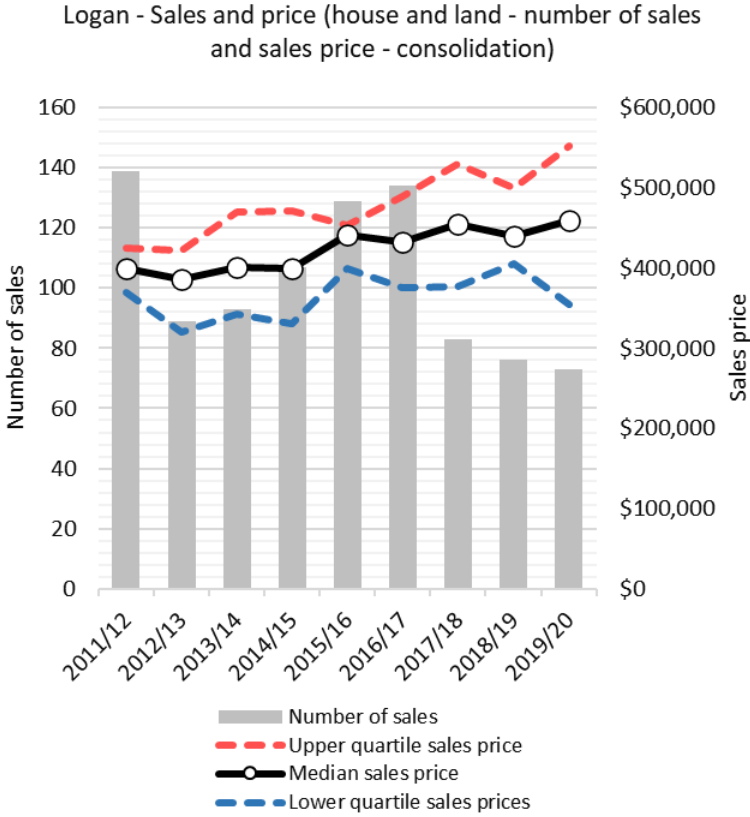
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.



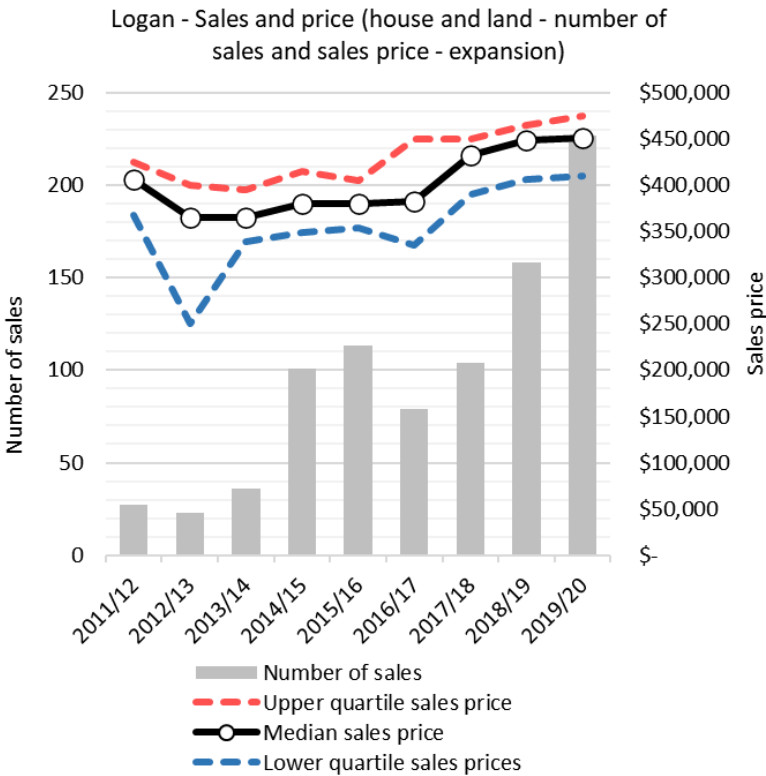
This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Note: Sales prices have not been reported for years with fewer than 10 sales. For more details, see the [Technical notes](#).

Industrial – Logan

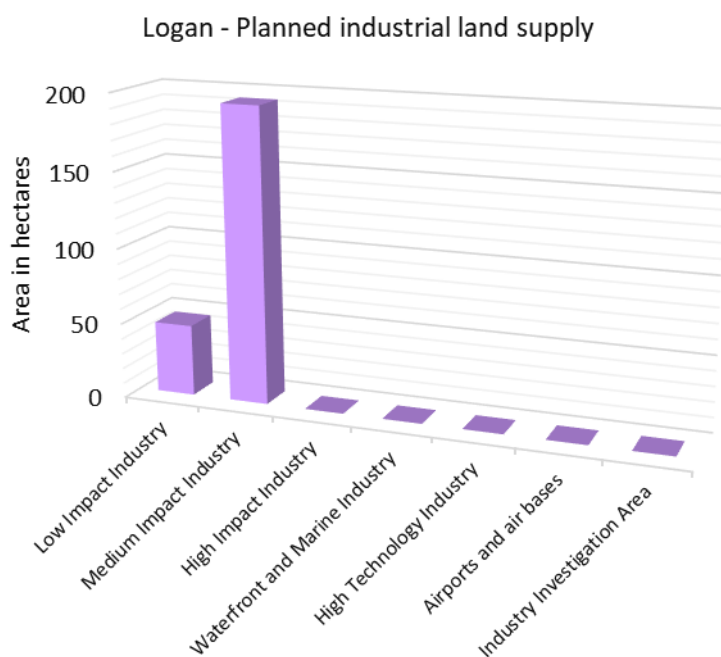
Planned industrial land supply/take-up – Logan

The estimated take-up of developed industrial land between 2011 and 2019 in Logan was about 63 hectares, on land intended for low and medium impact industry.

There were 241 hectares of planned industrial land in Logan as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for low, medium and high impact industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and developable industrial land and take-up, see [Best practice research](#) and the [Technical notes](#).



241ha of developable land
63ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may

not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Logan

The capacity and realistic availability of planned industrial employment supply in Logan provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

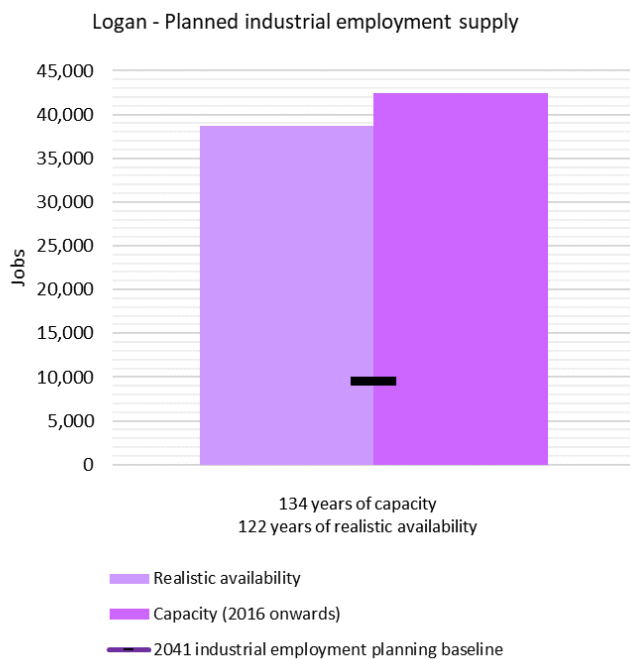
The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply in Logan is about 42,500 employees, while the realistic availability of this supply is about 38,700 employees. These figures are greater than the 2041 industrial employment planning baseline of about 9500 employees. However, some excess of planned industrial employment supply may be appropriate to facilitate strategic economic development opportunities when they arise. This need was recognised by the Best practice research in the 2018 LSDM Report.

The realisation of this planned industrial employment supply would be supported by improved and more direct connections to the Port of Brisbane, including the southern extension of the Gateway Motorway as identified by *ShapingSEQ 2017*, which would support the planned Park Ridge industrial area.

Logan City Council is preparing planning scheme amendments which may affect planned industrial employment supply. Where amendments proceed, and data sources are updated, their effect on industrial employment supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned industrial employment supply, and identification of planning scheme amendments that may affect supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Moreton Bay

Summary

ShapingSEQ 2017 establishes that Moreton Bay's expected population growth will require an additional 88,300 dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Moreton Bay consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about 3.6 years of supply of uncompleted lot approvals in Moreton Bay, slightly below the minimum four years of supply sought by *ShapingSEQ 2017*. The higher rate of lot creation in Moreton Bay in recent years has contributed to the low years of supply figure. There are about 6.2 years of supply of uncompleted multiple dwelling approvals in the Moreton Bay consolidation area, which also exceeds the four years of supply sought by *ShapingSEQ 2017*.

Dwelling approvals in the Moreton Bay consolidation area have exceeded the average annual benchmark on average since 2016/17. Dwelling approvals in the expansion area have declined below the expansion average annual benchmark in recent years since 2018/19 but remain above the benchmark on average.

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate an increase in housing diversity in Moreton Bay, however the proportion of house approvals in Moreton Bay has increased and the proportion of middle and high-rise approvals has reduced in recent years. The predominant middle housing type approved in Moreton Bay since 2016/17 is semi-detached, row or terrace houses and townhouses of two or more storeys. Dwelling density has increased, consistent with SEQ's preferred future.

Moreton Bay Regional Council has resolved to prepare a Regional Growth Management Strategy 2041 (RGMS2041) and has begun work in preparation of the RGMS2041 which will guide planning and development outcomes within the local government area and assist in identification of sequencing and infrastructure outcomes required for these areas. The department is working with Council as a member of Council's Technical Working Group for the RGMS2041.

The capacity and realistic availability of the planned industrial employment supply in Moreton Bay provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017* and exceeds the 2041 industrial employment planning baseline. Council has recently commenced an Urban Employment Lands Investigation. This investigation will provide advice and direction on, amongst other matters, industrial land supply in the region. This investigation in turn may inform future planning scheme amendments, and consequently future LSDM reporting.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting

period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Moreton Bay

Planned dwelling supply – Moreton Bay

The capacity and realistic availability of planned dwelling supply in the Moreton Bay consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

Council is currently undertaking a Regional Growth Management Strategy 2041 (RGMS2041). This includes a review of Council's planning assumptions, improved monitoring of development and land use and infrastructure planning of future urban development areas, as such this work may impact on planned dwelling supply. The outcomes of the review of Council's planning assumptions will underpin the preparation of the RGMS2041. The RGMS2041 in turn, may inform future planning scheme (and Local Government Infrastructure Plan) amendments, and consequently future years of LSDM reporting.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

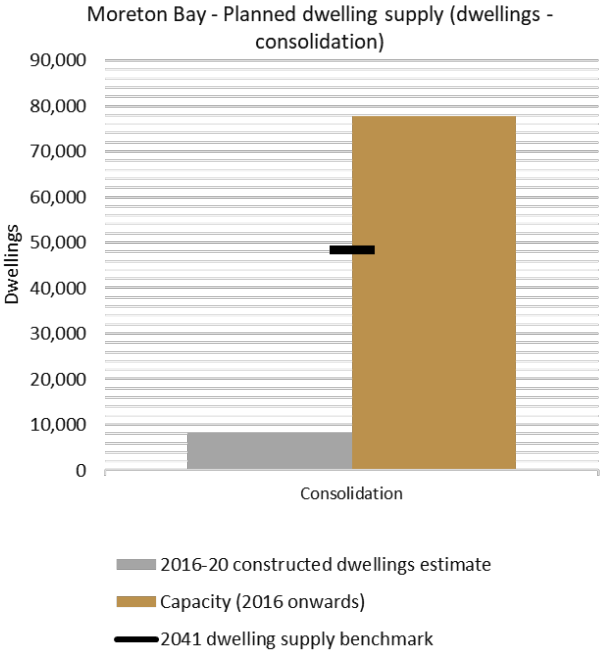
In the Moreton Bay consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 78,000 dwellings. This figure is significantly above the consolidation 2041 dwelling supply benchmark of 48,200 dwellings.

In the Moreton Bay expansion area, the capacity of planned dwelling supply is about 86,000 dwellings which is significantly above the expansion 2041 dwelling supply benchmark of 40,100. The realistic availability of this supply is about 39,700 dwellings, which equates to about 17 years of supply and is above *ShapingSEQ 2017's* 15 years of supply policy objective.

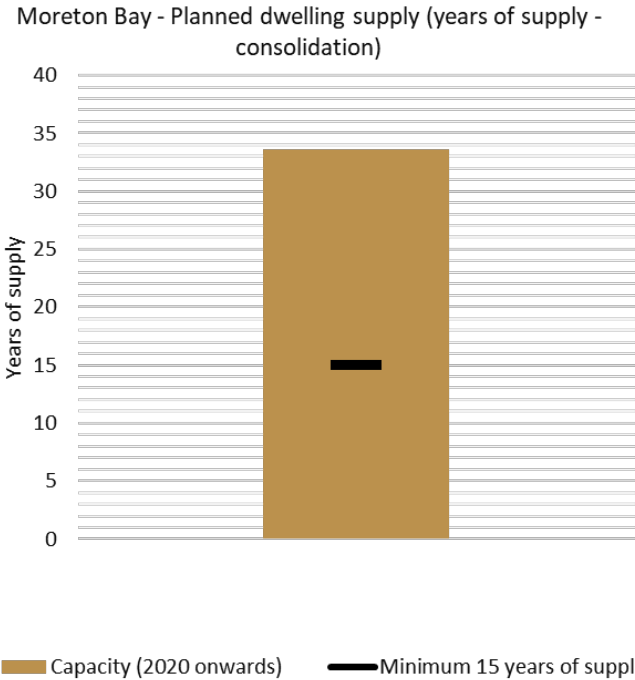
Much of the planned dwelling supply in the Moreton Bay expansion area is located within the proposed master planned community of Caboolture West. This supply has been included in the capacity figure but has not been included as part of the realistic availability scenario, in accordance with the realistic availability method. Realisation of this planned dwelling supply needs to be supported over time by transport, water and sewerage infrastructure. The provision of that infrastructure is subject to future arrangements.

Council has also resolved to commence detailed land use and infrastructure planning for Caboolture West and this work will also inform a future planning scheme amendment.

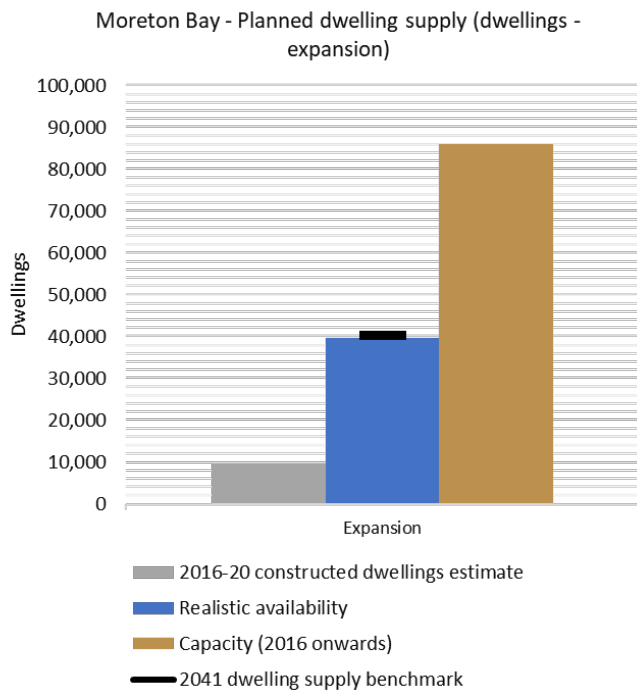
For more detail about the calculation of planned dwelling supply, including years of supply, see the [Technical notes](#).



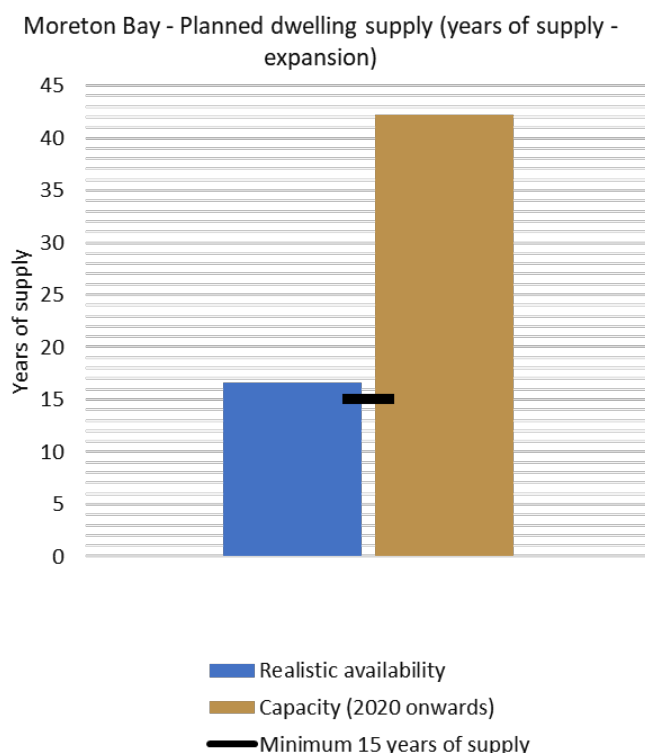
This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in consolidation areas.



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in consolidation areas.



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time.

These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

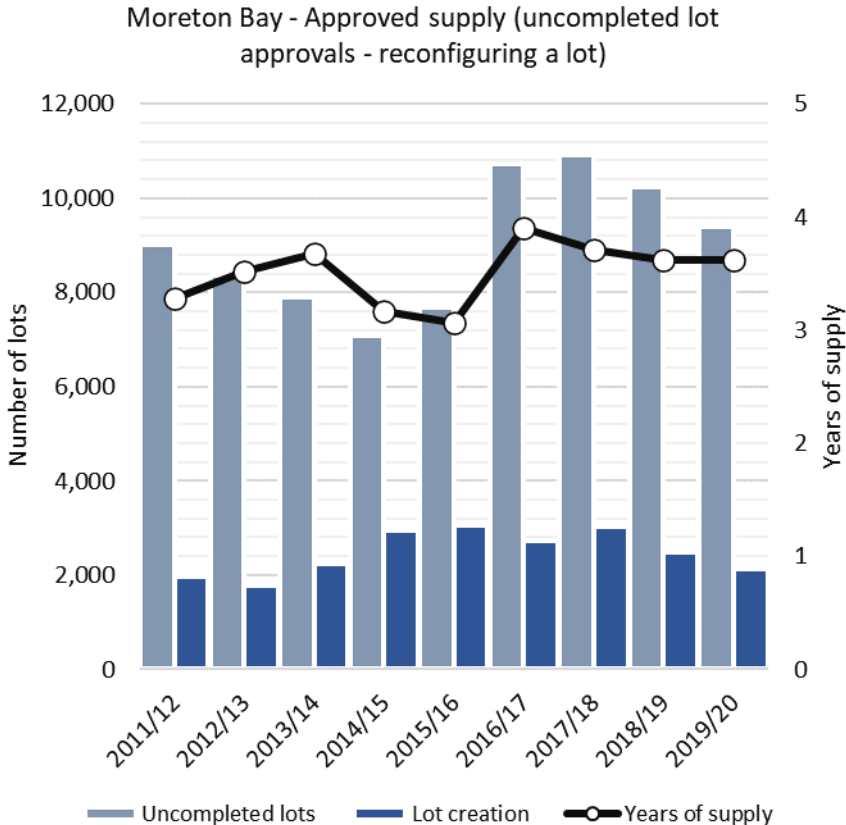
Approved supply – Moreton Bay

There are about 3.6 years of supply of uncompleted lot approvals in the Moreton Bay consolidation and expansion areas overall, which is just short of the minimum four years of supply sought by *ShapingSEQ 2017*.

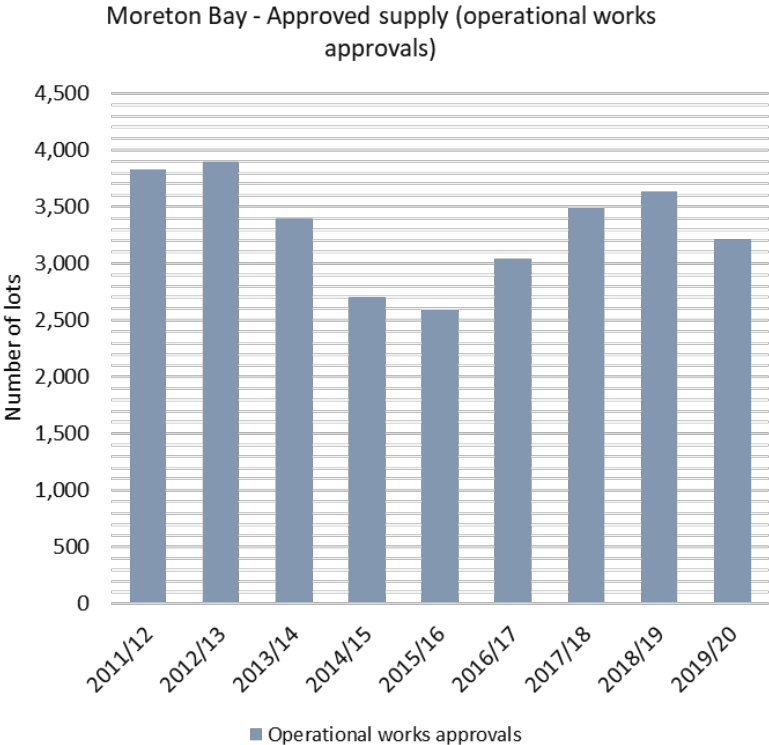
The total number of uncompleted lot approvals currently is 9386 which is somewhat less than the high for Moreton Bay seen in 2017/18. Of the uncompleted lots, approximately 34 per cent have operational works approvals for the 2019/20 period. The lower rate of lot creation has continued to decline in 2019/20 since a peak in 2015/16, which has contributed to the slightly higher years of supply figure.

In contrast, Moreton Bay has about 6.2 years of supply of uncompleted multiple dwelling approvals in the consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*. The supply of uncompleted multiple dwelling approvals decreased from June 2019 to June 2020.

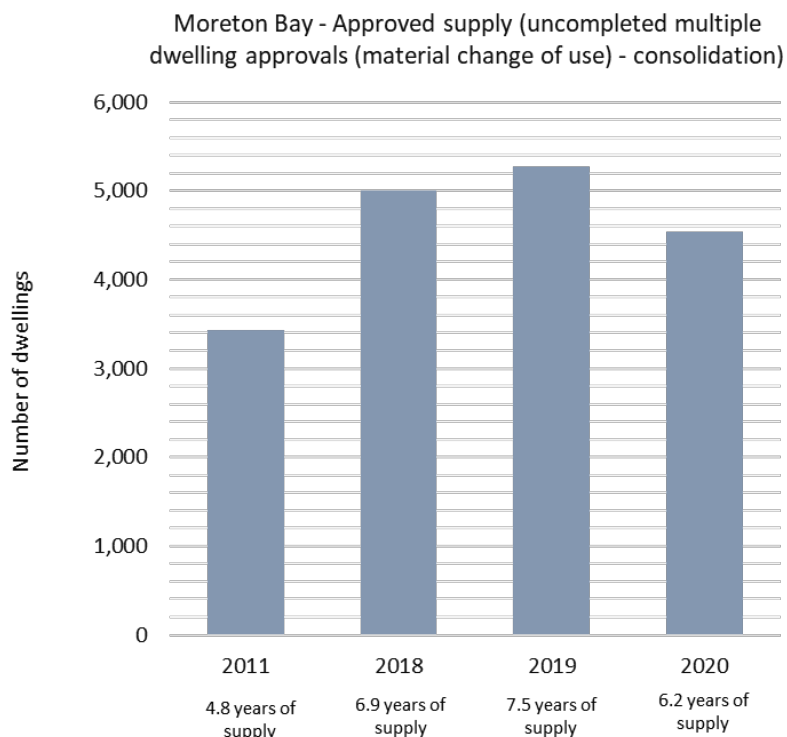
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year and the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years. The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Moreton Bay

Dwelling approvals (used to measure dwelling growth) in Moreton Bay have exceeded the average annual benchmarks on average since 2016/17.

Dwelling approvals in the Moreton Bay consolidation area increased, exceeding the consolidation average annual benchmark for the first time in 2017/18, and have remained above the benchmark through to 2019/20.

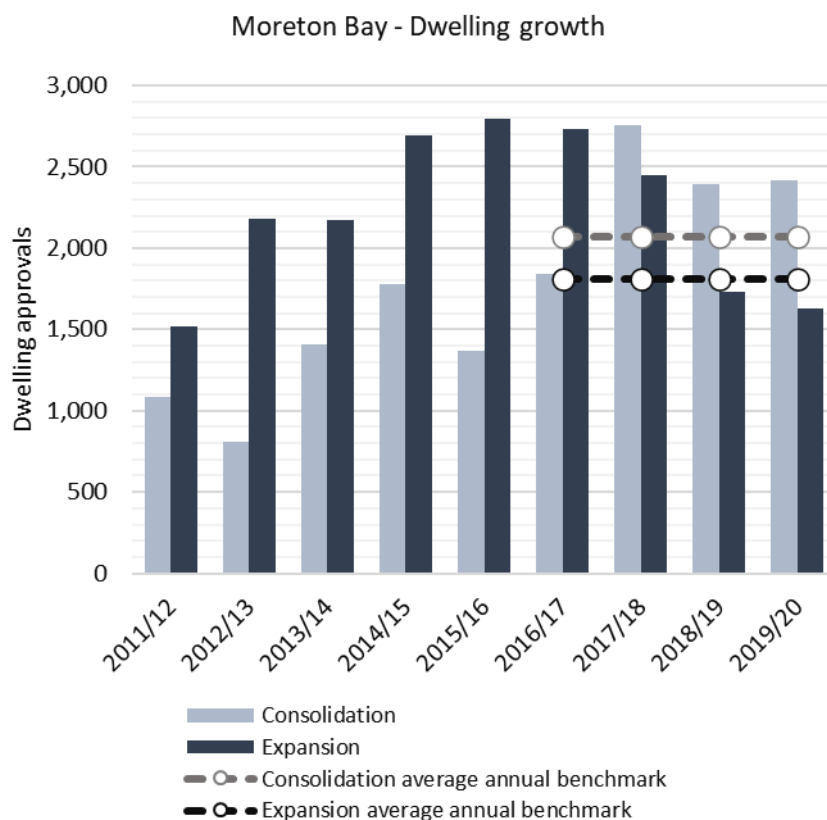
Dwelling approvals in the Moreton Bay expansion area exceeded the expansion average annual benchmark for 2016/17 and 2017/18 until declining to slightly below the benchmark in 2018/19 and 2019/20.

There were 2419 dwelling approvals in Moreton Bay’s consolidation area in 2019/20, which was approximately 350 dwellings more than the consolidation average annual benchmark of 2069 additional dwellings. There were 1632 dwelling approvals in Moreton Bay’s expansion area in 2019/20, which was approximately 175 dwellings less than the expansion average annual benchmark of 1808 additional dwellings.

Approximately 52 per cent of dwelling approvals for 2016/17 to 2019/20 were in Moreton Bay’s consolidation area, which is slightly less than its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017* (53 per cent). Approximately 48 per cent of dwelling approvals were in Moreton Bay’s expansion area over the same period, which is above its expected share of 47 per cent.

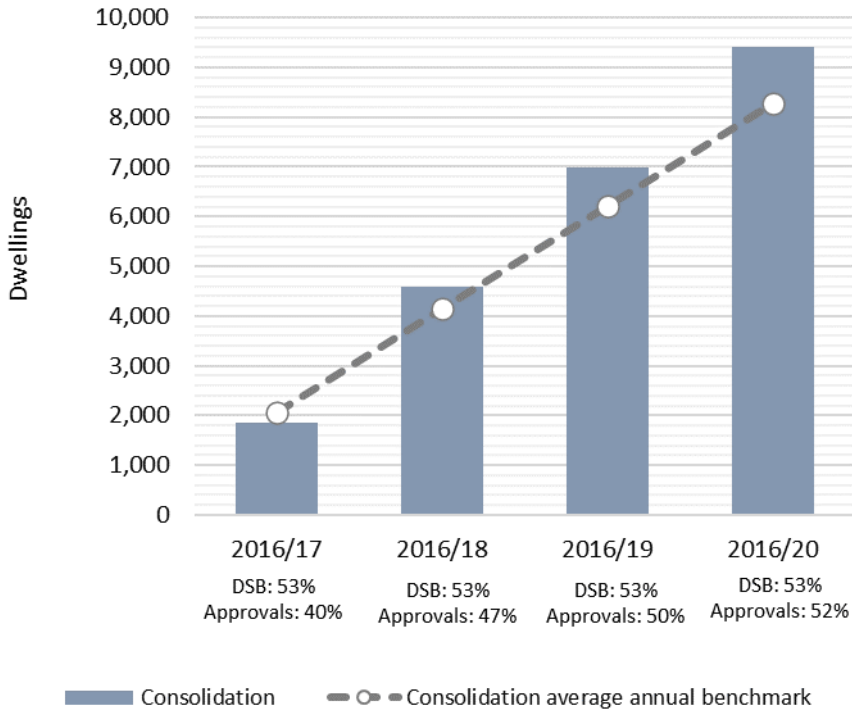
As the actual number of dwelling approvals for 2016/17 to 2019/20 in the consolidation and expansion areas are above the average annual benchmark, Moreton Bay is on track to be able to accommodate the 2041 dwelling supply benchmark.

For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



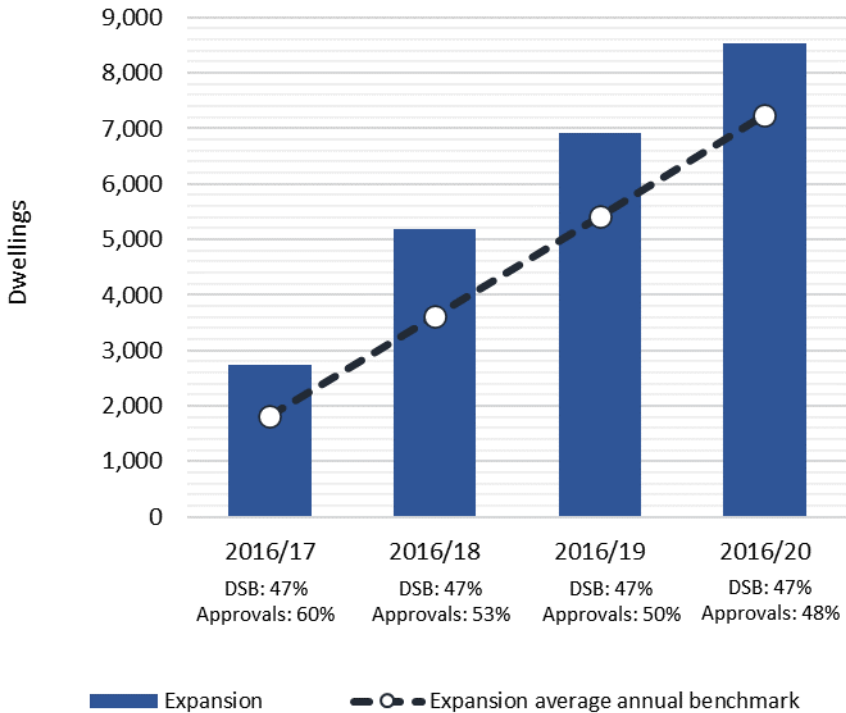
This graph shows annual dwelling approvals compared against *ShapingSEQ 2017*’s average annual benchmarks.

Moreton Bay - Dwelling growth (cumulative - consolidation)



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Moreton Bay - Dwelling growth (cumulative - expansion)



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

Changes in dwelling density – Moreton Bay

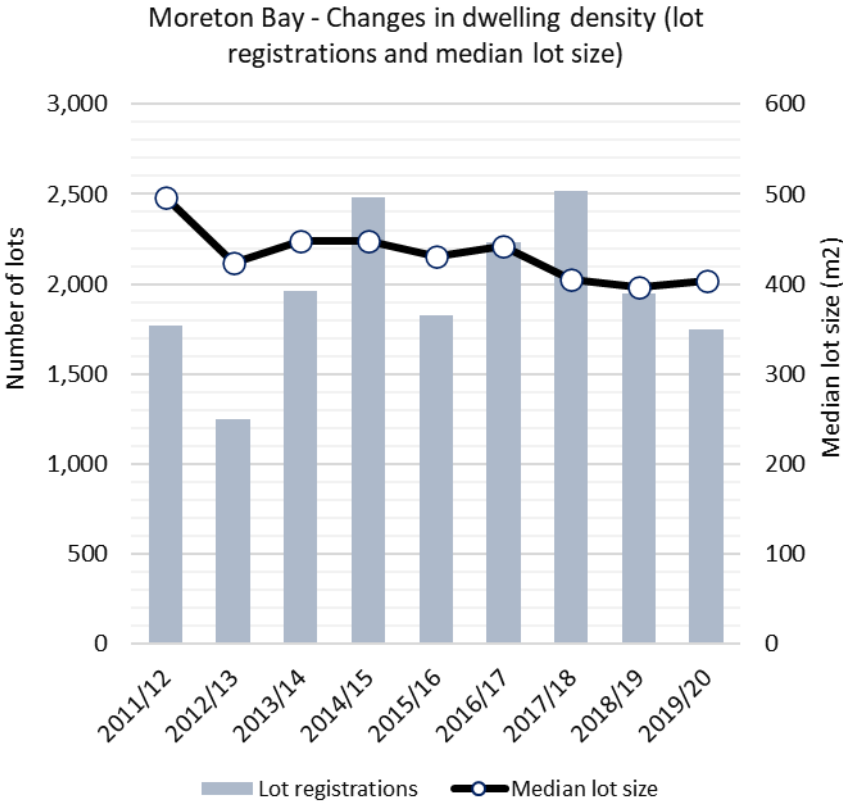
Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) is increasing in Moreton Bay in accordance with SEQ's preferred future for higher dwelling densities and smaller lots.

Mean population-weighted dwelling density in Moreton Bay increased between 2011 and 2016, from 9.2 to 10.4 dwellings per hectare. This represents the average dwelling density at which the population of Moreton Bay lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density increased from 10.9 to 11.7 dwellings per hectare.

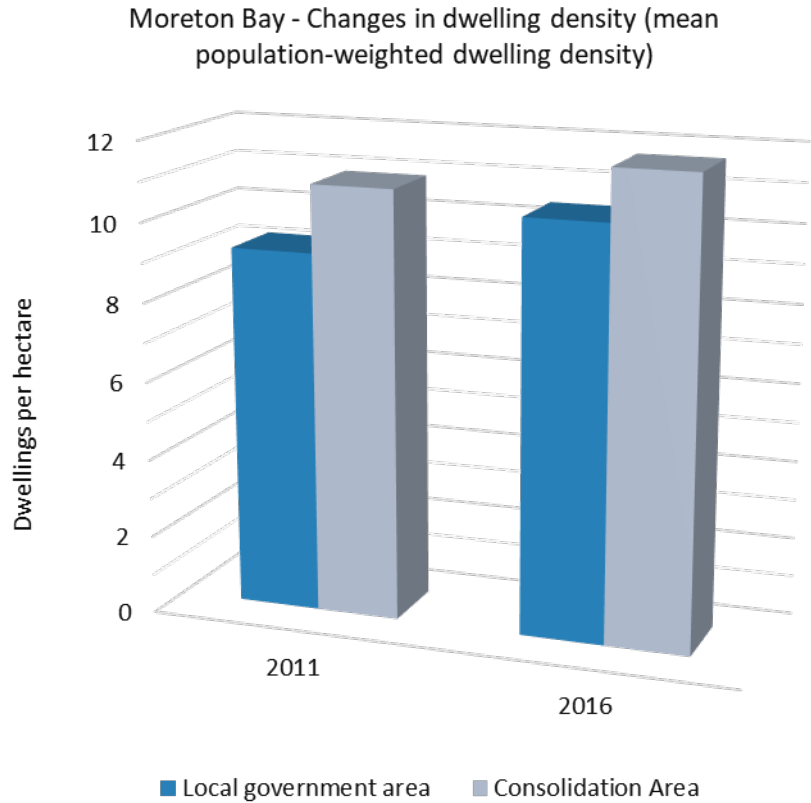
Although slightly higher in 2019/20 than the previous year, the median size of new lots in Moreton Bay decreased from 496m² to 404m² from 2011/12 to 2019/20. The number of lot registrations fluctuated over the same period. This measure is indicative of an increase in dwelling densities in new urban subdivisions in Moreton Bay.

Changes to Moreton Bay's planning scheme over time have increased planned densities and allowed smaller lots.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Moreton Bay

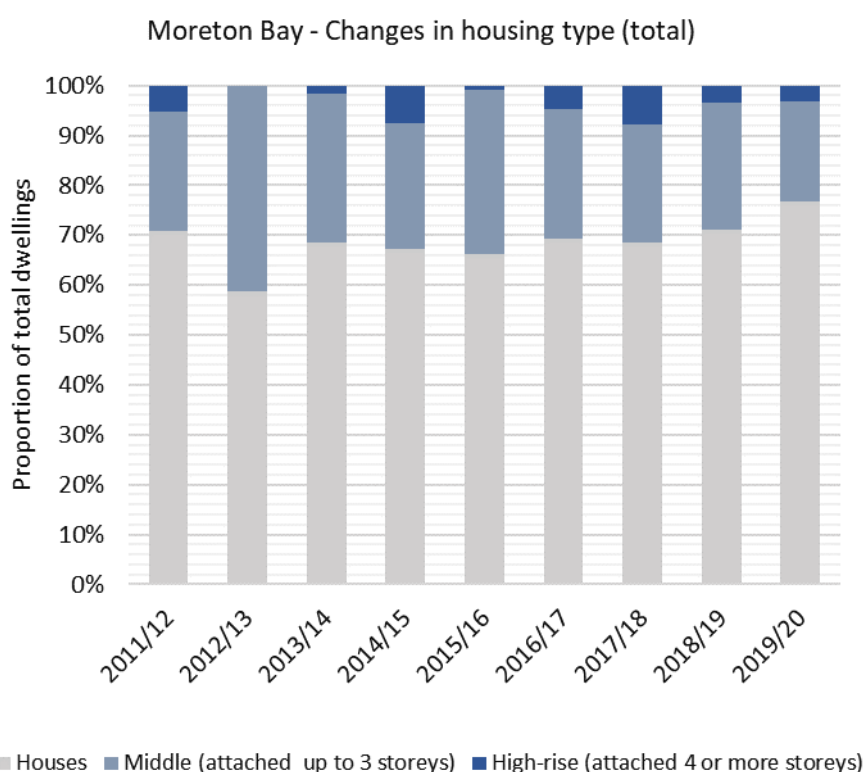
When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate an increase in housing diversity in Moreton Bay, consistent with SEQ’s preferred future.

Seventy-one per cent (12,778 dwellings) of all new dwelling approvals in Moreton Bay for 2016/17 to 2019/20 were for houses, which was less than for the existing dwelling stock (82 per cent as at the 2016 Census). Dwelling approvals for middle (24 per cent or 4278 dwellings) and high-rise (five per cent or 899 dwellings) over the same period were higher than their share of the dwelling stock as at the 2016 Census (middle 16 per cent, high-rise two per cent).

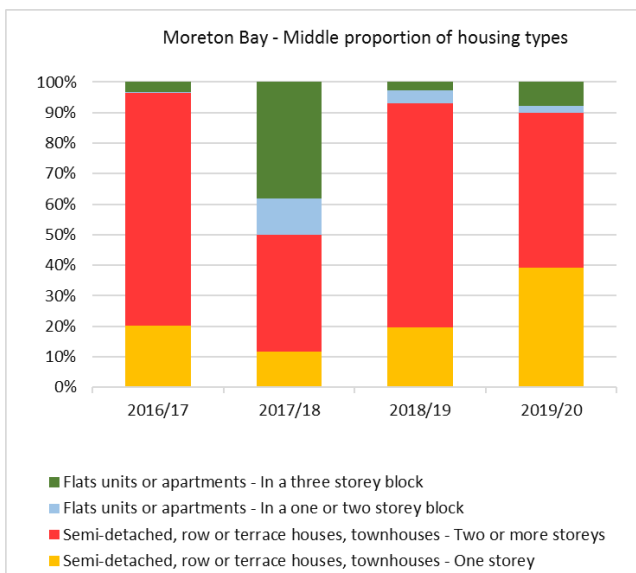
The predominant middle housing type dwellings approved since 2016/17 in Moreton Bay are semi-detached, row or terrace houses and townhouses of two or more storeys (about 71 per cent or 3026 dwellings).

About 49 per cent (2089 dwellings) of middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and about 51 per cent (2189 dwellings) were located within the expansion area.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of 'missing middle' in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Moreton Bay

The number of sales has remained the same or increased from 2018/19 to 2019/20 for all categories in Moreton Bay except house-land packages and attached dwellings in the expansion area, which decreased.

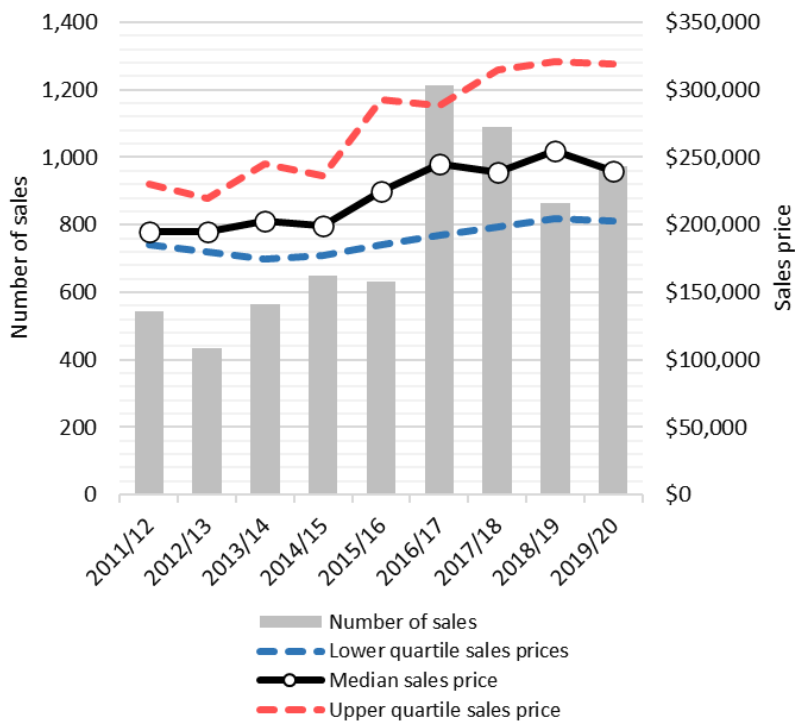
The median sales price for all categories in the consolidation area is lower in Moreton Bay than for South East Queensland (SEQ). Conversely, in the expansion area, the median sales price for all categories, except attached dwellings, is higher in Moreton Bay than for SEQ.

Over the 2011/12 to 2019/20 period, vacant lots in the consolidation area had the highest rate of median sales price growth (23.1 per cent per lot and 62.1 per cent per square metre). Over the same period, vacant lots in the expansion area also had a high rate of median price growth (32.9 per cent per lot and 35.6 per cent per square metre).

The median price for all categories is higher in the expansion area than the consolidation area in Moreton Bay, and differs to situation for SEQ.

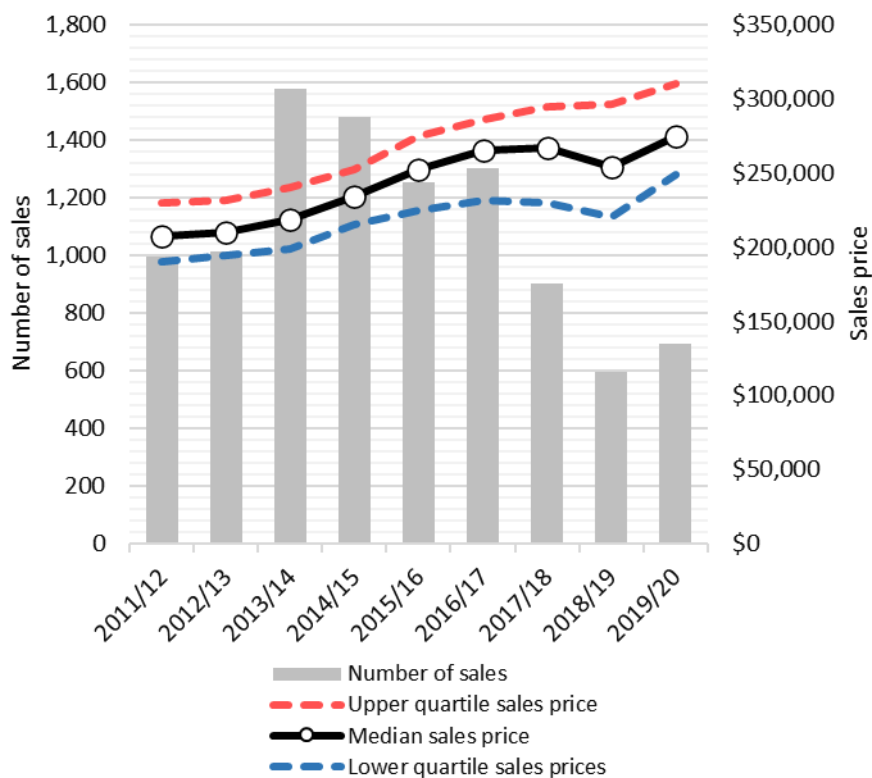
For more detail about the median sales price and number of sales, see the [Technical notes](#).

Moreton Bay - Sales and price (vacant - number of sales and sales price - consolidation)

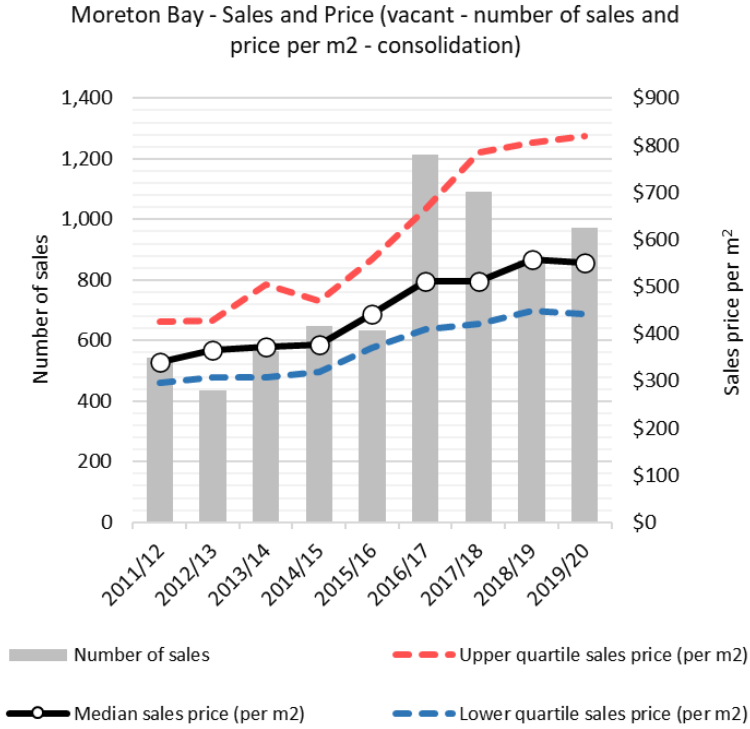


This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.

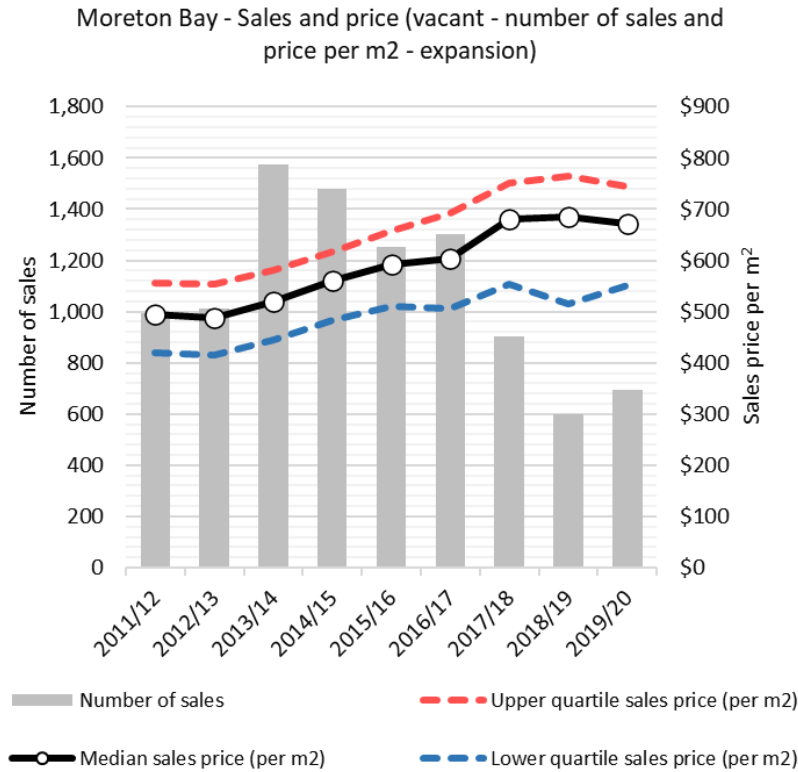
Moreton Bay - Sales and price (vacant - number of sales and sales price - expansion)



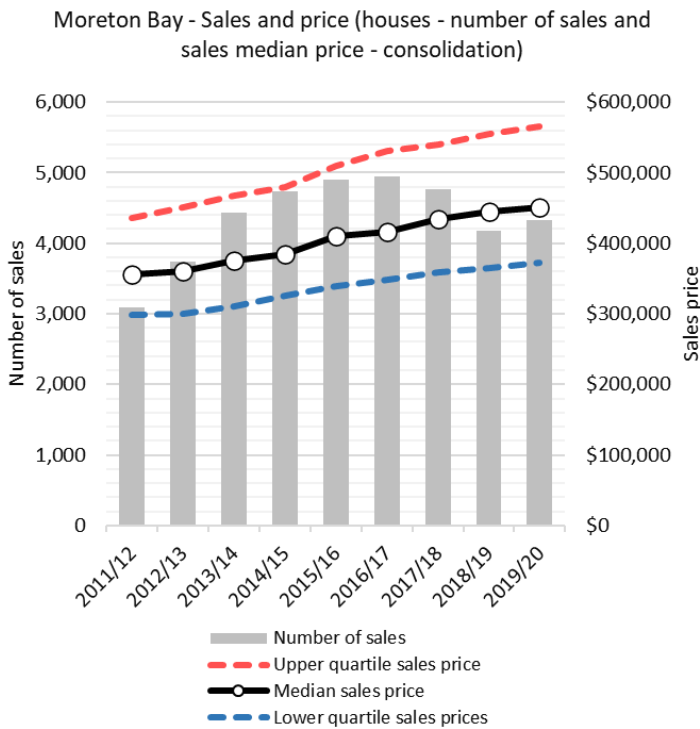
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.



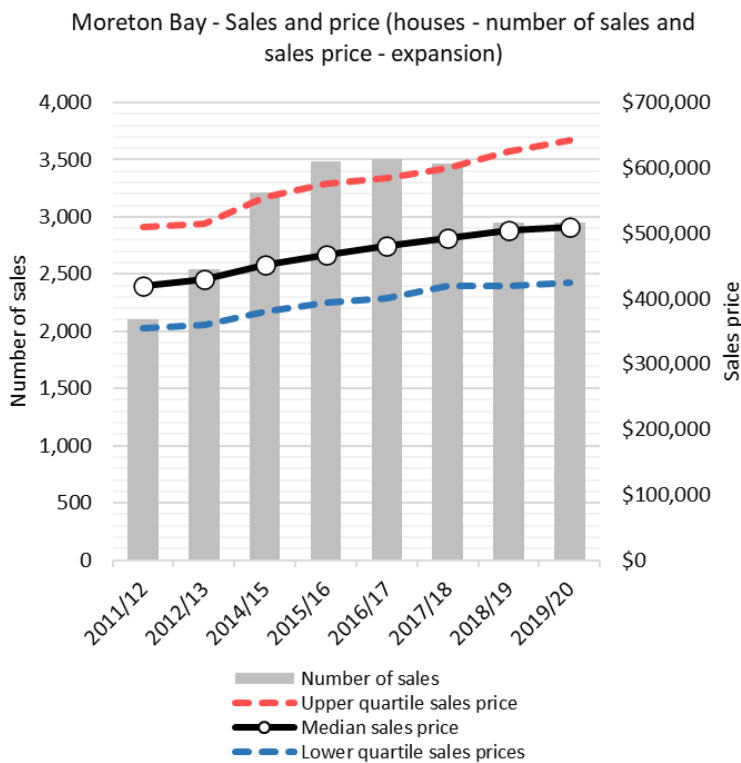
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

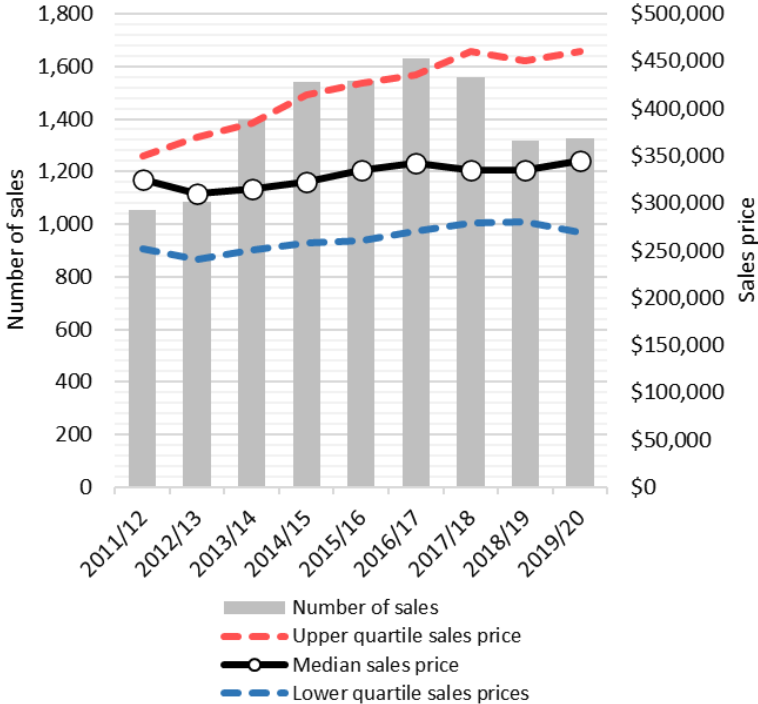


This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.



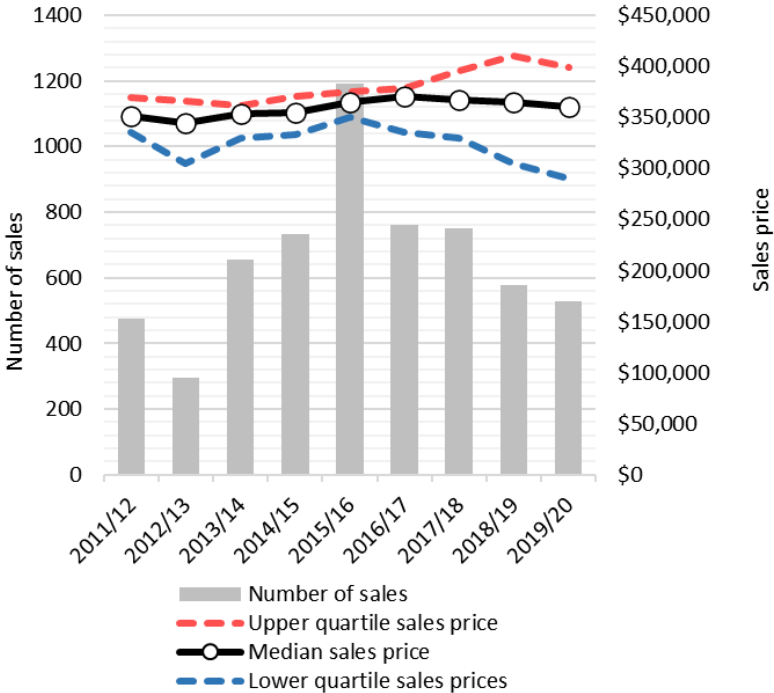
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.

Moreton Bay - Sales and price (attached - number of sales and sales price - consolidation)

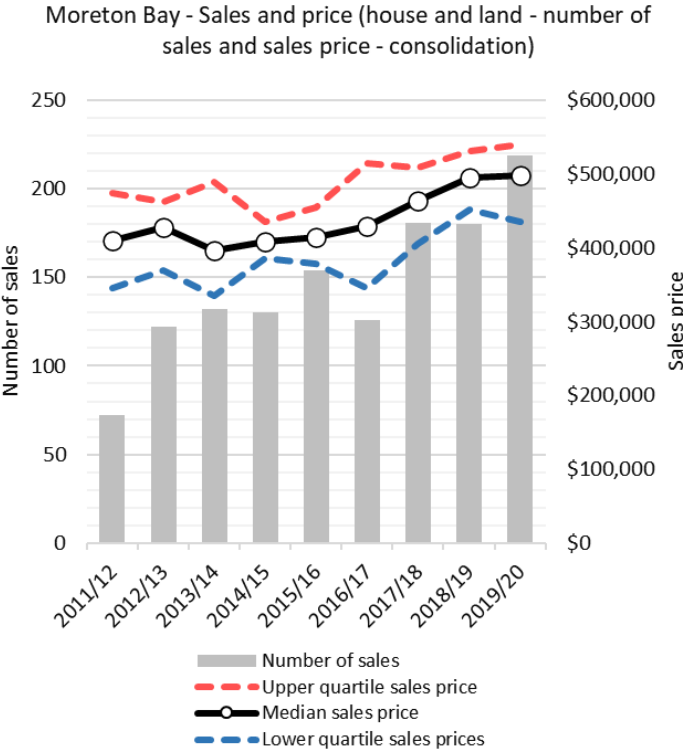


This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.

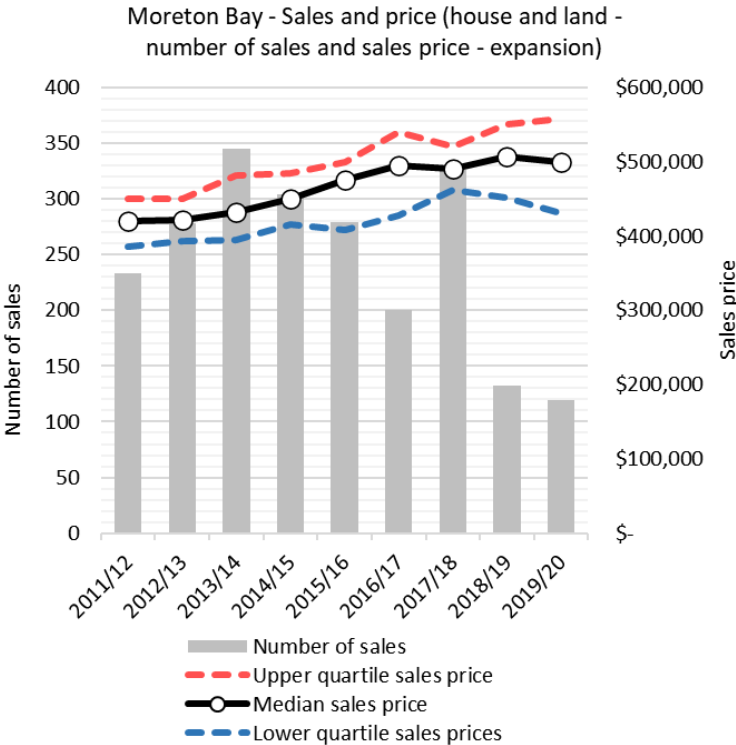
Moreton Bay - Sales and price (attached - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Industrial – Moreton Bay

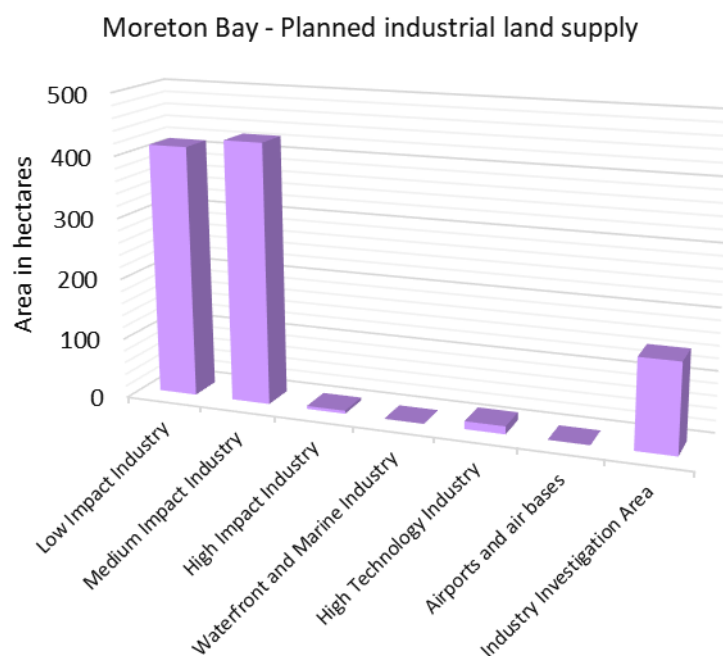
Planned industrial land supply/take-up – Moreton Bay

The estimated take-up of developed industrial land between 2011 and 2019 in Moreton Bay was 174 hectares. The take-up occurred on land intended for low, medium and high impact industry, followed by high technology industry and waterfront and marine industry.

There were 1004 hectares of planned industrial land in Moreton Bay as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for low medium and high impact industry, industry investigation, and high technology industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



1004ha of developable land
174ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Moreton Bay

The capacity and realistic availability of planned industrial employment supply in Moreton Bay provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

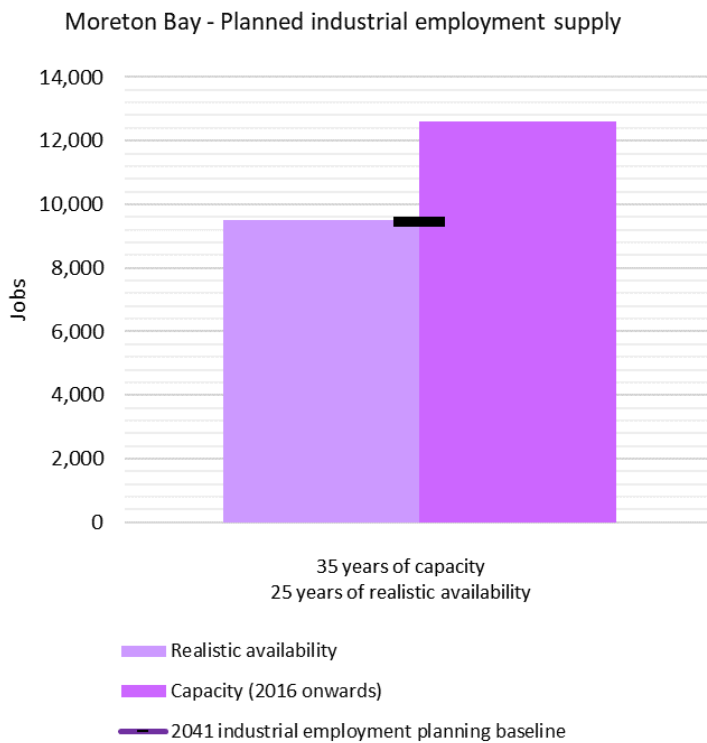
The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply in Moreton Bay is about 12,600 employees, which represents about 35 years of supply and is above the 2041 industrial employment planning baseline of 9400 employees. The realistic availability of this supply is about 9500 employees, which represents 25 years of supply and is slightly above the 2041 industrial employment planning baseline.

The realisation of this planned industrial employment supply in Moreton Bay would be supported by infrastructure identified in *ShapingSEQ 2017* such as the north/south urban arterial, the proposed northern intermodal freight facility and the Beerburrum to Nambour Rail Upgrade Project, which are anticipated to relieve pressure on the strategic road network and improve freight efficiency.

For more detail about the calculation of planned industrial employment supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Noosa

Summary

ShapingSEQ 2017 establishes that Noosa's expected population growth will require 6400 additional dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in Noosa provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about 1.1 years of supply of uncompleted lot approvals in Noosa, which is below the minimum four years of supply sought by *ShapingSEQ 2017*. There are about six years of uncompleted multiple dwelling approvals in the Noosa consolidation area.

Dwelling approvals in Noosa have exceeded the average annual benchmark on average since 2016/17, despite dwelling approvals in the expansion area declining below the expansion average annual benchmark in 2019/20. Growth in the consolidation area should proportionately increase as expansion land supply diminishes and consolidation capacity increases through the new Noosa Plan 2020.

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate an increase in housing diversity in Noosa, however the proportion of houses in Noosa has increased and the proportion of middle and high-rise has been below that of 2016 dwelling stock. Dwelling density has increased slightly, consistent with SEQ's preferred future.

The capacity and realistic availability of planned industrial employment supply in Noosa provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017* and exceed the 2041 industrial employment planning baseline.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Noosa

Planned dwelling supply – Noosa

The capacity and realistic availability of planned dwelling supply in the Noosa consolidation and expansion areas provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

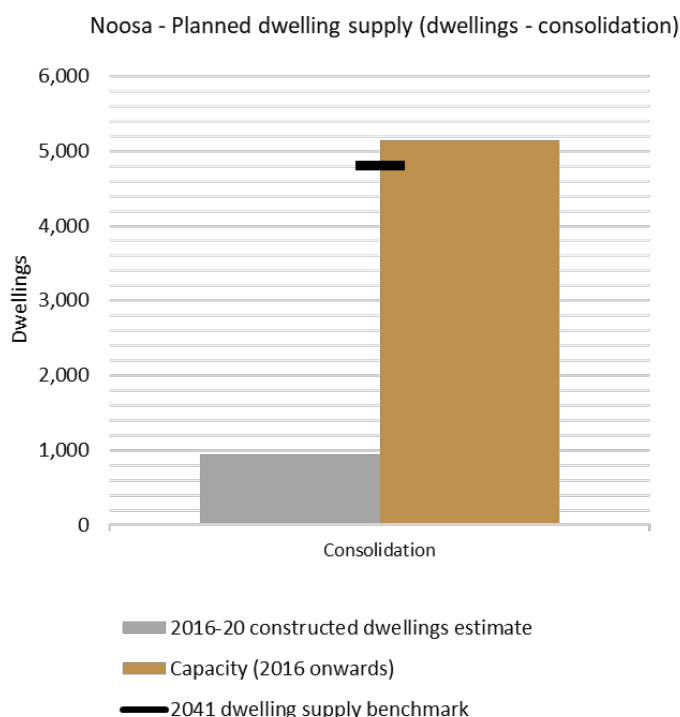
The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the Noosa consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 5140 dwellings and marginally above the consolidation 2041 dwelling supply benchmark of 4800 dwellings.

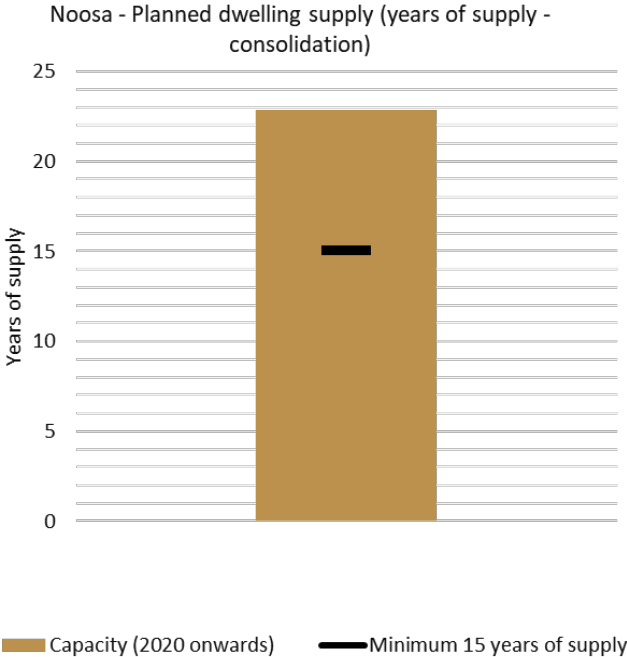
In the Noosa expansion area, the capacity and realistic availability of planned dwelling supply is about 2600 and 2500 dwellings respectively. These figures are above the expansion 2041 dwelling supply benchmark of 1600 dwellings.

The new Noosa Plan was adopted by Noosa Shire Council in July 2020 and may increase planned dwelling supply in the consolidation area. Where source data is updated, the effect of the new planning scheme on planned dwelling supply will be included in future years of LSDM Reporting.

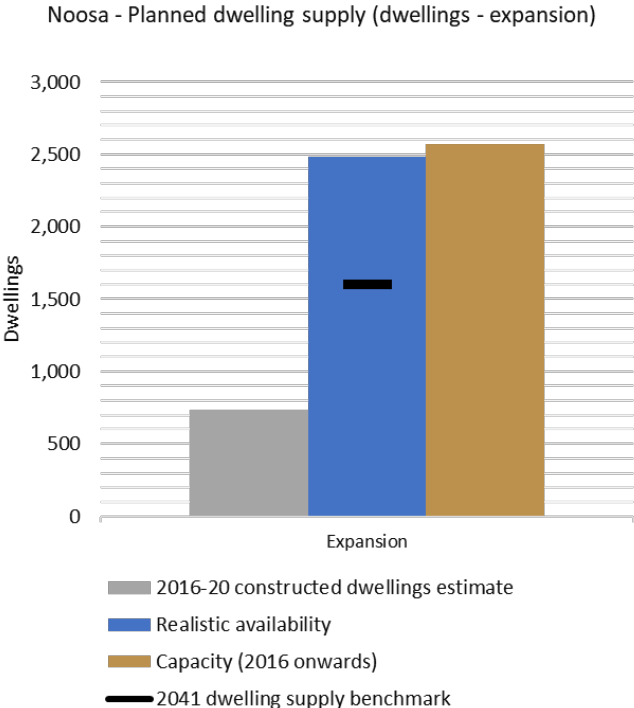
For more detail about the calculation of planned dwelling supply, including years of supply, see the [Technical notes](#).



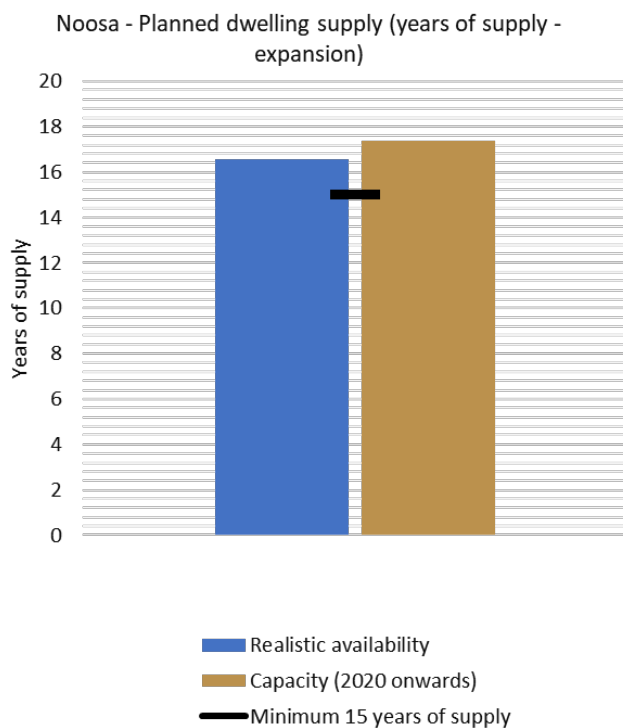
This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017's* dwelling supply benchmarks in consolidation areas.



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* minimum 15 years of supply policy objective in consolidation areas.



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Noosa

There are about 1.1 years of supply of uncompleted lot approvals in the Noosa consolidation and expansion areas overall, less than the minimum four years of supply sought by *ShapingSEQ 2017*.

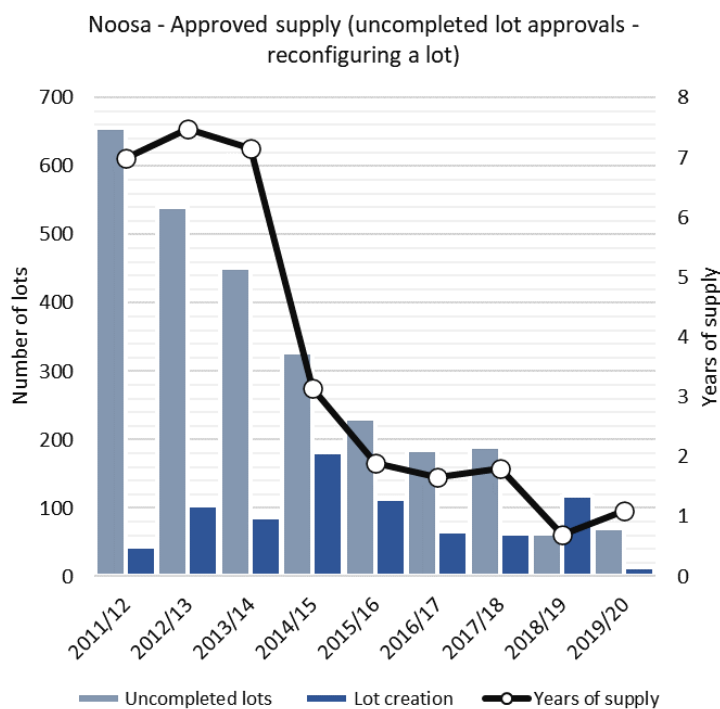
The total number of current uncompleted lot approvals has also been declining since 2011/12, with the current uncompleted lot approvals at 71. Of the uncompleted lots, approximately 52 per cent have operational works

approvals for the 2019/20 period. Lot creation declined to about 13 lots in 2019/20, which has contributed to the slight increase in the years of supply figure.

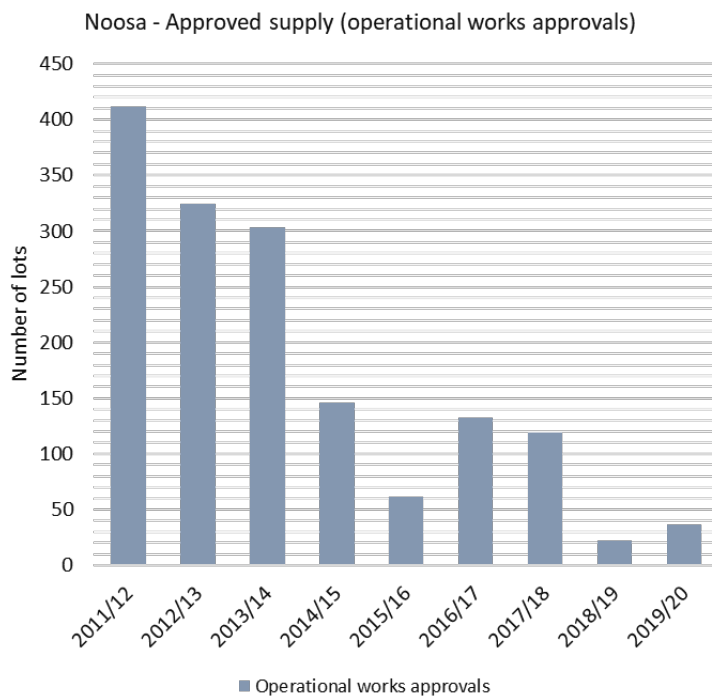
As the supply of expansion land diminishes in Noosa, it is expected that the supply of approvals and lot creation would reduce to lower levels, similar to the circumstances on the Gold Coast and Brisbane, where there is limited remaining expansion land, but at a much smaller scale in Noosa.

In contrast, Noosa has about six years of supply of uncompleted multiple dwellings approvals in the consolidation area. This is well above the minimum four years of supply sought by *ShapingSEQ 2017*.

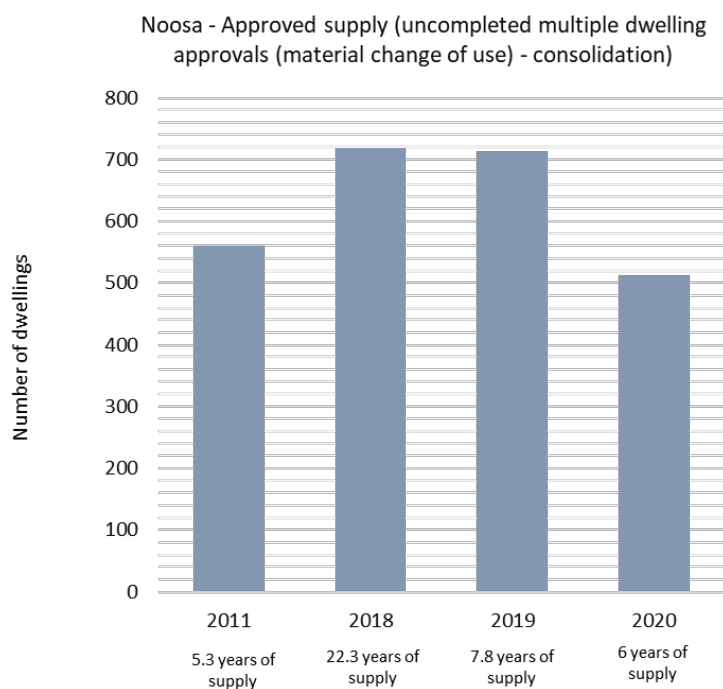
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified, as at 30 June each year (uncompleted lots) as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years.

The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Noosa

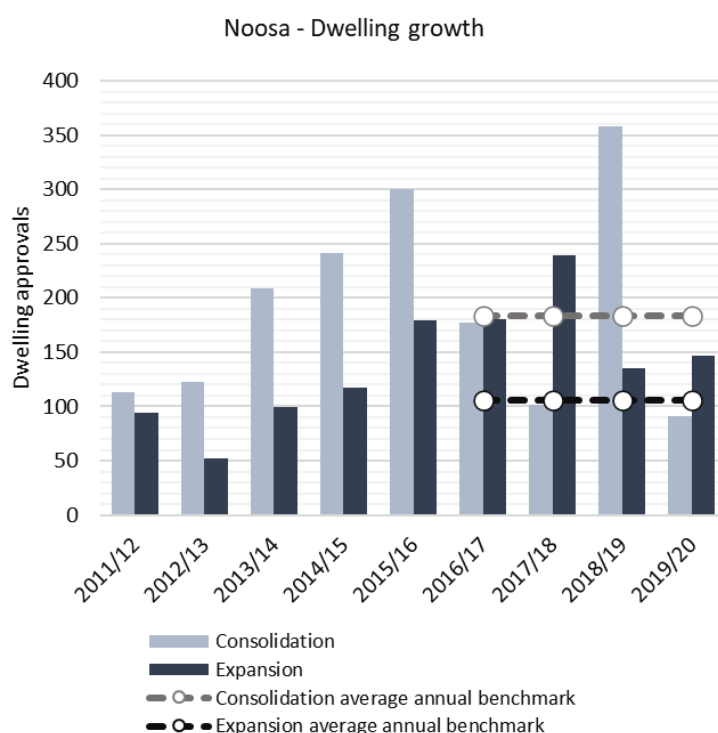
Dwelling approvals (used to measure dwelling growth) in Noosa have exceeded the average annual benchmarks on average since 2016/17.

There were 91 dwelling approvals in Noosa’s consolidation area in 2019/20, which was 93 dwellings less than the consolidation average annual benchmark of 184 additional dwellings. There were 147 dwelling approvals in Noosa’s expansion area in 2019/20, which was 41 dwellings more than the expansion average annual benchmark of 106 additional dwellings.

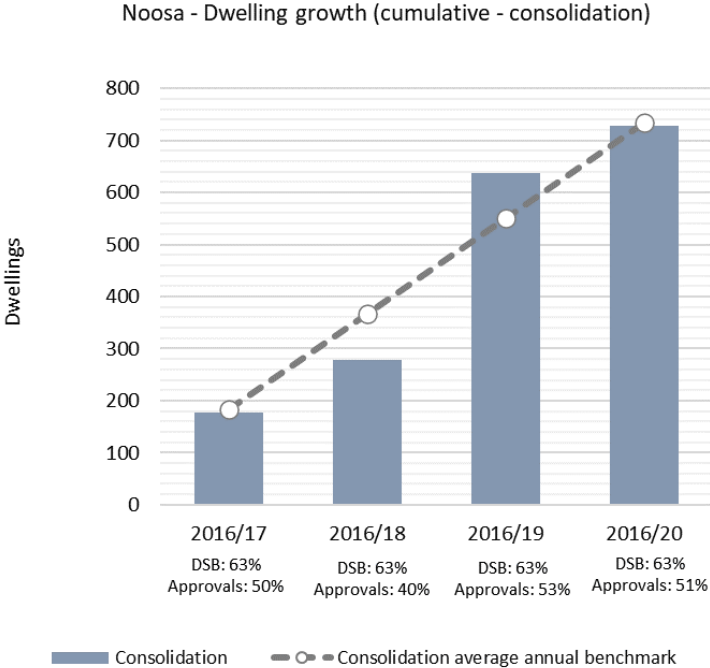
Approximately 51 per cent of dwelling approvals for 2016/17 to 2019/20 were in Noosa’s consolidation area, which is less than its expected share of 63 per cent. Approximately 49 per cent of dwelling approvals were in Noosa’s expansion area over the same period, which is more than its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017* (37 per cent).

Growth in the consolidation area should proportionately increase as expansion land supply diminishes and consolidation capacity has increased through the new Noosa Plan 2020. As the actual number of dwelling approvals for 2016/17 to 2019/20 in the expansion area is above the average annual benchmarks, Noosa is on track to be able to accommodate the expansion 2041 dwelling supply benchmark.

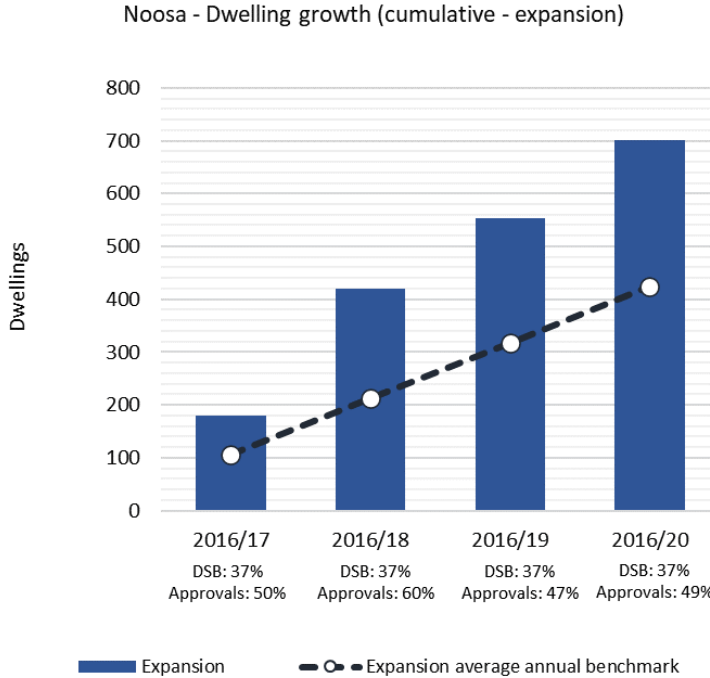
For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017*'s average annual benchmark.



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017*'s consolidation average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area

in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

Changes in dwelling density – Noosa

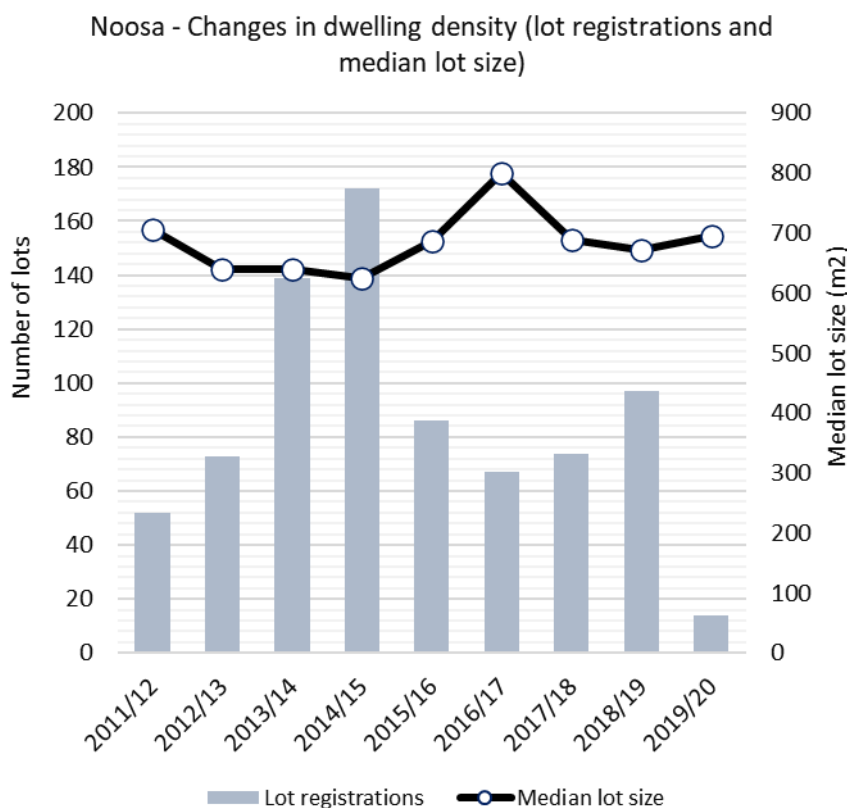
Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) has increased slightly in Noosa in recent years in accordance with SEQ’s preferred future for higher dwelling densities and smaller lots.

Mean population-weighted dwelling density in Noosa increased slightly between 2011 and 2016, from 7.9 to eight dwellings per hectare. This represents the average dwelling density at which the population of Noosa lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density slightly increased from 11.1 to 11.4 dwellings per hectare.

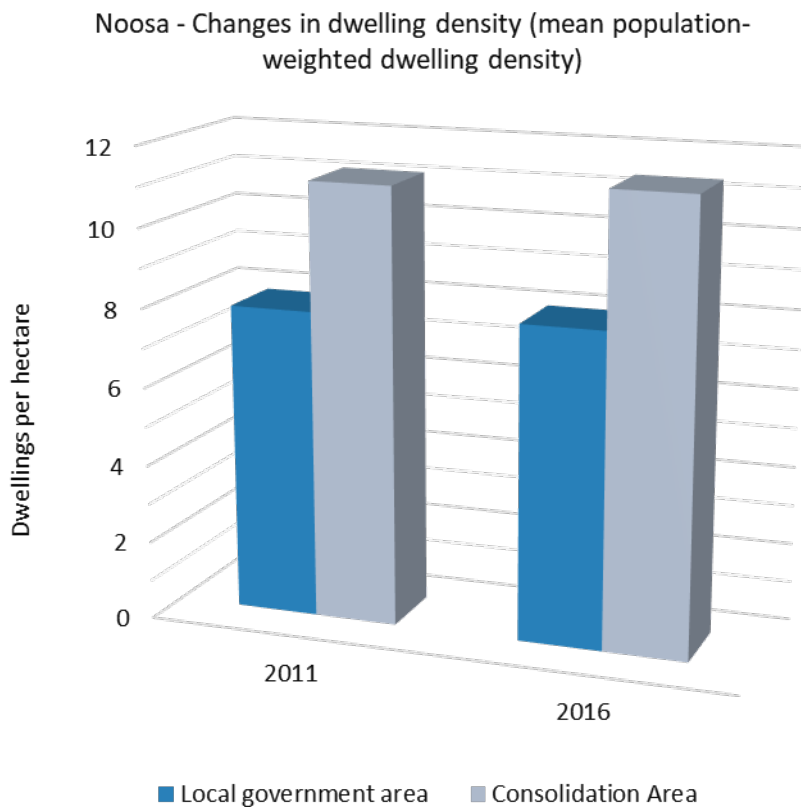
Although slightly higher in 2019/20 than the previous year, the median size of new lots in Noosa slightly decreased from 706m² to 695m² from 2011/12 to 2019/20. Lot sizes peaked at 800m² in 2016/17. The number of lot registrations fluctuated over the same period and is mostly small, contributing to the variability in the median lot size from year to year.

The new planning scheme for Noosa provides the opportunity to support higher dwelling densities in the future, which may contribute to SEQ’s preferred future for increased dwelling densities and smaller lot sizes over time.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Noosa

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals for houses and high-rise indicate an increase in housing diversity in Noosa, consistent with SEQ's preferred future.

However, recent dwelling approvals for middle are below their proportion at the 2016 Census, which is not consistent with SEQ's preferred future.

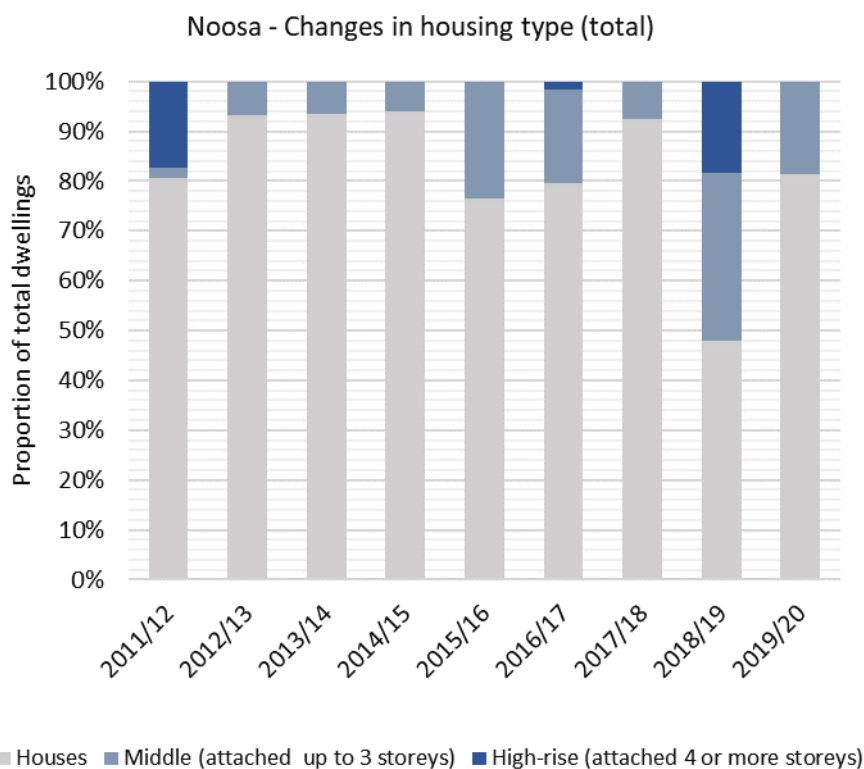
Seventy-two per cent (1030 dwellings) of all new dwelling approvals in Noosa for 2016/17 to 2019/20 were for houses, which was less than the existing dwelling stock (77 per cent as at the 2016 Census). Dwelling approvals for middle (21 per cent or 302 dwellings) were proportionately less than the share of existing dwellings as at the 2016 Census (23 per cent). The proportion of approvals for high-rise (seven per cent or 97 dwellings) was greater than the existing dwelling stock as at the 2016 Census (one per cent).

While high-rise product exceeds the existing dwelling stock at the 2016 Census, houses remain the predominant housing type of dwelling approvals in Noosa.

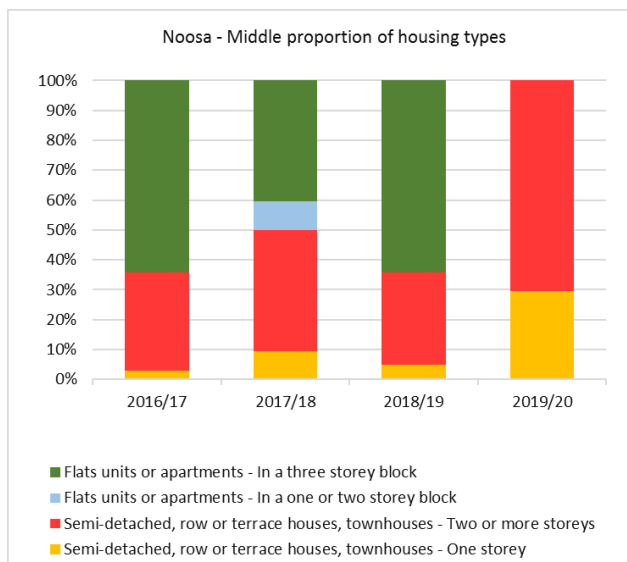
Of middle dwelling approvals since 2016/17, the predominant middle housing type approved in Noosa is flats, units or apartments in a three-storey block (about 49 per cent or 149 dwellings).

About 81 per cent (244 dwellings) of all middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and about 19 per cent (58 dwellings) were located within the expansion area for the same period.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of ‘missing middle’ in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy,

auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Noosa

The number of sales has increased from 2018/19 to 2019/20 for all categories in Noosa except vacant lots in the consolidation and expansion areas which slightly decreased.

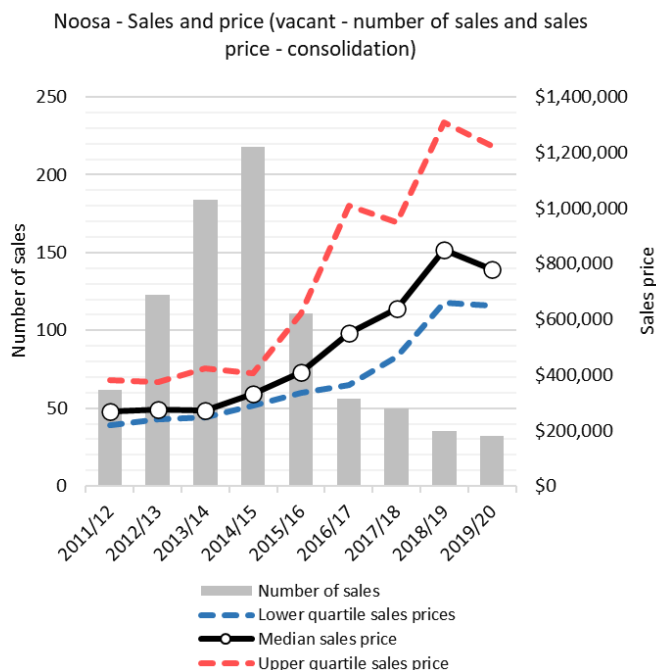
The median sales price for all categories within the consolidation area and with a reported sales price in 2019/20 is higher in Noosa than for South East Queensland (SEQ). Similarly, the median sales price for all categories in the expansion area and with a reported sales price in 2019/20 is higher in Noosa than for SEQ, except for attached dwellings and vacant lots per square metre.

The rate of median sales price growth was also higher in Noosa than for SEQ between 2011/12 and 2019/20 for all categories with a reported median price in 2019/20 except attached dwellings and vacant lots per square metre in the expansion area. Over the same period, the greatest growth in median sales price was for vacant lots in the consolidation area (188.9 per cent per lot and 177.6 per cent per square metre).

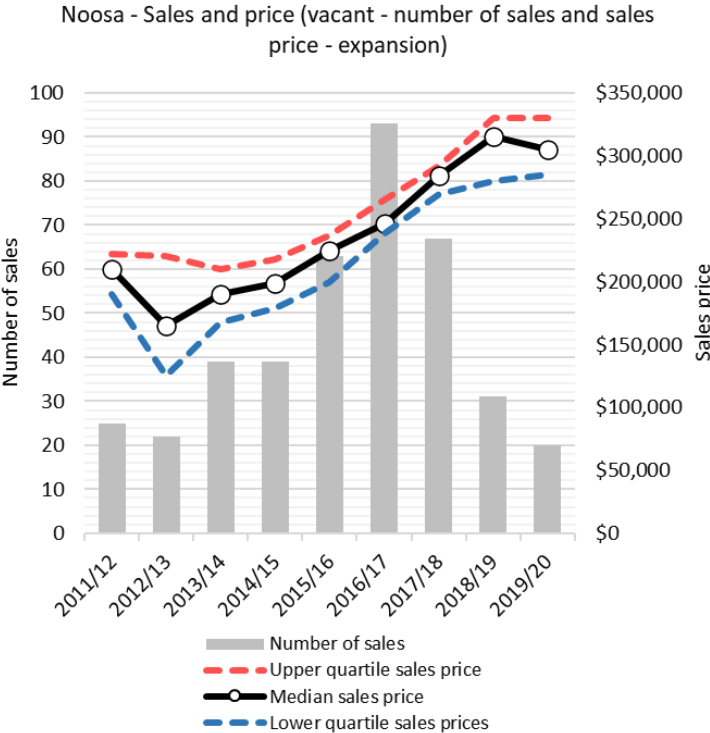
For all categories with a reported median price in 2019/20, the rate of median price growth and actual prices are higher in the consolidation area than in the expansion area within Noosa. This is consistent with the outcome for SEQ as a whole.

Sales prices have not been reported for years with fewer than 10 sales.

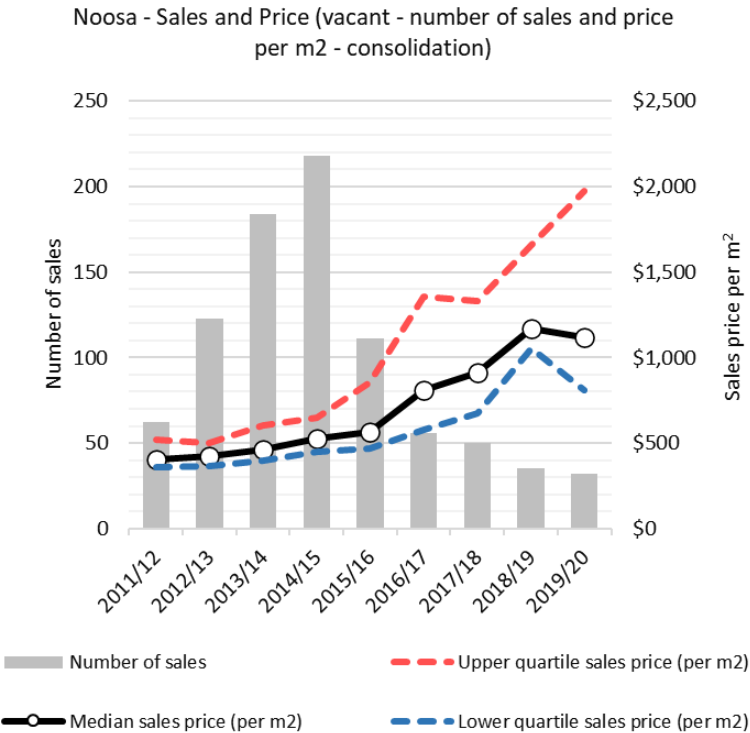
For more detail about the median sales price and number of sales, see the [Technical notes](#).



This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.

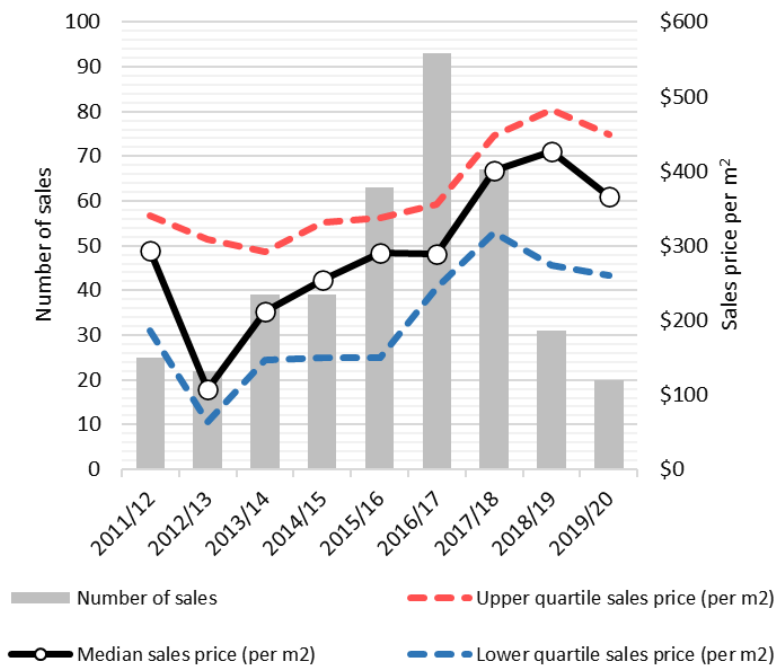


This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.



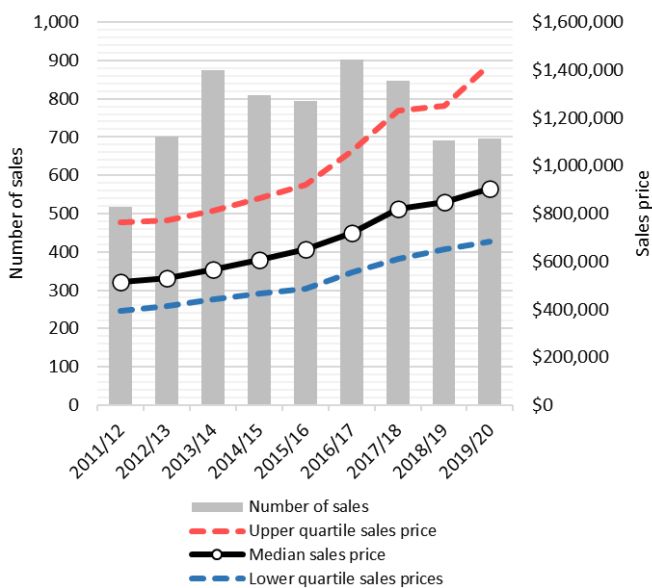
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.

Noosa - Sales and price (vacant - number of sales and price per m2 - expansion)

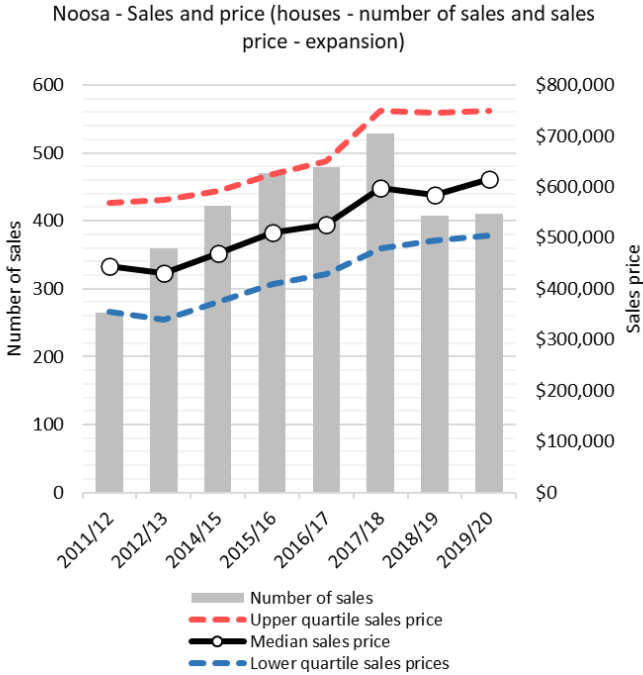


This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

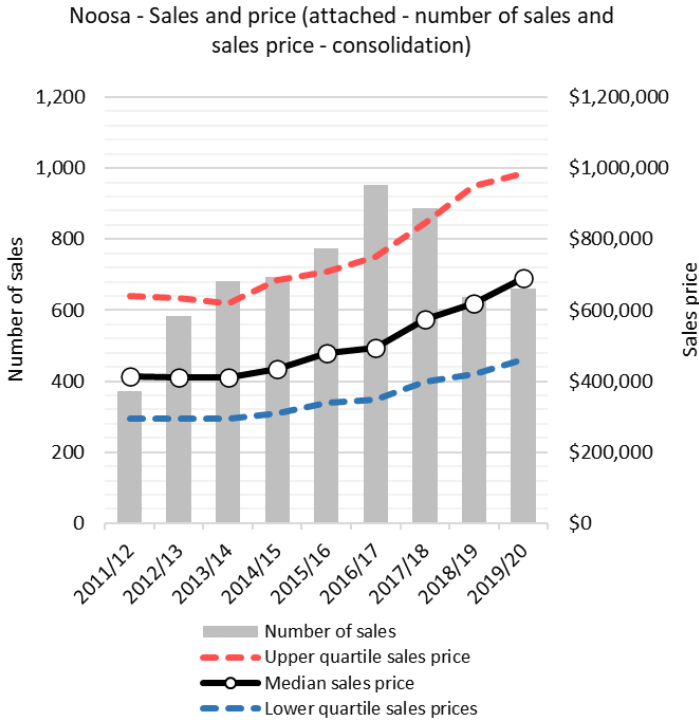
Noosa - Sales and price (houses - number of sales and sales median price - consolidation)



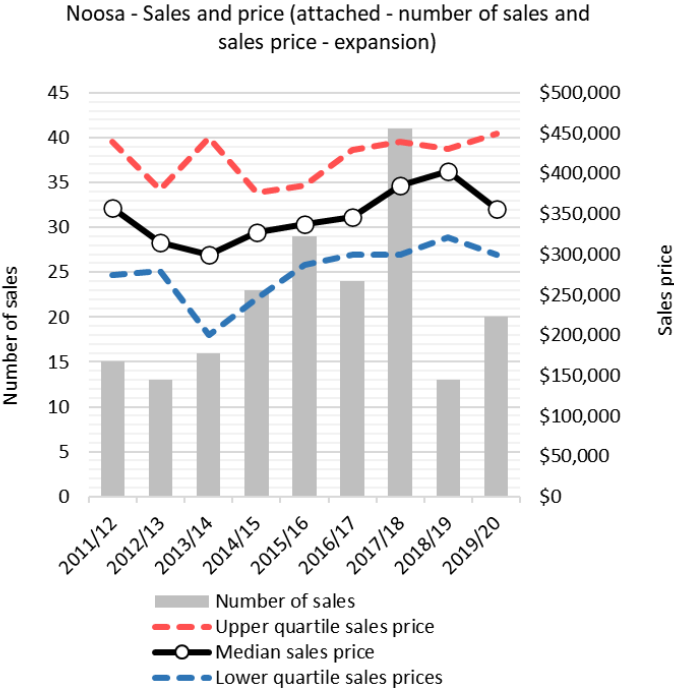
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.



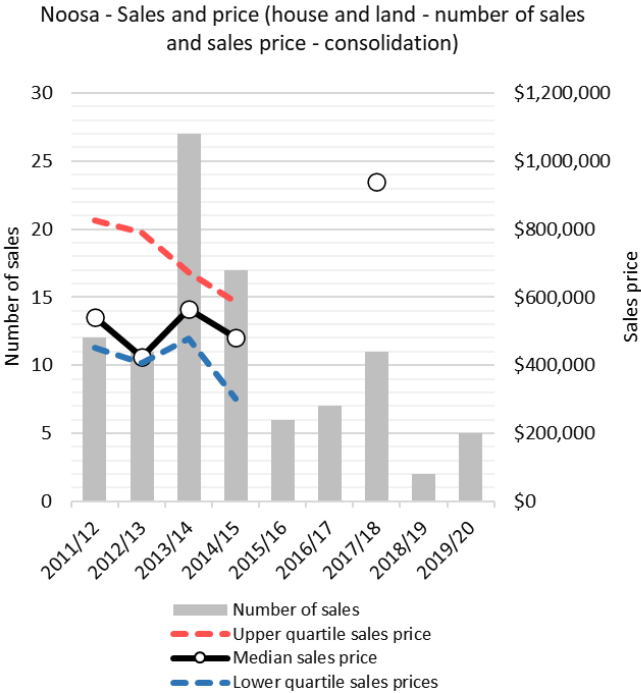
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.



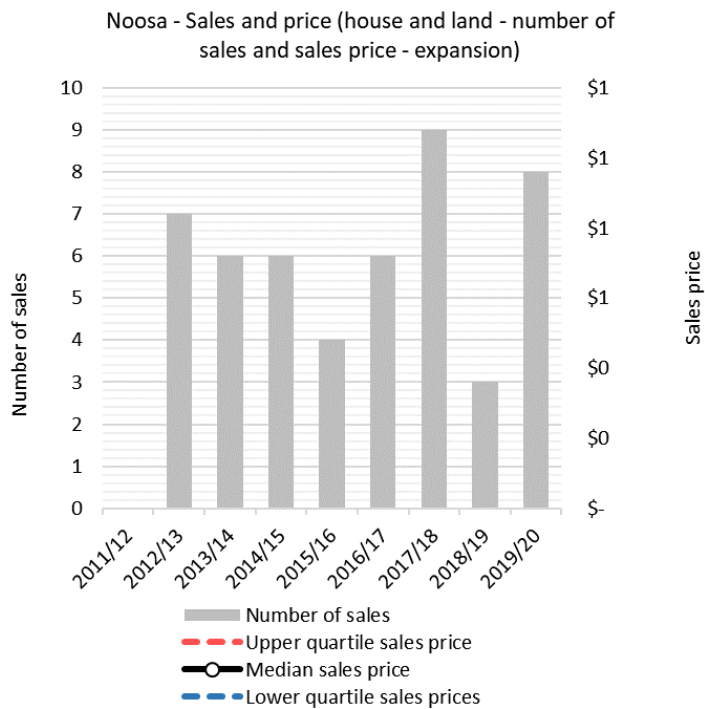
This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Note: Sales prices have not been reported for years with fewer than 10 sales. For more details, see the [Technical notes](#).

Industrial – Noosa

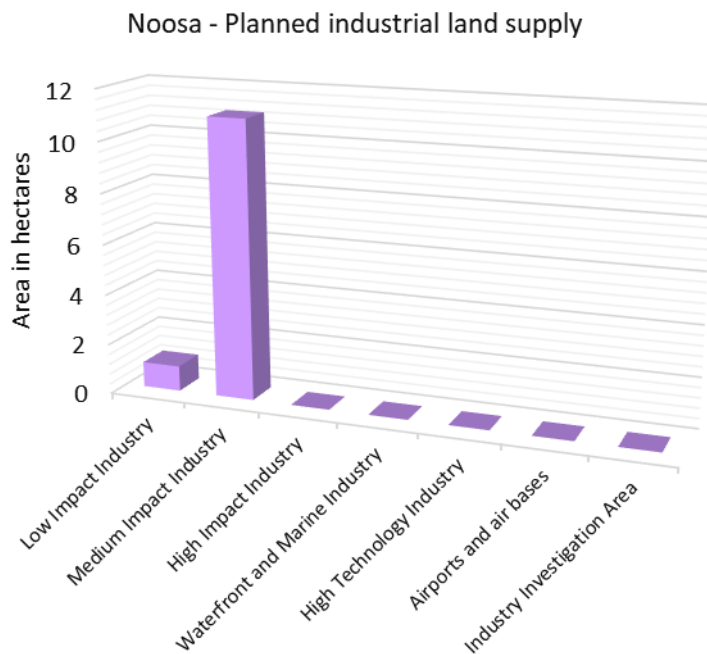
Planned industrial land supply/take-up – Noosa

About eight hectares of developed industrial land was taken-up in Noosa between 2011 and 2019. The take-up occurred on land intended for low and medium impact industry.

There were about 12 hectares of planned industrial land in Noosa as at 2019, including serviced and un-serviced land. This planned industrial land mostly comprised land intended for low and medium impact industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



12ha of developable land
8ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Noosa

The capacity and realistic availability of planned industrial employment supply in Noosa provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

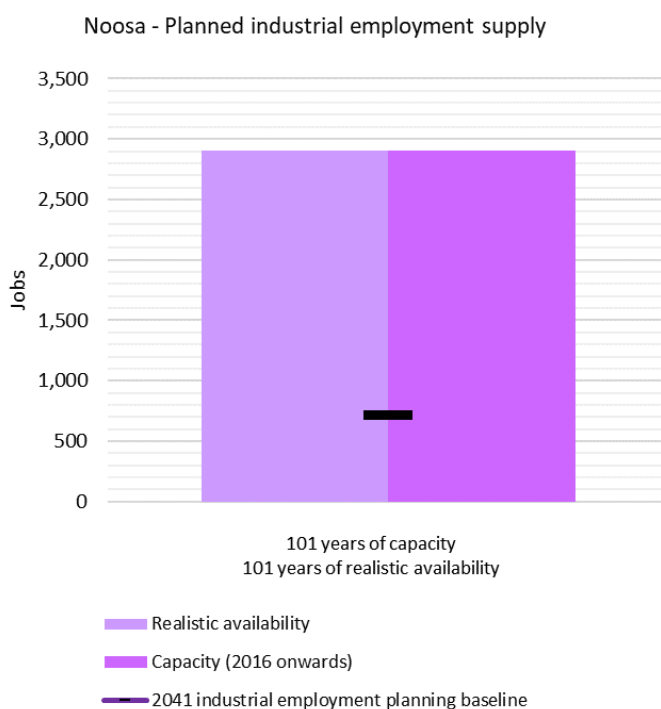
The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply in Noosa is about 2900 employees, representing 101 years of supply. The realistic availability of this supply is also 2900 employees. These are well above the 2041 industrial employment planning baseline of about 710 employees.

For more detail about the meaning and calculation of the capacity and realistic availability of planned industrial employment supply and years of supply measures, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned

industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Redland

Summary

ShapingSEQ 2017 establishes that Redland's expected population growth will require an additional 17,200 dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Redland consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about 2.6 years of supply of uncompleted lot approvals in Redland, which is below the minimum four years of supply sought by *ShapingSEQ 2017*. The high rate of lot creation up to 2017/18 contributed to a decline in the years of supply figure. In contrast, there are 7.6 years of supply of uncompleted multiple dwelling approvals in the Redland consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*.

Dwelling approvals have exceeded the average annual benchmark in the Redland consolidation area in recent years but have been below the benchmark since 2018/19. Dwelling approvals in the expansion area remain above the average annual benchmark.

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate that housing in Redland has become more diverse, however the proportion of approvals for houses in Redland has increased and the proportion of approvals middle has reduced in 2019/20. Dwelling density has increased, in accordance with SEQ's preferred future.

The capacity and realistic availability of planned industrial employment supply in Redland is less than the minimum 15 years of supply sought by *ShapingSEQ 2017*. Redland City Council is currently investigating the Southern Thornlands area, which is identified as a Potential Future Growth Area in *ShapingSEQ 2017*, to determine its potential as a future employment area, which may help address the shortfall in planned industrial employment supply.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Redland

Planned dwelling supply – Redland

The capacity and realistic availability of planned dwelling supply in the Redland consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

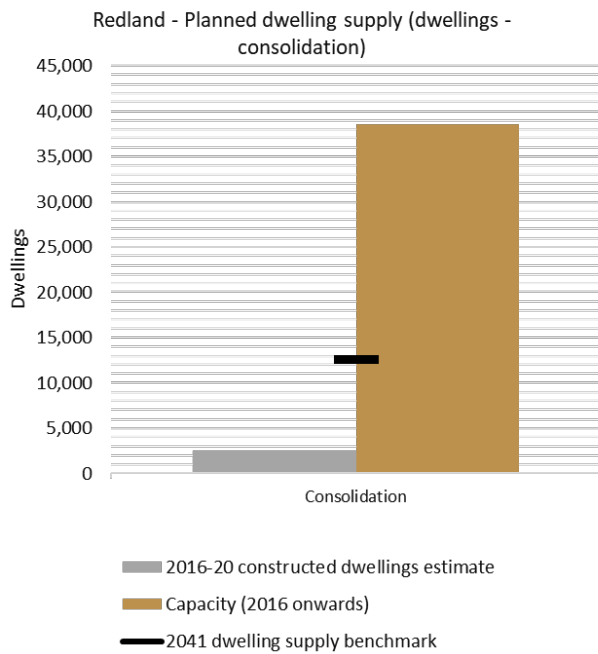
The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the Redland consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 38,500 dwellings, which is significantly above the consolidation 2041 dwelling supply benchmark of 12,500 dwellings.

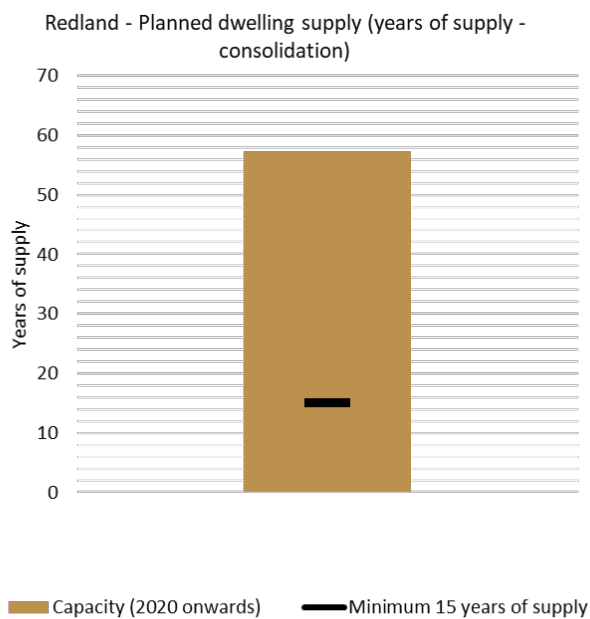
In the Redland expansion area, the capacity of planned dwelling supply is about 10,900 dwellings, while the realistic availability of this supply is about 9100 dwellings. These are greater than the expansion 2041 dwelling supply benchmark of 4700 dwellings.

The realisation of the planned dwelling supply in the consolidation area would be supported by the provision of key region-shaping infrastructure as identified in *ShapingSEQ 2017* and the State Infrastructure Plan, including the Eastern Busway extension to Carindale and Capalaba (as busway or other priority corridor). It could also be supported by higher frequency rail services to Cleveland, subject to future investigation if sufficient dwelling densities are achieved in the corridor.

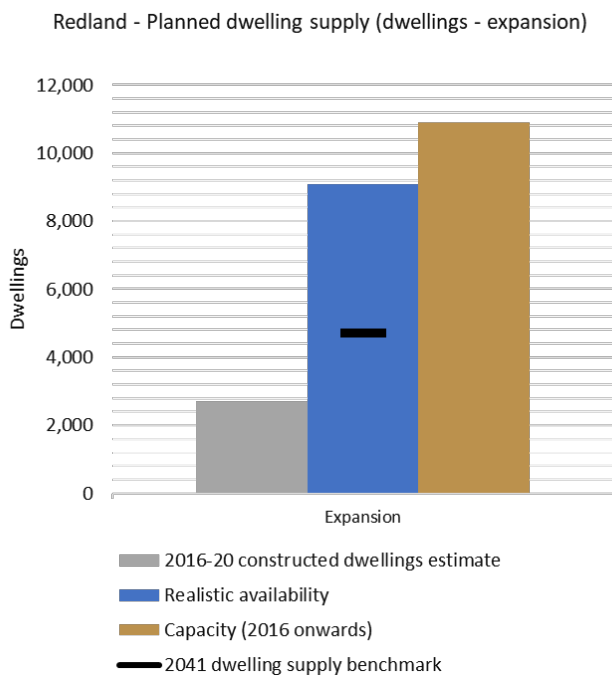
For more detail about the calculation of planned dwelling supply, including years of supply, see the [Technical notes](#).



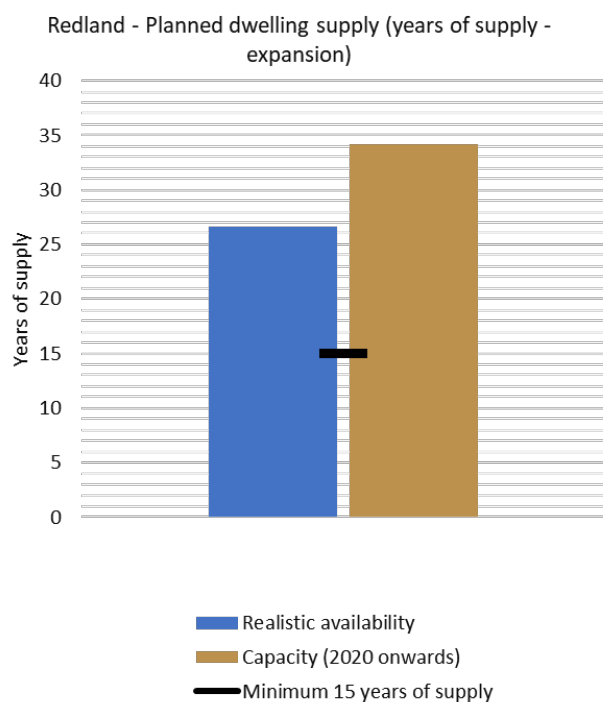
This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in consolidation areas.



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in consolidation areas.



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local

government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Redland

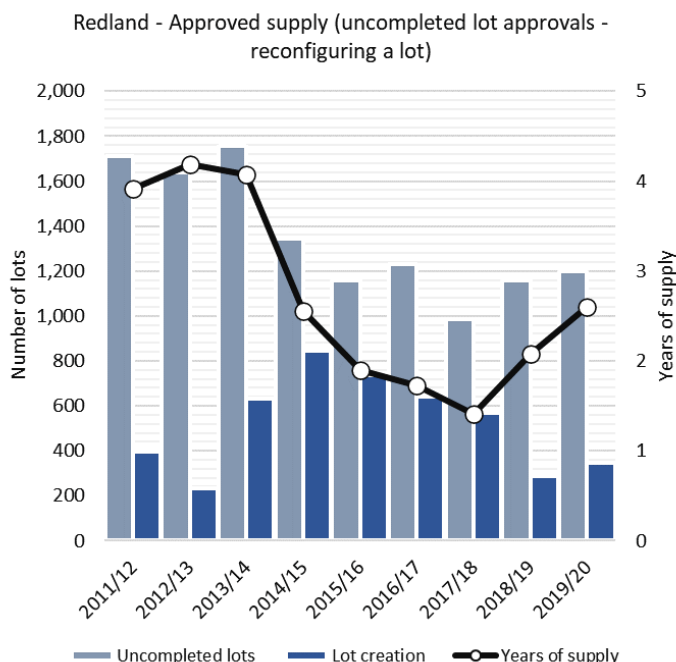
There are about 2.6 years of supply of uncompleted lot approvals in the Redland consolidation and expansion areas overall, which is below the minimum four years of supply sought by *ShapingSEQ 2017*.

In 2018/19 and 2019/20 there was an increase in the years of supply, reversing the previous downward trend from 2013/14 to 2017/18. The total number of current uncompleted lot approvals for 2019/20 was 1197. Of the uncompleted lots, approximately 33 per cent have operational works approvals for the 2019/20 period.

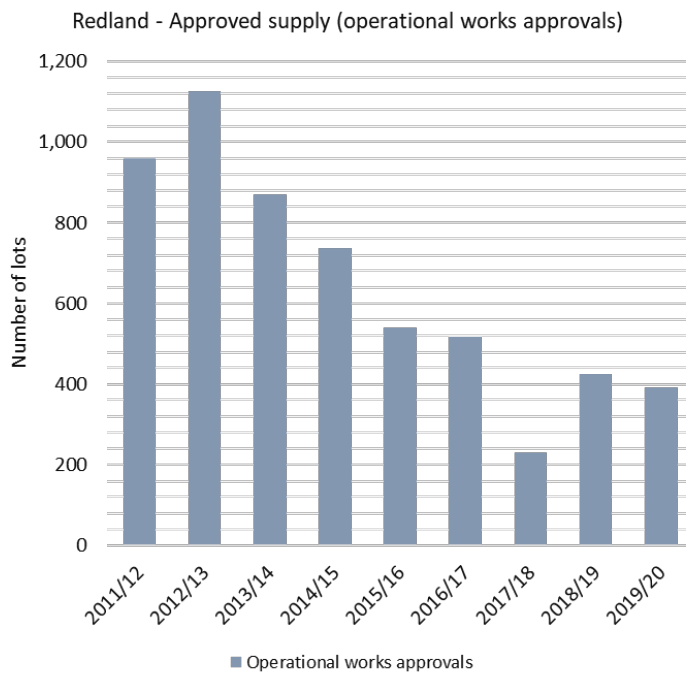
In contrast, Redland has about 7.6 years of supply of uncompleted multiple dwelling approvals in the consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*.

The number of uncompleted multiple dwelling approvals fell slightly from June 2019 to June 2020, but the years of supply has increased because the fall in the rate of attached dwelling approvals, decreasing the assumed level of demand in the years of supply calculation.

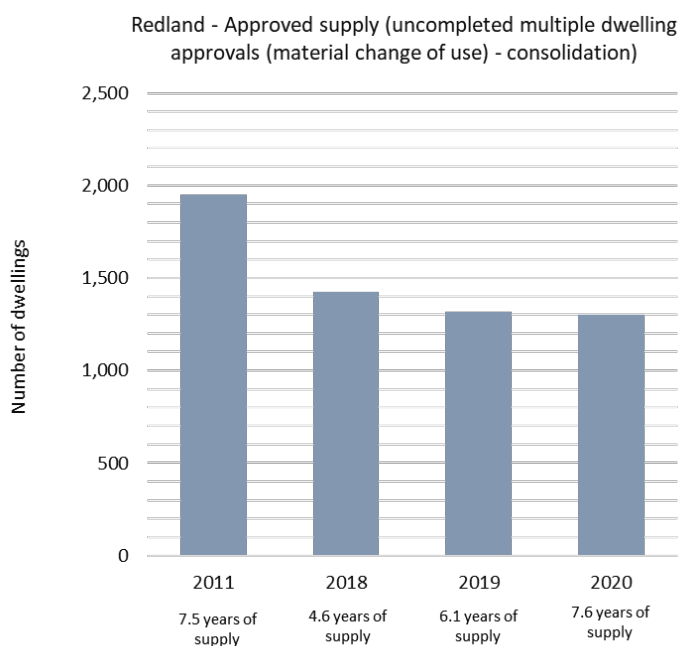
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years. The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Redland

In the Redland consolidation area, dwelling approvals (used to measure dwelling growth) have declined below the benchmark in 2018/19 and 2019/20. In the Redland expansion area, dwelling approvals exceeded the expansion average annual benchmark despite declining in 2018/19 and 2019/20.

This trend and resulting impacts will be closely monitored in future reporting.

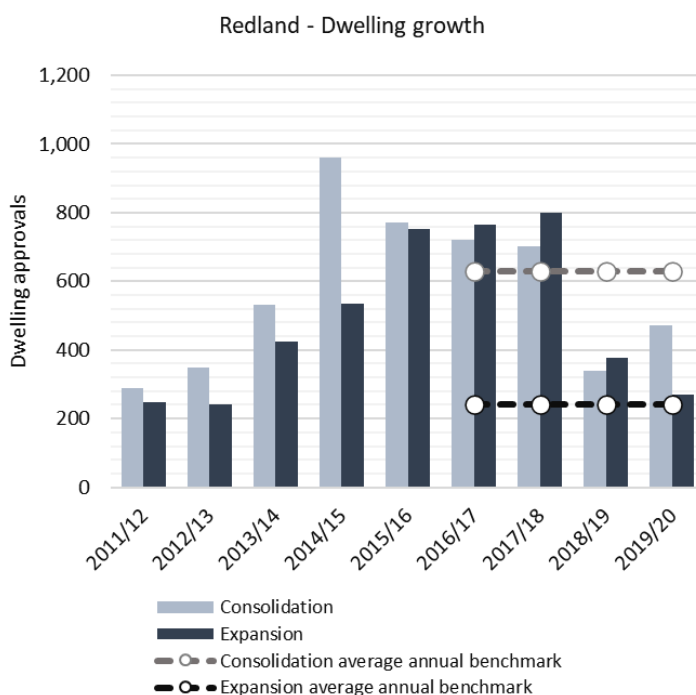
There were 473 dwelling approvals in the Redland consolidation area in 2019/20, which was 155 dwellings less than the consolidation average annual benchmark of 628 additional dwellings. There were 271 dwelling approvals in the Redland expansion area in 2019/20, which was 31 dwellings more than the expansion average annual benchmark of 240 additional dwellings.

Approximately 50 per cent of dwelling approvals for 2016/17 to 2019/20 were in the Redland consolidation area, which was less than its expected share of 72 per cent. Approximately 50 per cent of dwelling approvals were in Redland’s expansion area over the same period, which is more than its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017* (28 per cent).

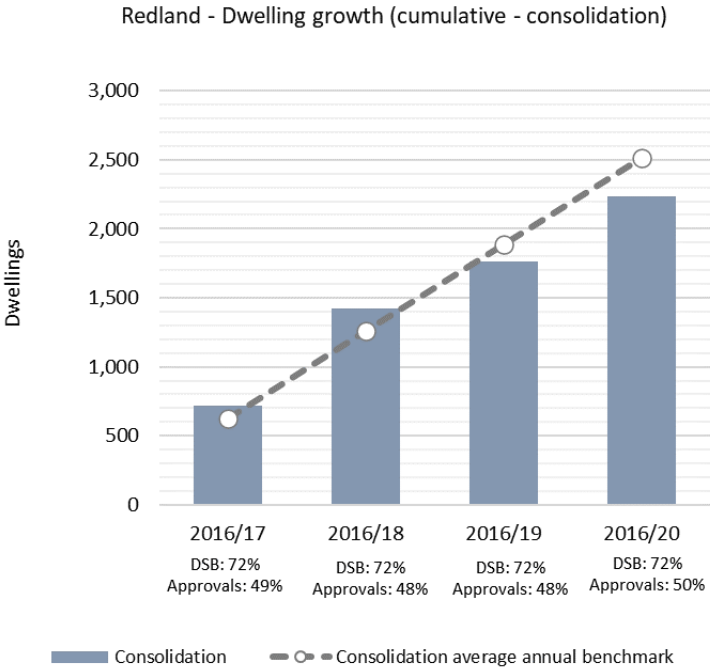
As the actual number of approvals between 2016/17 to 2019/20 in the expansion area is above the average annual benchmarks, Redland is on track to be able to accommodate the expansion 2041 dwelling supply benchmark.

The data shows a growing gap between dwelling growth figures and the average annual *ShapingSEQ 2017* benchmark in the consolidation area, which may lead to a challenge in accommodating the 2041 dwelling supply benchmark in the consolidation area. Dwelling growth in the consolidation area would be supported by the provision of key region-shaping infrastructure, as identified in *ShapingSEQ 2017* and the State Infrastructure Plan, including the Eastern Busway extension to Carindale and Capalaba (as busway or other priority corridor).

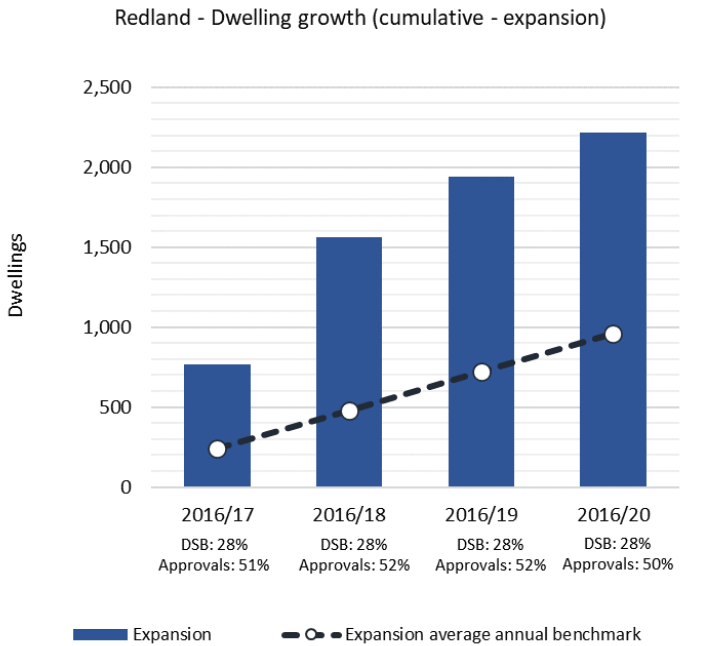
For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017*'s average annual benchmarks.



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017*'s consolidation average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area

in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

Changes in dwelling density – Redland

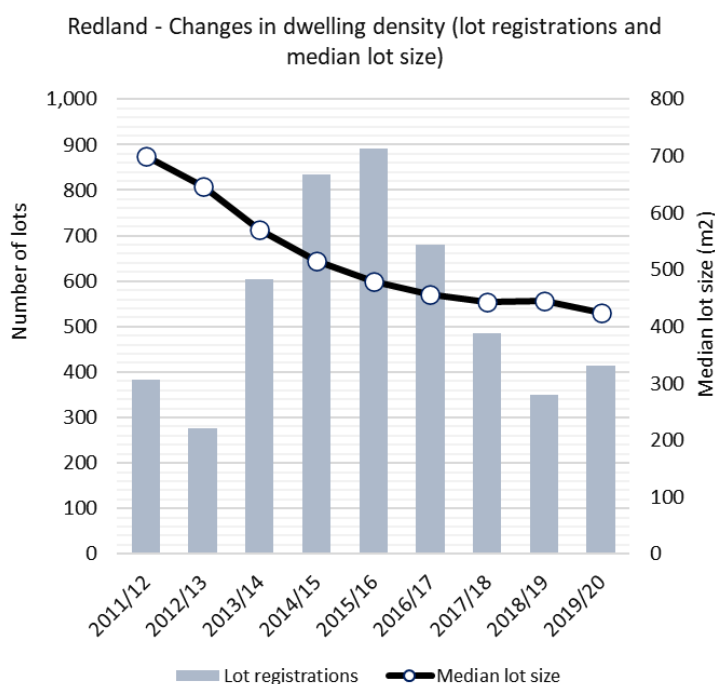
Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) is increasing in Redland in accordance with SEQ’s preferred future for higher dwelling densities and smaller lots.

Mean population-weighted dwelling density in Redland increased between 2011 and 2016, from 8.9 to 9.2 dwellings per hectare. This represents the average dwelling density at which the population of Redland lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density slightly increased from 9.5 to 9.8 dwellings per hectare.

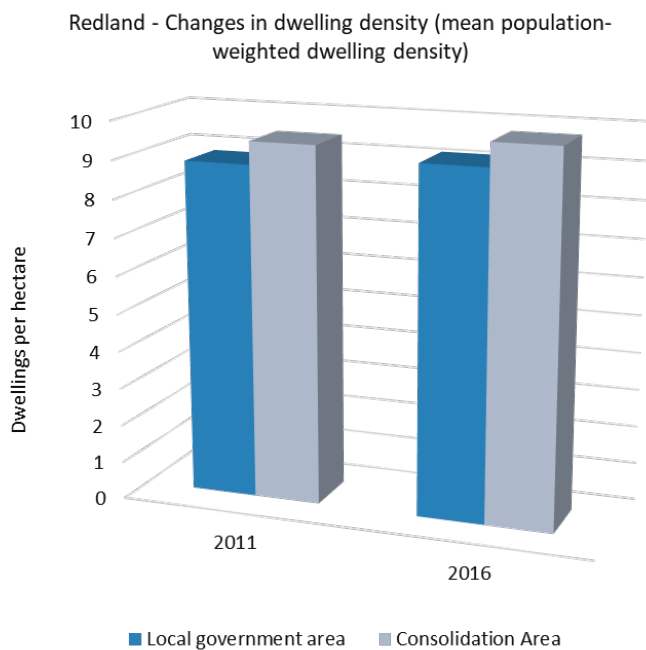
The median size of new lots in Redland significantly decreased from 700m² to 425m² from 2011/12 to 2019/20. This was associated with a significant upward trend in the volume of lot registrations to 2015/16, which has since declined.

This measure is indicative of increased dwelling densities in new urban subdivisions across the Redland area.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Redland

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals in Redland indicate an increase in housing diversity.

However, dwelling approvals for 2019/20 indicate an increase in the proportion of house approvals in Redland and reduction in the proportion of middle approvals

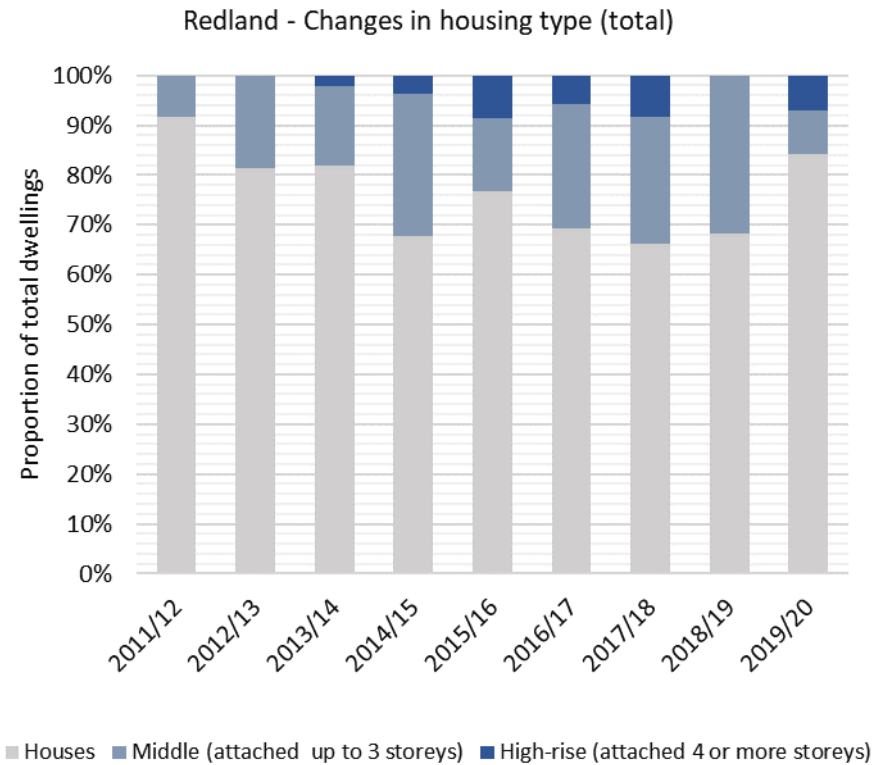
Seventy-one per cent (3141 dwellings) of all new dwelling approvals in Redland for 2016/17 to 2019/20 were for houses, which was less than for the existing dwelling stock (85 per cent as at the 2016 Census). Dwelling approvals for middle (about 24 per cent or 1043 dwellings) and high-rise (six per cent or 263 dwellings) over the same period were higher than their share of the dwelling stock as at the 2016 Census (middle 14 per cent, high-rise one per cent).

While the proportions of recent middle and high-rise approvals exceed the existing dwelling stock at the 2016 Census, houses remain the predominant housing type and the proportion of house approvals has increased from 2017/18.

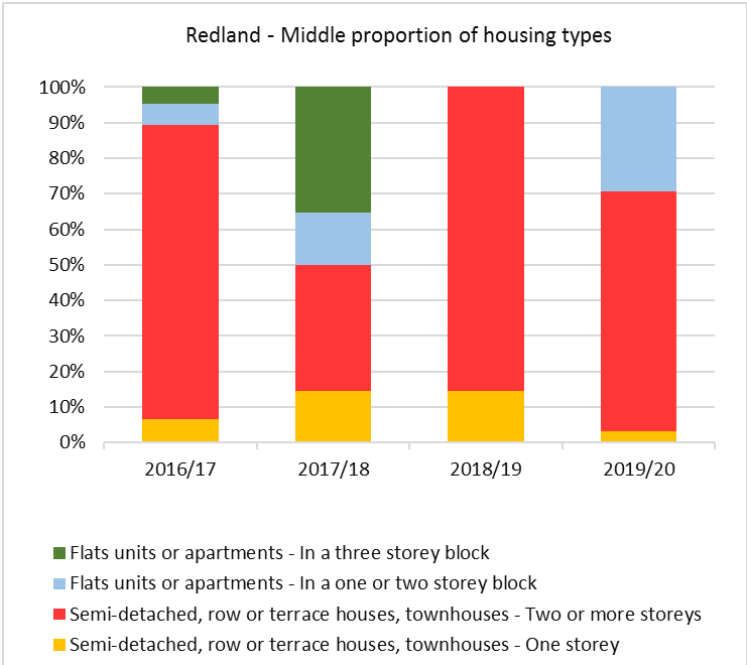
Of middle dwelling approvals since 2016/17, the predominant middle housing type approved in Redland is semi-detached, row or terrace houses and townhouses of two or more storeys (74 per cent or 772 dwellings).

Forty-three per cent (449 dwellings) of middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and 57 per cent (594 dwellings) were located within the expansion area for the same period.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of ‘missing middle’ in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Redland

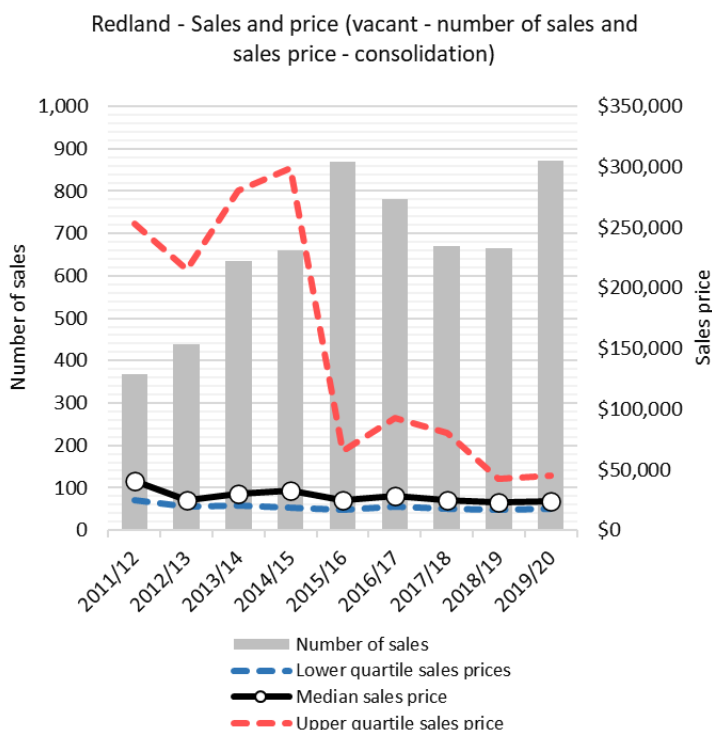
The number of sales has increased from 2018/19 to 2019/20 for all categories in Redland except for vacant lots and attached dwellings in the expansion area and houses and house-land packages in the consolidation area, which decreased.

The median sales price for all categories in the expansion area is higher in Redland than for South East Queensland (SEQ). Conversely, the median sales price for all categories in the consolidation area is lower in Redland than for SEQ except for house-land packages.

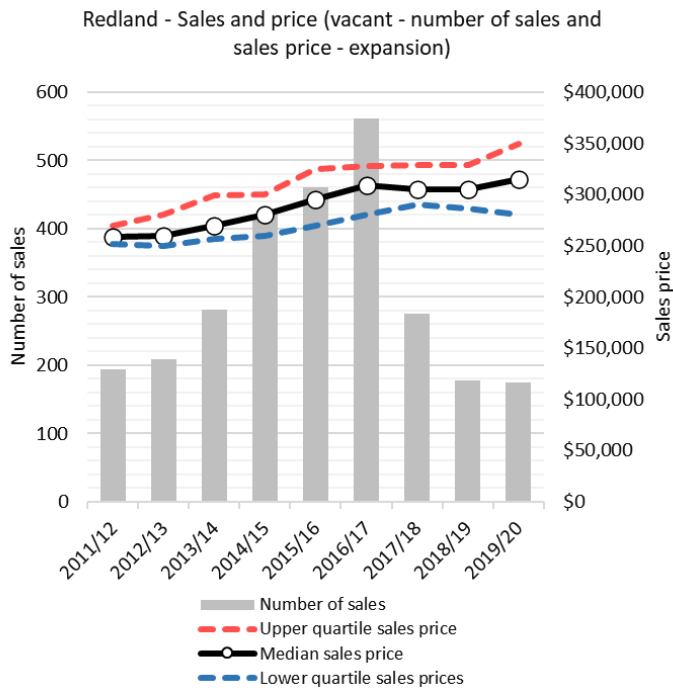
The rate of median sales price growth in Redland was lower than or similar to SEQ as whole between 2011/12 and 2019/20 for all categories except vacant lots per square metre in the expansion area.

The rate of median price growth from 2011/12 to 2019/20 was higher in the consolidation area than the expansion area for all categories except vacant land (per lot and per square metre). The median sales price for vacant lots in the consolidation area decreased by 42 per cent per lot and 40.6 per cent per square metre. The relatively low median sales price for vacant lots in the consolidation area (\$24,000) is due to the substantial supply of vacant lots on the Southern Moreton Bay Islands.

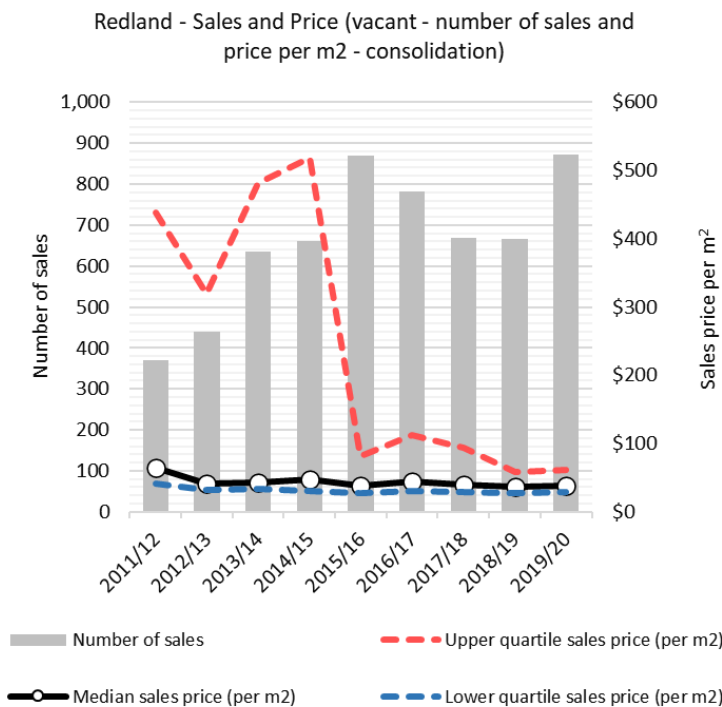
For more detail about the median sales price and number of sales, see the [Technical notes](#).



This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.

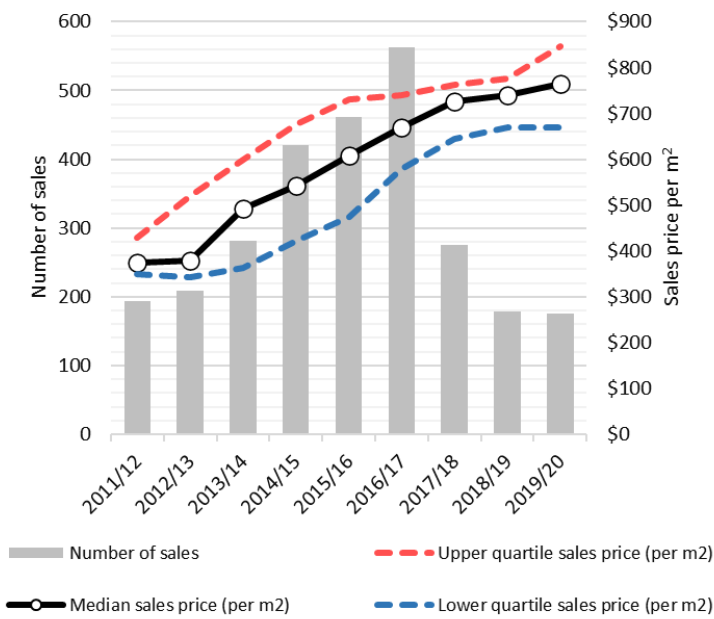


This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.



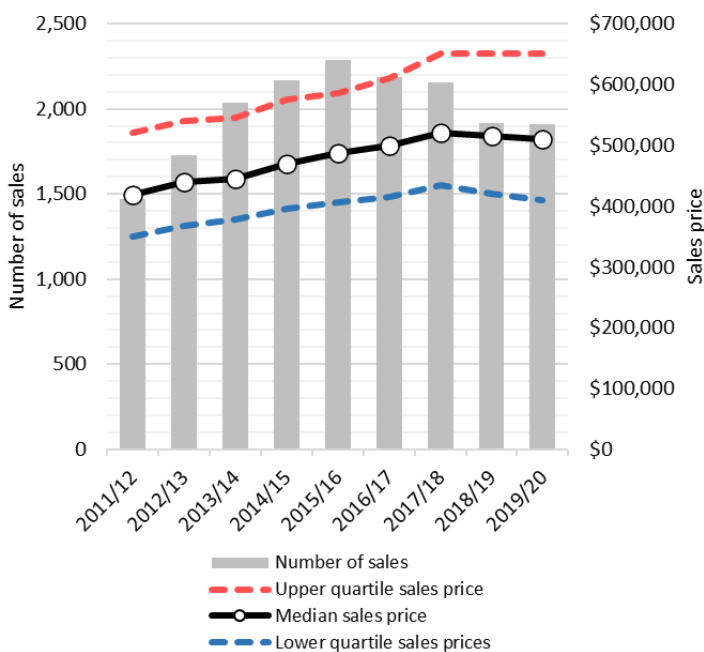
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.

Redland - Sales and price (vacant - number of sales and price per m2 - expansion)

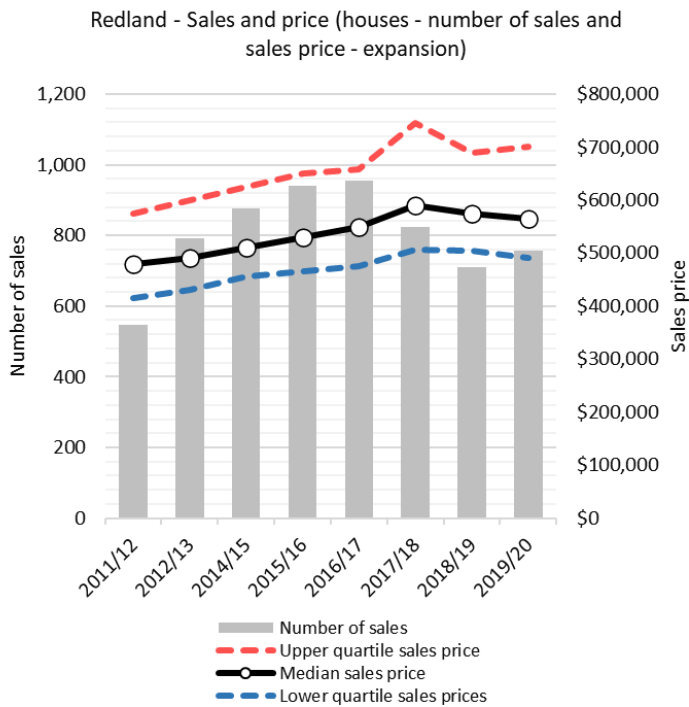


This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

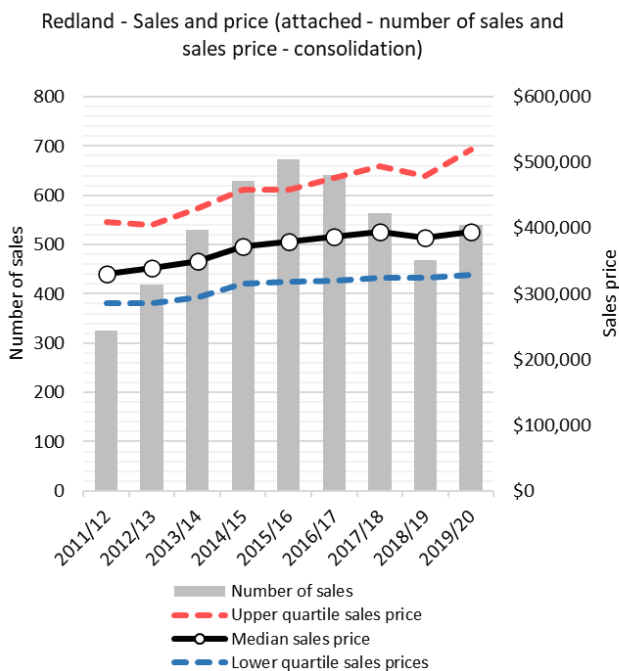
Redland - Sales and price (houses - number of sales and sales median price - consolidation)



This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.

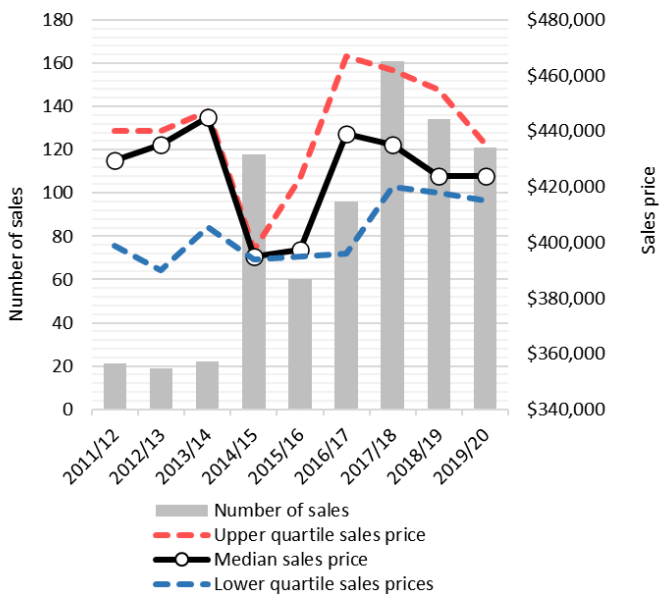


This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.



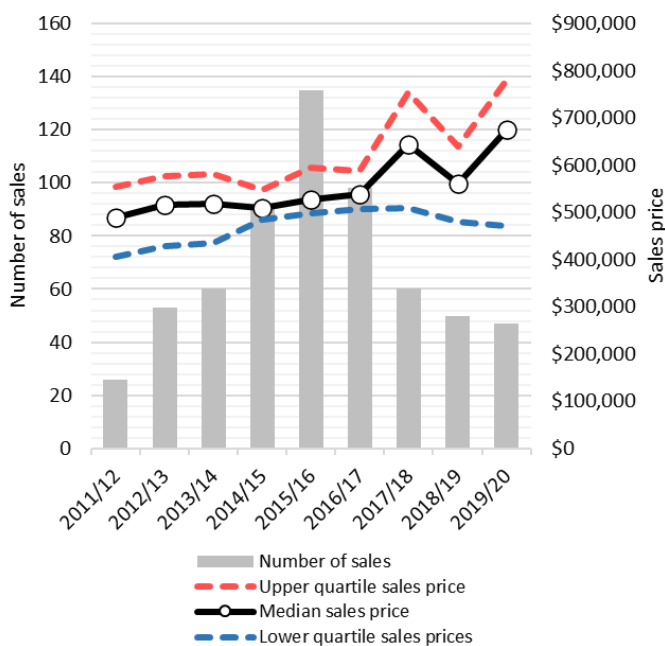
This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.

Redland - Sales and price (attached - number of sales and sales price - expansion)

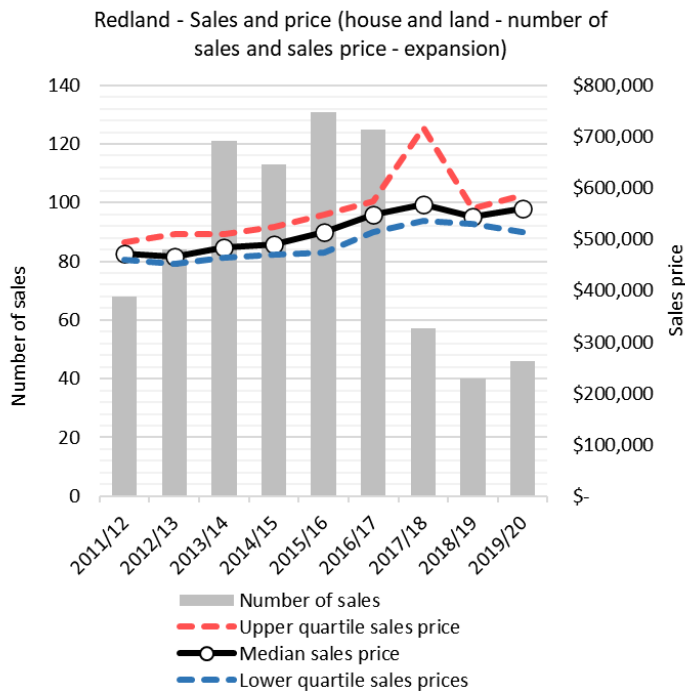


This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.

Redland - Sales and price (house and land - number of sales and sales price - consolidation)



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Industrial – Redland

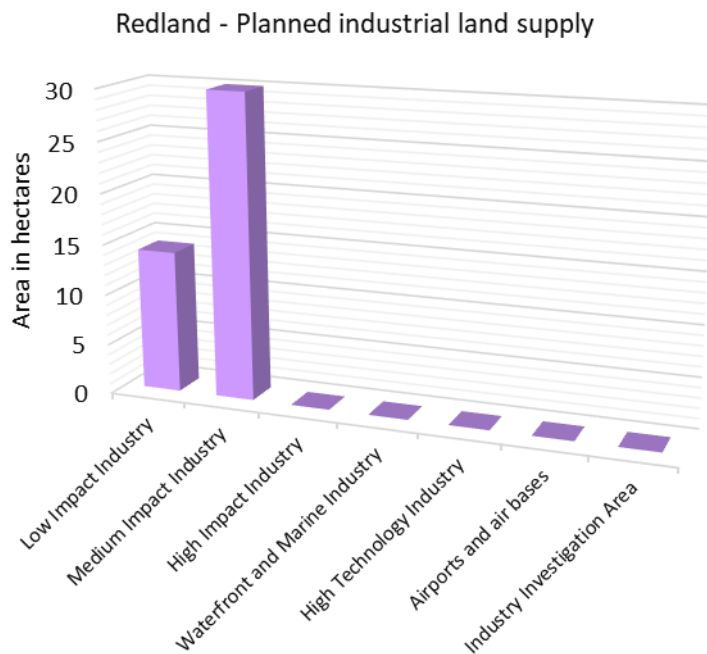
Planned industrial land supply/take-up – Redland

About six hectares of developed industrial land was taken-up in Redland between 2011 and 2019. The take-up occurred on land intended for low and medium impact industry.

There were about 44 hectares of planned industrial land in Redland as at 2019, including serviced and un-serviced land. This planned industrial land mostly comprised land intended for low and medium impact industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



44ha of developable land
6ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Redland

The capacity and realistic availability of planned industrial employment supply in Redland is less than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

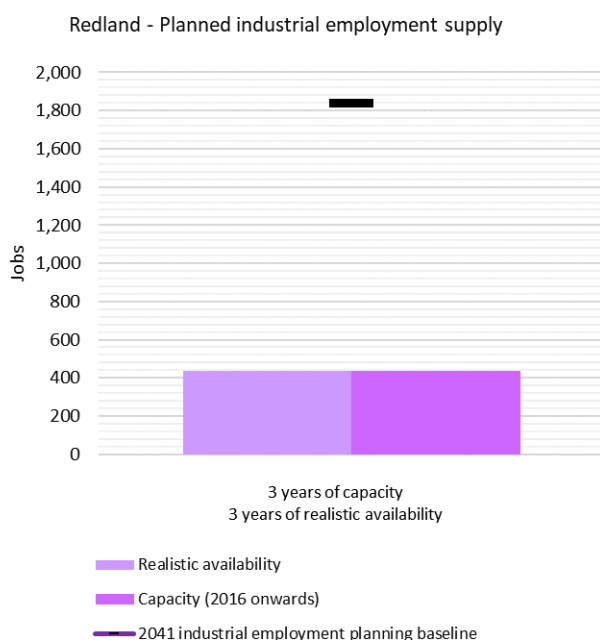
The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

Both the capacity and realistic availability of planned industrial employment supply is about 440 employees, representing less than the minimum 15 years of supply sought by *ShapingSEQ 2017*. These figures are approximately 1400 employees less than the 2041 industrial employment planning baseline of about 1840 employees.

Land within the Southern Thornlands area in Redland City (outside the *ShapingSEQ 2017* Urban Footprint) has been identified as a Potential Future Growth Area by *ShapingSEQ 2017*. Redland City Council is currently investigating preferred land uses in this area and a possible amendment to their planning scheme. The outcomes of these investigations were provided to the Minister for Planning on 25 September 2020, following a ministerial direction issued on 23 June 2020. Any planning scheme changes could help to address the shortfall in the planned industrial employment supply. Where amendments proceed, and data sources are updated, their effect on industrial employment supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned industrial employment supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Scenic Rim

Summary

ShapingSEQ 2017 establishes Scenic Rim's expected population growth will require 10,000 additional dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity of planned dwelling supply in the Scenic Rim expansion area provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about 21 years of supply of uncompleted lot approvals in the Scenic Rim, which exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

Dwelling approvals in the Scenic Rim have been consistently below the expansion area average annual benchmark (there is no consolidation area in the Scenic Rim) and have continued to decline since 2016/17. Dwelling growth in the Scenic Rim may increase as the availability of local employment opportunities, e.g. at the Bromelton State Development Area, and the availability of services increases.

Housing in the Scenic Rim is becoming more diverse in accordance with SEQ's preferred future but is predominantly houses in urban and rural residential environments. Dwelling density has not changed significantly, contrary to SEQ's preferred future.

The capacity and realistic availability of planned industrial employment supply in the Scenic Rim provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017* and exceed the 2041 industrial employment planning baseline.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

Note: The local government areas of Lockyer Valley, Scenic Rim and Somerset do not have a consolidation area.

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2020.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Scenic Rim

Planned dwelling supply – Scenic Rim

The capacity of planned dwelling supply in Scenic Rim, which is wholly within the expansion area, provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

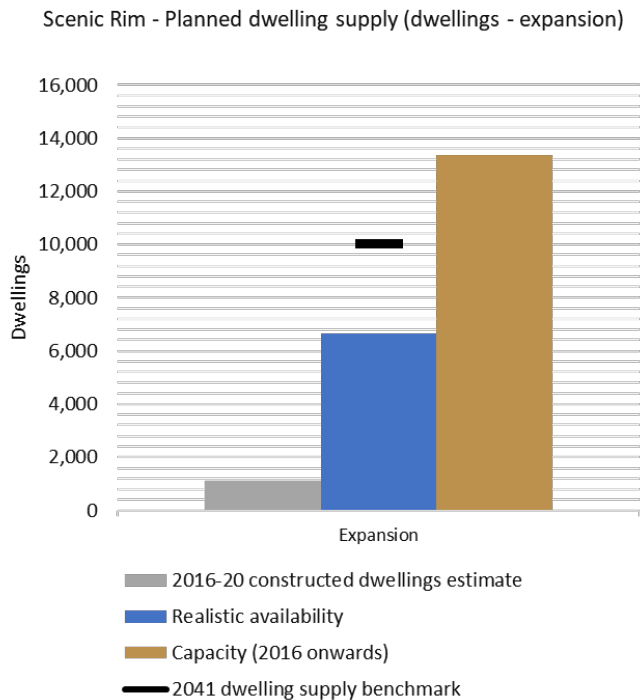
The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned dwelling supply in Scenic Rim, from 2016 onwards, is about 13,350 dwellings, which is 3350 dwellings more than the expansion 2041 dwelling supply benchmark of 10,000 dwellings and equates to about 28 years of supply. The realistic availability of this supply is 6660 dwellings, which equates to about 12 years of supply and is below *ShapingSEQ 2017* 15 years of supply policy objective.

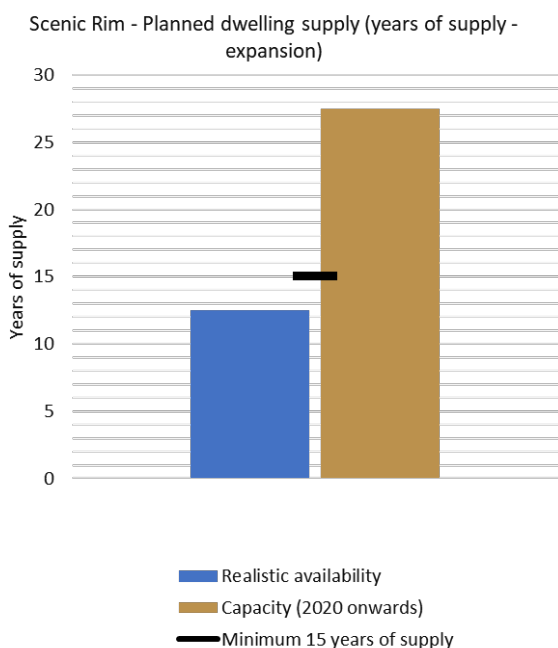
The new Scenic Rim Planning Scheme 2020 commenced 20 March 2020 and may affect planned dwelling supply. Where source data is updated, the effect of the new planning scheme on planned dwelling supply will be included in future years of LSDM Reporting.

In July 2020, Council commenced the Scenic Rim Growth Management Strategy. Ultimately the outcomes of this work will update Council's growth management policy position and may include recommendations to update existing policies, such as a planning scheme amendment. Where amendments proceed, and source data is updated, their effect on planned dwelling supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned dwelling supply, including years of supply, see the [Technical notes](#).



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local

government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

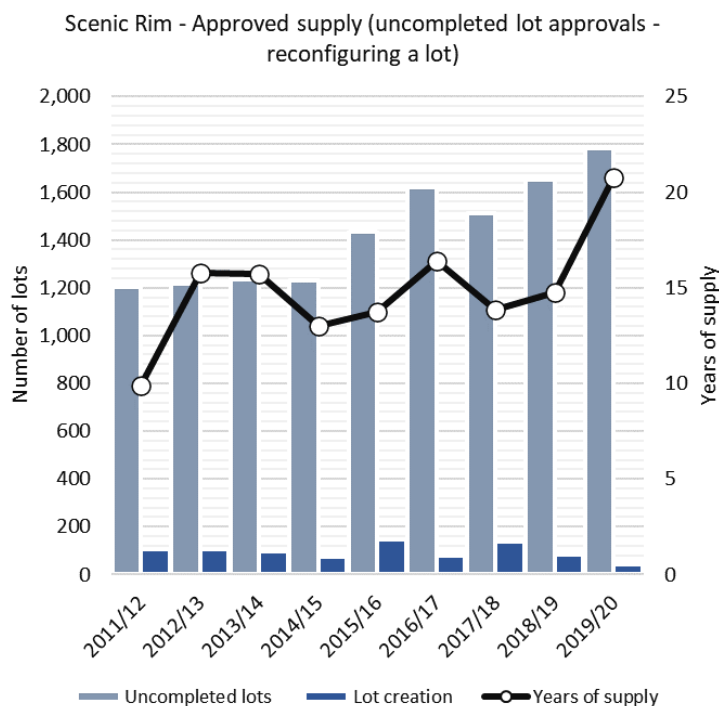
Approved supply – Scenic Rim

Scenic Rim has about 21 years of supply of uncompleted lot approvals. This is well above the minimum four years of supply sought by *ShapingSEQ 2017*.

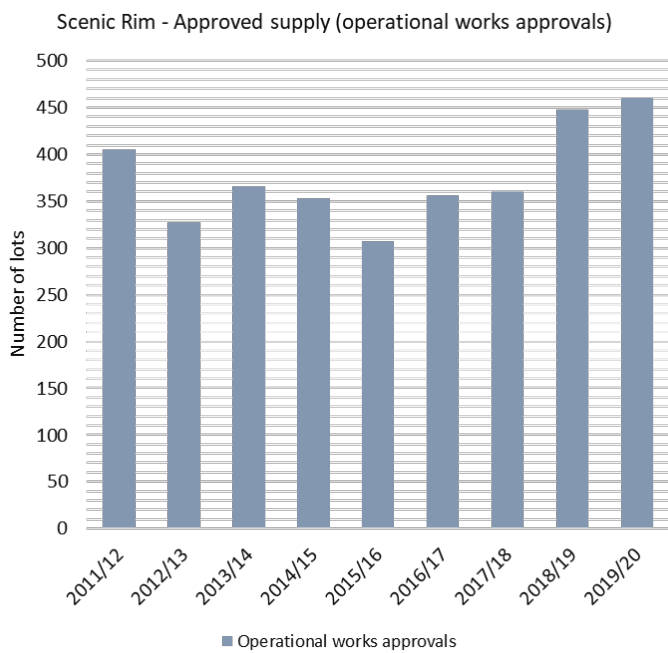
The total number of uncompleted lot approvals and the rate of lot creation have remained relatively stable from 2011/12, with the uncompleted lot approvals increasing to a historical high of 1783 in 2019/20. Of the uncompleted lots, approximately 30 per cent have operational works approvals for the 2019/20 period.

There are no uncompleted multiple dwelling approvals to report for Scenic Rim because it has no consolidation area.

For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year, as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.

Note: The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Scenic Rim

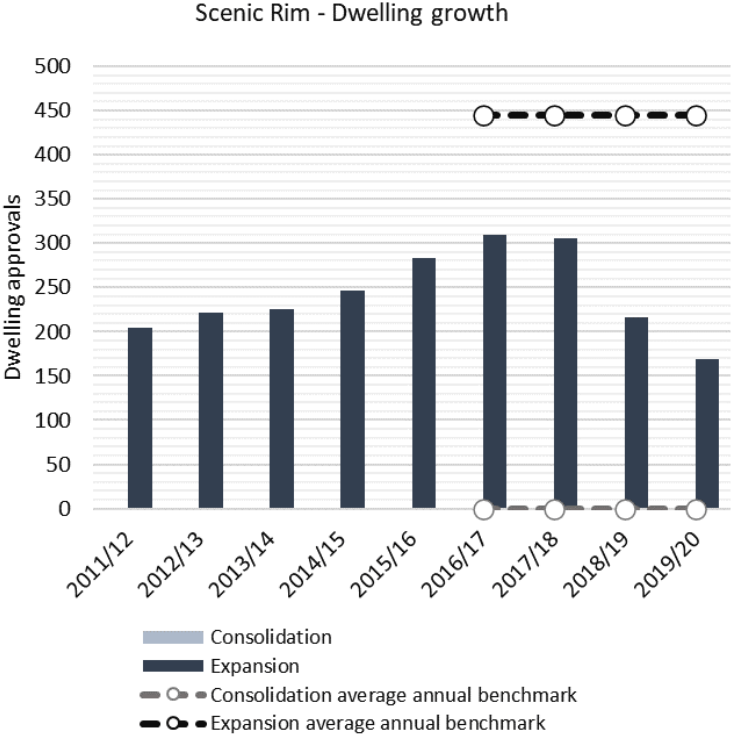
The expansion area applies to the whole of the Scenic Rim. Dwelling approvals (used to measure dwelling growth) in Scenic Rim have been consistently below the expansion average annual benchmark.

There were 169 dwelling approvals in the Scenic Rim expansion area in 2019/20, which was about 276 dwellings less than the expansion average annual benchmark of 445 additional dwellings.

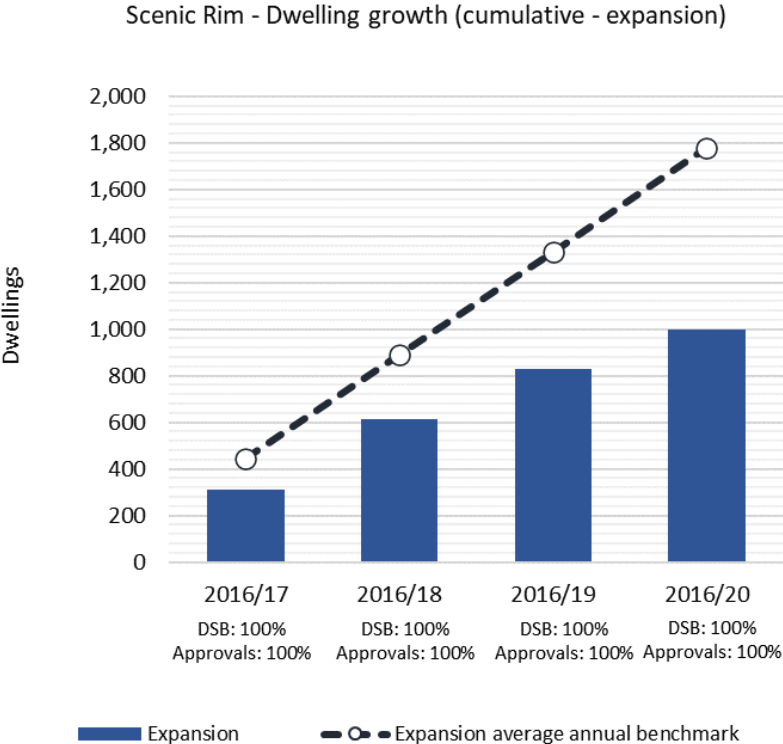
Scenic Rim has recently adopted a new planning scheme which may affect planned dwelling supply and help to address the growing gap between the annual average benchmarks and the dwelling growth data. In July 2020, Council commenced the Scenic Rim Growth Management Strategy. Ultimately the outcomes of this work will update Council's growth management policy position, and may include recommendations to update existing policies, such as a planning scheme amendment.

Dwelling growth in the Scenic Rim may increase as the availability of local employment opportunities, e.g. at the Bromelton State Development Area, and the availability of services increases.

For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017's* average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017's* consolidation average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This

adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

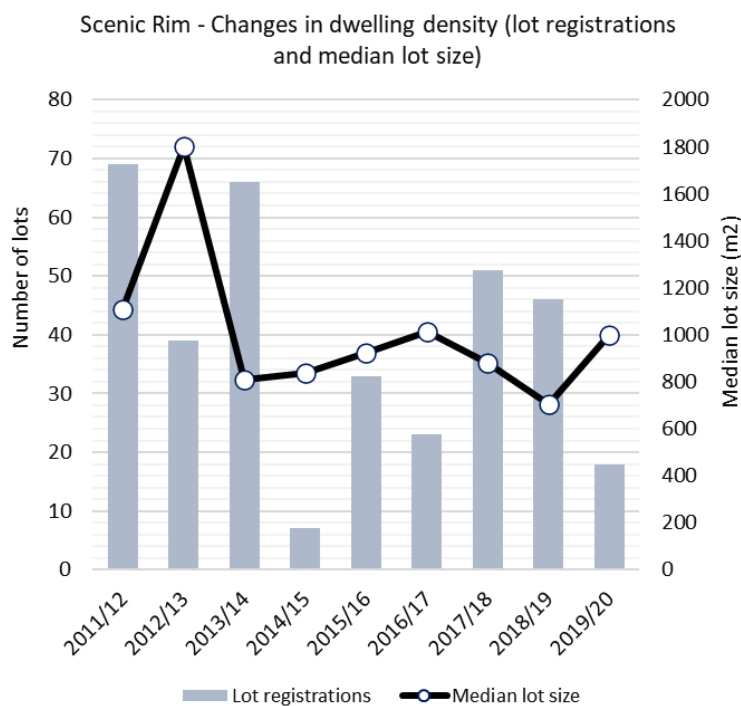
Changes in dwelling density – Scenic Rim

Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) has not changed significantly in Scenic Rim in recent years and has not contributed to SEQ’s preferred future for increased dwelling densities and smaller lot sizes.

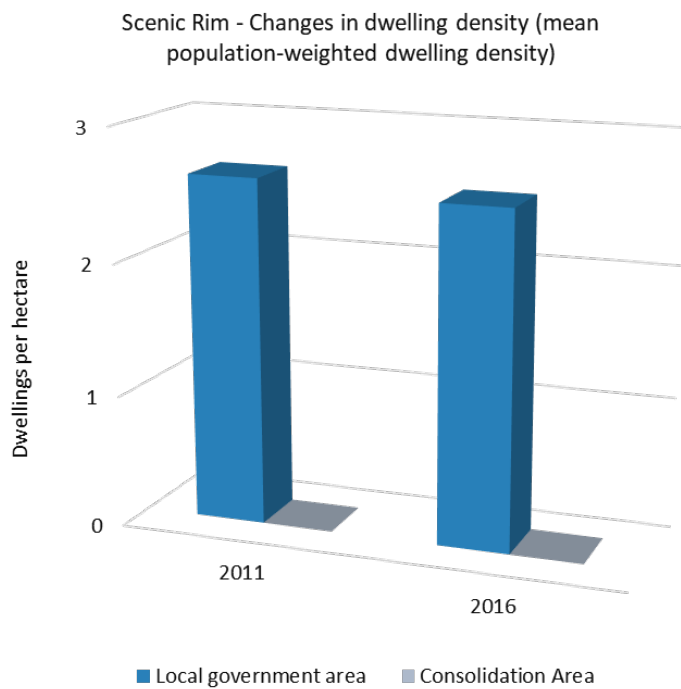
There was a minor decrease in mean population-weighted dwelling density in the Scenic Rim between 2011 and 2016, from 2.6 to 2.5 dwellings per hectare. This represents the average dwelling density at which the population of Scenic Rim lives and is comparable to the net residential density as used by *ShapingSEQ 2017*.

Consistent with other rural local governments, there have been significant fluctuations in median lot size in Scenic Rim. The median size of new lots has varied from about 700m² to 1800m² over the last nine years, from 2011/12 to 2019/20. This may be related to the small number of lot registrations in Scenic Rim over that period.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Scenic Rim

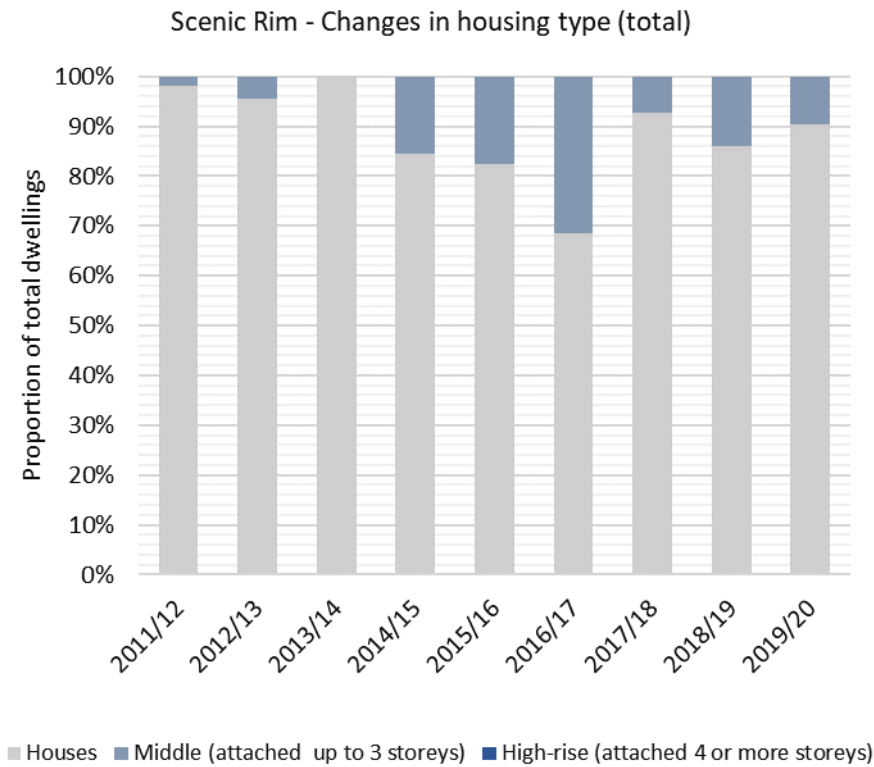
When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals indicate an increase in housing diversity in Scenic Rim, consistent with SEQ’s preferred future.

Eighty-four per cent (835 dwellings) of all new dwelling approvals in the Scenic Rim for 2016/17 to 2019/20 were for houses, which was a lower proportion than for existing dwelling stock as at the 2016 Census (95 per cent). The proportion of dwelling approvals for middle (about 17 per cent or 165 dwellings) exceeded existing dwelling stock as at the 2016 Census (middle six per cent).

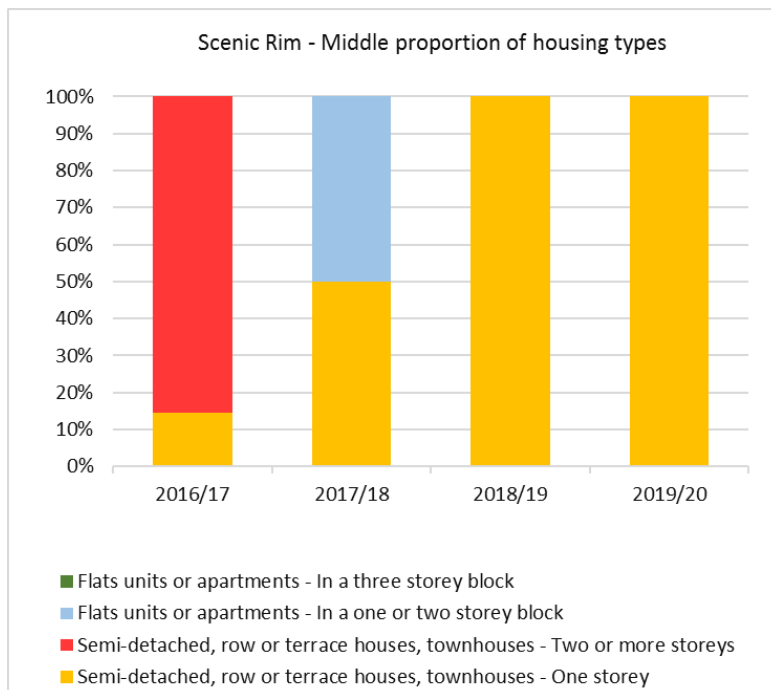
Of middle dwelling approvals since 2016/17, the predominant middle housing types approved in the Scenic Rim were semi-detached, row or terrace houses and townhouses of one storey (82 dwellings or about 50 per cent) and semi-detached, row or terrace houses and townhouses of two or more storeys (about 50 per cent or 83 dwellings).

All middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the expansion area as Scenic Rim does not have a consolidation area.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of 'missing middle' in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy,

auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Scenic Rim

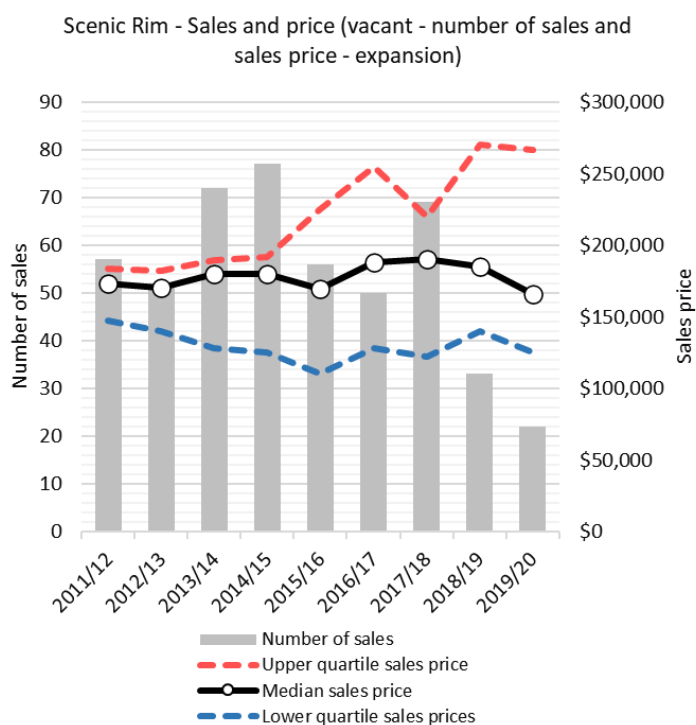
The number of sales has decreased from 2018/19 to 2019/20 for all categories in Scenic Rim except houses.

The low number of sales is typical for rural local government areas in South East Queensland (SEQ) and contributes to fluctuations in price from year to year.

The median sales price for all categories is lower in the Scenic Rim than SEQ as a whole. The rate of growth in median sales price from 2011/12 to 2019/20 is also lower than in SEQ as a whole for all categories with a reported median price.

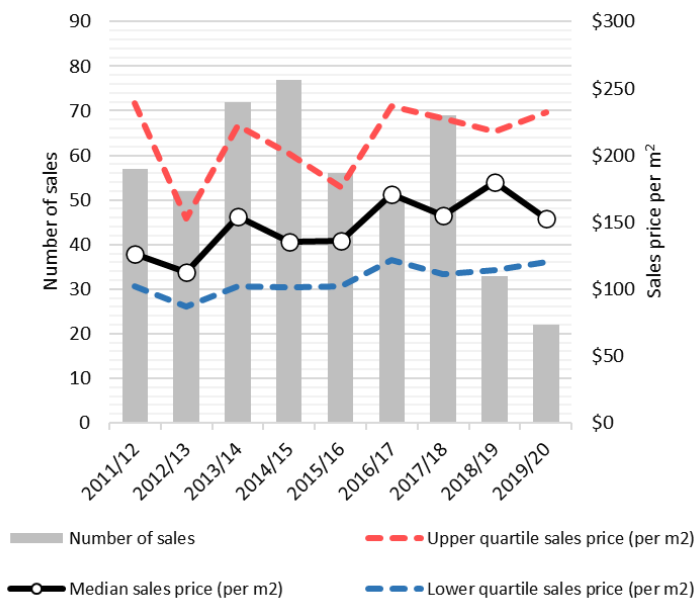
Sales prices and the number of sales have only been reported for the expansion area because no consolidation area is identified for Scenic Rim. Sales prices have also only been reported for years with 10 or more sales.

For more detail about the median sales price and number of sales, see the [Technical notes](#).



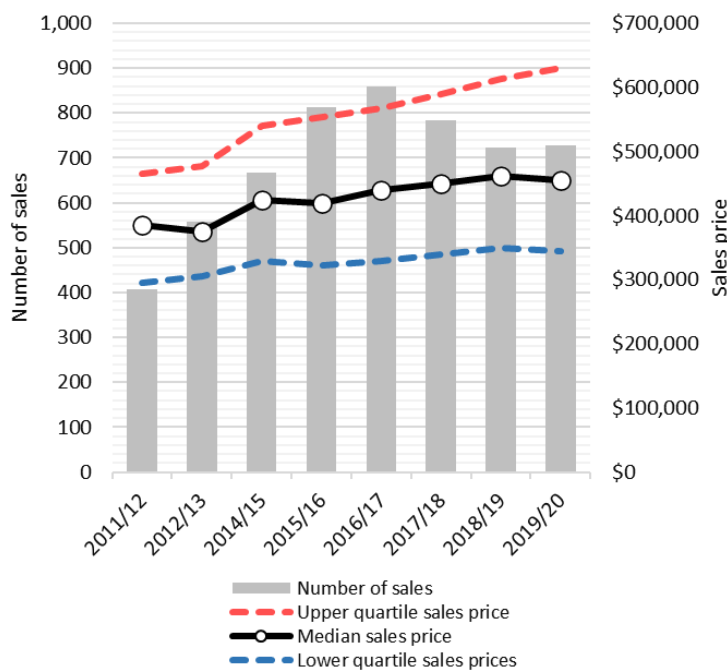
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.

Scenic Rim - Sales and price (vacant - number of sales and price per m2 - expansion)



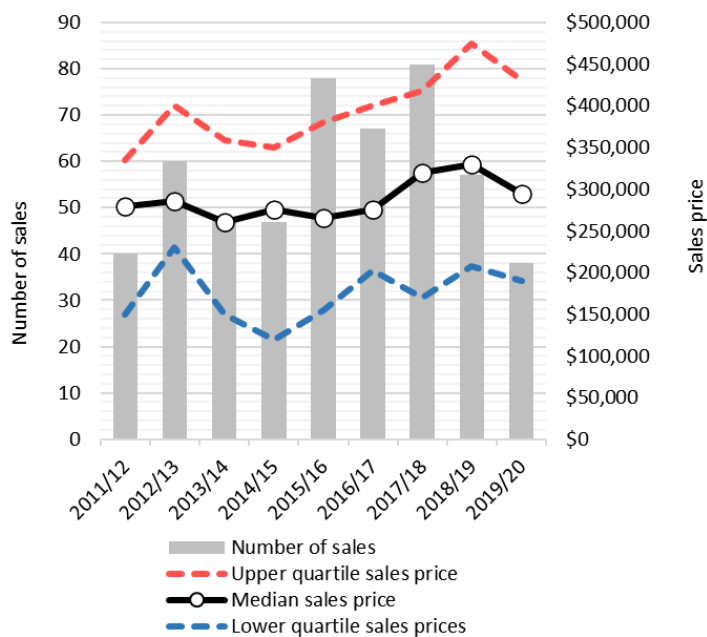
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

Scenic Rim - Sales and price (houses - number of sales and sales price - expansion)



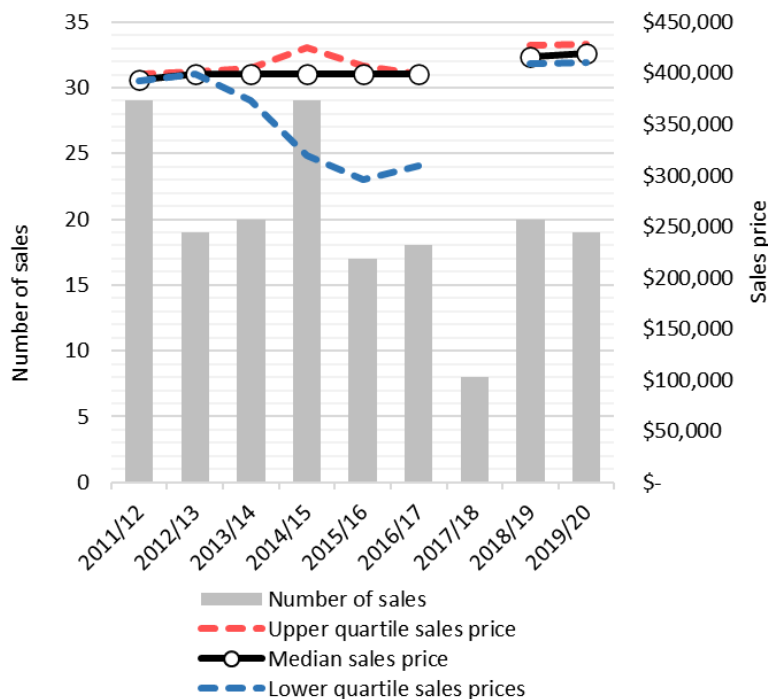
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.

Scenic Rim - Sales and price (attached - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.

Scenic Rim - Sales and price (house and land - number of sales and sales price - expansion)



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Note: Sales prices have also only been reported for years with 10 or more sales. For more details, see the [Technical notes](#).

Industrial – Scenic Rim

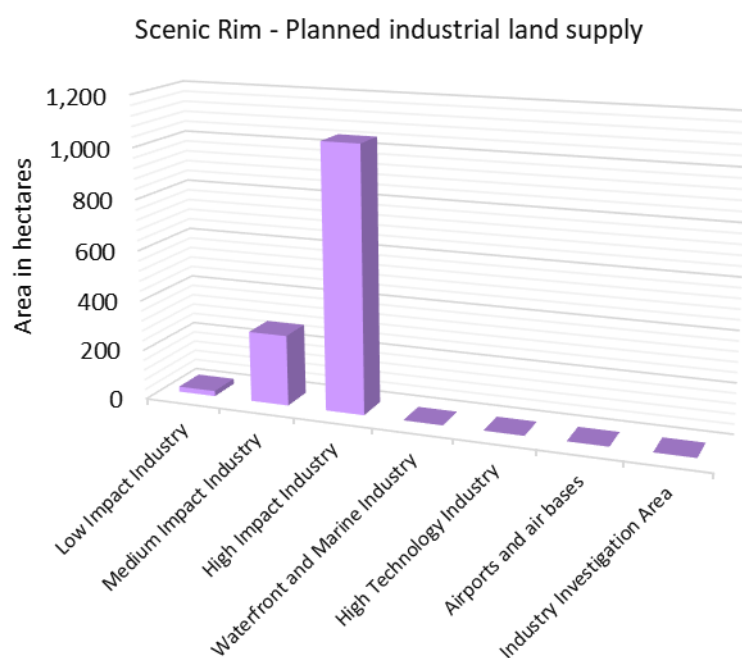
Planned industrial land supply/take-up – Scenic Rim

About 138 hectares of developed industrial land in Scenic Rim was taken up between 2011 and 2019. The take-up mostly occurred on land intended for high impact industry, followed by low and medium impact industry.

There were about 1351 hectares of planned industrial land in Scenic Rim as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for low, medium and high impact industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



1351ha of developable land
138ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated

differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Scenic Rim

The capacity and realistic availability of planned industrial employment supply in Scenic Rim provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

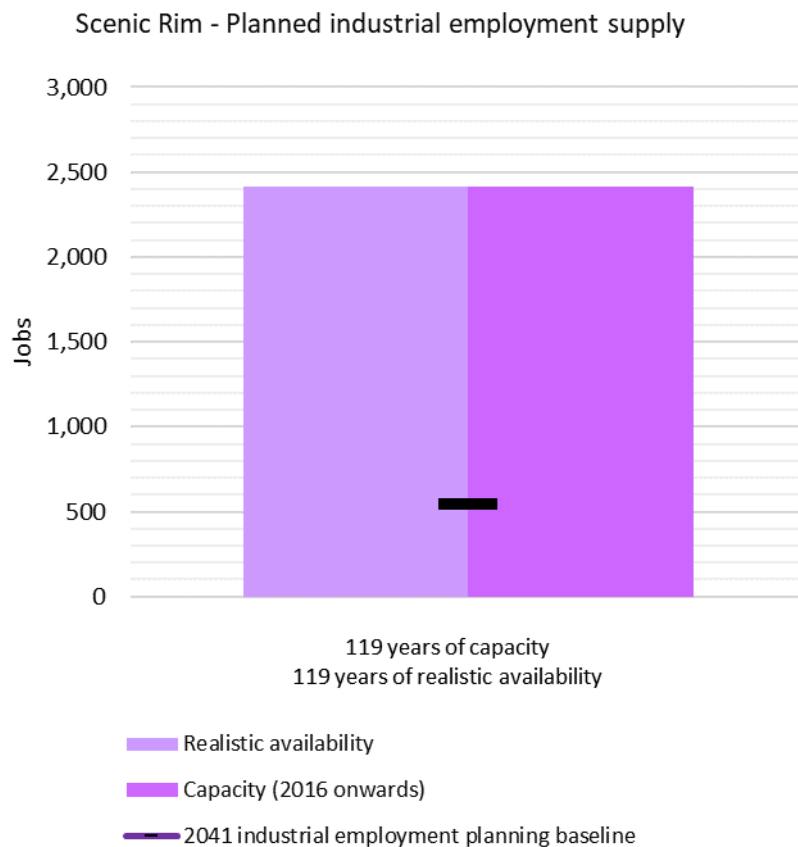
The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

Both the capacity and realistic availability of planned industrial employment supply in Scenic Rim is about 2400 employees. These figures are much greater than the 2041 industrial employment planning baseline of about 500 employees. A large proportion of this supply is provided at the Bromelton State Development Area. Some excess of planned industrial employment supply may be appropriate to facilitate strategic economic development opportunities when they arise. This need was recognised by the Best practice research in the 2018 LSDM Report. Also, as a large new growth area, the industrial employment planning baseline for Scenic Rim may not fully recognise the emerging employment potential of Bromelton.

For more detail about the calculation of planned industrial employment supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Somerset

Summary

ShapingSEQ 2017 establishes Somerset's expected population growth will require an additional 6200 dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Somerset expansion area provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about 60 years of supply of uncompleted lot approvals in Somerset, which far exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

Dwelling approvals in Somerset have consistently been below the expansion average annual benchmark (there is no consolidation area in Somerset) and have continued to decline since 2017/18. Dwelling growth in Somerset may increase as the availability of local employment opportunities and services increases.

Housing diversity in Somerset has not changed, contrary to SEQ's preferred future, however dwelling density is increasing in accordance with SEQ's preferred future.

The capacity and realistic availability of planned industrial employment supply in Somerset provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017* and exceeds the 2041 industrial employment planning baseline.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

Note: The local government areas of Lockyer Valley, Scenic Rim and Somerset do not have a consolidation area.

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Somerset

Planned dwelling supply – Somerset

The capacity and realistic availability of planned dwelling supply in Somerset, which is wholly within the expansion area, provides more than the 15 years of supply minimum sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

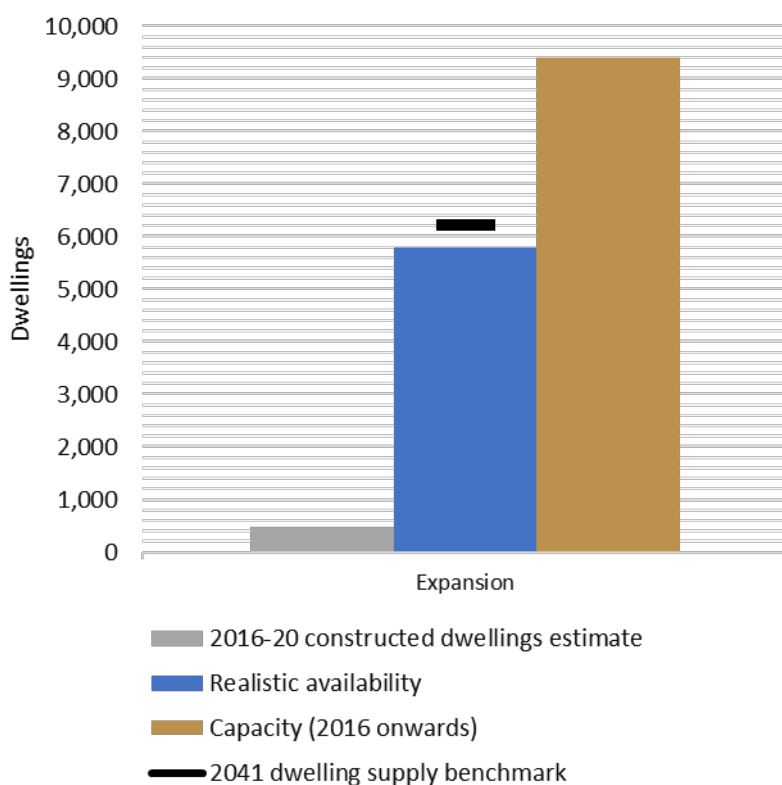
The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned dwelling supply in Somerset, from 2016 onwards, is about 9400 dwellings and exceeds the expansion 2041 dwelling supply benchmark of 6200 dwellings. The realistic availability of this supply is 5780 dwellings, which equates to about 19 years of supply and is above *ShapingSEQ 2017's* 15 years of supply policy objective.

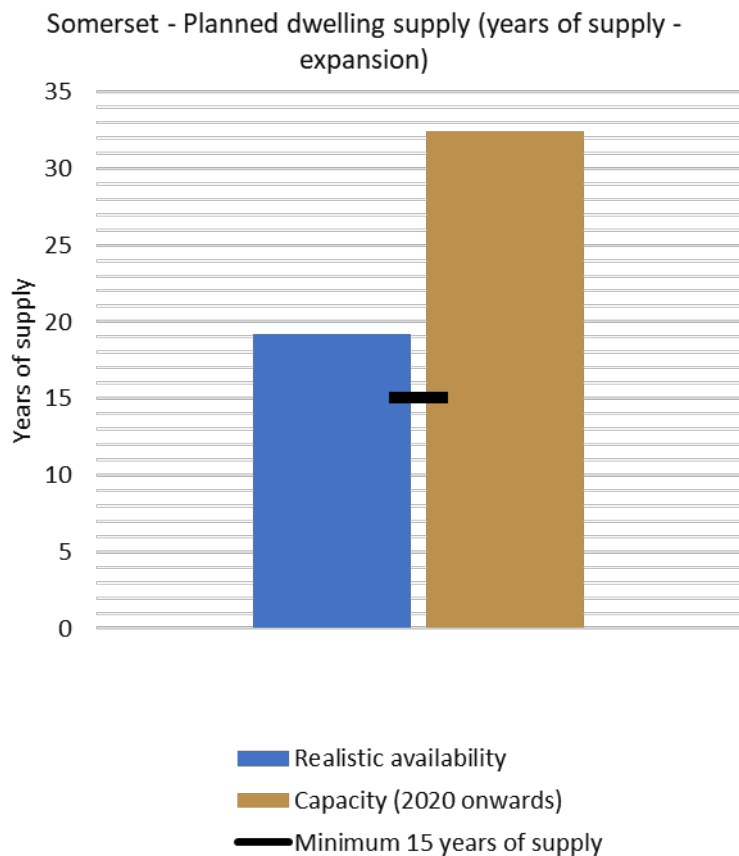
Somerset Regional Council is preparing a planning scheme amendment which is expected to increase planned dwelling supply. Where the scheme proceeds, and source data is updated, its effect on planned dwelling supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned dwelling supply, including years of supply, see the [Technical notes](#).

Somerset - Planned dwelling supply (dwellings - expansion)



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017's* dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Somerset

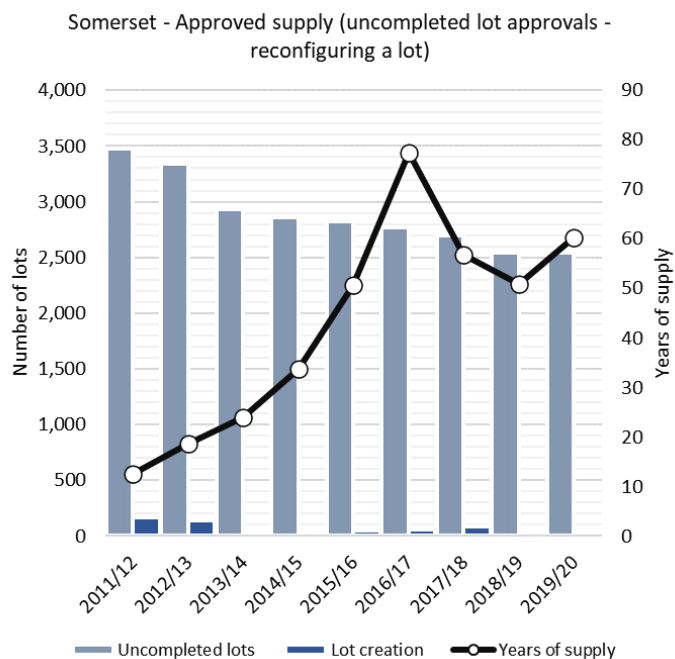
Somerset has about 60 years of supply of uncompleted lot approvals, which far exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

However, the total number of uncompleted lot approvals has been declining from 2011/12. The total number of uncompleted lot approvals for the 2019/20 period is 2546. Of the uncompleted lots, approximately 15 per cent have

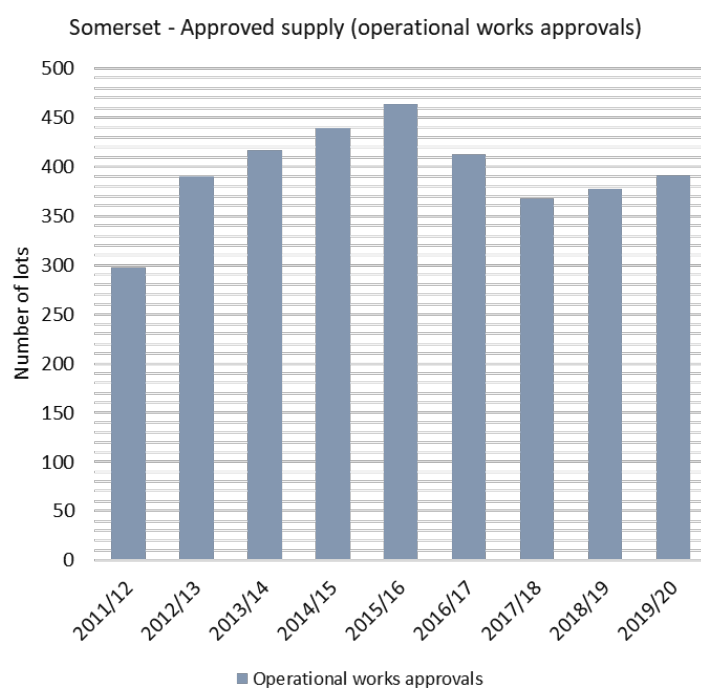
operational works approvals for the 2019/20 period. The very high years of supply figure is due to the very low rate of lot creation in recent years, which was 19 lots in 2019/20.

There are no uncompleted multiple dwelling approvals to report for Somerset because it has no consolidation area.

For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.

Note: The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Somerset

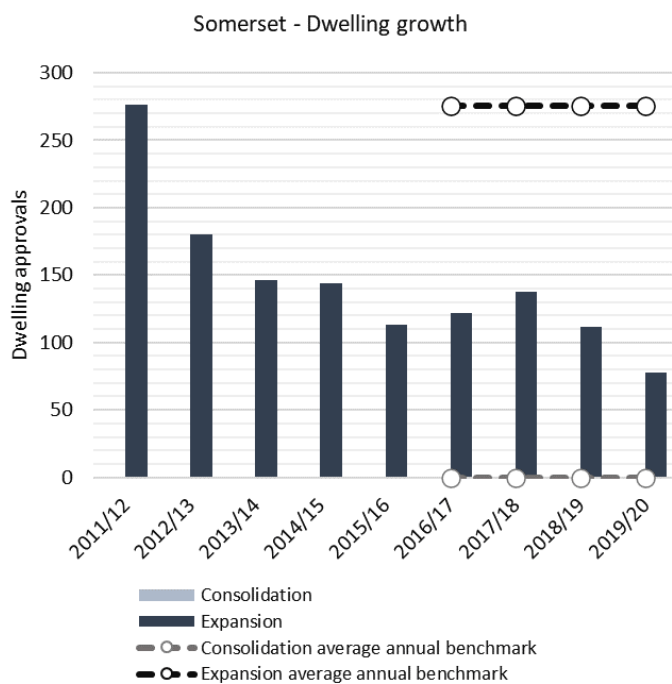
The expansion area applies to the whole of Somerset, and this report indicates that there is more than 15 years of planned dwelling supply.

Dwelling approvals (used to measure dwelling growth) in Somerset have been consistently below the expansion average annual benchmarks.

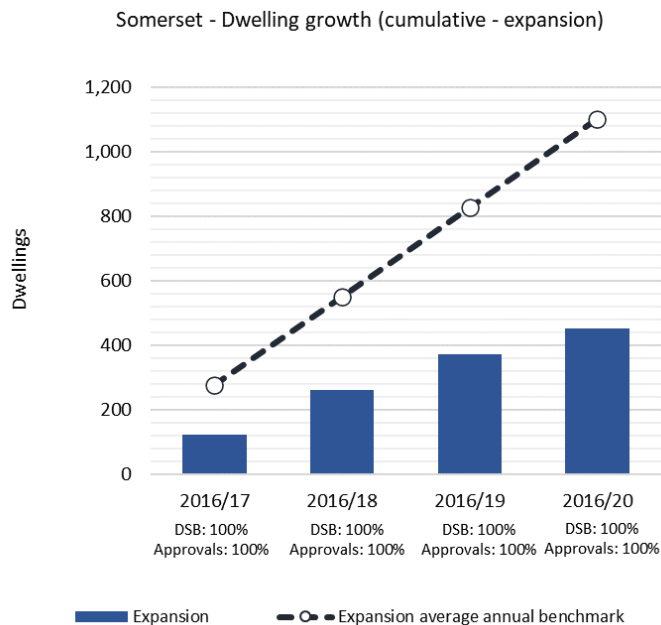
There were 78 dwelling approvals in Somerset’s expansion area in 2019/20, which was about 197 dwellings less than the expansion average annual benchmark of 275 additional dwellings.

Dwelling growth in Somerset may increase as the availability of local employment opportunities and services increases.

For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017’s* average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017's* consolidation average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

Changes in dwelling density – Somerset

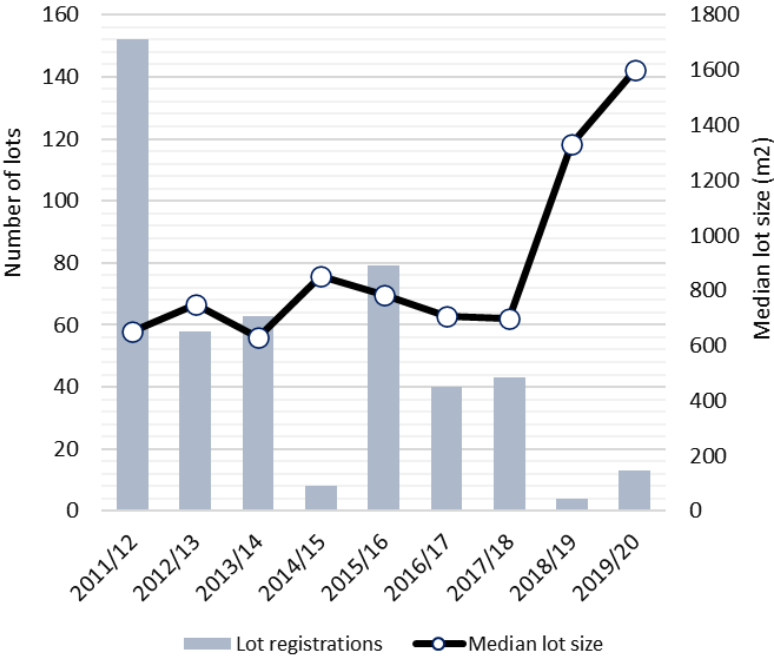
Dwelling density (measured through mean population-weighted dwelling density) is increasing in Somerset in accordance with SEQ's preferred future for higher dwelling densities.

Mean population-weighted dwelling density in Somerset increased between 2011 and 2016, from 1.7 to 2.2 dwellings per hectare. This represents the average dwelling density at which the population of Somerset lives and is comparable to the net residential density as used by *ShapingSEQ 2017*.

Consistent with other rural local governments, there have been significant fluctuations in median size of new lots in Somerset between 2011/12 and 2019/20. This fluctuation may be related to the small number of lot registrations in Somerset over that period.

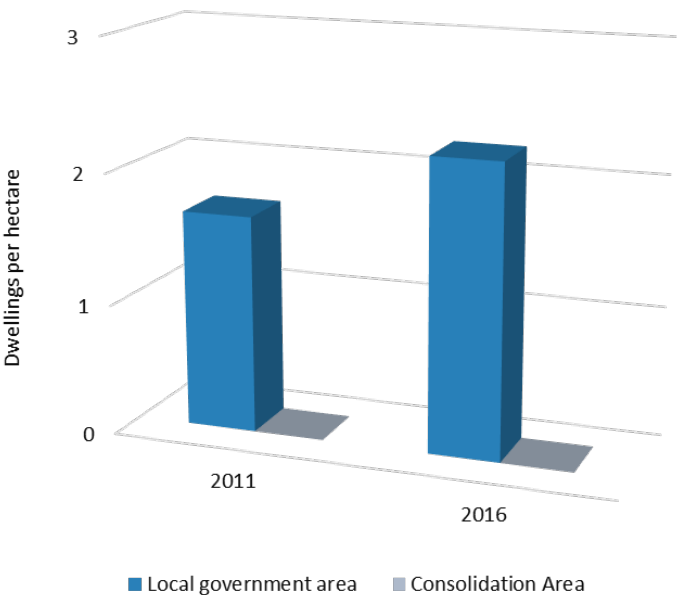
For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).

Somerset - Changes in dwelling density (lot registrations and median lot size)



This graph shows the number and median size of new lots registered annually.

Somerset - Changes in dwelling density (mean population-weighted dwelling density)



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Somerset

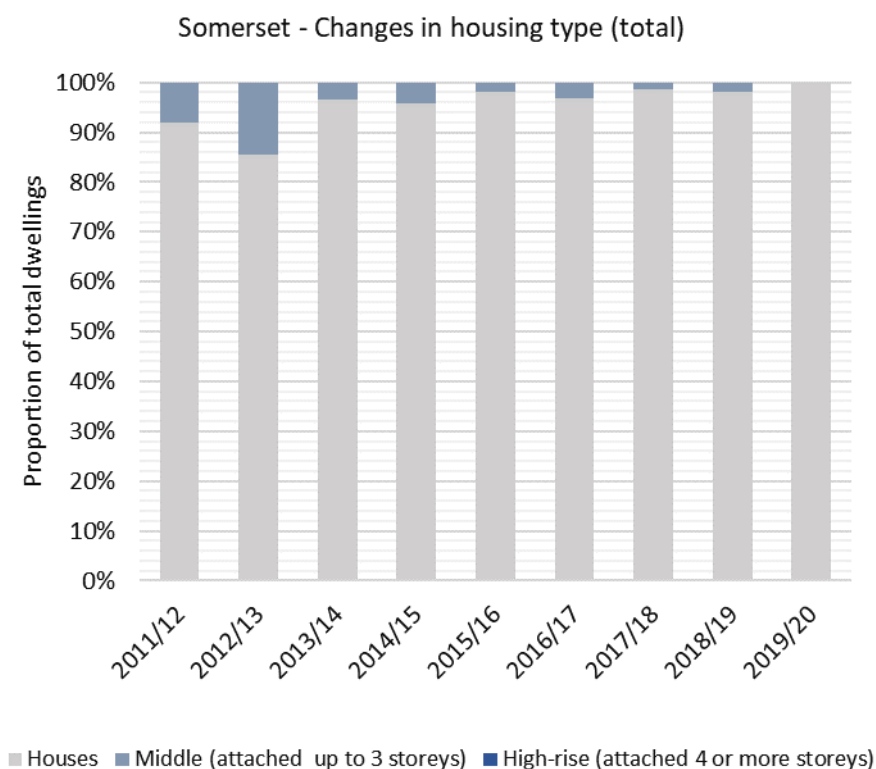
Housing in Somerset is predominantly houses in urban and rural residential environments, and recent dwelling approvals have been consistent with that characteristic.

The proportion of dwelling approvals for houses (98 per cent or 442 dwellings) and middle (two per cent or eight dwellings) for 2016/17 to 2019/20 was the same as for the existing dwelling stock as at the 2016 Census (houses 98 per cent, middle two per cent).

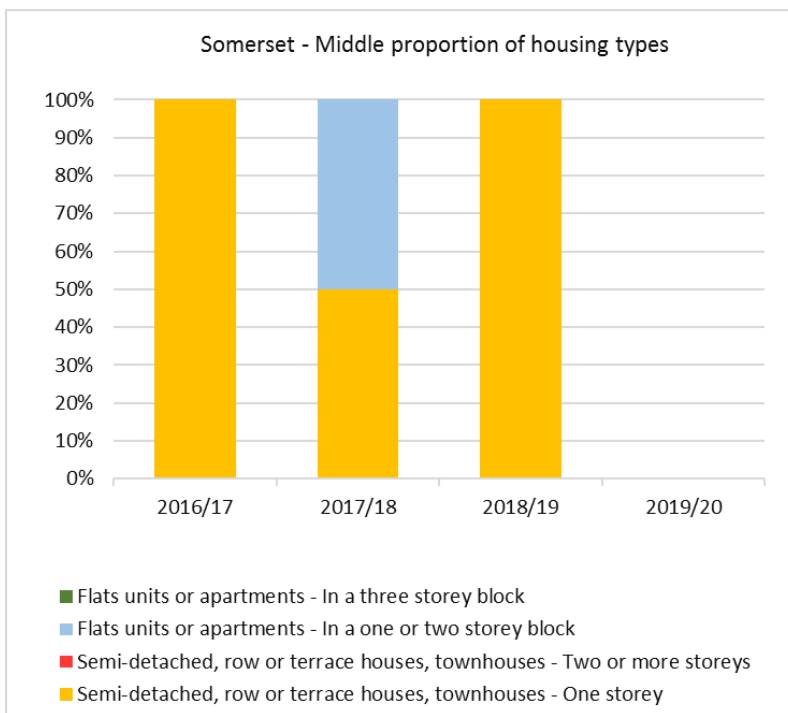
Of middle dwelling approvals since 2016/17, the predominant middle housing type approved in Somerset is semi-detached, row or terrace houses and townhouses of one storey. There were no new dwelling approvals for middle dwellings in 2019/20.

All middle dwelling approvals for the period between 2011/12 and 2018/19 were located within the expansion area as there is no consolidation area within Somerset.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of ‘missing middle’ in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Somerset

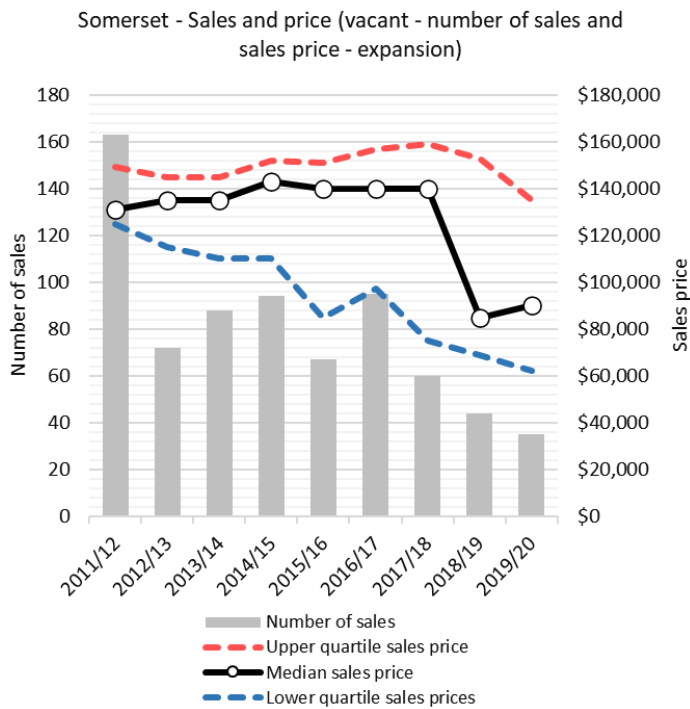
The number of sales has remained the same or decreased from 2018/19 to 2019/20 for all categories in Somerset except houses which slightly increased.

The low number of sales is typical for rural local government areas in South East Queensland (SEQ) and contributes to fluctuations in price from year to year.

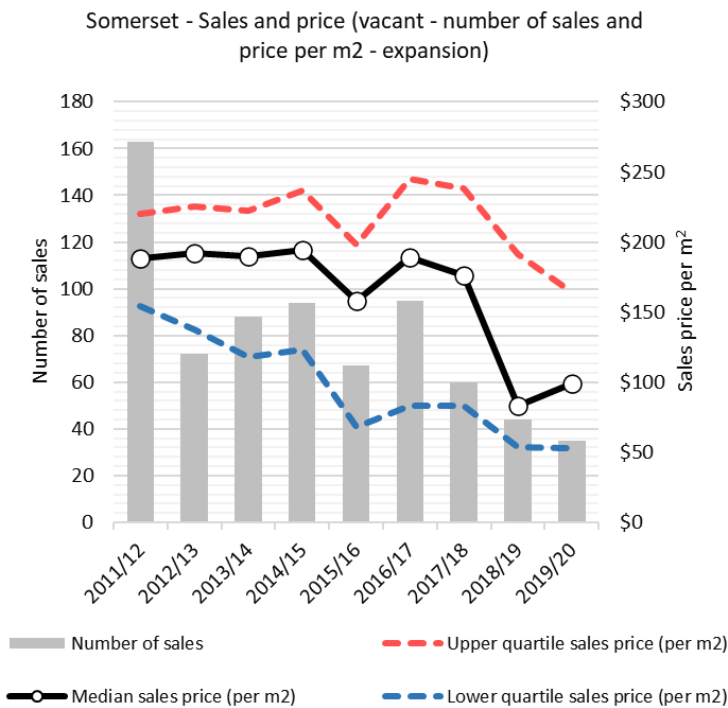
The median sales price for all categories is lower in Somerset than for SEQ. The rate of growth from 2011/12 to 2019/20 in median sales price, in all categories with a reported median price is also lower than for SEQ.

Sales prices and the number of sales have only been reported for the expansion area because no consolidation area is identified for Somerset. Sales prices have also only been reported for years with 10 or more sales.

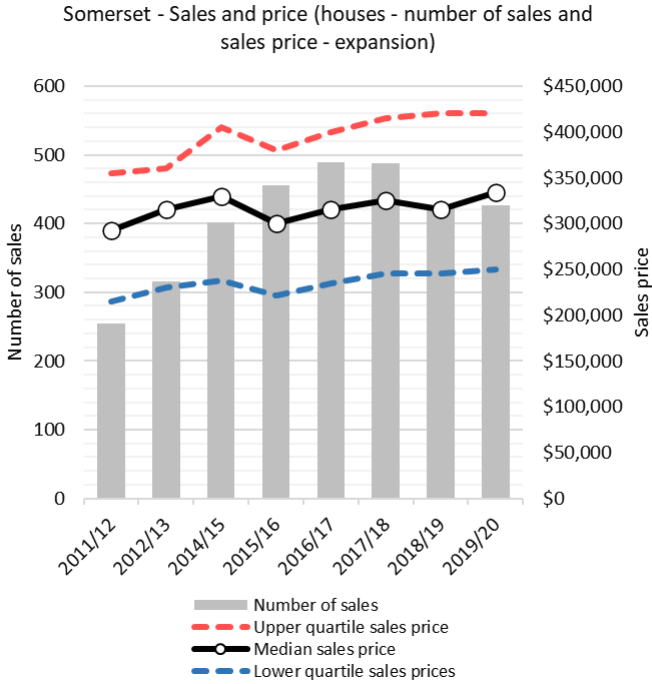
For more detail about the median sales price and number of sales, see the [Technical notes](#).



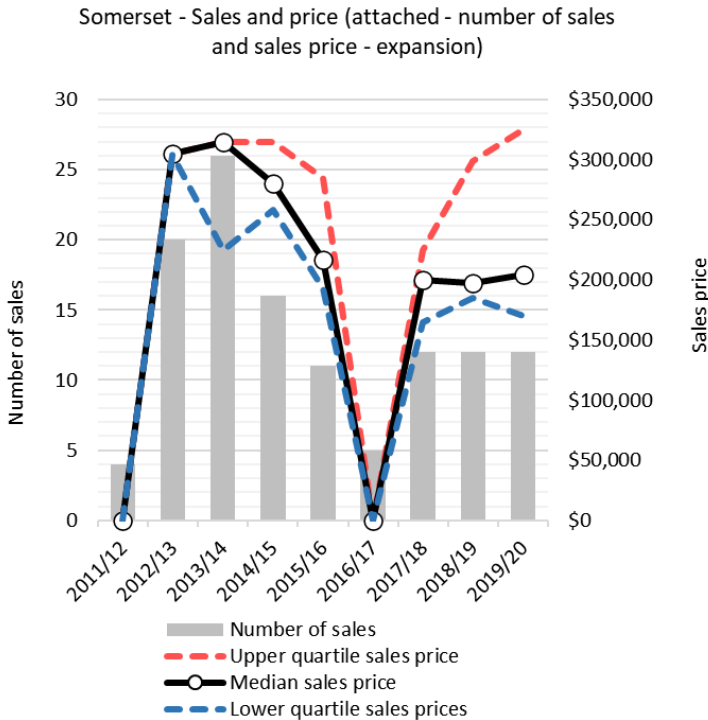
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.



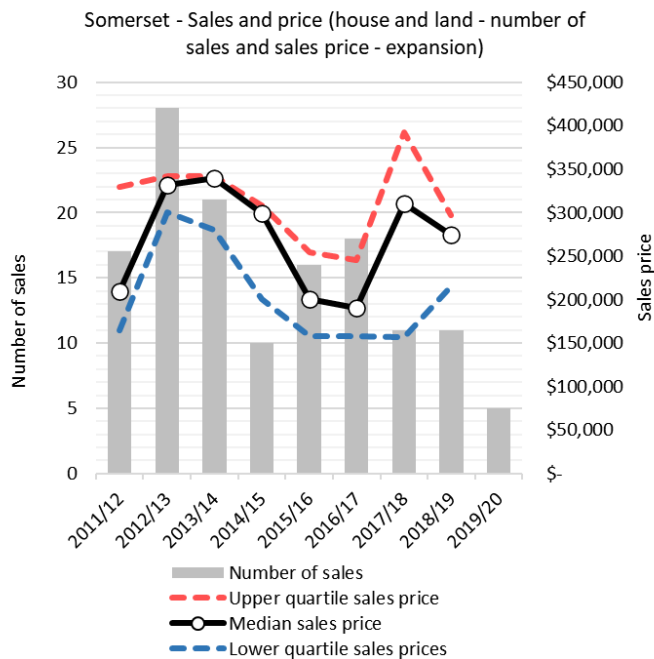
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Note: Sales prices have also only been reported for years with 10 or more sales. For more details, see the [Technical notes](#).

Industrial – Somerset

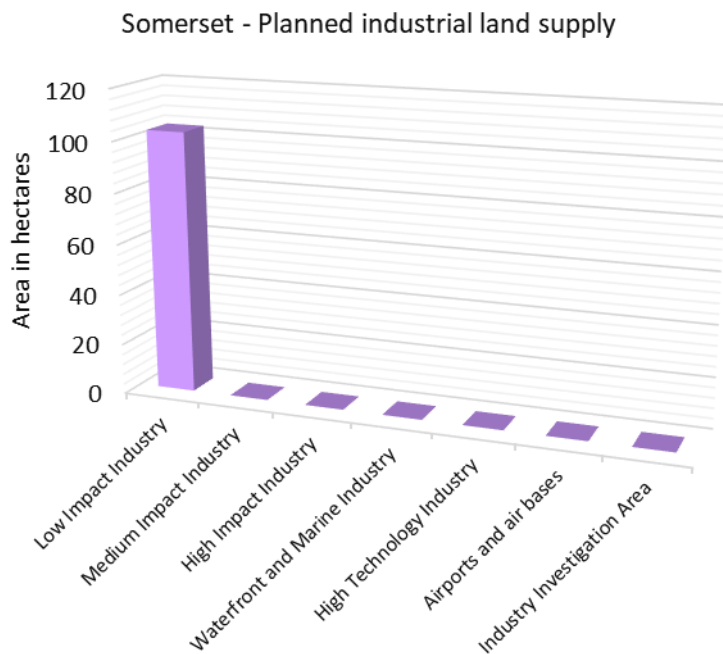
Planned industrial land supply/take-up – Somerset

The estimated take-up of developed industrial land between 2011 and 2019 in Somerset was about three hectares. The take-up occurred on land intended for low impact industry.

There were about 103 hectares of planned industrial land in Somerset as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for low impact industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



103ha of developable land
3ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Somerset

The capacity and realistic availability of planned industrial employment supply in Somerset provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

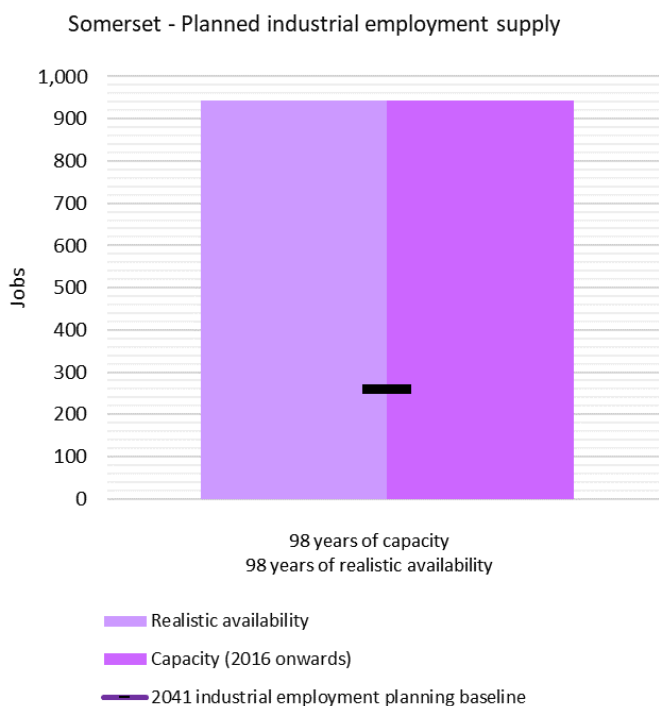
The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

Both the capacity and realistic availability of planned industrial employment supply is about 940 employees, representing about 98 years of supply. These figures are significantly greater than the 2041 industrial employment planning baseline of about 260 employees.

For more detail about the calculation of planned industrial employment supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned

industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Sunshine Coast

Summary

ShapingSEQ 2017 establishes that Sunshine Coast's expected population growth will require 87,000 additional dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply in the Sunshine Coast consolidation and expansion areas provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*. However, the capacity of planned dwelling supply in the Sunshine Coast consolidation area is significantly less than the 2041 dwelling supply benchmark. Opportunities to increase the planned dwelling supply in the consolidation area may be facilitated through changes to the Sunshine Coast planning scheme, for example, through the potential densification of development in specific designated centre locations. The Sunshine Coast Mass Transit Project and associated Land Use Strategy may also facilitate urban transformation in some areas by increasing the level of service for the local transport network.

There are about 2.2 years of supply of uncompleted lot approvals, which is below the minimum four years of supply sought by *ShapingSEQ 2017*. The higher rate of lot creation in Sunshine Coast has contributed to the low years of supply figure, but a high proportion of uncompleted lots also have operational works approval supporting lot creation in the short term. There are about 5.5 years of uncompleted multiple dwelling approvals in the Sunshine Coast consolidation area.

Dwelling approvals in the Sunshine Coast expansion and consolidation areas have exceeded the expansion and consolidation average annual benchmarks in recent years. Dwelling approvals indicate a slightly lower proportion of houses and a higher proportion of high-rise relative to existing dwelling stock. Dwelling density on the Sunshine Coast is also increasing in accordance with SEQ's preferred future.

The capacity and realistic availability of planned industrial employment supply on the Sunshine Coast provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017* and exceed the 2041 industrial employment planning baseline.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Sunshine Coast

Planned dwelling supply – Sunshine Coast

The capacity and realistic availability of planned dwelling supply in the Sunshine Coast consolidation and expansion areas provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the Sunshine Coast consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 41,400 dwellings, approximately 12,300 less than the consolidation 2041 dwelling supply benchmark of 53,700.

The Maroochydore City Centre PDA development scheme amendment adopted 9 August 2019 increased the PDA dwelling yield to 4000. This has been reflected in the capacity of planned dwelling supply in the consolidation area. For more information about the method applied in the 2020 LSDM Report, see the [Technical notes](#).

In the Sunshine Coast expansion area, the capacity of planned dwelling supply is about 40,500 dwellings which is above the expansion 2041 dwelling supply benchmark of 33,300 dwellings. The realistic availability of this supply is about 32,700 dwellings, which equates to about 18 years of supply and is above *ShapingSEQ 2017*'s 15 years of supply policy objective.

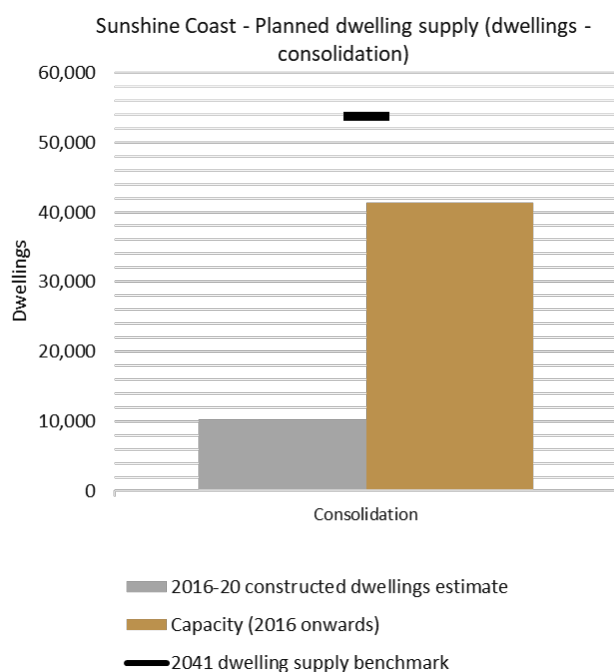
A substantial proportion of the expansion planned dwelling supply is provided by the Caloundra South Priority Development Area and the Palmview structure plan area. In accordance with the intent of *ShapingSEQ 2017*, Council, in conjunction with the State government has advanced structure planning for the Beerwah East Major Development Area. Council consider Beerwah East to be an important part of the Sunshine Coast's future planned dwelling supply, however, is not currently included within the LSDM Report. Realisation of the planned dwelling supply in Caloundra South and Palmview is expected to be supported over time by infrastructure delivered under existing infrastructure agreements.

Sunshine Coast Council's planning scheme foreshadows opportunities to increase the planned dwelling supply in the consolidation area over time. The potential densification of development in specified areas, including part of the Sunshine Coast Enterprise Corridor, may make an important contribution. The addition of a high-frequency public transport service such as that being considered by the Sunshine Coast Mass Transit Project could facilitate increased residential densities and urban transformation by improving the level of service in the local transport network. Incorporation of urban transformation opportunities through future amendment to the planning scheme would directly address the identified shortfall in planned dwelling supply compared to the 2041 dwelling supply benchmark. Where an amendment proceeds, and source data is updated, the effect on planned dwelling supply will be included in future LSDM Reporting.

It is important to note there may be scope for additional consolidation planned dwelling supply under the current planning scheme, the Sunshine Coast Planning Scheme 2014, taking account of strategic planning work currently underway, including the Sunshine Coast Mass Transit Project. It is acknowledged that further consultation and a business case are required to be completed before any uplift in consolidation dwelling supply could be realised as a consequence of this project. This may include additional yield that could be achieved in the Sunshine Coast Enterprise Corridor and within the Sunshine Coast existing urban area, even without future potential changes to the planning scheme to respond to mass transit outcomes.

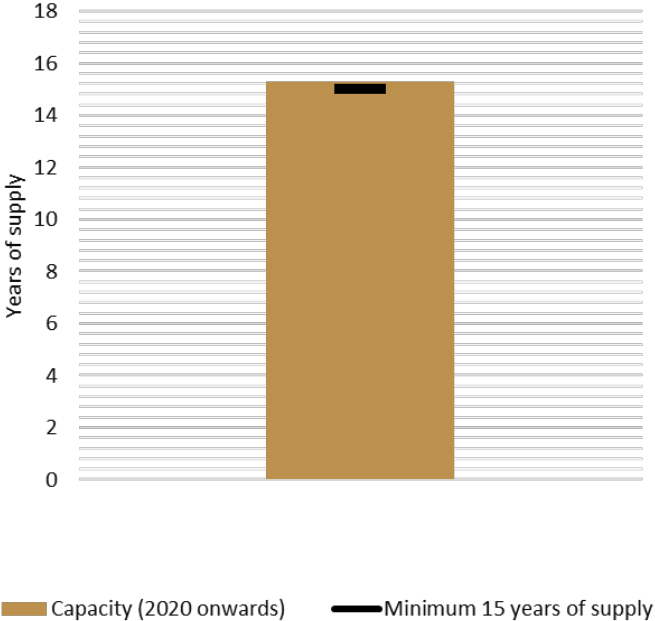
A number of planning and development scheme amendments in Sunshine Coast, either recently adopted or in process, are expected to increase planned dwelling supply overall. Where amendments proceed, and source data is updated, their effect on planned dwelling supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning and development scheme amendments either recently adopted or in process for the Sunshine Coast, see the [Technical notes](#).



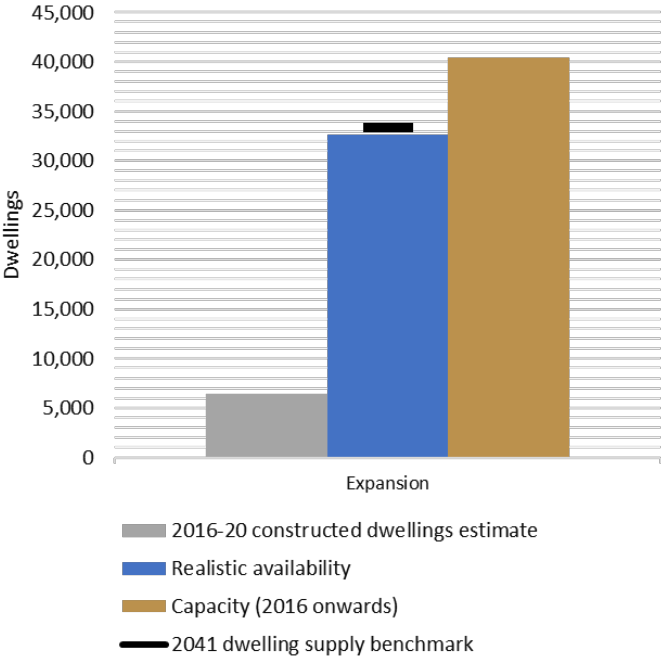
This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in consolidation areas.

Sunshine Coast - Planned dwelling supply (years of supply - consolidation)

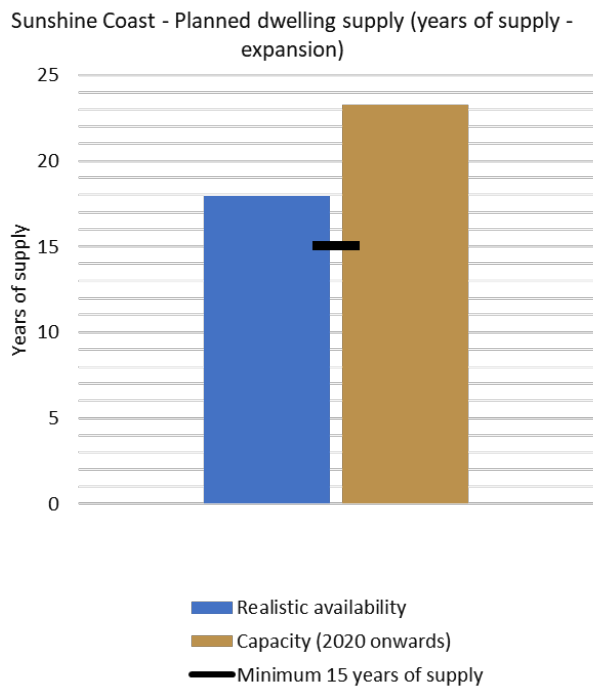


This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in consolidation areas.

Sunshine Coast - Planned dwelling supply (dwellings - expansion)



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Sunshine Coast

There are about 2.2 years of supply of uncompleted lot approvals in the Sunshine Coast consolidation and expansion areas overall, less than the minimum four years of supply sought by *ShapingSEQ 2017*.

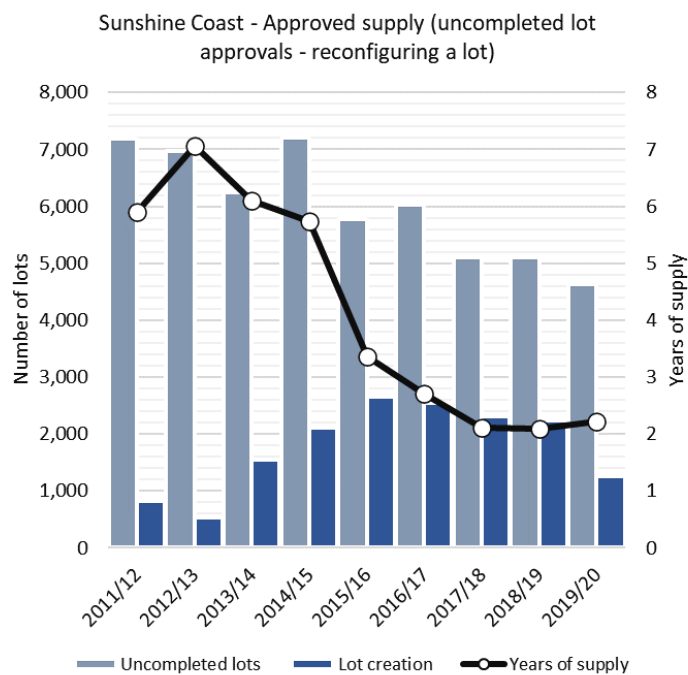
The high rate of lot creation in Sunshine Coast has contributed to the low years of supply figure.

From 2011/12 to 2019/20, the total number of uncompleted lot approvals shows a general downward trend. The total number of uncompleted lot approvals for the 2019/20 period is 4630. Of the uncompleted lots, approximately 75 per cent have operational works approvals for the 2019/20 period.

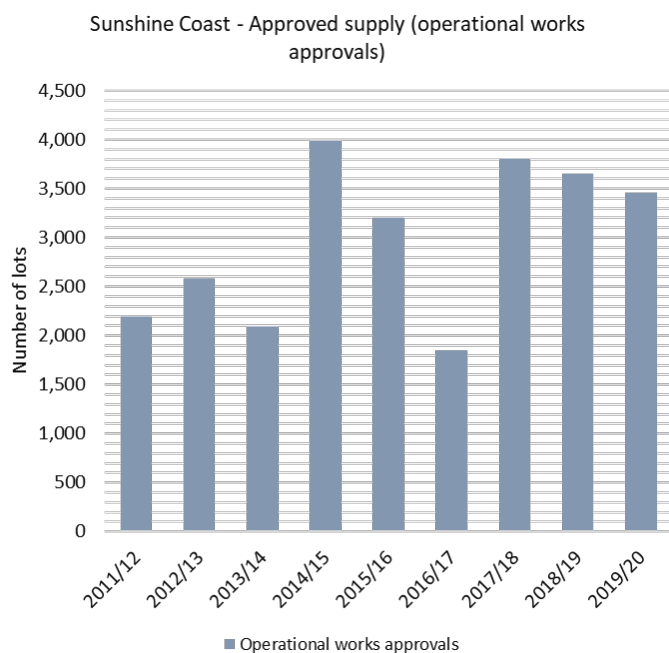
In contrast, the Sunshine Coast has about 5.5 years of supply of uncompleted multiple dwelling approvals in the consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*. The June 2020

supply of multiple dwelling approvals on the Sunshine Coast is over two times the number reported as at June 2011. The number of uncompleted multiple dwelling approvals decreased from June 2019 to June 2020.

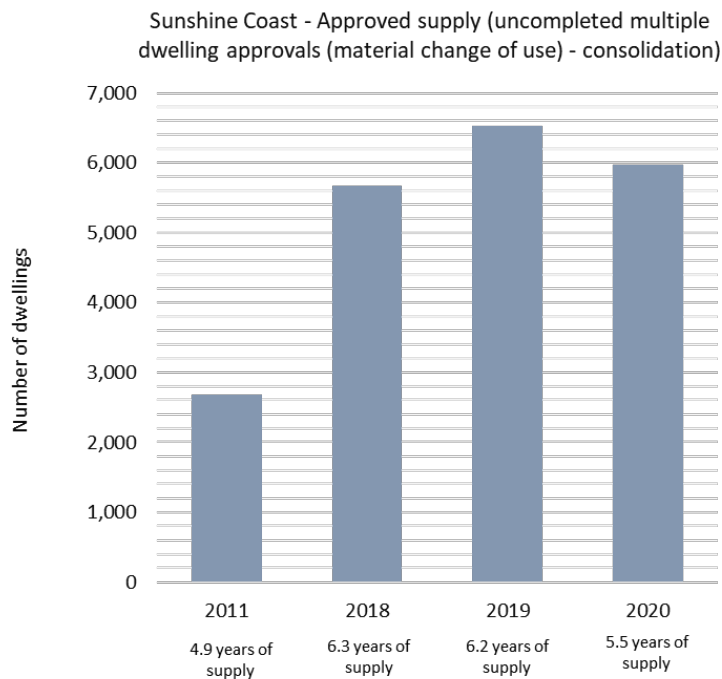
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years. The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Sunshine Coast

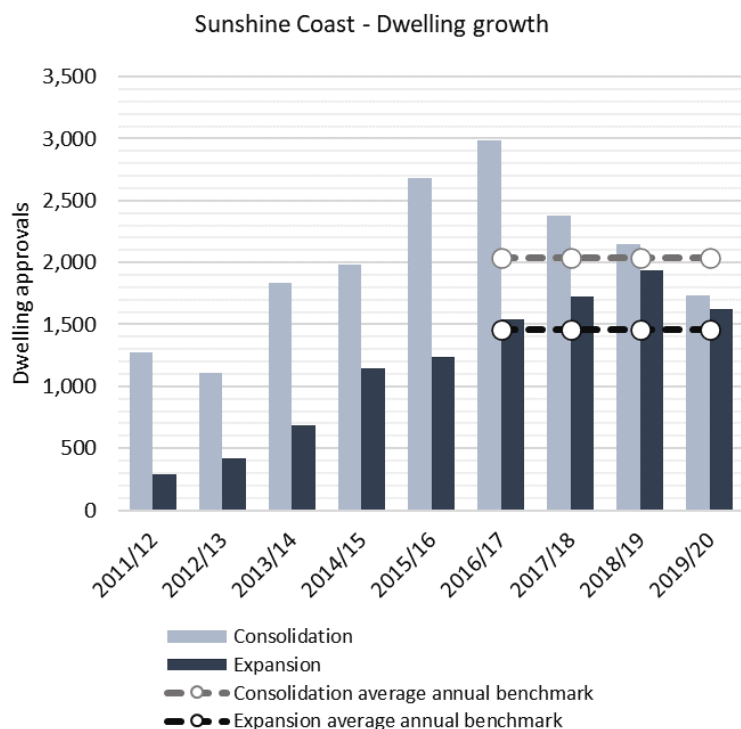
In recent years, dwelling approvals (used to measure dwelling growth) on the Sunshine Coast have on average exceeded the average annual benchmark in both the consolidation and expansion area.

There were 1733 dwelling approvals in the Sunshine Coast consolidation area in 2019/20, which was approximately 308 dwellings less than the consolidation average annual benchmark of 2041 additional dwellings. There were 1626 dwelling approvals in the Sunshine Coast expansion area in 2019/20, which was approximately 164 dwellings more than the expansion average annual benchmark of 1462 additional dwellings.

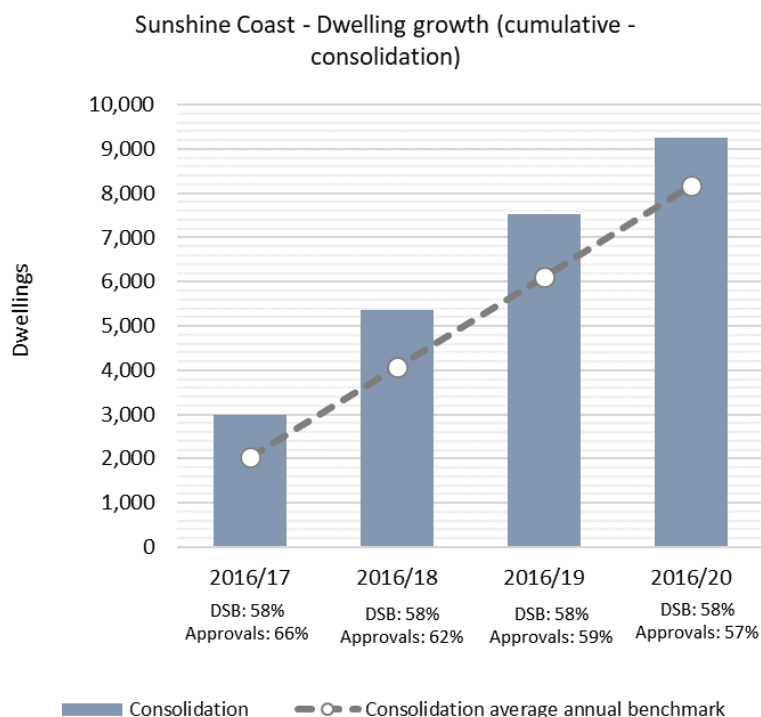
Approximately 57 per cent of dwelling approvals for 2016/17 to 2019/20 were in the Sunshine Coast's consolidation area, which is slightly less than its expected share of dwelling growth to 2031 identified by *ShapingSEQ 2017* (58 per cent). Approximately 43 per cent of dwelling approvals were in the Sunshine Coast's expansion area over the same period, which slightly more than its expected share of 42 per cent.

There has been sustained dwelling growth in the Sunshine Coast expansion area in recent years. This growth has been principally driven by the major growth fronts of the Caloundra South Priority Development Area and Palmview structure plan area. It is anticipated that this growth will be maintained in coming years.

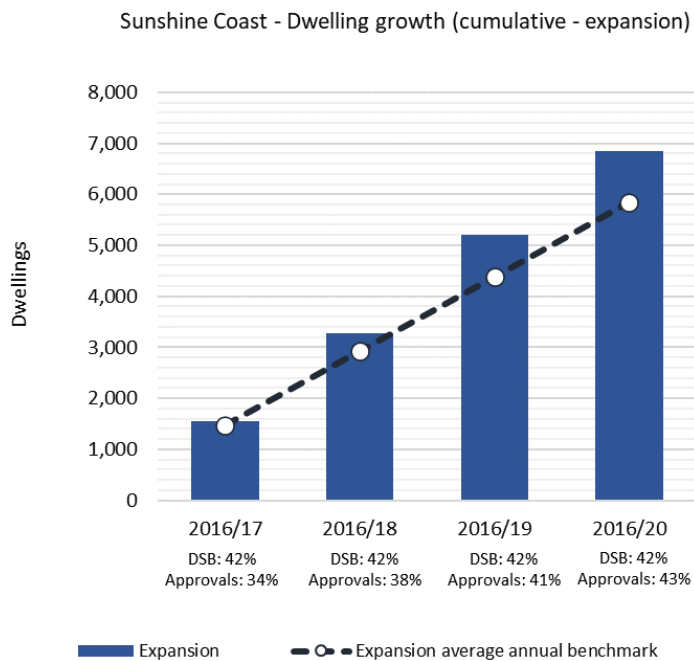
For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017's* average annual benchmarks.



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017's* consolidation average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s consolidation average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

Changes in dwelling density – Sunshine Coast

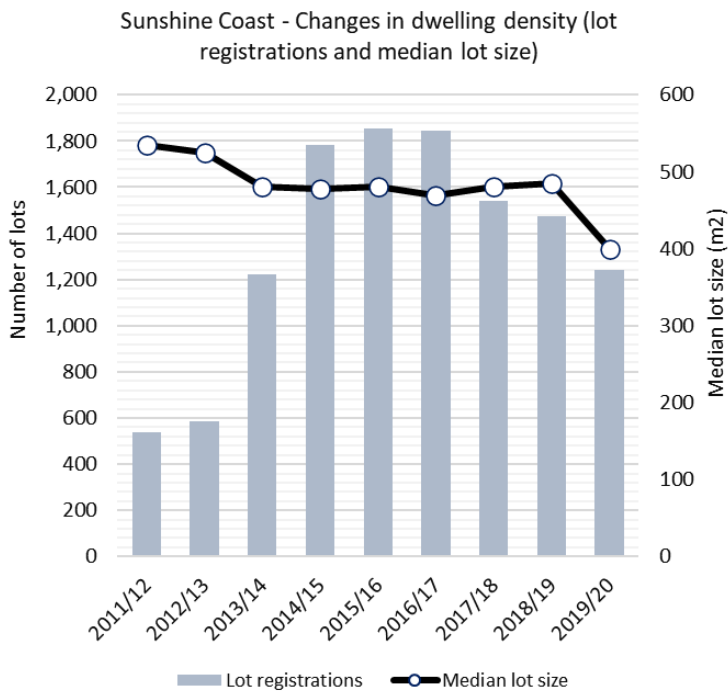
Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) is increasing on the Sunshine Coast in accordance with the SEQ's preferred future for higher dwelling densities and smaller lots.

Mean population-weighted dwelling density on the Sunshine Coast increased between 2011 and 2016, from 10.5 to 11.3 dwellings per hectare. This represents the average dwelling density at which the population of the Sunshine Coast lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density increased from 13.4 to 14.2 dwellings per hectare.

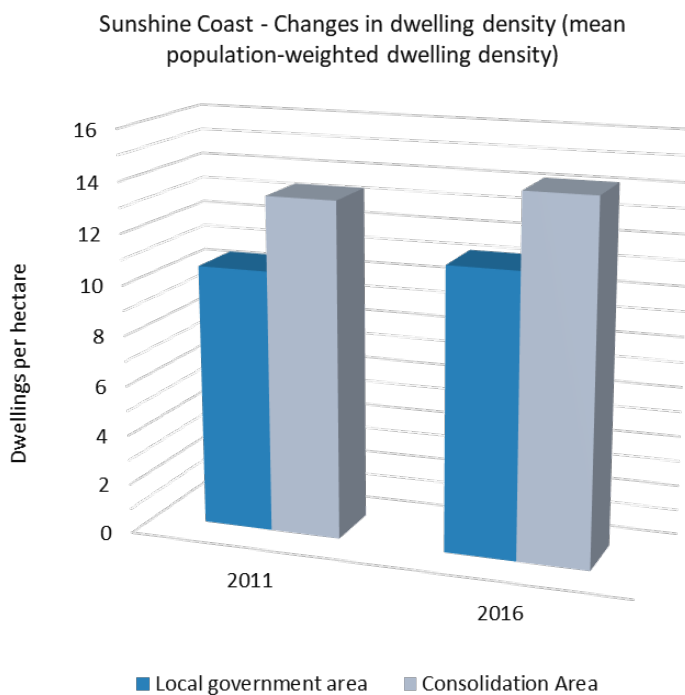
The median size of new lots on the Sunshine Coast decreased from 535m² to 400m² from 2011/12 to 2019/20. This was associated with a larger number of new lot registrations up to 2015/16, followed by a decline since. This measure is indicative of increased dwelling densities in new urban subdivisions on the Sunshine Coast.

Sunshine Coast's planning scheme has supported higher planned densities and allowed smaller lots over time, as have planning instruments such as the Caloundra South and Maroochydore City Centre development schemes and the Palmview and Kawana Waters structure plans.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Sunshine Coast

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals for houses and high-rise on the Sunshine Coast indicate an increase in housing diversity. This is consistent with SEQ’s preferred future.

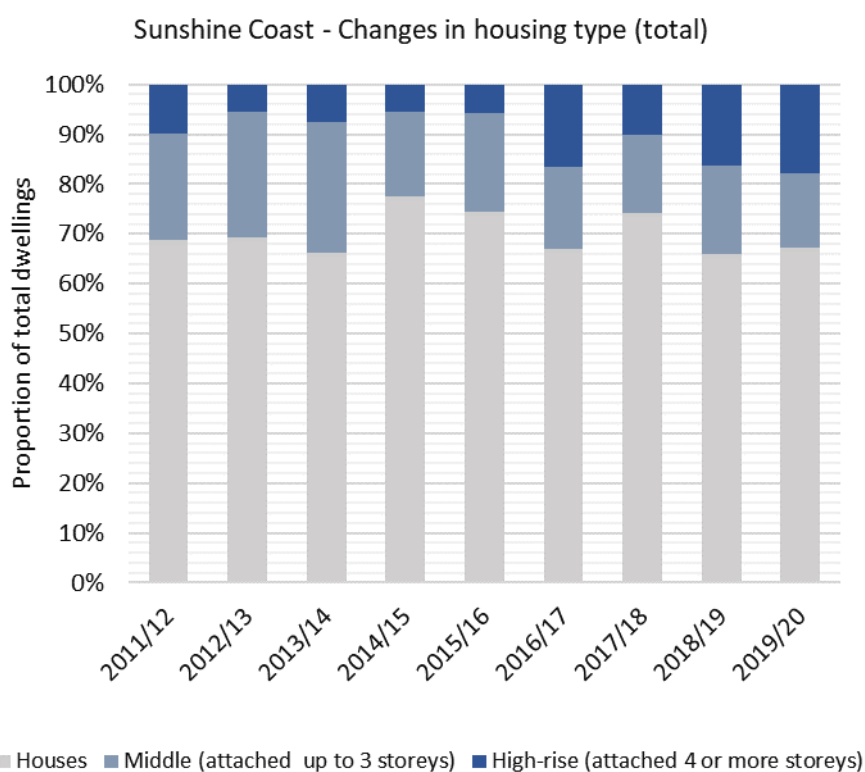
Sixty-nine per cent (11,041 dwellings) of all new dwelling approvals on the Sunshine Coast for 2016/17 to 2019/20 were for houses, which was slightly less than their proportion of the existing dwelling stock (72 per cent as at the 2016 Census). The proportion of dwelling approvals for high-rise (15 per cent or 2435 dwellings) exceeded existing dwelling stock as at the 2016 Census (seven per cent). However, dwelling approvals for middle (16 per cent or 2612) were proportionately less than the share of existing dwellings as at the 2016 Census (21 per cent).

Houses remain the predominant housing type, however the percentage approvals that are for houses has decreased since a peak in 2014/15.

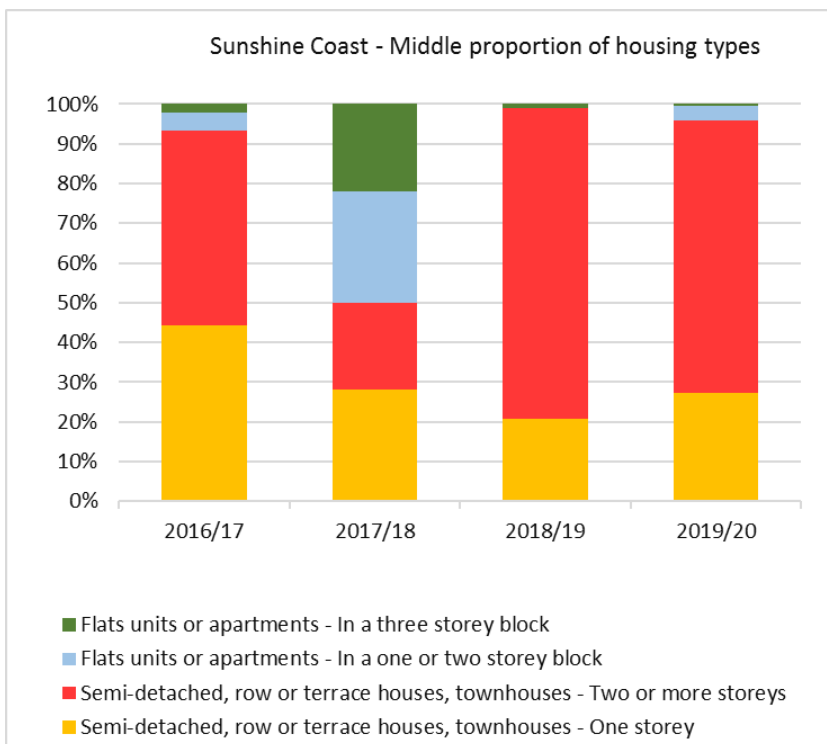
Of middle dwelling approvals since 2016/17, the predominant middle housing type approved on the Sunshine Coast is semi-detached, row or terrace houses and townhouses of two or more storeys (about 60 per cent or 1554 dwellings).

Seventy-two per cent (1888 dwellings) of middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and 28 per cent (724 dwellings) were located within the expansion area.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of ‘missing middle’ in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Sunshine Coast

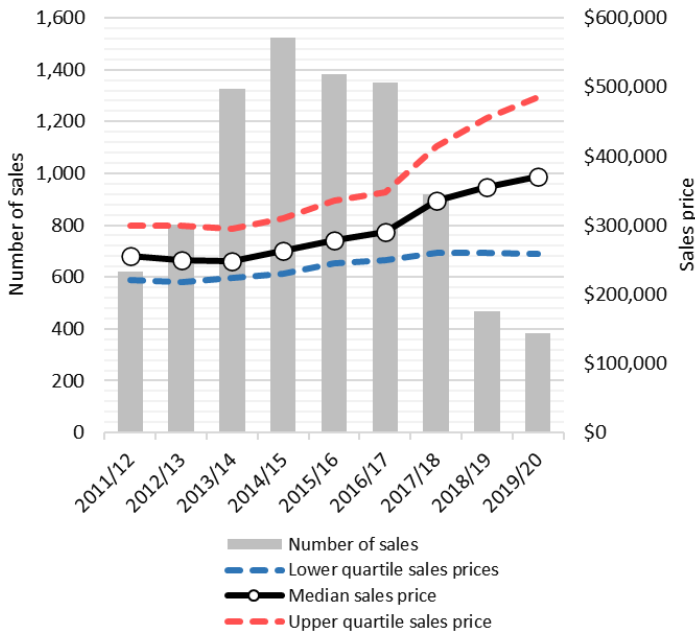
The number of sales has increased from 2018/19 to 2019/20 for all categories on the Sunshine Coast except for vacant lots in the consolidation area and attached dwellings in the expansion area.

The median sales price for all categories is higher in Sunshine Coast than South East Queensland (SEQ) except for house-land packages in the consolidation area. The rate of median price growth for all categories between 2011/12 and 2019/20 was also higher in Sunshine Coast than SEQ except for house-land packages and vacant lots per square metre in the consolidation area.

Median price growth was higher in the consolidation area than the expansion area for all categories except house-land packages and vacant lots per square metre. Vacant lots per square metre in the expansion area experienced the highest price growth, increasing 137.8 per cent between 2011/12 and 2019/20.

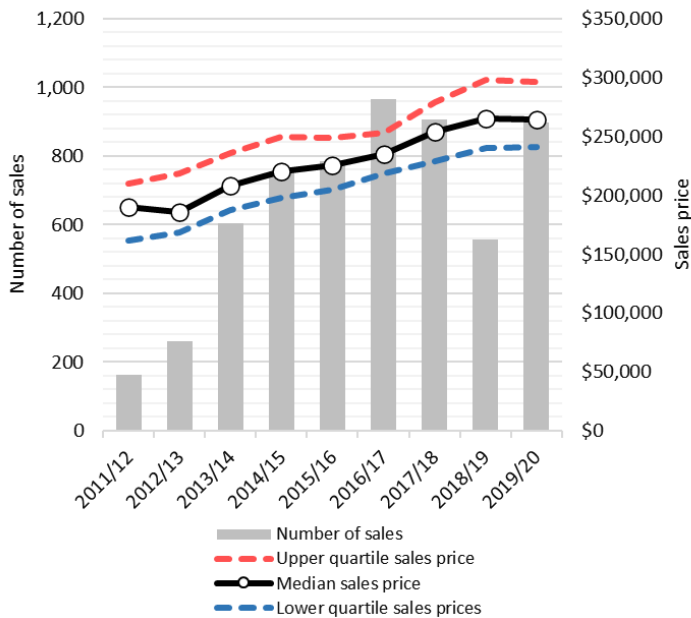
For more detail about the median sales price and number of sales, see the [Technical notes](#).

Sunshine Coast - Sales and price (vacant - number of sales and sales price - consolidation)



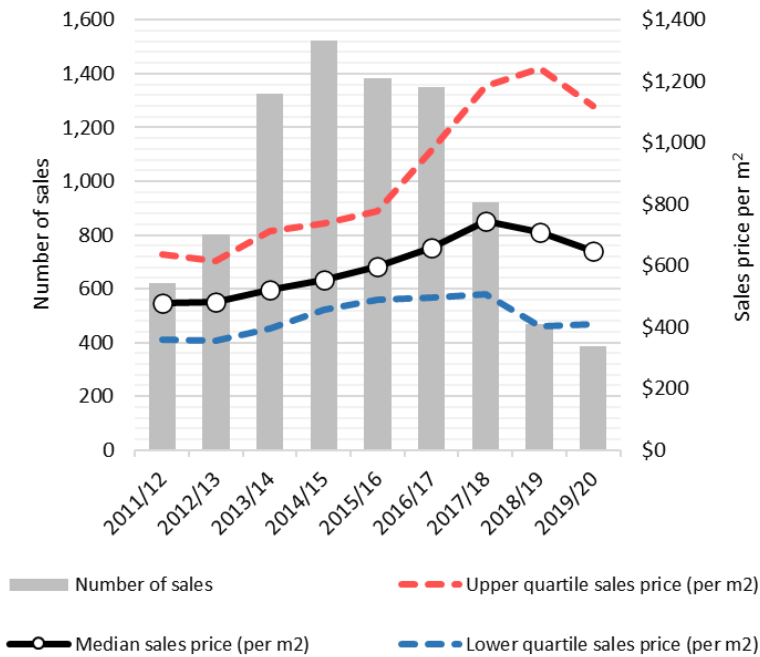
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.

Sunshine Coast - Sales and price (vacant - number of sales and sales price - expansion)



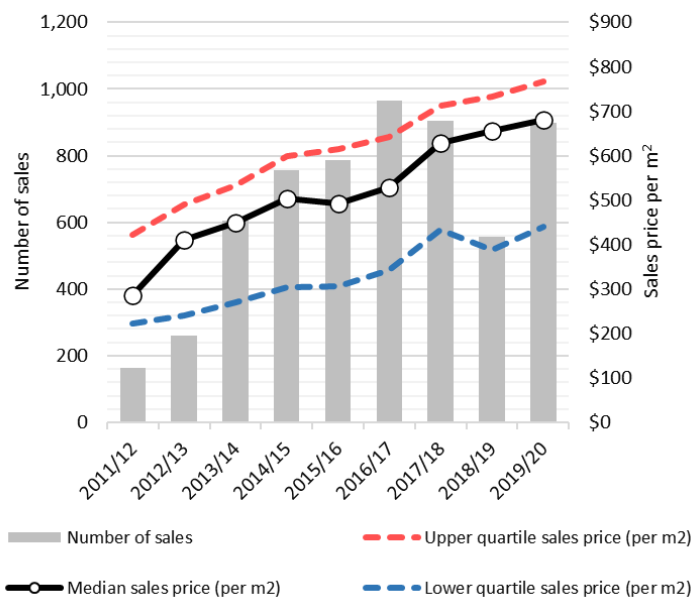
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.

Sunshine Coast - Sales and Price (vacant - number of sales and price per m2 - consolidation)



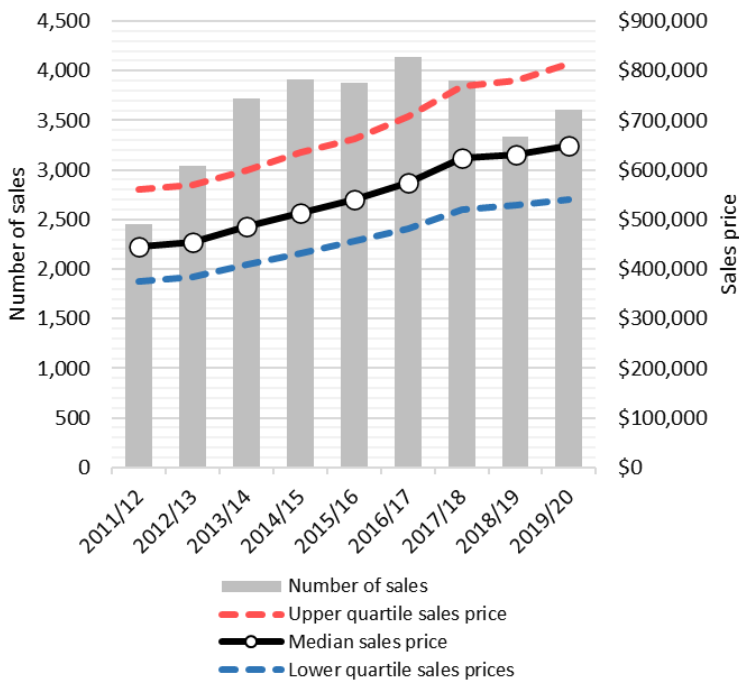
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.

Sunshine Coast - Sales and price (vacant - number of sales and price per m2 - expansion)



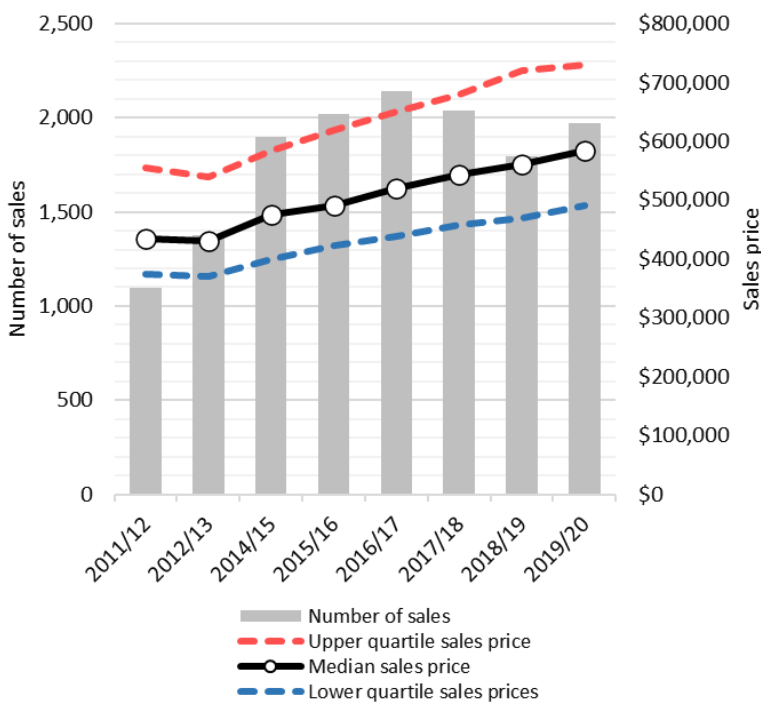
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

Sunshine Coast - Sales and price (houses - number of sales and sales median price - consolidation)

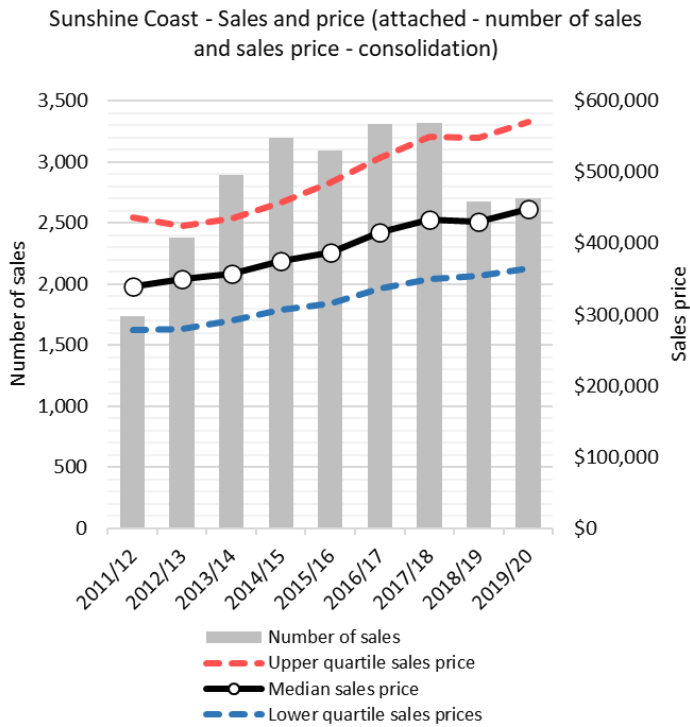


This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.

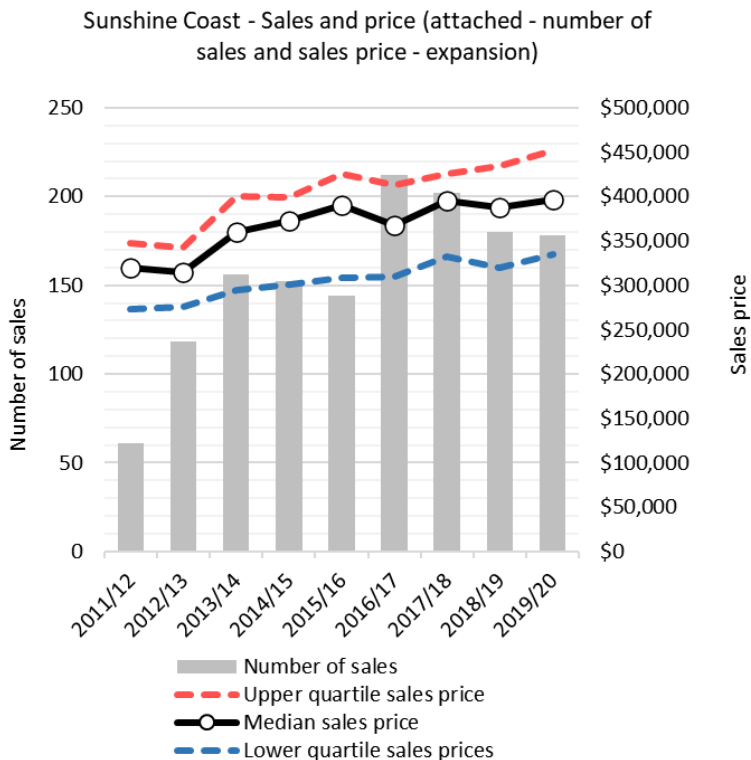
Sunshine Coast - Sales and price (houses - number of sales and sales price - expansion)



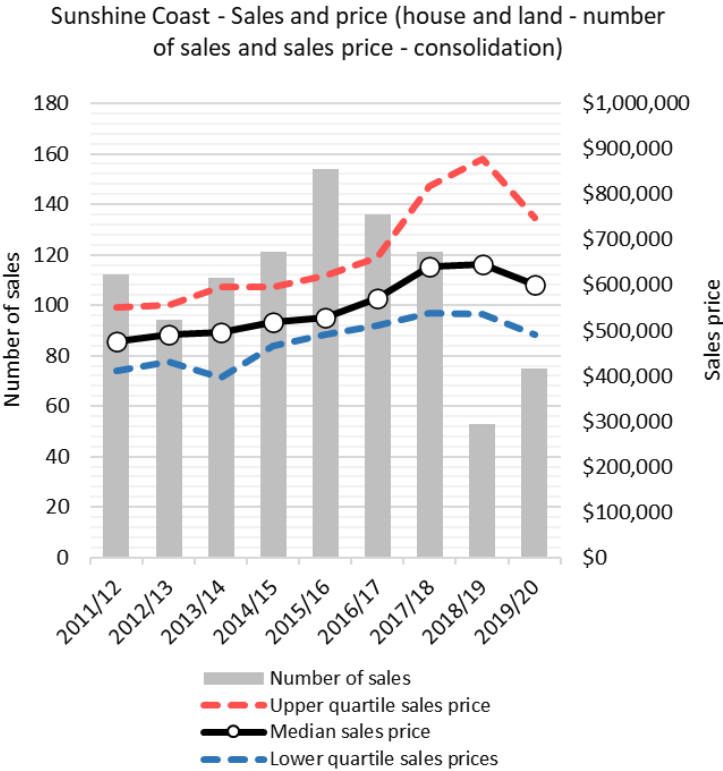
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.



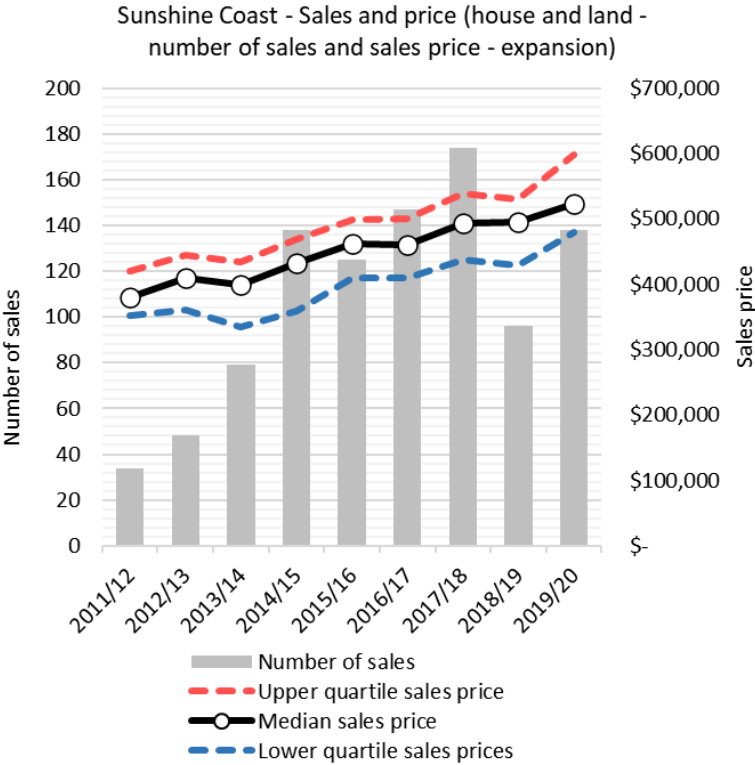
This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Industrial – Sunshine Coast

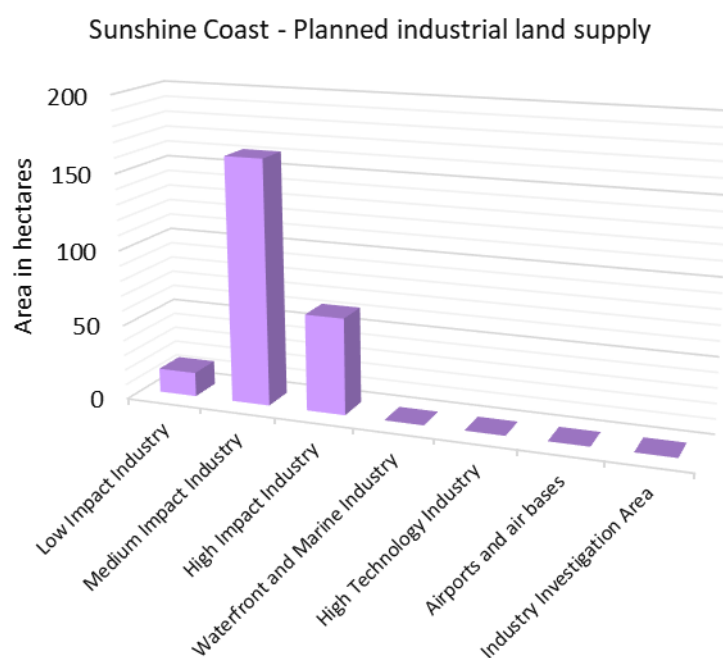
Planned industrial land supply/take-up – Sunshine Coast

The estimated take-up of developed industrial land between 2011 and 2019 on the Sunshine Coast was about 91 hectares. The take-up occurred on land intended for low, medium and high impact industry.

There were about 242 hectares of planned industrial land on the Sunshine Coast as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for low, medium and high impact industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).



242ha of developable land
91ha was taken up between 2011-19

This graph shows the number of hectares of planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated

differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Sunshine Coast

The capacity and realistic availability of planned industrial employment supply on the Sunshine Coast provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

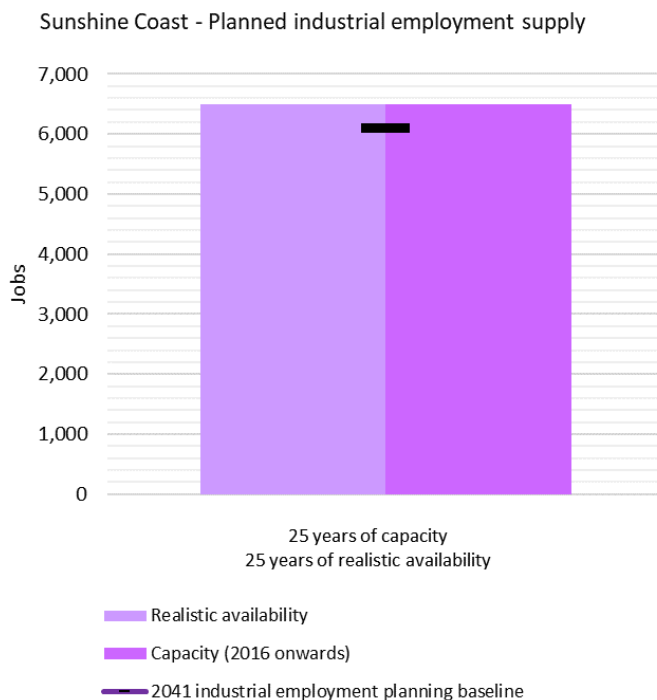
The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply on the Sunshine Coast is about 6500 employees. The realistic availability of this supply is also about 6500 employees. These figures represent about 25 years of supply and are above the 2041 industrial employment planning baseline of about 6100 employees.

The realisation of this planned industrial employment supply on the Sunshine Coast may be supported by the Beerburrum to Nambour Rail Upgrade Project, which is anticipated to relieve pressure on the strategic road network and improve freight efficiency.

Recently adopted planning scheme amendments in Sunshine Coast may affect planned industrial employment supply. Where data sources are updated, their effect on industrial employment supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned industrial employment supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Toowoomba (urban extent)

Summary

ShapingSEQ 2017 establishes Toowoomba's expected population growth will require 20,300 additional dwellings between 2016 and 2041, through its dwelling supply benchmarks.

The capacity and realistic availability of planned dwelling supply provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

There are about 6.4 years of supply of uncompleted lot approvals in the Toowoomba (urban extent) and about 6.3 years of supply of uncompleted multiple dwelling approvals in the Toowoomba (urban extent) consolidation area, which provide the minimum four years of supply sought by *ShapingSEQ 2017*.

Dwelling approvals in the Toowoomba (urban extent) have exceeded the expansion and consolidation average annual benchmarks in recent years except for expansion growth in 2018/19 and 2019/20. When compared to existing dwelling stock at the 2016 Census, housing in the Toowoomba (urban extent) is becoming more diverse and dwelling density is increasing in accordance with SEQ's preferred future.

The capacity and realistic availability of planned industrial employment supply in the Toowoomba (urban extent) provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017* and exceed the 2041 industrial employment planning baseline.

For:

- more information about the terms used above, [click here](#).
- a map of the consolidation area defined by *ShapingSEQ 2017*, [click here](#).
- a map of the urban footprint defined by *ShapingSEQ 2017*, [click here](#).

The 2020 Land Supply and Development Monitoring (LSDM) Report has been prepared using residential data to 30 June 2020 and planned industrial land supply data nominally to 30 June 2019.

It is anticipated the ongoing COVID-19 pandemic may impact the development activity and markets across South East Queensland (SEQ) throughout the 2020/21 reporting period. These impacts may vary across the region, recognising that the economy and housing markets operate differently in different areas of SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. It is anticipated that data post 30 June 2020 may start to show impacts of COVID-19. The GMP will continue to monitor this information and consider addendums to the 2020 LSDM Report as information becomes available in the second half of 2020 and into 2021.

Residential – Toowoomba (urban extent)

Planned dwelling supply – Toowoomba (urban extent)

The capacity and realistic availability of planned dwelling supply in the Toowoomba (urban extent) consolidation and expansion areas is significantly above the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent. The realistic availability figure provides a land supply scenario that considers whether capacity is realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors may include infrastructure availability, land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development.

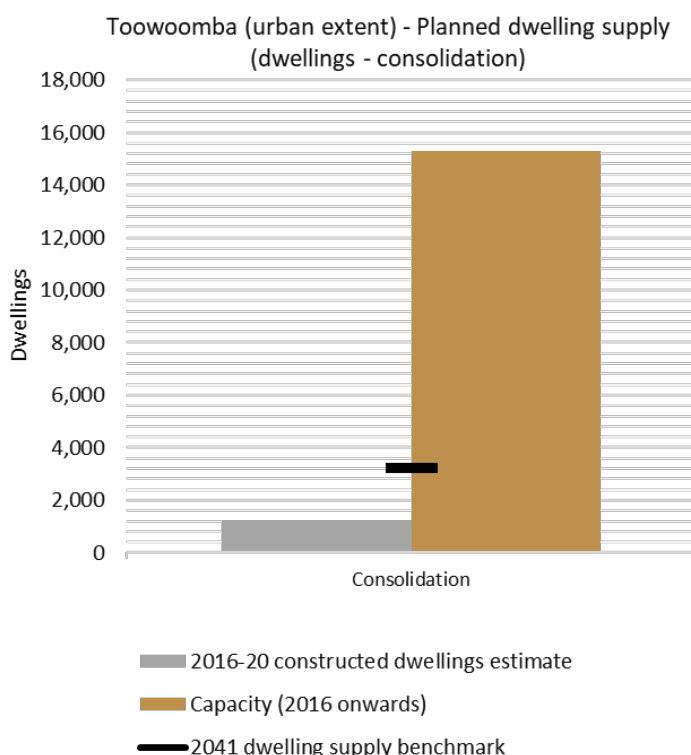
The realistic availability scenario uses the Current Intent to Service layer from the Ability to Service best practice research established in the 2019 LSDM Report. This is used in combination with other updated data, to derive new estimates of the realistic availability of planned dwelling supply. For more information about the method applied in the 2020 LSDM Report, see the [Best practice research](#) and [Technical notes](#).

In the Toowoomba (urban extent) consolidation area, the capacity of planned dwelling supply, from 2016 onwards, is about 15,300, which is significantly above the consolidation 2041 dwelling supply benchmark of 3200 dwellings.

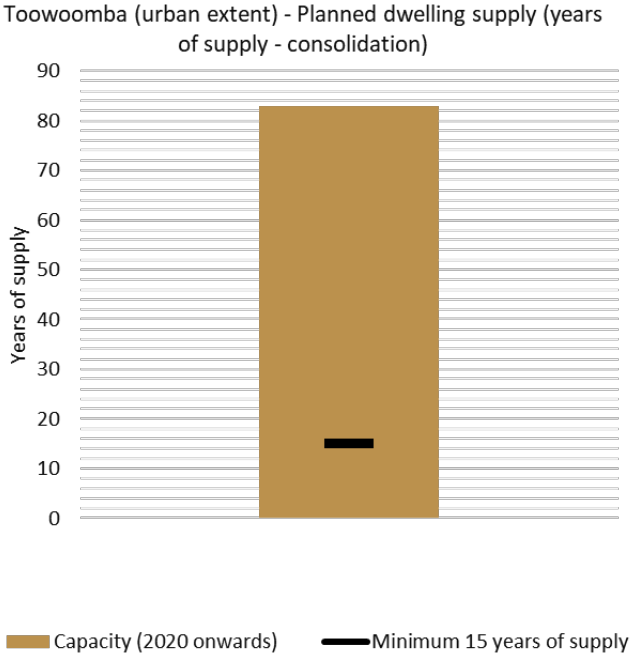
Similarly, in the Toowoomba (urban extent) expansion area, the capacity of planned dwelling supply is about 50,500, which is greatly above the expansion 2041 dwelling supply benchmark of 17,100 dwellings. The realistic availability of this supply is about 45,600 dwellings, which equates to about 61 years of supply and is above *ShapingSEQ 2017's* 15 years of supply policy objective.

Planning scheme amendments in process, or recently adopted, in Toowoomba may affect planning dwelling supply. Where amendments proceed, and source data is updated, their effect on planned dwelling supply will be included in future years of LSDM Reporting. For example, Amendment 16 is not currently reflected in Toowoomba's planned dwelling supply figures and is expected to have an impact on planned dwelling supply in Low Density and Low-Medium Density Residential zoned areas.

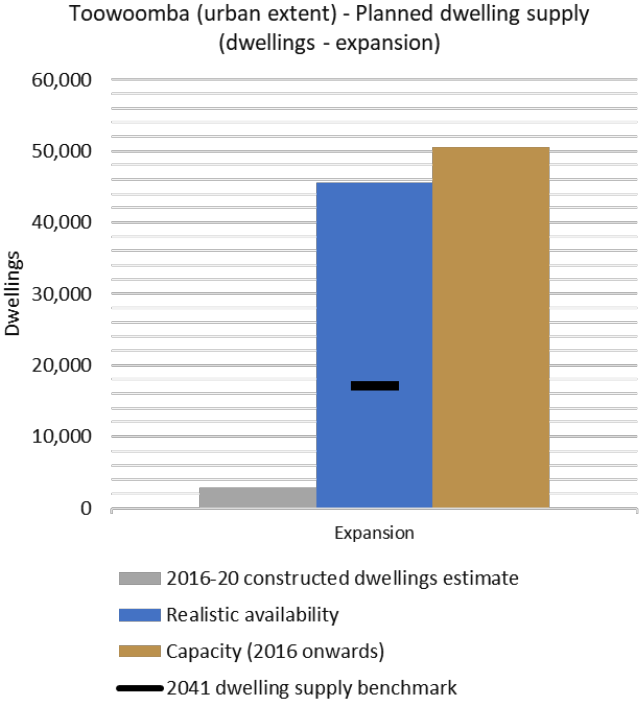
For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning scheme amendments either recently adopted or in process for Toowoomba, see the [Technical notes](#).



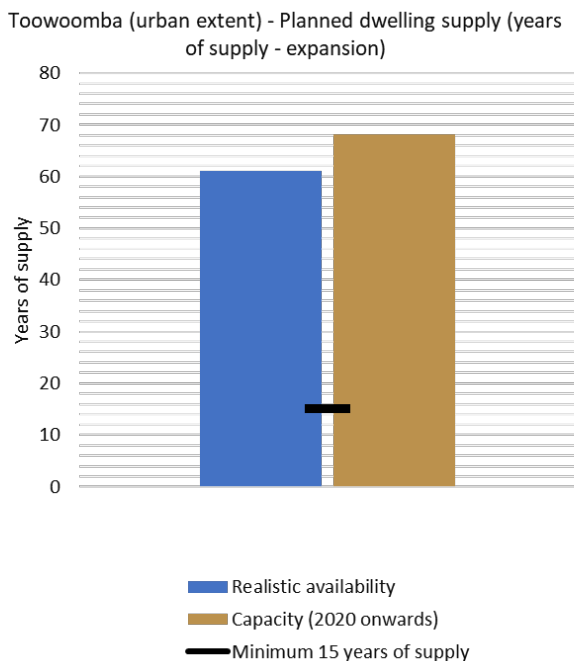
This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017's* dwelling supply benchmarks in consolidation areas.



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* minimum 15 years of supply policy objective in consolidation areas.



This graph shows the number of dwellings that have been or could be approved based on current planning intent compared against *ShapingSEQ 2017*'s dwelling supply benchmarks in expansion areas. To view fact sheets on the concept of realistic availability, [click here](#).



This graph shows the number of years of supply of dwellings that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017*'s minimum 15 years of supply policy objective in expansion areas.

Note: The planned dwelling supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring (LSDM) Report.

On 7 February 2020, the Queensland Government released new regulatory koala habitat maps for South East Queensland, to support the implementation of the South East Queensland Koala Conservation Strategy 2020-2025. The new koala habitat mapping has not been considered in the estimates of planned dwelling supply within the 2020 LSDM Report as this mapping has not yet been reflected in local government planning schemes or land supply databases at the time of data collection for the 2020 LSDM Report.

Approved supply – Toowoomba (urban extent)

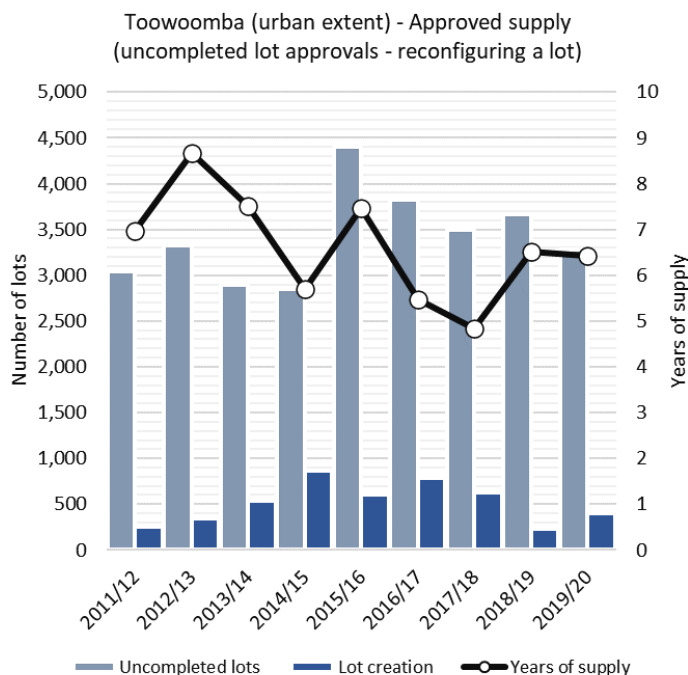
There are about 6.4 years of supply of uncompleted lot approvals in the Toowoomba consolidation and expansion areas overall, which is more than the minimum four years of supply sought by *ShapingSEQ 2017*.

The number of uncompleted lot approvals and total years of supply have fluctuated in accordance with the rate of lot creation.

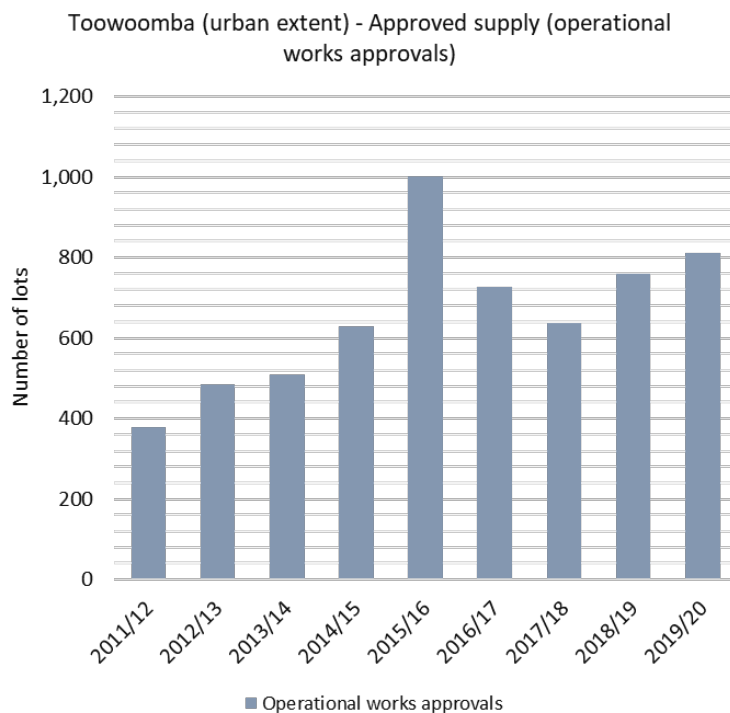
The total number of uncompleted lot approvals currently is 3279 which is about 1129 lots below the long-term historical high for Toowoomba in 2015/16. Of the uncompleted lots, approximately 25 per cent have operational works approvals for the 2019/20 period.

Toowoomba (urban extent) currently has about 6.3 years of supply of uncompleted multiple dwelling approvals in the consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*.

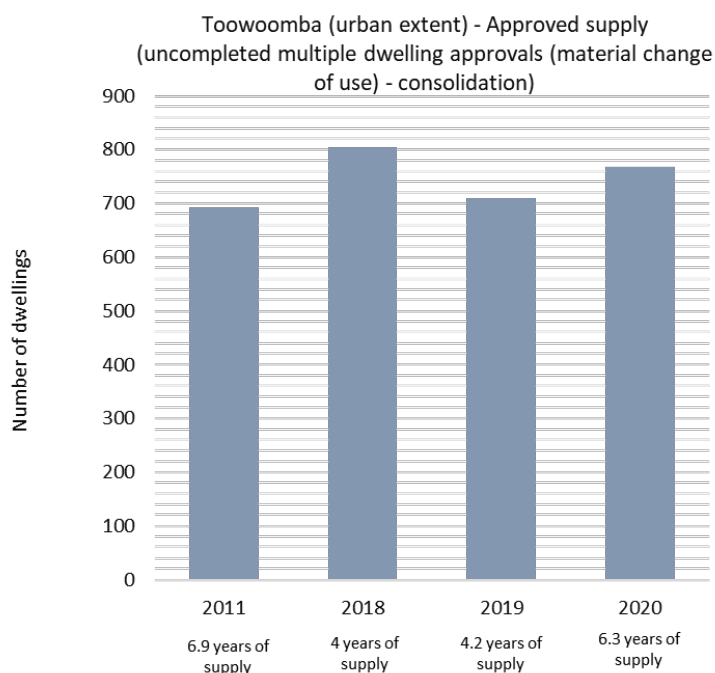
For details of the calculation and comparability over time of the approved supply figures, refer to the [Technical notes](#).



This graph shows the number of lots that have a development permit but have not yet been certified (uncompleted lots) as at 30 June each year as well as the number of lots that have been created in the 12 months up to 30 June each year.



This graph shows the number of uncompleted lot approvals which also have operational works approvals as at 30 June each year.



This graph shows the number of multiple dwellings that have a material change of use development permit but have not yet been constructed (uncompleted multiple dwellings) in the consolidation area as at 30 June 2011, 30 June 2018, 30 June 2019 and 30 June 2020.

Note: The years of supply for uncompleted multiple dwelling approvals is determined by dividing the total number of uncompleted multiple dwellings by the average annual attached dwelling building approvals of the previous four years.

The years of supply for uncompleted lot approvals is determined by dividing the total number of uncompleted lots by the average annual lot certifications of the previous four years.

Dwelling growth – Toowoomba (urban extent)

In recent years, dwelling approvals (used to measure dwelling growth) in Toowoomba (urban extent) consolidation area have exceeded the average annual benchmarks. In the Toowoomba (urban extent) expansion area, dwelling approvals have exceeded the average annual benchmark in recent years but declined below the average benchmark in 2018/19 and 2019/20.

This will be closely monitored in future reporting.

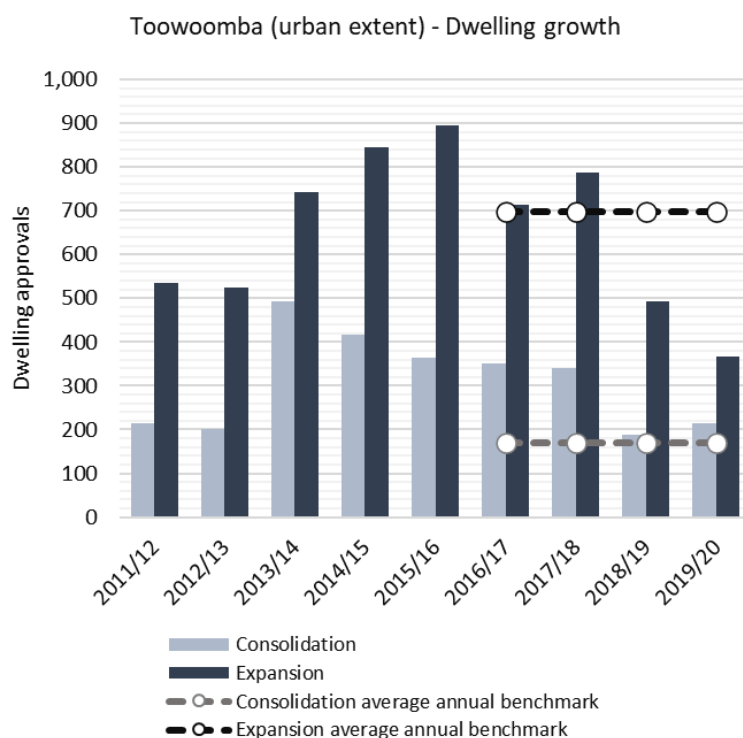
There were 215 dwelling approvals in Toowoomba’s consolidation area in 2019/20, which was 46 dwellings more than the consolidation average annual benchmark of 169 additional dwellings.

There were 368 dwelling approvals in Toowoomba’s expansion area in 2019/20, which was about 331 dwellings less than the expansion average annual benchmark of 699 additional dwellings. A growing gap between dwelling growth figures and the average annual *ShapingSEQ 2017* benchmark in the expansion area may lead to a challenge in accommodating the 2041 dwelling supply benchmark.

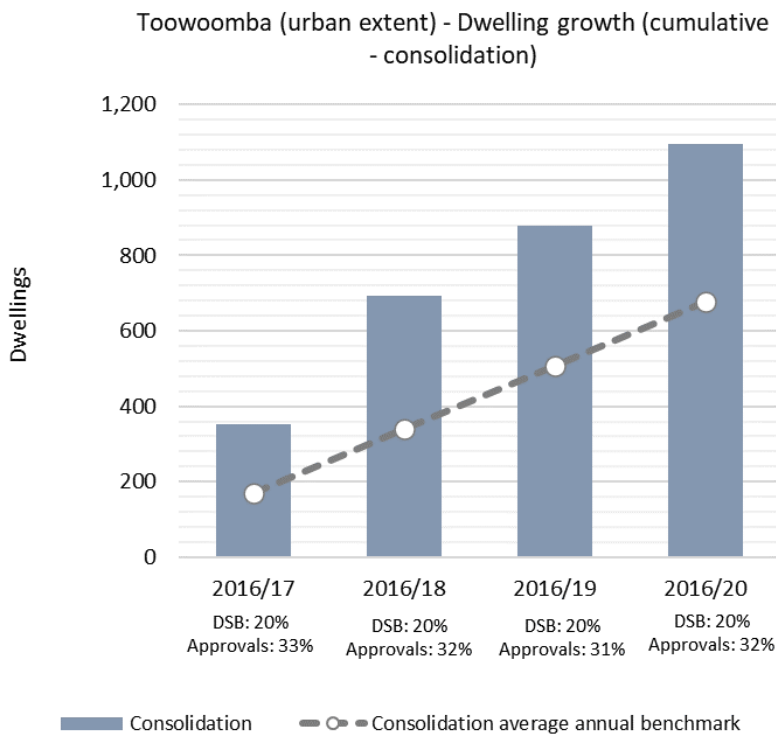
Approximately 32 per cent of dwelling approvals for 2016/17 to 2019/20 were in Toowoomba’s consolidation area, which exceeds its expected share of dwelling growth to 2031 identified in *ShapingSEQ 2017* (20 per cent).

Approximately 68 per cent of dwelling approvals were in Toowoomba’s expansion area over the same period, which is less than its expected share of 80 per cent.

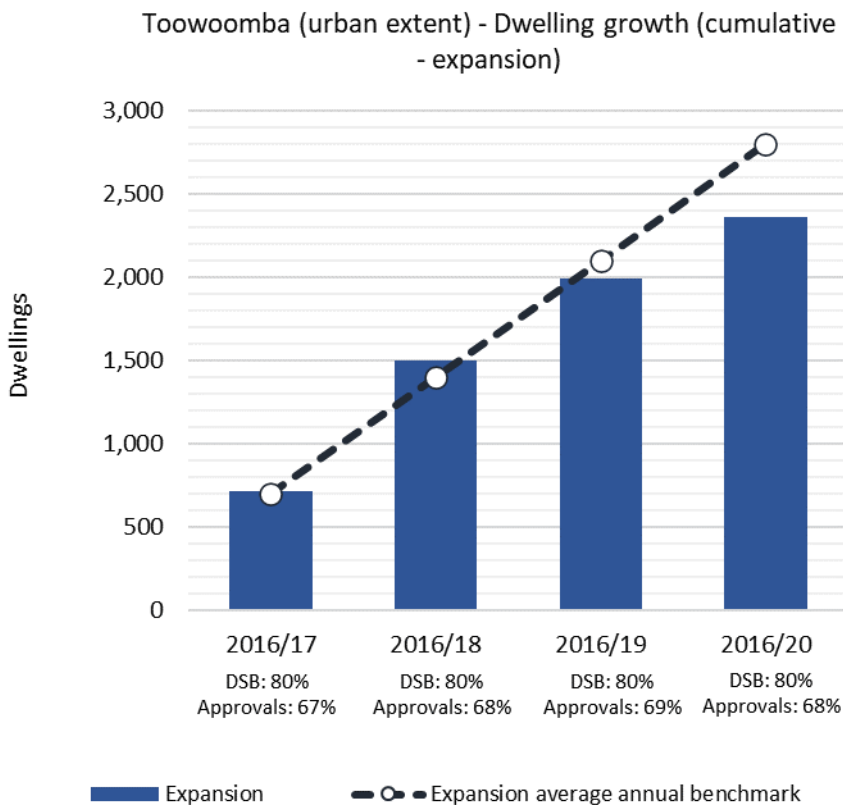
For more information about improvements to the measurement of net growth over time, see [Program Delivery](#). For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows annual dwelling approvals compared against *ShapingSEQ 2017's* average annual benchmarks.



This graph shows the cumulative dwelling growth in the consolidation area against *ShapingSEQ 2017's* consolidation average annual benchmark.



This graph shows the cumulative dwelling growth in the expansion area against *ShapingSEQ 2017*'s expansion average annual benchmark.

Note: The average annual benchmark (2016 to 2031) was adjusted in the 2019 Land Supply and Development Monitoring Report to reflect the growth rate of the 2018 Queensland Government dwelling projections for SEQ. This adjustment resulted in the average annual benchmark increasing marginally for the consolidation and expansion area in each local government. This adjustment has been retained in the 2020 reporting. For more detail about the adjustment method and reasoning, see the [Technical notes](#).

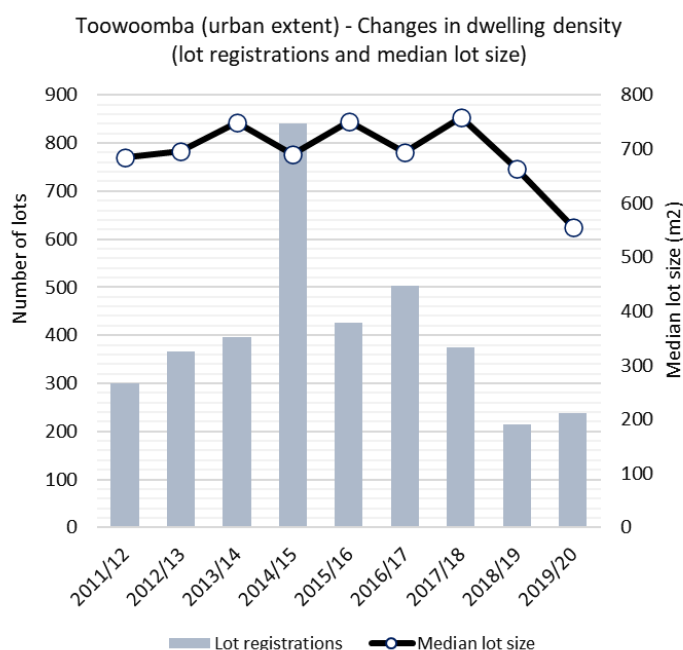
Changes in dwelling density – Toowoomba (urban extent)

Dwelling density (measured through median size of new lots and mean population-weighted dwelling density) has increased in Toowoomba (urban extent) in recent years, consistent with SEQ's preferred future, for higher dwelling densities and smaller lot sizes.

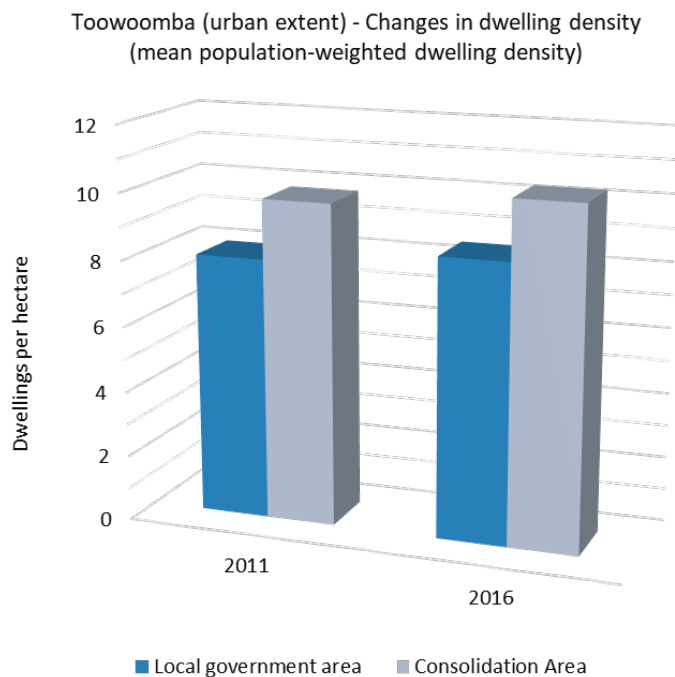
Mean population-weighted dwelling density in Toowoomba (urban extent) increased between 2011 and 2016, from eight to 8.5 dwellings per hectare. This represents the average dwelling density at which the population of Toowoomba (urban extent) lives and is comparable to the net residential density as used by *ShapingSEQ 2017*. In the consolidation area, mean population-weighted dwelling density increased from 9.8 to 10.3 dwellings per hectare

The median size of new lots in Toowoomba (urban extent) has decreased from 684m² to 555m² from 2011/12 to 2019/20. Lot sizes peaked at 759m² in 2017/18. The number of lot registrations fluctuated over the same period, with a peak in 2014/15. Large new lot sizes may still have contributed to higher dwelling densities in Toowoomba (urban extent) if they are smaller than average existing lots.

For more detail about the calculation of mean population-weighted dwelling density and median size of new lots, see the [Technical notes](#).



This graph shows the number and median size of new lots registered annually.



This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Toowoomba (urban extent)

When compared to existing dwelling stock at the 2016 Census, recent dwelling approvals in Toowoomba (urban extent) indicate an increase in housing diversity, consistent with SEQ's preferred future.

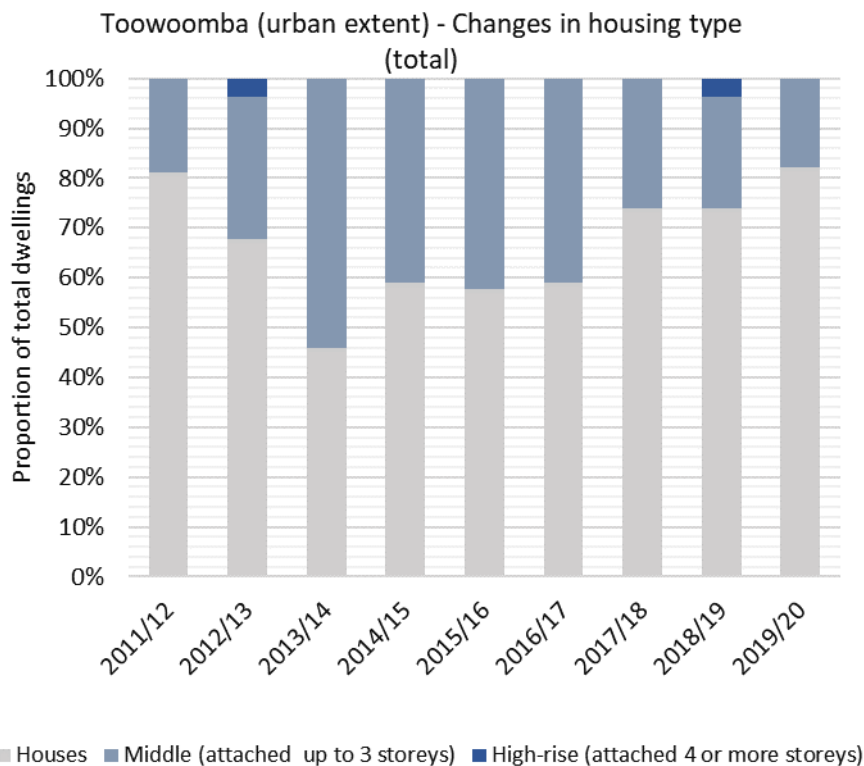
Seventy-one per cent (2444 dwellings) of all new dwelling approvals in Toowoomba (urban extent) for 2016/17 to 2019/20 were for houses, which was less than for existing dwelling stock (80 per cent as at the 2016 Census). Dwelling approvals for middle (29 per cent or 988 dwellings) over the same period were higher than their share of the dwelling stock as at the 2016 Census (20 per cent). Approvals for high-rise dwellings for 2016/17 to 2019/20 were about one per cent (25 dwellings), higher than their share of dwelling stock as at the 2016 Census (zero per cent).

Houses remain the predominant housing type and the percentage of houses has increased since 2016/17.

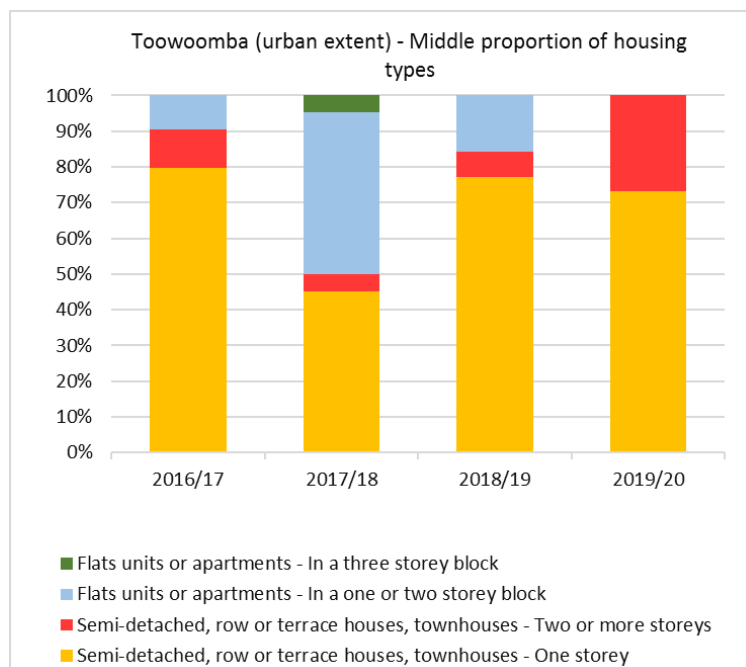
Of middle dwelling approvals since 2016/17, the predominant middle housing type approved in Toowoomba is semi-detached, row or terrace houses and townhouses of one storey (about 80 per cent or 793 dwellings).

About 47 per cent (464 dwellings) of middle dwelling approvals for the period between 2016/17 and 2019/20 were located within the consolidation area and about 53 per cent (524 dwellings) were located within the expansion area.

For more detail about dwelling approvals, see the [Technical notes](#).



This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.



This graph shows the proportion of housing types contained within middle dwelling approvals annually since the introduction of ‘missing middle’ in *ShapingSEQ 2017*.

Note: Housing type data is based on building approval and Census categories as reported by the Australian Bureau of Statistics (ABS) and may not fully align to use definitions in planning schemes. For example, some dual occupancy,

auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Sales and price – Toowoomba (urban extent)

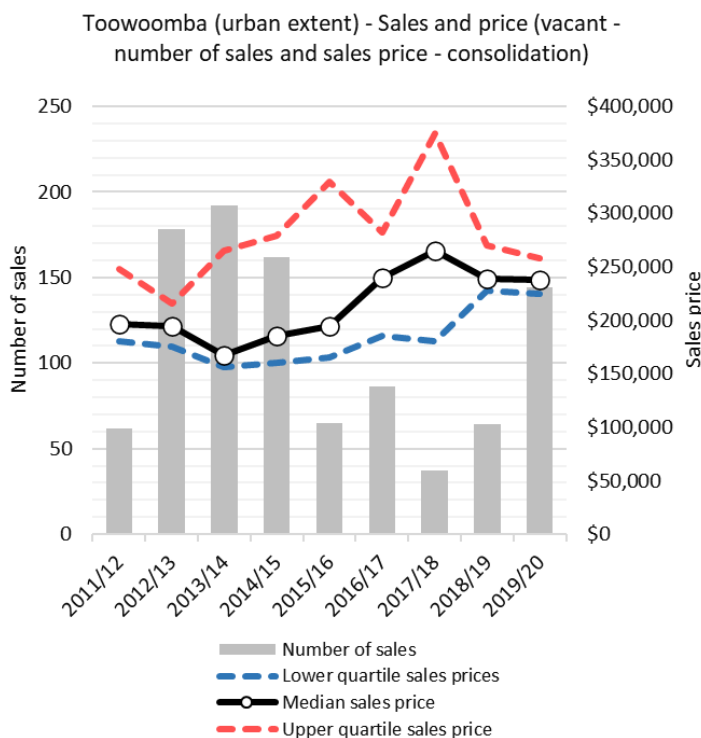
The number of sales has increased from 2018/19 to 2019/20 for all categories in Toowoomba (urban extent) except house-land packages and attached dwellings in the consolidation and expansion areas.

The median sales price for all categories is lower in Toowoomba (urban extent) than for South East Queensland (SEQ). However, the rate of median sales price growth in Toowoomba (urban extent) between 2011/12 and 2019/20 was greater than SEQ for house-land packages in the consolidation area and vacant lots per square metre and attached dwellings in the consolidation and expansion areas.

The greatest median price growth was for house-land packages (59.3 per cent) in the consolidation area followed by vacant lots per square metre in the consolidation area (52.5 per cent) and expansion area (50 per cent) over this period.

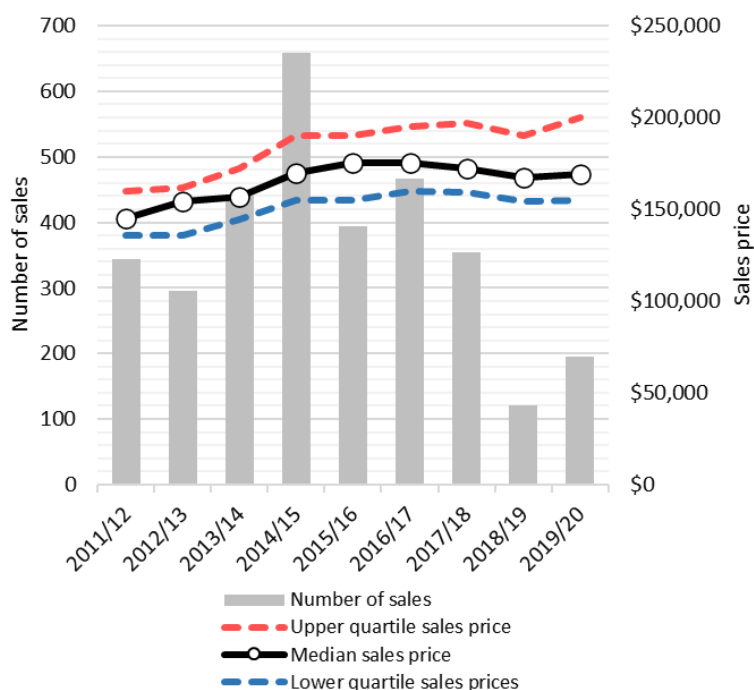
The median sales price and rate of median sales price growth are higher in the consolidation area than in the expansion area within Toowoomba (urban extent). The exception is houses, which experienced greater median sales price growth in the consolidation area but remain more expensive in the expansion area.

For more detail about the median sales price and number of sales, see the [Technical notes](#).



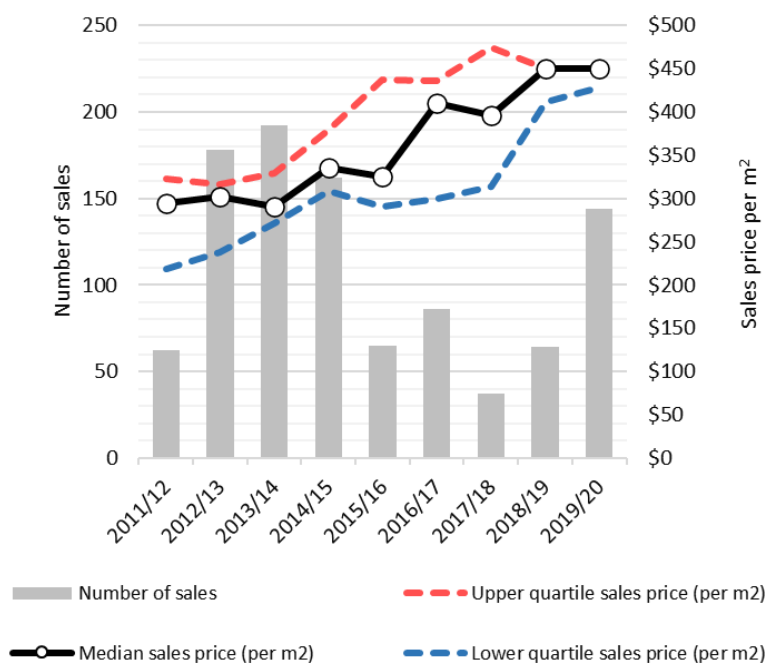
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the consolidation area.

Toowoomba (urban extent) - Sales and price (vacant - number of sales and sales price - expansion)



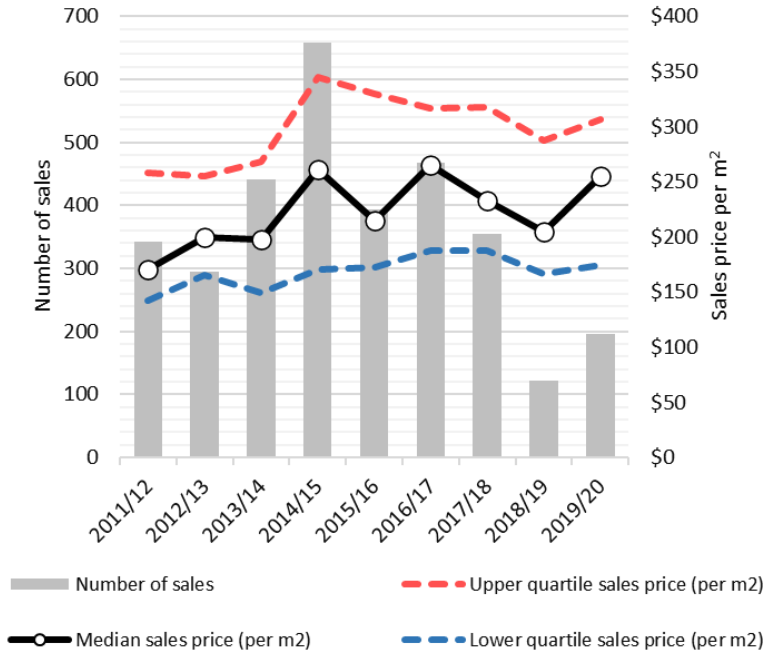
This graph shows the number of sales and the lower, median and upper quartile sales price for vacant lots in the expansion area.

Toowoomba (urban extent) - Sales and Price (vacant - number of sales and price per m2 - consolidation)



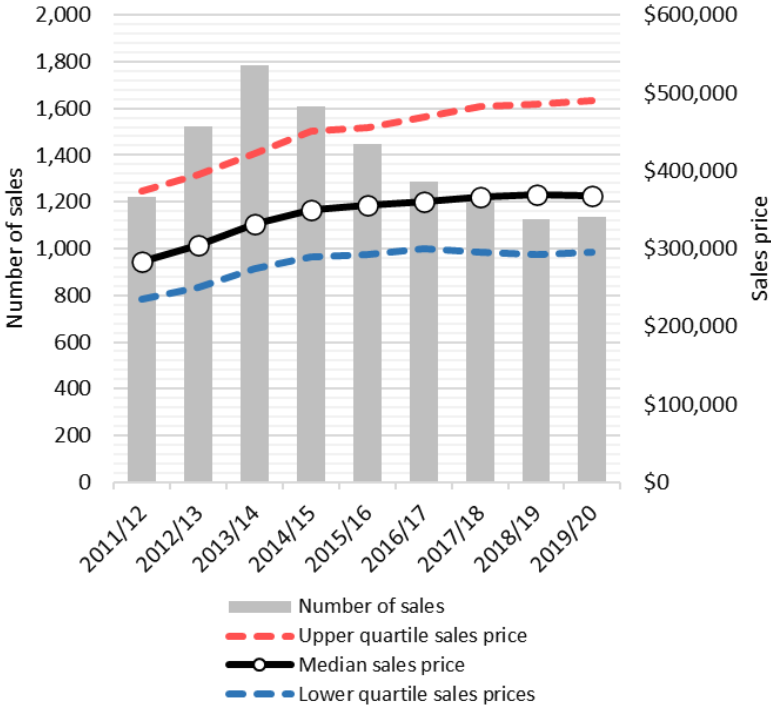
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the consolidation area.

Toowoomba (urban extent) - Sales and price (vacant - number of sales and price per m2 - expansion)



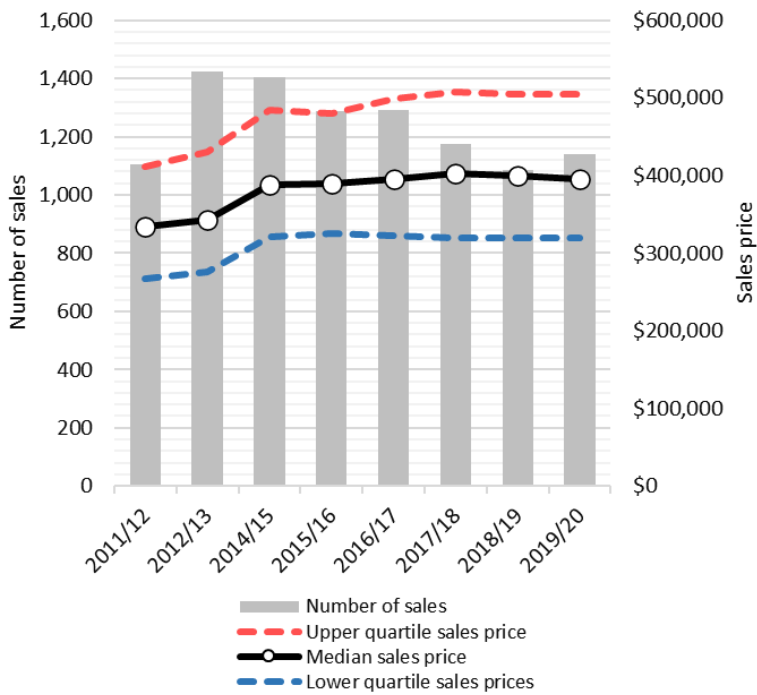
This graph shows the number of sales and the lower, median and upper quartile sales price per square metre for vacant lots in the expansion area.

Toowoomba (urban extent) - Sales and price (houses - number of sales and sales median price - consolidation)



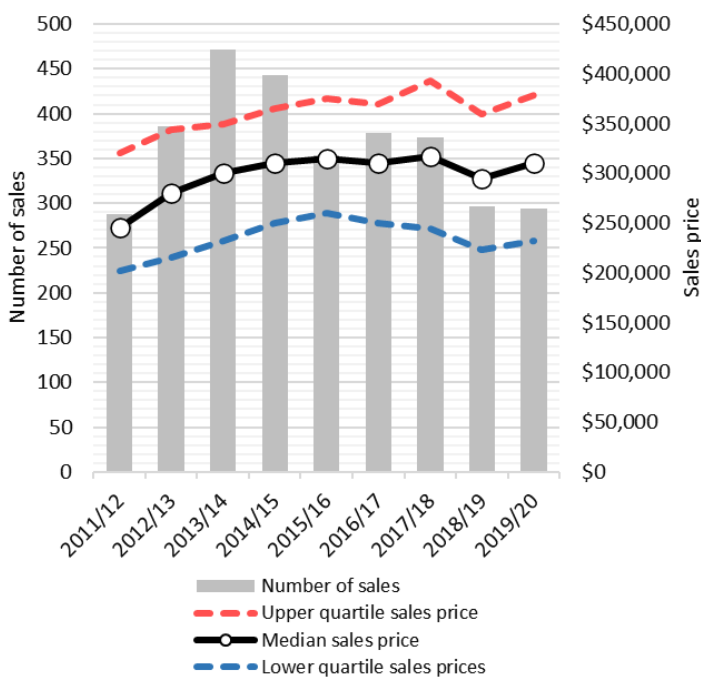
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the consolidation area.

Toowoomba (urban extent) - Sales and price (houses - number of sales and sales price - expansion)



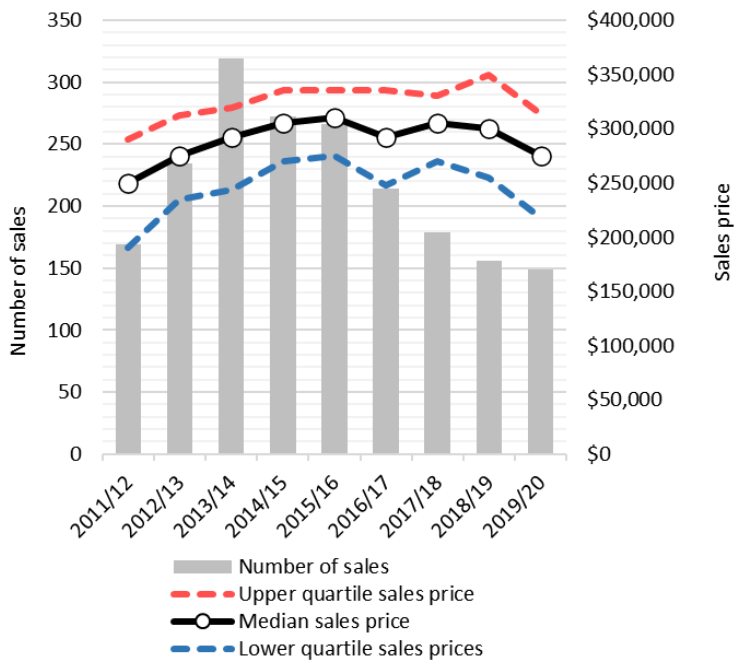
This graph shows the number of sales and the lower, median and upper quartile sales price for houses in the expansion area.

Toowoomba (urban extent) - Sales and price (attached - number of sales and sales price - consolidation)



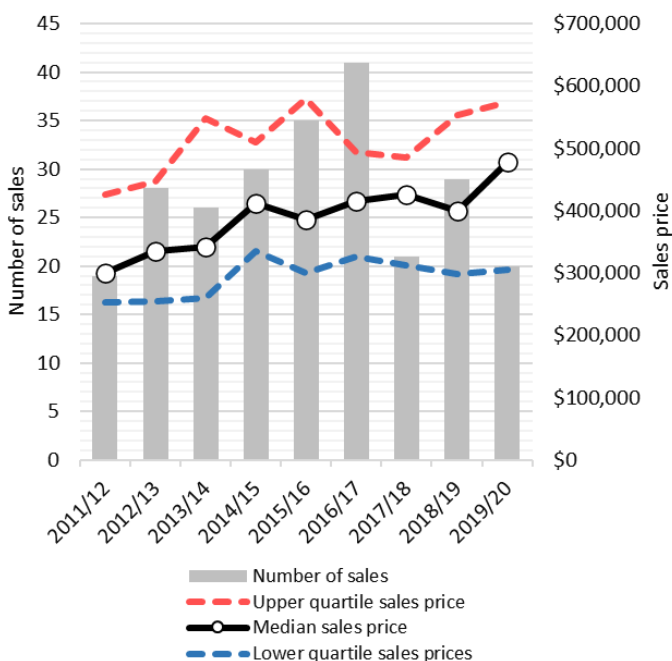
This graph shows the number of sales and the lower, median and upper quartile sales price for attached dwellings in the consolidation area.

Toowoomba (urban extent) - Sales and price (attached - number of sales and sales price - expansion)

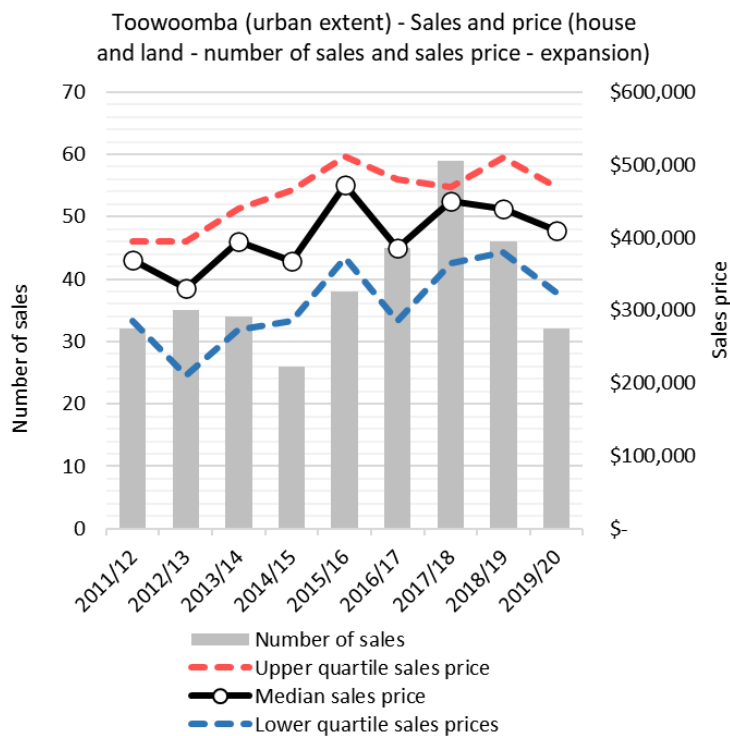


This graph shows the number of sales and the lower, median and upper quartiles sales price for attached dwellings in the expansion area.

Toowoomba (urban extent) - Sales and price (house and land - number of sales and sales price - consolidation)



This graph shows the number of sales and the lower, median and upper quartile sales price for house-land packages in the consolidation area.



This graph shows the number of sales and the lower, median and upper quartiles sales price for house-land packages in the expansion area.

Industrial – Toowoomba (urban extent)

Planned industrial land supply/take-up – Toowoomba (urban extent)

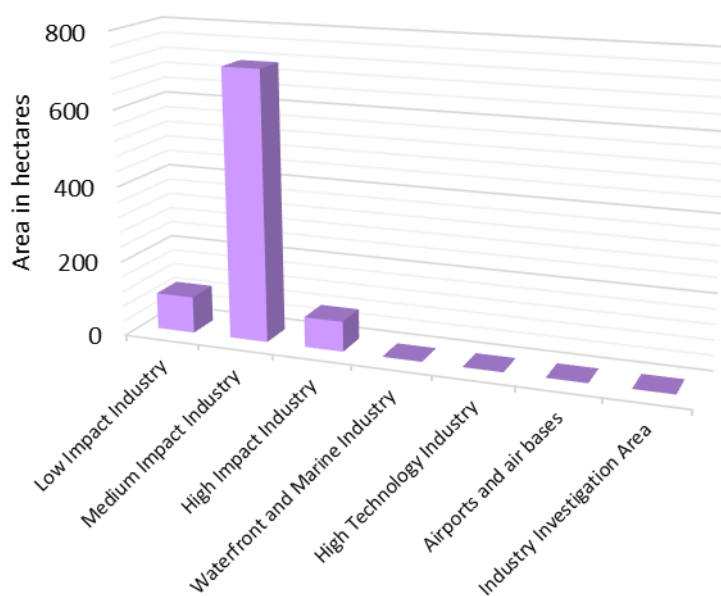
The estimated take-up of developed industrial land in Toowoomba (urban extent) between 2011 and 2019 was about 583 hectares. The take-up occurred on land intended for low, medium and high impact industry.

There were about 890 hectares of planned industrial land in Toowoomba (urban extent) as at 2019, including serviced and un-serviced land. This planned industrial land comprised land intended for low, medium and high impact industry.

The current planned industrial land estimate improves upon the estimate provided in previous LSDM Reports. It has been derived by applying updated SEQ wide developability rules, as well as refinement of industrial land categories.

For more detail about these improvements and planned industrial land and take-up, see the [Best practice research](#) and [Technical notes](#).

Toowoomba (urban extent) - Planned industrial land supply



890ha of developable land
583ha was taken up between 2011-19

This graph shows the number of hectares of vacant planned industrial land as at 2019 by industrial land category.

Note: The planned industrial land measure identifies land (serviced and un-serviced) that may be developable in the long term based on current zoning or intent and applicable constraints in a planning instrument. Much of this land may not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry. Also, planned industrial land is a gross area which does not include any allowance for new roads, infrastructure corridors, open space and the like.

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

The department has built on work undertaken in 2018 and 2019 to improve and mature industrial land monitoring for the LSDM Report. The department has worked with stakeholders on improvements to the methodology for determining planned industrial land supply/take-up and planned industrial employment supply. The focus of the work undertaken has been to develop a consistent and repeatable methodology that will ensure a continued high level of rigour in industrial land monitoring moving forward. For further information, see the [Best practice research](#) section.

Planned industrial employment supply – Toowoomba (urban extent)

Toowoomba (urban extent)

The capacity and realistic availability of planned industrial employment supply in Toowoomba (urban extent) provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent. The realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities.

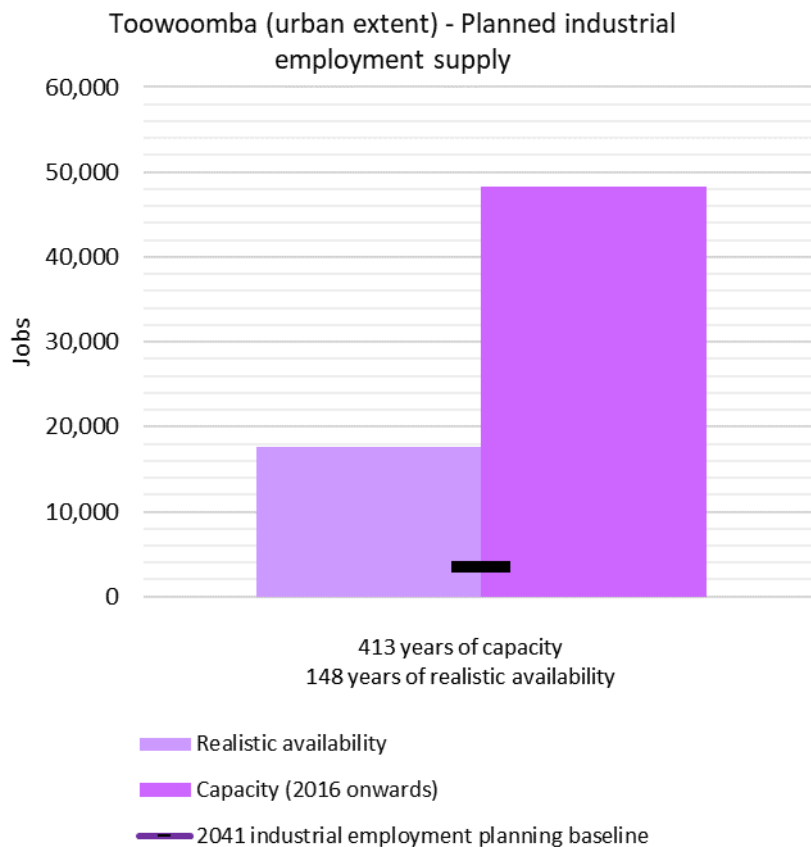
The realistic availability scenario continues to use the method applied in the 2019 LSDM Report. It also uses the Developable Area best practice research and a refined set of economic and developability criteria to estimate realistic availability in selected Major Enterprise and Industrial Areas. For more information about these improvements, see the [Best practice research](#) and [Technical notes](#).

The capacity of planned industrial employment supply in Toowoomba (urban extent) is about 48,300 employees, while the realistic availability of this supply is about 17,600 employees. These figures are considerably greater than the 2041 industrial employment planning baseline of about 3400 employees. The majority of this supply is in Charlton-Wellcamp. Some excess of planned industrial employment supply may be appropriate to facilitate strategic economic development opportunities when they arise. This need was recognised by the Best practice research in the 2018 LSDM Report. Also, as a large emerging industrial area, the industrial employment planning baselines may not fully recognise the employment potential of Charlton-Wellcamp.

The realisation of this planned industrial employment supply is expected to be supported by the development of the Melbourne to Brisbane Inland Rail and the Toowoomba Second Range Crossing. It has been supported by recent investment in the Steger Road Infrastructure Enabling project and Toowoomba Enterprise Hub Stimulus project, providing key transport and water links for Toowoomba's Trade Gateway at Charlton-Wellcamp.

Planning scheme amendments are in process in Toowoomba that may affect planned industrial employment supply. Where amendments proceed, and data sources are updated, their effect on industrial employment supply will be included in future years of LSDM Reporting.

For more detail about the calculation of planned industrial employment supply, see the [Technical notes](#).



This graph shows the number of employees that could be supported by industrial developments, that have been or could be approved based on current planning intent, compared against *ShapingSEQ 2017's* 2041 industrial employment planning baseline.

Note: The planned industrial employment supply measures are as calculated by the department using information provided by local governments and utility providers that was generally developed in accordance with guidelines that applied at the time. These measures, their method of calculation and the assumptions that underpin the source data are expected to improve and become more consistent over time, improving the comparability of supply estimates between local government areas. These improvements will be implemented progressively (see [Program Delivery](#)) and be reflected in future publications of the Land Supply and Development Monitoring Report. Much of the planned industrial employment supply will not be developable in the short-medium term due to a lack of necessary infrastructure or other factors that may constrain or delay its availability for relevant types of industry.

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Definitions

Term	Definition
15 years of supply	The minimum 15 years of supply policy objective of <i>ShapingSEQ 2017</i> (p.46).
2016/17– 2019/20 constructed dwellings estimate	An estimate of the dwellings constructed in an area from 1 July 2016 to 30 June 2020 based on building approvals for new dwellings in that area from 1 July 2015 to 30 June 2019 (assuming a 12-month lag from approval to completion of construction).
2041 dwelling supply benchmark	The dwelling supply that needs to be planned for to accommodate the dwelling growth to 2041 expected in an area by the South East Queensland Regional Plan 2017, <i>ShapingSEQ 2017</i> (see Figure 7).
2041 industrial employment planning baseline	The industrial employment supply that needs to be planned for to accommodate the industrial employment growth to 2041 expected in an area by the South East Queensland Regional Plan 2017, <i>ShapingSEQ 2017</i> .
All categories	For sales and price are vacant lots (per lot and per square metre), attached dwellings, houses and house-land package.
Approved supply	The number of uncompleted lot approvals and uncompleted multiple dwelling approvals (which are separately defined) in an area.
Attached dwellings	For: <ul style="list-style-type: none"> • housing type—are other residential buildings including semi-detached, row or terrace houses or townhouses, and flats, units or apartments. • sales and price—are attached dwellings (units and townhouses), as identified by the Department of Resources' Queensland Valuation and Sales database as being sold.
Average annual baseline	The average annual growth of employment expected for an area and industry sector from 2016 to 2031 in order to align with the employment planning baselines as identified in Appendix A of <i>ShapingSEQ 2017</i> .
Average annual benchmark	The average annual dwelling growth from 2016 to 2031 expected in an area by <i>ShapingSEQ 2017</i> , proportionally adjusted to align with the rate of growth projected for SEQ as a whole by using current Queensland Government dwelling projections (2018 edition medium series), compared to the rate of growth assumed by <i>ShapingSEQ 2017</i> . Note: this method was used for the 2019 LSDM Report and has been retained for the draft 2020 LSDM Report.
Capacity of planned dwelling supply	An estimate of the number of dwellings that could be developed in an area when fully developed given the expected nature of dwelling demand and densities over time and in compliance with the planning instruments that currently apply in that area.
Capacity of planned industrial employment supply	An estimate of the number of industrial employees that could be accommodated by industrial development in an area when fully developed

	given the expected nature of industrial employment demand and densities over time and in compliance with the planning instruments that currently apply in that area.
Consolidation	Development on land inside the existing urban area boundary (as defined by <i>ShapingSEQ 2017</i> based on selected Australian Bureau of Statistics 2016 Statistical Area Level 2 boundaries).
Developed industrial land	The total area of land parcels with a zoning or intent for industrial purposes in a planning instrument (e.g. planning scheme, development scheme, port land use plan, etc.) where those parcels are developed for use (including land which may be underutilised).
Dwelling approvals	The number of dwellings that have obtained building approval in a given area for a given period. This figure is used as an approximate measure of dwelling growth.
Expansion	Development on land outside the existing urban area boundary (as defined by <i>ShapingSEQ 2017</i> based on selected Australian Bureau of Statistics 2016 Statistical Area Level 2 boundaries).
Expected share	The proportion of total dwelling growth in a given area that is consolidation or expansion from 2016 to 2031, as expected by <i>ShapingSEQ 2017</i> .
Four years of supply	<i>ShapingSEQ 2017's</i> minimum four years of approved supply preferred future (p.167).
High-rise	For housing type— are attached dwellings of four or more storeys.
Houses	For: <ul style="list-style-type: none"> • housing type— are a detached building primarily used for long-term residential purposes consisting of one dwelling unit. Includes detached houses associated with a non-residential building, and kit and transportable homes. • sales and price— are a detached dwelling, as identified by the Department of Resources' Queensland Valuation and Sales database as being sold.
Lot creation	Lot certification, previously and commonly referred to as plan sealing, which is the final stage of local government approval of lots prior to lot registration by the state government.
Lot registrations	The number of lots registered in a given area for a given period.
Lower quartile sales price	The lower quartile sales price (\$) for reported sales of vacant lots (per lot and per square metre), attached dwellings, houses, and house and land packages in a given area for a given period.
Mean population-weighted dwelling density	The mean population-weighted dwelling density of all Census mesh blocks in a region. It is calculated as follows:

	The sum for all Census mesh blocks of ((mesh block dwelling count divided by area of mesh block) multiplied by mesh block population count) divided by the sum of all mesh block population counts.
Median lot size	The median size of new urban lots 60 to < 2,500 m ² registered in a given area for a given period.
Median sales price	The median sales price (\$) for reported sales of vacant land (per lot and per square metre), attached dwellings, houses and house-land packages in a given area for a given period.
Mesh blocks	The smallest geographical area defined by the Australian Bureau of Statistics and form the building blocks for the larger regions of the Australia Statistical Geography Standard (ASGS). All other statistical areas or regions are built up from or approximated by them. They broadly identify land use such as residential, commercial, primary production and parkland and can be combined to accurately approximate a large range of other statistical regions.
Middle	For housing type— Middle aligns with ABS dwelling building approval reporting and includes: <ul style="list-style-type: none"> • Flats, units or apartments, in a one or two storey block • Flats, units or apartments in a three-storey block • Semi-detached, row or terrace houses, or townhouses of one storey or • Semi-detached, row or terrace houses, or townhouses of two or more storeys.
Number of sales	The number of reported sales, at the date of data extraction, for vacant lots, houses, house-land packages, or attached dwellings, in a given area for a given period.
Operational works approvals	The number of uncompleted lots that also have an operational works approval (e.g. to construct roads or drainage) at the relevant date.
Planned dwelling supply	A collective term for the capacity of planned dwelling supply and the realistic availability of planned dwelling supply, which are separately defined.
Planned industrial land	Land that is vacant, has a zoning or intent for industrial purposes in a planning instrument (e.g. planning scheme, development scheme, port land use plan, etc.) and is not affected by identified constraints. <p>This is effectively the gross developable area, i.e. it does not exclude any allowance for new roads, infrastructure corridors, open space and the like. It also does not exclude any allowance for some constraints which affect the economic feasibility of industrial development, e.g. geotechnical conditions, mining impacts, availability of infrastructure and the like.</p>

<p>Realistic availability of planned dwelling supply</p>	<p>A scenario which assumes some of the capacity of planned dwelling supply is not available for development by 2041 due to factors that may constrain the availability of land for development to accommodate dwellings. Such factors may include:</p> <ul style="list-style-type: none"> • infrastructure availability • the practical staging of and capability for development • land ownership fragmentation • landowner intent • insufficient demand for the planned scale/density of uses in some areas up to 2041 • existing versus planned density (or land value in the existing versus the planned use) • the age of existing development • accessibility • constraints affecting the economic feasibility of development.
<p>Realistic availability of planned industrial employment supply</p>	<p>A scenario which assumes some of the capacity of planned industrial employment supply is not available for development by 2041 due to factors that may constrain the availability of land for development to accommodate industrial employment. Such factors may include:</p> <ul style="list-style-type: none"> • infrastructure availability • the practical staging of and capability for development • land ownership fragmentation • landowner intent • lower employment densities than expected • accessibility • constraints affecting the economic feasibility of development.
<p>SEQ's preferred future</p>	<p>The 'SEQ's preferred future' identified in Table 22: Measures that Matter of <i>ShapingSEQ 2017</i> (p.167).</p>
<p><i>ShapingSEQ 2017</i></p>	<p>The South East Queensland Regional Plan, August 2017</p>
<p>Take-up</p>	<p>For developed industrial land - an estimate of the amount of land that was developed for use (including land which may be considered underutilised / not fully taken-up) from being vacant, in a given time-period, e.g. 2011 to 2019.</p>
<p>The department</p>	<p>Department of State Development, Infrastructure, Local Government and Planning, formerly the Department of State Development, Manufacturing, Infrastructure and Planning.</p>
<p>Ultimate development</p>	<p>The Minister's Guidelines and Rules defines ultimate development for a Local Government Infrastructure Plan, for an area or premises, as the likely</p>

	extent of development that is anticipated in the area, or on the premises, if the area or premises are fully developed.
Uncompleted lot approvals	The number of lots that have a reconfiguring a lot development permit but have not yet been certified (also known as plan sealing) at the relevant date.
Uncompleted multiple dwelling approvals	The number of multiple dwellings that have a material change of use development permit but have not yet been constructed at the relevant date. For the purpose of this report, multiple dwellings include developments where more than one self-contained dwelling is planned for a parcel, or where there is one dwelling per lot and they are subject to a Community Titles Scheme. Determination of whether dwellings have been constructed is based primarily on consideration of lot registrations information and recent aerial imagery.
Upper quartile sales price	The upper quartile sales price (\$) for reported sales of vacant lots (per lot and per square metre), attached dwellings, houses and house-land packages in a given area for a given period.
Urban extent	For Toowoomba — that part of the Toowoomba Regional Council’s local government area that is contained within the Toowoomba Statistical Area Level 4 as defined for the purposes of the Australian Statistical Geography Standard. This is the part of Toowoomba included in <i>ShapingSEQ 2017</i> .
Years of supply	The number of years it will take for a given supply of dwellings or industrial employment to be consumed based on the assumed level of annual demand. For industrial employment supply – the assumed level of annual demand is the average annual baseline. For planned dwelling supply – the assumed level of annual demand is the average annual benchmark.

Program Delivery

Introduction

The department, through the Growth Monitoring Program (GMP), monitors development activity and land supply for South East Queensland (SEQ). In recognition of the scale and local complexities of this task, the department works closely with key stakeholders who hold responsibilities and are active in this field, including the Australian Bureau of Statistics, state departments, the Queensland Government Statistician's Office (QGSO), local governments, utility providers and the development industry.

The GMP is a long-term program of government, that capitalises on the research and work undertaken by key stakeholders each year to create a shared understanding of development activity and land supply across SEQ. In particular, this involves using, improving and reporting from local government and utility provider planning assumptions, rather than creating new and varied land supply estimates. Moving towards a shared understanding of land supply and development activity in SEQ is a core objective of the GMP. This shared understanding of land supply and development activity will inform evidence-based decision making by the state and local governments, utility providers and the development industry and inform future reviews of the regional plan and planning schemes.

Governance framework and collaboration

The department manages the governance framework for collaboration with local governments, utility providers, other state agencies, the development industry and peak organisations to inform the GMP. This governance framework consists of a Reference Group (RG), a Data and Modelling Working Group (DMWG), a State Agency Working Group (SAWG), the Housing Supply Expert Panel (HSEP), a Local Government Working Group (LGWG) and the South East Queensland Regional Planning Committee (RPC).

- The RG is made up of senior representatives from local governments, utility providers, the development industry and peak bodies, and provides oversight and input into the GMP.
- The DMWG is attended by technical officers from local governments and utility providers who maintain land supply databases that feed into the LSDM Report. This group provides key technical input and oversight regarding data compilation, analysis and interpretation.
- The SAWG includes officers from across the department and numerous state agencies including Department of Education, Department of Transport and Main Roads, Department of Environment and Science and Department of Housing and Public Works. This group reinforces connections across the state government and optimises use of existing state resources, data and knowledge.
- The HSEP is comprised of local and national experts from a range of fields, including planning, property, economics and demography. The HSEP was established to oversee the GMP and provide independent advice on how to appropriately manage land supply and development and associated housing affordability issues in SEQ.
- The LGWG is made up of senior officers from local governments in South East Queensland. The LGWG supports the RPC by exploring and then reporting issues, opportunities, and solutions for *ShapingSEQ 2017* implementation to the RPC for their consideration.

- The RPC is chaired by the Minister for Planning, with membership including the Minister for Transport and Main Roads, the Minister for Housing and Public Works and the Minister for Environment and all SEQ Mayors (or equivalent) who advise the Queensland Government, through the Minister, on the development and implementation of *ShapingSEQ 2017*.

The 2020 meeting schedule for the various groups was as follows:

- Data and Modelling Working Group – four meetings
- Reference Group – three meetings
- State Agency Working Group – three meetings
- Housing Supply Expert Panel – nine meetings, including four formal meetings,
- Local Government Working Group – four meetings and three sub-committee meetings
- Regional Planning Committee – no meetings
 - With consideration of natural disasters at the start of 2020 and the COVID-19 pandemic, opportunities to engage RPC members have been limited and the department has focused engagement activities on the other groups within the GMP governance framework.
- Individual stakeholder meetings - the department has held a series of individual meetings throughout 2020 to support continued engagement with stakeholders, including local governments, state agencies, utility providers, development industry and peak organisations.

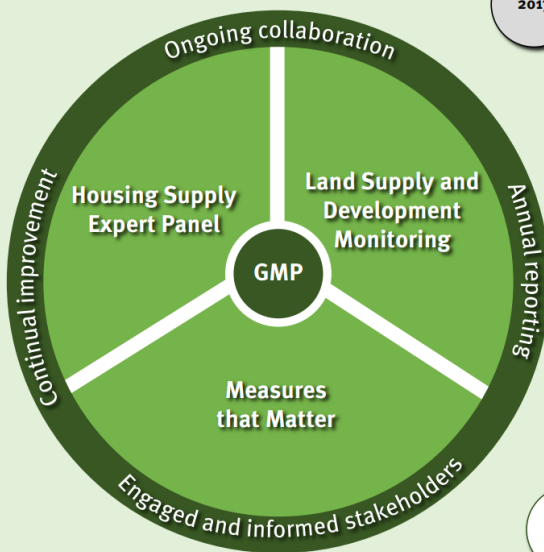
By continuing this collaboration, the department continues to advance the GMP to deliver best practice approaches for understanding land supply and development activity. The COVID-19 pandemic resulted in adaptations to how the department engaged with the various groups in the governance framework. To ensure continuity of the program and stakeholder engagement activities, meetings of these groups moved online to virtual meetings from March 2020.

Growth Monitoring Program Roadmap

In 2019, the department worked with South East Queensland Housing Supply Expert Panel (HSEP), Reference Group and Data and Modelling Working Group to prepare a five-year roadmap, articulating the GMP's vision up to 2023. In 2020, the GMP roadmap has been revised to illustrate the advancements of the GMP in 2020. The GMP roadmap reinforces the GMP's commitment to long-term progressive improvement to build a shared understanding of land supply and development activity as we progress towards the next regional plan review.






South East Queensland Growth Monitoring Program

2017-2023 Roadmap



- Pre 2017** Limited state land supply monitoring was available.
- 2017** Release of *ShapingSEQ*, August 2017.
 - Establishment of the Growth Monitoring Program, its governance frameworks, research programs and delivery of the:
 - Land Supply and Development Monitoring online report
 - Measures the Matter and Regional Planning Implementation Reporting online dashboards
 - SEQ Housing Supply Expert Panel.
- 2018**
- 2019** Delivered annual update, enhanced reporting and the progression of best practice research and priority actions.
- 2020** Annual update, reflecting ongoing refinement and enhancement of data. Actioning best practice research to realise improved residential and industrial reporting. Progressing toward a Regional Planning Model through best practice research and stakeholder feedback. (See over page for more detail on the 2020 report)
- 2021 to 2023** Continued annual monitoring, reporting refinement, and analysis of historical trends to inform policy drivers as part of a regional plan review.
- Beyond 2023** Continued annual monitoring of the region's land supply/ development activity, environment measures and implementation actions, as relevant to the regional plan.

Implementing *ShapingSEQ*

-  Great places to live
 -  Connecting communities
 -  Growing jobs
 -  Globally competitive
- 

Pre 2017

Prior to the development and release of *ShapingSEQ* there was limited monitoring of land supply across the SEQ region.

2017

- ShapingSEQ*, released in August 2017, included clear direction and actions for:
- establishing a Growth Monitoring Program (GMP)
 - monitoring the region's land supply and development activity
 - monitoring aspects of the natural, economic and social environment in the SEQ region compared with an identified overall preferred regional future for 15 key measures
 - ongoing reporting on the plan's key implementation actions.

2018

- The GMP prepared and released its three core deliverables being the:
- Housing Supply Expert Panel (HSEP)
 - Measures that Matter online dashboard
 - Land Supply and Development Monitoring (LSDM) online report (focusing on residential and industrial activity and supply).

All projects were delivered in close consultation and collaboration with state and SEQ local governments, industry representatives (including UDIA and PCA) and utility providers.

2019

The GMP built on and refined its reporting, including an annual data update and the progression of best practice research and priority actions in close collaboration with stakeholders.

2020

The GMP continued to refine annual reporting through enhancement and improvement of data collection and analysis. Progression of best practice research and actioning findings realise improved residential and industrial reporting. The GMP continues to work with stakeholders toward a Regional Planning Model informed by best practice research findings.

2021 to 2023

In addition to building on previous reporting, the GMP proposes to prepare trend analysis and specialised reporting to inform a regional plan review.

Beyond 2023

The GMP expects to continue to report, review and refine ongoing annual monitoring of the region's key land supply and development activity, environment measures and any identified implementation actions, as relevant to the regional plan.

The Growth Monitoring Program is demonstrating continuous improvement in data collection, analysis and reporting whilst working toward increased transparency and a regionally-consistent best practice approach applied to available local information.

The **2020 Land Supply and Development Monitoring online report** reflects a number of ongoing program improvements designed to:

- update existing data
- enhance data accuracy
- action best practice research
- inform better decision-making
- continue to collaborate with stakeholders
- produce more refined reporting.

These improvements/updates include:

- **Residential**
 - Updating building approvals to 30 June 2020
 - Updating approved and planned supply figures for residential land, including land supply, material change of use, reconfiguration of a lot and operational works approvals to 30 June 2020
 - Incorporation of interactive mapping to support report commentary
 - Providing finer grained reporting of housing diversity, particularly regarding middle housing types
 - Reporting on progress to develop a Regional Planning Model, informed by best practice research on Small Area Growth Assumptions and feedback from stakeholders
 - Updated report on market factors affecting the region's ongoing development, including consideration of potential economic impacts of a COVID-19 housing market in SEQ.
- **Industrial**
 - Updating the take-up of planned industrial land figures to 30 June 2019
 - Updating planned industrial employment supply figures to 30 June 2019
 - Refining and applying SEQ wide application of new constraint and developability rules to refine planned industrial land figures (and ultimately for planned residential land)
 - Refining and improving the estimate of the realistic availability of planned industrial employment supply figures.

Work program and key achievements for 2020

In the Growth Monitoring Program's (GMP) foundational year, 2018, the department commissioned independent experts to identify 'best practice' methods for calculating land supply, after considering SEQ, Australian and international examples. The research findings were provided to all key stakeholders as part of the GMP's governance framework and included several recommendations, as documented in the Best practice research sections of the 2018 and 2019 Land Supply and Development Monitoring (LSDM) Reports.

The department used the best practice research recommendations from 2018 and 2019 as well as feedback from GMP stakeholders to develop a Work Program that consists of subprograms that provide meaningful improvements to land supply and development monitoring in successive LSDM reporting, consistent with the GMP's long-term objective. The subprograms are an important contribution in the move towards a shared understanding of data.

The Work Program resulted in several key achievements for the department and the GMP and our stakeholders in 2020. These achievements are summarised in the table and detailed in the linked best practice research below.

GMP Work Program		
Subprogram	Achievements in 2020	Further information
Ability to Service (consolidation)	<p>Undertook best practice research to explore the impacts of an ultimate development growth scenario on water and sewerage infrastructure. An approach to better understand the type and location of redevelopment, regarding existing infrastructure, was also explored.</p> <p>A key aim was to better understand realistic availability of planned supply in consolidation areas across SEQ to better accommodate <i>ShapingSEQ 2017</i> consolidation dwelling supply benchmarks.</p>	<p>For further information, see the Best practice research and the Technical notes.</p>
Developable Area and land supply types	<p>Building on the work of 2019 to create new developability (constraint) rules by land supply type, these were refined and updated in 2020. The land supply types were also extended to cover uses other than residential and industrial, and a basis for further differentiating broadhectare and redevelopment land supply types proposed.</p>	<p>For further information, see Best practice research and the Technical notes.</p>

<p>Measuring Development</p>	<p>Building on the best practice research of 2019 to identify parameters for and test use of property-based measurements to estimate dwellings and growth, further work in 2020 sought to investigate:</p> <ul style="list-style-type: none"> • the significance of and how best to account for visitor dwellings for the purpose of comparison to the <i>ShapingSEQ 2017</i> dwelling supply benchmarks • the effect of apparent Census misclassifications of relocatable home parks, and • utilising 2018 best practice research prepared by CDM Smith to consider the following as a possible consistent basis for measurement of non-residential uses and associated employment: <ul style="list-style-type: none"> • 12 proposed non-residential use categories and their alignment to <i>Planning Regulation 2017</i> uses • the estimated relationship of the proposed use categories to the ANZSIC two-digit industry classes for employment (varying by LGA) • suggested floor space to employment conversion rates of the proposed use categories (varying by LGA). 	<p>For further information, see Best practice research and Technical notes.</p>
<p>Small Area Growth Assumptions (a Regional Planning Model)</p>	<p>A due diligence process was completed to identify preferred urban modelling packages that are best practice and can best support future regional plan reviews and region-wide infrastructure decision-making.</p> <p>The due diligence process involved collaborating with stakeholders to</p>	<p>For further information, see Best practice research.</p>

	<p>establish design requirements for the regional planning model.</p> <p>A list of preferred modelling packages was produced to inform the next stages in having a regional planning model (e.g. development, testing and implementation).</p>	
Planned Industrial Land Supply/Take-up	<p>Worked with GMP stakeholders to establish a consistent and readily repeatable process for producing planned industrial land supply information across SEQ.</p> <p>The process builds on the previous work undertaken for the 2018 and 2019 reports and incorporates stakeholder feedback. This process has been used to undertake the industrial land supply and take-up reporting for the 2020 LSDM Report and will be used for future Reports.</p>	<p>For an overview of the subprogram, see Best practice research.</p>
Data Sharing	<p>Developed a consolidated data request for our stakeholders with a centralised online platform for the easier upload and sharing of data where appropriate.</p> <p>Working toward a framework that facilitates the sharing of data and information across key stakeholders in SEQ, the department reviewed the draft data agreement prepared in 2019 and updated it to better respond to the needs of stakeholders as well as the future requirements of the GMP.</p>	<p>For an overview of the subprogram, see Best practice research.</p>
Market Factors	<p>Prepared an updated Market factors section of the 2020 LSDM Report that provides independent commentary about factors that can affect demand for housing and development activity at a regional level.</p> <p>In 2020 the Market Factors Report also provided relevant context to the economic impacts of COVID-19 on the housing market in SEQ as well as the</p>	<p>For further information, see the Market Factors section.</p>

	<p>impact of economic downturns on the housing market in SEQ.</p> <p>The findings of the Market Factors Report have been considered in the context of work undertaken by Griffith University on macro-economic indicators that link directly to the take-up of land supply. This collaboration highlights the work being undertaken to better understand the link between economic trends and the supply and demand of housing in SEQ; and is an example of the role of the Growth Monitoring Program as a hub for best practice research and leadership.</p>	
Other achievements		
Realistic Availability	<p>Prepared an updated current intent to service layer to calculate a 2020 realistic availability scenario for each local government. The updated figures are available in the Planned Dwelling Supply sections of the 2020 LSDM Report.</p>	<p>For further information, see the Technical notes.</p>

Limitations

The department acknowledges its unique position in accessing and using existing data prepared by local governments, utility providers, the Queensland Government Statisticians Office (QGSO) and the Australian Bureau of Statistics (ABS). Without this data, the department could not prepare a Land Supply and Development Monitoring (LSDM) report.

The department also recognises that in delivering a best practice and region-wide understanding of development activity and land supply, there are limitations and areas for improvement. The department notes the limitations of the available data and the methods, and in the interest of transparency, has detailed these in the [Technical notes](#) and [Best practice research](#).

Through the Growth Monitoring Program (GMP), the department is committed to continuous improvement of the LSDM Report. A program of continued research and collaboration through the subprograms and best practice research undertaken over the past three years has seen improvements in approach and methodology used for the LSDM Report since its inception in 2018. Moving forward, the department is committed to ongoing improvement to address identified limitations.

Realistic availability and take up

The department recognises it is difficult to accurately estimate and compare the realistic availability of planned supply for the purposes of *ShapingSEQ 2017* and the GMP, and that local governments and utility providers already consider

realistic availability to varying extents in their land supply databases, particularly for consolidation areas. The department is also mindful that land supply databases are typically built and used to prepare Local Government Infrastructure Plans or Netserv Plans in accordance with relevant legislation.

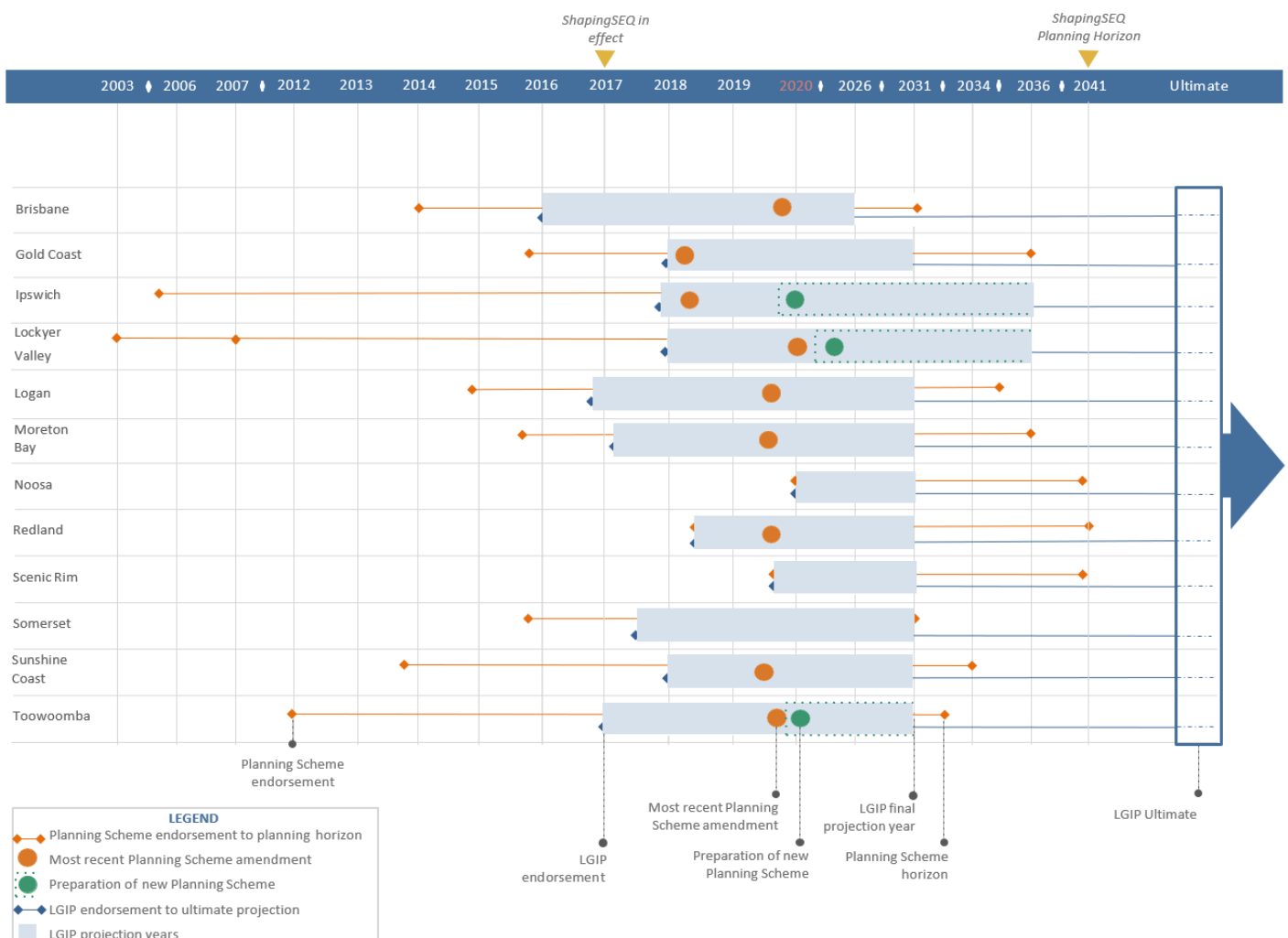
For detail about the calculation of the realistic availability scenarios for both residential and industrial supply, see the [Technical notes](#).

The department intends to continue to refine and improve the method of estimating the realistic availability scenarios for the purposes of the GMP and *ShapingSEQ 2017* in collaboration with stakeholders through the established stakeholder governance frameworks.

Use and timing of land supply data bases

The department acknowledges variations between local government land supply data. Planning scheme endorsement dates and planning horizons differ across SEQ (see figure below). Local Government Infrastructure Plan endorsement dates, projection periods and ultimate development also differ across SEQ (see figure below). These variations are to be considered if comparing reporting across local government areas.

The below figure has been prepared to illustrate the variation of planning schemes and Local Government Infrastructure Plans across the region, as well as the planning horizon of *ShapingSEQ 2017*.



For more detail about the source data that informs each section of the LSDM Report, see the [Technical notes](#).

Measuring development activity

The department acknowledges that building approvals are an overestimate of net dwelling growth and an approximate measure of changing dwelling type. Actual dwelling constructions also lag behind building approvals. In recognition of these limitations and stakeholder feedback, and recommendations from the best practice research from 2018, the department prioritised researching improved methods for measuring dwellings and net growth in 2019 as part of the Measuring Development subprogram, and further progress has been made in this regard in 2020.

For more information about the Measuring Development subprogram, and its achievements see the Measuring Development [Best practice research](#).

Years of supply

The department recognises that estimating the number of years it will take for dwelling or employment supply to be consumed is inherently difficult, with results varying depending on what annual demand figure is used. The department also recognises the difference between projected demand, realised market demand and latent demand. In recognition of this limitation, the department has tailored its estimation of demand for each year of supply calculation to the growth expectations of *ShapingSEQ 2017* and available recent demand information.

For example, annual demand for planned dwelling supply is based on the dwelling growth expected by *ShapingSEQ 2017* to align with the dwelling supply benchmarks, with adjustment in 2019 to reflect the overall growth rate for SEQ of the Queensland Government's latest dwelling projections. In contrast, demand for approved supply is based on recent trends in building approvals or lot certifications given there is no corresponding projection of demand.

The department will continue to work with stakeholders to improve the years of supply measure as part of the GMP. For more detail about the demand figures used in each year of supply calculation, see the [Technical notes](#).

Land suitability and developable area

A principal first step of most land supply methodologies is to estimate the developable proportion of land that is planned for residential or other purposes by removing areas that are affected by constraints like flooding or vegetation. The department acknowledges this process will not always be accurate, particularly at the lot level and there is scope for varied interpretation of the impact of constraints on developable area.

In recognition of this limitation, the department is seeking to improve the understanding and application of constraints, and the incorporation of more accurate information in determining developable area as part of the Developable Area subprogram.

For more detail about the subprogram's research and recommendations, see the Developable Area and land supply types [Best practice research](#).

Industrial land and employment supply

The department recognises the difficulties of estimating planned industrial land, its realistic availability, take up over time, and the employees that it may support.

In recognition of this limitation, the department has sought to improve the LSDM Report's estimate of planned industrial land in 2019 and 2020 by applying the developability (constraint) rules recommended by the Developable Area Best practice research. This analysis has affected planned industrial land figures across SEQ, and the estimate of the realistic availability of planned industrial employment supply.

The department worked with our stakeholders in 2020 to establish a consistent and readily repeatable process for producing planned industrial land supply information across SEQ. The process has been used to undertake the industrial land supply and take-up reporting for the 2020 LSDM Report and will be used for future Reports.

For more information about how planned industrial land and planned industrial employment supply figures have been calculated, see the [Technical notes](#).

Ongoing land supply improvement

Commitment to continual improvement

The Growth Monitoring Program (GMP) is a nation-leading program and delivers on requests from stakeholders for robust and transparent information to support evidence-based decision-making. The GMP continues to build a solid evidence base for local and state government to make better decisions on expected growth in SEQ and the distribution of available land and types of housing. The GMP is committed to undertaking this monitoring in collaboration with all stakeholders, as well as the ground truthing of data and improving the understanding of emerging trends.

Since the GMP's inception in 2018, the department has continually sought feedback and input from stakeholders, including local governments, utility providers and key industry groups, as to the effectiveness of monitoring and reporting activities - including the annual LSDM online report. Matters regarding accuracy and currency of land supply and development data, raised by stakeholders, continue to be acknowledged in this report. Ongoing collaboration with regional planning stakeholders is essential for the GMP to best capture land supply and monitor development. Improvements to data collection processes and continual enhancements of its analyses is fundamental to the GMP's success.

ShapingSEQ 2017 details how the department will monitor land supply annually to track performance against the dwelling supply benchmarks and employment planning baselines to ensure at least 15 years of planned residential and employment land is maintained amongst other measures. To ensure short-term land supply of all types and to avoid placing upward pressure on house prices, the preferred future identified in *ShapingSEQ 2017* is a minimum of 4 years approved supply. It is recognised that where 15 years of planned supply is not provided in line with the *ShapingSEQ 2017* preferred future, the government will initiate a range of solutions to avoid constraining land supply and placing upward pressure on land and housing prices.

The land supply framework established in *ShapingSEQ 2017* (Figure 1) provides the foundation and outlines the approach for addressing performance against the dwelling supply benchmarks and employment planning baselines.

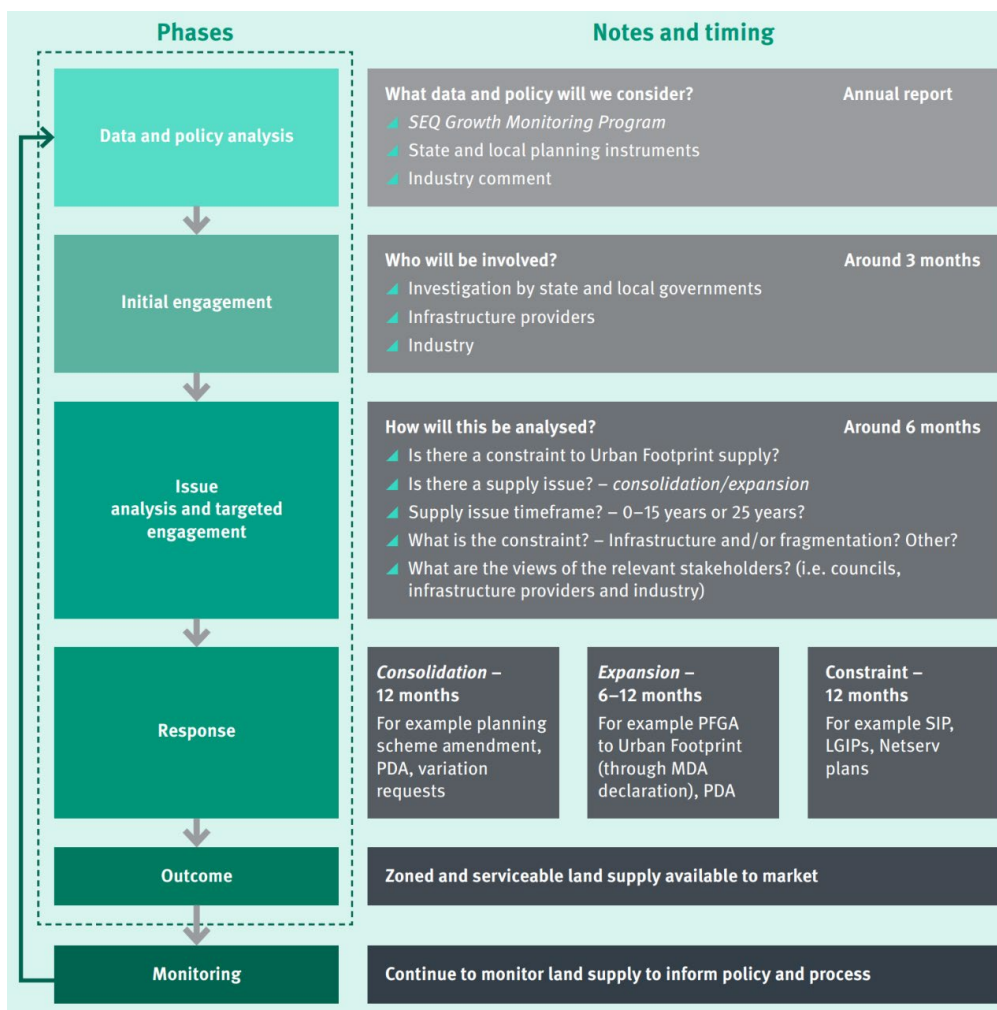


Figure 1: Land supply framework (ShapingSEQ 2017) - source: The South East Queensland Regional Plan 2017, ShapingSEQ 2017 (Figure 11 on p.47).

The LSDM Report has been prepared with a wide range of land supply and development activity data provided by local government and utility providers under data sharing agreements and information from the Australian Bureau of Statistics and the Queensland Government Statistician’s Office within Queensland Treasury. Accessing data from a range of robust sources through pre-established measures and benchmarks assists to provide a shared and regionally consistent understanding of the information in one location.

However, it is acknowledged that this approach to data sourcing has its limitations. GMP data is derived from differing planning assumptions methods, planning scheme horizons and policy tools used by individual local governments. This presents an inherent challenge in finding currency and accuracy in the data that provides for consistent reporting at a regional level. The GMP recognised this challenge from its inception with a commitment to Best Practice Research (BPR). The BPR program of work is addressing this challenge through a commitment to ongoing improvement in the collection, analysis and presentation of data as the GMP progresses toward best practice reporting. In addition, the inclusion of Market Factors in the 2019 LSDM Report and an annual update included in subsequent reports, is an acknowledgement of broader measures and data which informs policy decisions.

There is further opportunity to improve understanding of market-based drivers by considering information sources outside of the traditional land supply databases, such as industry-led reporting and analysis. It is acknowledged that there is significant data and knowledge maintained by stakeholders outside of local government, such as industry groups. The department will seek to establish clear criteria and ensure where stakeholders want to provide data and

reporting for consideration by the GMP there is a framework in which to prepare the material to enable consideration and comparison. This is consistent with the commitment to expand the scope of data sources used to inform the GMP and reflects the best practice outcomes sought for land supply and development monitoring in SEQ. The department will work closely with stakeholder in 2021 to prepare a set of criteria encompassing matters such as transparency, best practice approaches, impartiality of data, accuracy and currency.

The 2020 GMP Roadmap charts progress of the GMP and highlights the focus on refinement and enhancement leading into a future regional plan review. In addition, a clear commitment has been made to working toward the development of a Regional Planning Model (RPM), informed by best practice research progressed through LSDM reports. Further information on the RPM can be found [here](#).

Key elements that underpin improvement of the GMP (figure 2) are achieving a shared understanding across the local governments in SEQ, increased transparency in methodology and approach, continuous improvement to the accuracy and currency of data accessed by the department and increased sophistication in the level of detail provided in reporting.

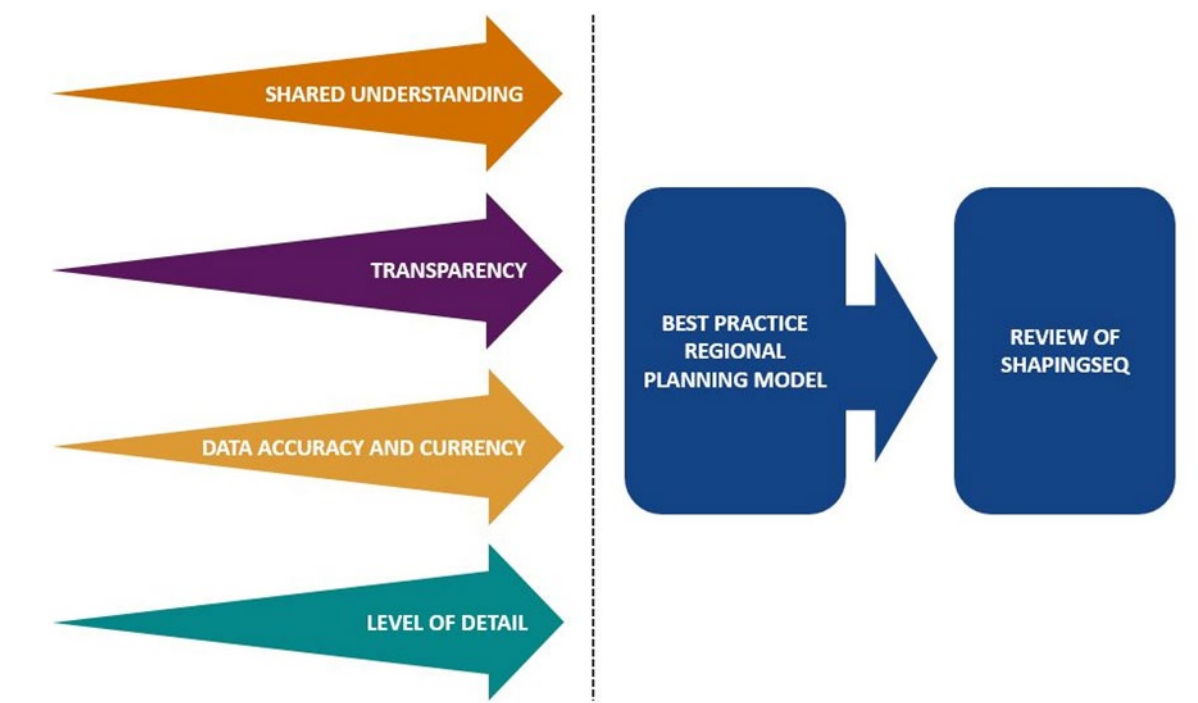


Figure 2: Key elements that underpin improvement of the GMP

Data Policy and program

As the key agencies that collect, prepare, process, analyse and curate land supply data, local governments and utility providers play an important role on behalf of the community in the collection and analysis of data used to inform the LSDM Report. Local governments and utility providers, to varying degrees, face a range of challenges associated with the development and maintenance of land supply databases such as resourcing, funding and access to best practice tools.

Local government planning horizons

For local governments in preparing Planning Schemes, Local Government Infrastructure Plans (LGIPs) and supporting growth projections and land supply models, the reality is that these plans are resourced and prepared at a point in time. However, the variables which impact on land supply, including changing constraint layers, development approvals, growth projections and changes in planning schemes, are constantly progressing.

As shown below there are local governments, including, Moreton Bay, Scenic Rim and Toowoomba, actively working to prepare strategies for growth management. Gold Coast, Moreton Bay and Logan are also working on improving their land supply databases. It is understood that all local governments and utility providers have programs for review and update of the land supply data at different intervals. Intervals vary dependant on data sources and relative levels of growth and resourcing provided at a local government level.

The involvement of utility providers and the development industry in the GMP is also a key component in data review and update as it provides additional perspectives of land supply. Recognising the role of utility providers and industry in delivering essential infrastructure and building homes in itself is a critical element of the ongoing improvement to land supply data and its interpretation.

Table 1 below, provides an overview of the status of the data programs for local governments and identifies the current horizons and projection years for key land use and infrastructure tools.

Table 1: Timeframes for local government planning schemes and LGIPs

Local Government	Current Planning Scheme		Local Government Infrastructure Plan		Recent amendment and / or growth management project
	Commencement	Horizon	Commencement	Projection	
Noosa	2020	2041	2020	2041	<ul style="list-style-type: none"> • New scheme commenced July 2020
Scenic Rim	2020	2041	2020	2031	<ul style="list-style-type: none"> • New scheme commenced March 2020 • Preparation of growth strategy - commenced 2020
Redland	2018	2041	2018	2031	<ul style="list-style-type: none"> • Major Amendment Version 4 (February 2020)
Somerset	2016	2031	2017	2031	
Moreton Bay	2016	2036	2017	2031	<ul style="list-style-type: none"> • Major Amendment Version 4 (January 2020) • Preparation of Regional Growth Management Strategy – commenced 2019 • Industry engagement on base planning assumptions – commenced 2020

Gold Coast	2016	2036	2018	2031	<ul style="list-style-type: none"> • Major Amendment (LGIP) Version 7 (July 2020) • Preparation of draft planning assumptions model (PUG) - commenced 2017
Logan	2015	2035	2017	2031	<ul style="list-style-type: none"> • Major Amendment Version 7.0 (February 2020)
Sunshine Coast	2014	2034	2018	2031	<ul style="list-style-type: none"> • Proposed Planning Scheme Amendment to incorporate SEQRPs sites – on consultation in late 2020 • Planning scheme Amendment to create Special Entertainment Precinct (Version 21) – commenced in 2019 •
Brisbane	2014	2031	2016	2026	<ul style="list-style-type: none"> • Major Amendment Version 19.00/2020 (May 2020)
Toowoomba	2012	2032	2017	2031	<ul style="list-style-type: none"> • Preparation of growth strategy – commenced 2020 • Preparation of new planning scheme - commenced 2020
Ipswich	2006	2021	2018	2036	<ul style="list-style-type: none"> • Preparation of new planning scheme underway – commenced 2019
Lockyer Valley (Gatton) (Laidley)	2007	2022	2018	2036	<ul style="list-style-type: none"> • Preparation of new planning scheme – commenced 2015
	2003	2018			

Data and policy commitments

The preferred approach to achieving improvements to data is through collaborative partnership with local governments, utility providers and the development industry, rather than direct policy intervention. The department is

committed to promoting data improvement activities from a foundation of shared interest and commitment to achieving best practice. However, in certain circumstances the State may lead direct policy action.

The department is in regular contact with all Councils through the GMP working groups, the SEQ Local Government Working Group, a range of *ShapingSEQ 2017* implementation projects (e.g. Caboolture West Emerging Community Area, Beerwah East Major Development Area), planning schemes and LGIP amendments and development assessment processes.

The government also has access to a wide variety of perspectives, skills, expertise and knowledge through the Housing Supply Expert Panel (HSEP). The HSEP was formulated with a broad membership which includes individuals with extensive experience in the industry in advising and supporting development. The views of all stakeholders are considered by the HSEP, who are currently directly engaging with local governments at the officer level to discuss opportunities for land supply data improvement and policy challenges.

Data improvement and policy responses are informed by all GMP stakeholders. Based on differing stakeholder roles in the planning system, their expertise and perspectives, all can play a key role in the improvement of data or advancement of policy responses. Examples of how this has been progressed through the GMP in 2020 are shown below.

Example 1: Local government led policy responses

In accordance with *ShapingSEQ 2017*, Moreton Bay Regional Council (MBRC) is required to deliver an additional 88,300 dwellings between 2016 and 2041. It is essential that MBRC plans for this expected population growth and the demands on infrastructure and considers the form of development and long-term sustainability of the region.

To assist in providing for the expected growth, MBRC is preparing a Regional Growth Management Strategy 2041 (RGMS2041). The RGMS2041 will aim to guide planning and development outcomes for selected growth areas within the local government area. It will also assist in the identification of sequencing and infrastructure outcomes required for these areas.

MBRC will also be revisiting their land supply modelling as part of the RGMS2041. This will provide a significant opportunity for MBRC to consider and incorporate findings from the GMP's best practice research undertaken to support the annual LSDM reports.

The department is working closely with council on the progression of the RGMS2041 as a member of council's Technical Working Group.

Example 2: State policy intervention – Southern Thornlands Ministerial Direction

Southern Thornlands is identified as a Potential Future Growth Area (PFGA) in *ShapingSEQ 2017*. *ShapingSEQ 2017* includes a sub-regional direction requiring Redland City Council (RCC) to undertake and complete land use investigations for this PFGA by the end of December 2019.

As a result of the identified timeframes passing and State government concerns about progress being undertaken, the Minister exercised his powers under section 26 of the *Planning Act 2016* to direct RCC to take action to advance strategic planning for the Southern Thornlands PFGA.

RCC has provided the outcomes of this investigation to the Minister for Planning and has undertaken community consultation on a future land-use proposal for the PFGA. The department awaits the outcomes of consultation and a decision of council about the next steps to determine if a future planning scheme amendment is proposed, and if this complies with the Ministerial Direction and state interests.

Example 3: Industry led land supply reporting

Industry led data collection, analysis and reporting provides the opportunity to test the current LSDM reporting approach and the ongoing commitment to best practice research enabled through the GMP. This is reflected in the commitment to work with stakeholders to develop a framework in which industry led data and reporting can be considered and compared with data in the LSDM Report.

It is acknowledged that it is not possible for industry-led reporting to always be directly compared to LSDM Report data as there are differences in the way the reported land supply is calculated.

It is considered that the current methodology and approach to preparation and calculation of the years of supply figures within the LSDM Report are robust and accurate based on local government data. As the GMP builds on the work undertaken thus far to increase transparency in data and methodology, there is significant opportunity to share and collaborate further with industry.

The importance of currency in local government data is recognised and the department is committed to ongoing improvement of land supply data.

The GMP welcomes opportunities to be involved in future studies, provide advice, commentary and participate in investigations undertaken by the development industry to ensure any outcomes are comparable to the LSDM reporting and assist in interpreting land supply considerations across SEQ.

Example 4: Utility provider modelling and collaboration

For SEQ's consolidation and expansion area planned dwelling supply, *ShapingSEQ 2017* identifies that the region, and each of its local government areas, should have a minimum of 15 years of supply of land within planning schemes that is zoned and able to be serviced.

Through its ongoing commitment to best practice research and improving its monitoring of the region's land supply, for the 2020 LSDM the GMP explored ways to estimate consolidation area's ability to be serviced. This work involved undertaking pilot studies over a selected area within a local government area, through a project involving a utility provider and a local government. This collaboration investigated ways to better understand and formulate potential options around measuring and monitoring the ability to service within consolidation areas using the utility providers network modelling and estimates of future land supply from the local government. Findings from this work are provided in the [Best Practice Research](#) section of the 2020 LSDM Report.

Table 2 below, highlights the data improvement and policy work currently being undertaken as referenced throughout the 2020 LSDM Report.

Table 2: GMP stakeholder data and policy program

Stakeholder	Current commitments and future action referenced in 2020 LSDM	
	Data Improvement	Policy action
Brisbane		<ul style="list-style-type: none"> Housing Strategy (future)
Gold Coast	<ul style="list-style-type: none"> Draft planning assumption model (PUG) 	
Ipswich		<ul style="list-style-type: none"> Development of a new Planning Scheme
Lockyer Valley		<ul style="list-style-type: none"> Development of a new Planning Scheme

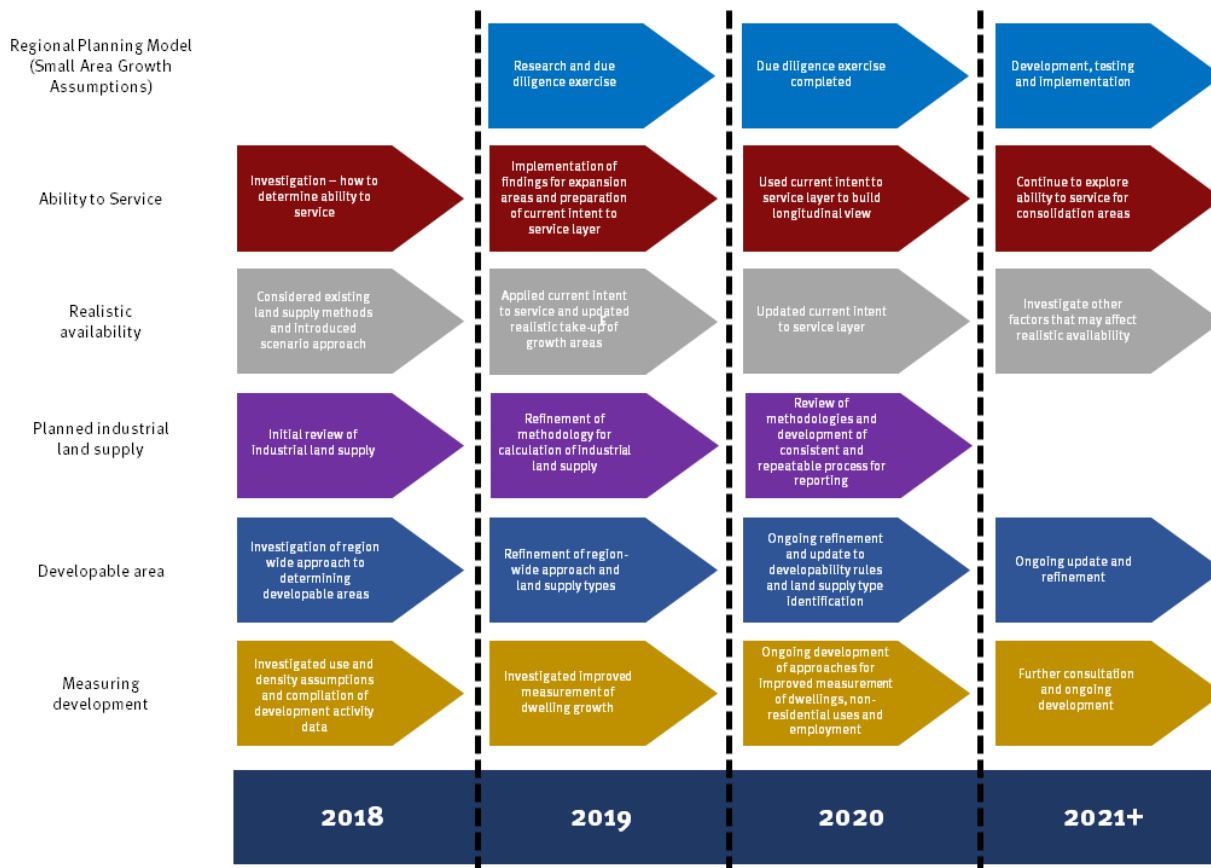
Logan	<ul style="list-style-type: none"> Establishment of new team to collect, capture, prepare and analyse land supply data 	<ul style="list-style-type: none"> Housing Strategy (not specifically referenced in 2020 LSDM but underway) Planning scheme amendments
Moreton Bay	<ul style="list-style-type: none"> Urban Employment Lands Investigation 	<ul style="list-style-type: none"> Regional Growth Management Strategy 2041 (RGMS2041) Progressing <i>ShapingSEQ 2017</i> implementation action - Caboolture West Emerging Community Area
Noosa		<ul style="list-style-type: none"> New planning scheme (live after 30 June 2020)
Redland		<ul style="list-style-type: none"> Southern Thornlands Ministerial Direction Victoria Point Amendment
Scenic Rim	<ul style="list-style-type: none"> Undertaking a Growth Management Strategy 	<ul style="list-style-type: none"> Scenic Rim Planning Scheme (commenced 20 March 2020)
Somerset		
Sunshine Coast		<ul style="list-style-type: none"> Planning Scheme Amendment – Additional SEQRP Sites and Other Zoning Matters Potential future amendments to facilitate consolidation in the Enterprise Corridor Advancing investigations of the Beerwah East Major Development Area in collaboration with the state
Toowoomba	<ul style="list-style-type: none"> Growth Plan and Infrastructure Plan (not specifically referenced in 2020 LSDM but underway) 	<ul style="list-style-type: none"> Development of a new Planning Scheme

Best practice research

Undertaking best practice research as part for GMP is central to identifying best practice methods for calculating, informing and understanding land supply across the SEQ region.

The purpose of any best practice research is to identify and document methods that can be considered as input into local government and utility provider land supply databases. The aim is to provide a regionally consistent understanding of region's future land supply needs.

Figure 3: Program of best practice research



Note: This diagram shows the best practice research being undertaken or considered since 2018.

Progress to date, combined with the forward program of best practice research, will culminate in material that can guide and support future updates to land supply databases as the core input to land supply and development monitoring in SEQ over time.

The best practice research program will continue in 2021 with a focus on:

- Working with stakeholders to establish clear criteria for any new data proposed to be included in future LSDM reporting
- A better understanding of whether land supply is realistically available for development through;
 - continued research on the calculation of the impact of infrastructure availability and infrastructure network capacity on land supply
 - investigation of other factors that may affect the economic feasibility of development, including, engagement with local government and industry groups to understand market perspectives on realistic availability and the pipeline of land supply.
- Development, testing and implementation of a Regional Planning Model to integrate planning assumptions to explore region-wide scenarios to inform the regional plan update and region-wide infrastructure.

The BPR program will provide opportunities for ongoing engagement with Councils, utility providers, state government agencies, industry and academia through research partnerships, meetings and workshops. This will facilitate the sharing of knowledge, experiences and perspectives to promote a shared understanding of how land supply and development monitoring occurs in SEQ.

Future policy responses

The 2020 GMP Roadmap illustrates the department's commitment to a program of regular annual reporting and improvement through the GMP to 2023 and beyond. It is acknowledged that delivering on this commitment requires ongoing innovation and improvement in data collection, analysis and reporting and policy responses by the State and SEQ local governments to implement *ShapingSEQ 2017*. In addition to the policy drivers in *ShapingSEQ 2017*, the unprecedented impacts of COVID-19 have resulted in definitive and direct response from the Queensland government, which needs to be considered in the context of future policy responses.

Unite and Recover, Queensland's economic recovery strategy identifies next generation regional plans as key to embracing new opportunities to unlock growth. Next generation regional plans have the framework in place to foster growth precincts where businesses, workers and technology can come together to build skills and innovate, access new market opportunities, build on the individual strengths of our regions and create jobs.

The GMP plays an important role in supporting the long-term strategies that guide future growth through clear regional policy direction provided in *ShapingSEQ 2017*. It is important that any policy responses as a result of COVID-19, or land supply generally, lead to actions that support industry and align with the sustainable growth management framework that was established through *ShapingSEQ 2017* in consultation with local government and the community.

Identification and implementation of policy responses involve a process of investigation and engagement that is designed to ensure due process but can be time and resource intensive. This means that in some instances there is a lag between the need for a policy intervention being identified and a direct policy response being implemented. The department will follow the land supply framework identified in *ShapingSEQ 2017* (Figure 1), which encourages local government led policy responses, through access to accelerated processes or other support, and also provides a pathway for State government led policy responses.

A number of responses to activating short-term land supply in SEQ, in addition to the stimulus available through the Building Acceleration Fund, are being explored in partnership with the HSEP, including:

- infrastructure coordination and funding
- land fragmentation, and
- incentives for housing diversity and urban consolidation.

Impact of new constraints on land supply

In keeping with the objectives of the Growth Monitoring Program (GMP), the department will continue to estimate the impact of region-wide planning regulations or policies adopted since the release of *ShapingSEQ 2017* in the Land Supply and Development Monitoring (LSDM) Report each year.

The department's region-wide analysis contained within this section is separate from and does not affect the capacity of planned dwelling supply and planned industrial employment supply figures in the 2020 LSDM Report which are sourced directly from local government and utility provider land supply databases. However, it is expected that the impact of any recently adopted regulations or policies, such as those related to the SEQ koala conservation strategy, will feed into the capacity figures in the LSDM Report as land supply databases are updated over time.

Preliminary analysis of impacts

This preliminary analysis considers the impact of changes (as at June 2020) to the vegetation mapping under the Vegetation Management Act 1999, matters of state environmental significance (MSES) mapping under the State Planning Policy and koala habitat mapping since the adoption of *ShapingSEQ 2017*.

To provide a more consistent region-wide basis for comparison and analysis, these mapping layers were analysed against developable areas identified for:

- the 2013 broadhectare study updated to remove subdivision (parcels less than 2500m²) to June 2020 (noting that the 2013 broadhectare study was used to inform the development of *ShapingSEQ 2017*)
- new growth areas not captured by the 2013 broadhectare study updated to remove subdivision (parcels less than 2500m²) to June 2020
- developable industrial land as refined and developed for the 2020 LSDM utilising SEQ wide developability constraint rules (See the developability rules section and [Technical notes](#)).

Data limitations mean the findings of the 2020 analysis are likely to be an overstatement of the actual impact on developable areas and dwelling yields. In particular, although detailed information about lot (to December 2020) and multiple dwelling development permits (to June 2019) was available from the Queensland Government Statistician's Office, the department did not have access to comprehensive property-level information about non-residential development permits or any preliminary approvals. Further factors are the unknown extent to which the new state mapping layers overlap with recent changes to local constraints mapping or with areas already excluded from development by some structure plans. There may also be scope for offsets to minimise loss of developable area.

The preliminary analysis (subject to update) identified:

- a potential impact of up to 6.1 per cent of the dwelling capacity in the expansion area of *ShapingSEQ 2017*
- a potential impact of up to two per cent of vacant planned industrial land.

In considering the potential impact on dwelling capacity, as well as the fact these percentages may overstate the impact on capacity, it is important to recognise that *ShapingSEQ 2017* assumed only about 70 per cent of the total expansion dwelling capacity would be taken up by 2041. To the extent growth areas may still achieve their expected rate of take-up in areas outside any additional constrained land, that is a factor ameliorating the impact on planned dwelling supply.

The supply reported for planned dwellings and planned industrial employment indicate there is sufficient time to undertake a more detail assessment of the impact of constraints before considering a need to increase supply.

In undertaking this analysis, the department has not considered other matters that may affect the developable area and land supply adequacy.

Future approach to assessing impact of new constraints

The SEQ-wide developability rules are reviewed in consultation with local governments and shared with local governments and infrastructure agencies for their planning purposes through this report.

These assessments support up-to-date consideration of all state and local constraints as a basis for assessing the impact of any proposed new constraints on the region's land supply. Associated improvements over time in the capture of property-level development and preliminary approval information (e.g. residential and industrial), structure plans and existing land use would also support more accurate assessments of impacts on developable areas over time.

Underutilised Urban Footprint

Throughout 2018 and 2019, the department worked closely with South East Queensland local governments, industry representatives and utility providers to identify and investigate constraints that have impeded the timely development of long standing, underutilised areas of the regional plan's urban footprint.

In early 2020, to advance this implementation action, the department developed a model to quantitatively examine and compare the characteristics of 30 Case Study Areas which had been identified in 2018 and 2019 as being underutilised within the Urban Footprint.

The department selected 27 characteristics for their potential to quantify the issues identified through the 2019 Underutilised Urban Footprint (UUF) Potential Response Scoping Discussion Paper (the UUF Discussion Paper) and indicate each area's estimated propensity to be developed. The characteristics were derived from GIS datasets and covered factors such as proximity to infrastructure networks (e.g. roads, sewer, water, public transport etc), economic (e.g. changes in dwelling and land value growth rates, proximity to employment, ownership fragmentation), planning (zoning, priority infrastructure (PIA), future sewer connection areas) and other requirements (contaminated land, heritage and incompatible land uses), among others.

The four key characteristics that impacted on propensity to develop for these case study areas were: fragmentation (ownership); distance to the Existing Urban Area; distance to existing sewerage infrastructure and distance to existing or future roads. These results tend to confirm the UUF Discussion Paper's identification of Market Readiness, Infrastructure and Fragmentation as issues inhibiting development in UUF areas.

Potential government responses from the UUF Discussion Paper were then prioritised for further investigation if they were identified as responding to negative performance in these four characteristics. This prioritisation was completed on the basis that overcoming these characteristics would address key inhibiting factors affecting the most common UUF scenarios and therefore the greatest number of areas across the region.

The next stage requires building on the analysis outlined above to test responses to UUF that are informed by the:

- Level of industry support
- Level of local government support
- Capacity for resolution of site-specific constraints to development
- Extent of intervention required, and
- Level of funding required.

Housing Supply Expert Panel

Introduction

In 2018, the Queensland Government established the Housing Supply Expert Panel (HSEP) to oversee the Growth Monitoring Program (GMP) and provide independent expert advice about how to appropriately manage land supply and associated issues in South East Queensland. In 2020, the HSEP was reappointed by the Minister for Planning for a further two-year term. Reappointment of the panel chair and members has ensured continuity for the GMP, including maintaining relationships with key stakeholders and continued oversight of the GMP.

The HSEP has continually supported the release of the LSDM Reports and reaffirmed these as nation-leading work integral to South East Queensland's (SEQ) regional planning framework.

Throughout 2020 the HSEP has provided oversight of the GMP, and been instrumental in the following initiatives through providing advice and guidance:

- in understanding the potential impacts of COVID-19
- on updated land supply and development activity data and information
- in updating the Market Factors Report for SEQ, and
- on updating reporting on social housing stock.

The 2020 Market Factors Report provides independent commentary on the factors that may affect short and medium-term demand for housing, as well as commentary related to existing and future potential impacts as a result of COVID-19.

The report draws upon publicly available and regularly updated information to highlight trends in residential demand for housing at the SEQ scale. It also provides detail about broader regional and national factors affecting the development activity observed in the LSDM Report, with some commentary about the outlook for SEQ. To access the report, see the [Market factors](#) section.

In 2019, HSEP resolved to report on social housing stock over time, as an important element of overall housing stock that serves vulnerable people and households. An update on 2020 reporting is provided in more detail in the Social housing section below.

Background and membership

The Housing Supply Expert Panel consists of nine experts from the planning, property, economics, and research fields across Australia.

Julie Saunders, QLD, panel chair: Ms Saunders has extensive experience in the town planning and property field across state and local government, as well as private industry. She is currently a Director at Urbis.

Dr Elin Charles-Edwards, QLD: Dr Charles-Edwards is a qualified demographer and population geographer. She is currently a Senior Lecturer in Human Geography at the University of Queensland and Deputy Director of the Queensland Centre for Population Research at the University of Queensland. She brings a wealth of knowledge in relation to migration, mobility and the ways in which populations vary over space and time to the panel.

Nerida Conisbee, NSW: Ms Conisbee is one of Australia's leading property market experts and has more than 20 years' experience in the property research industry. She is currently the Chief Economist for the REA Group and has extensive experience in property and urban economics and data analysis.

Dr Michael Fotheringham, VIC: Dr Fotheringham has experience in housing research and policy development relating to housing and homelessness and is currently the Executive Director at Australian Housing and Urban Research Institute. Dr Fotheringham has worked with not-for-profit, government and academic organisations.

Dr Laurel Johnson, QLD: Dr Johnson is an urban, regional and social planner with extensive experience in the public, private and academic sectors. She is currently an academic at the University of Queensland in the planning program and also a Director of Laurel Johnson Planning, a planning consultancy. Dr Johnson provides valuable social planning knowledge and expertise to the panel.

Sonya Keep, QLD: Ms Keep has more than 18 years' experience in the areas of social planning and community housing. She is the Chief Executive Officer of Common Ground Queensland and is dedicated to seeing an increase in the supply of affordable and supportive housing for those who are vulnerable or at risk of experiencing homelessness.

Warren Rowe, QLD: Mr Rowe has more than 35 years' experience across a range of areas including strategic and statutory planning, regional planning, policy development, development control, infrastructure planning and delivery, urban design and housing policy. He is a strategic advisor at Ethos Urban and an Adjunct Professor in the Cities Program at Griffith University.

Ben Slack, QLD: Mr Slack is a leading urban planner with more than 28 years' experience in both the public and private sectors. He is currently a Regional Director with Urbis and provides valuable knowledge and experience to the panel in the areas of land use and infrastructure planning, as well as property economics and data analysis.

Dr Marcus Spiller, VIC: Dr Spiller is an urban economist and planner with extensive experience in public policy analysis. He is currently a Principal, Partner and Director at SGS Economics and Planning Pty Ltd and an Associate Professor at the University of Melbourne. Prior to this, Dr Spiller worked as a strategic planner in both state and local government.

Housing affordability

A key purpose of the Growth Monitoring Program (GMP) is to monitor and assess if there is adequate planned dwelling supply relative to dwelling demand in South East Queensland (SEQ). The GMP's findings may be used in combination with available data from across federal, state and local government to inform decision making regarding public policies to address housing affordability.

ShapingSEQ 2017 established a policy for at least 15 years of planned dwelling supply, at any point in time, that is appropriately zoned and able to be serviced. The 2020 Land Supply and Development Monitoring Report confirms SEQ has more than 15 years of planned dwelling supply that is appropriately zoned.

The 15 years of supply policy provides an indicator for when the state and local governments should initiate a range of solutions in response to potential shortages in planned dwelling supply, including identifying new land for urban purposes or investigating additional infrastructure opportunities. In doing this, both the state and local governments should ensure they are increasing supply in a way that is affordable to governments and the community, especially in terms of the quality, timing and cost of any required infrastructure.

It is important to recognise that ensuring adequate planned dwelling supply is only one contributing element to addressing housing affordability. Housing demand and affordability are subject to many influences beyond population and household growth and the basic need for shelter. Taxation arrangements, financial incentives or disincentives,

broader economic influences such as interest rates, income growth, employment and foreign exchange rates, all have major influences on housing demand, price and affordability over time. Additionally, new dwellings take time to plan, approve and construct, so in the short-term, growth in actual housing supply may be slow to respond to increases in demand.

Social housing

The Housing Supply Expert Panel (HSEP) resolved to report on social housing stock over time, as an important element of overall housing stock that serves vulnerable people and households. In 2020, HSEP and the department has continued to work with the Department of Communities, Housing and Digital Economy (DCHDE) to investigate and update reporting on social housing.

Social housing is critical social infrastructure, providing shelter for vulnerable people and families and forms an important part of overall dwelling supply in the region. The Queensland Government owns a diverse property portfolio of more than 61,200 government-owned social and affordable housing dwellings, dispersed across the state with a total value in excess of of \$15 billion. This portfolio includes a variety of housing types including apartments, townhouses and detached houses either owned and managed by the department or used for the delivery of a suite of housing services by Community Housing and Homelessness Service providers.

To support the 2020 Land Supply and Development Monitoring Report, the Housing Supply Expert Panel used landlord type information from the Census to report social housing stock from 2006 to 2016 in South East Queensland (SEQ). This method has previously been employed by the Australian Housing and Urban Research Institute at a national level. The results of this analysis, which exclude visitor only and non-classifiable households, are given below.

Table 1: Social housing households SEQ and Australia 2006 to 2016

		2006	2011	2016	Change from 2006 to 2016
Australia	Public Housing	304,422	314,692	299,953	-4,469
	Community Housing	50,160	51,375	51,069	+909
	Total Social Housing	354,582	366,067	351,022	+3,560
	Total Housing	7,144,096	7,760,322	8,286,073	+1,141,977
<hr/>					
South East Queensland	Public Housing	32,223	34,821	33,606	+1,383
	Community Housing	4,168	5,131	5,337	+1,169
	Total Social Housing	36,391	39,952	38,943	+2,552
	Total Housing	966,784	1,086,501	1,175,651	+208,867

Note: Total Social Housing is the sum of Public Housing and Community Housing

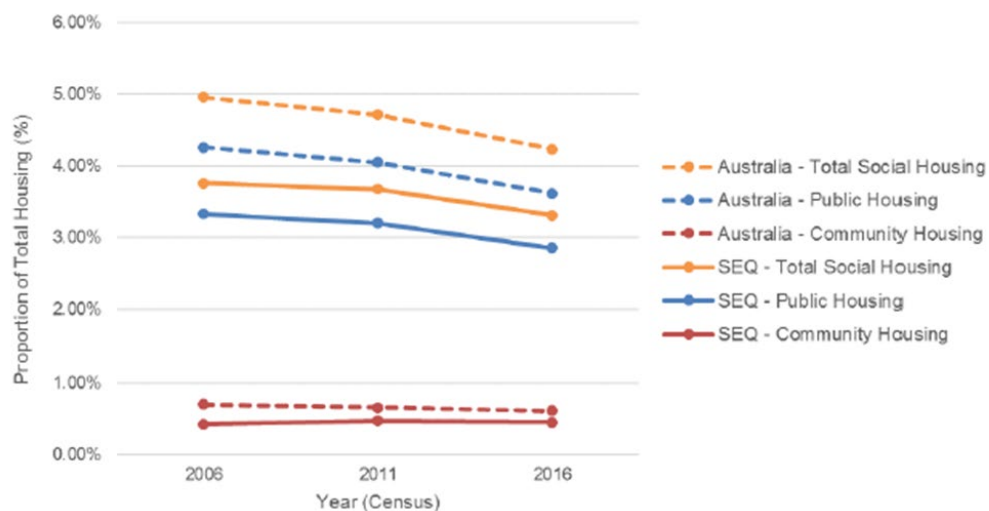


Figure 1: Social Housing as a proportion of total housing

The data illustrates that the number of households in social housing in Australia decreased by about 3500 from 2006 to 2016. Over the same period, the total number of all households increased by about 1.15 million, resulting in the proportion of households in social housing decreasing from about 5% to 4.2%.

In contrast, the number of households in social housing has increased by about 2500 households in SEQ from 2006 to 2016. Despite this increase in social housing, the proportion of households in social housing decreased from 3.7% to 3.3% in SEQ, similar to the trend observed across Australia. This decrease in the proportion of social housing indicates that the growth in new social housing stock has not kept pace with the growth in the total number of households in SEQ.

This data uses the self-reported landlord type from the ABS Census, which can undercount social housing due to its reliance on self-identification. For example, the DCHDE figures indicate there were 44,504 social housing dwellings in SEQ in 2016, which is 5561 higher than the 2016 Census figure of 38,943 total social housing households.

The panel is continuing to explore these findings and ways of better understanding social housing supply and the need for improved affordability and diversity of housing options in SEQ with DCHDE and other key stakeholders.

DCHDE response:

DCHDE records indicate in 2016 it assisted households in SEQ with provision of 44,504 social housing dwellings with an additional 30,850 dwelling outcomes delivered through a range of complimentary housing assistance measures (such as provision of bond loans and rental grants to overcome upfront financial barriers to securing private rental accommodation).

On this basis the total number of households assisted by social housing dwellings or complimentary housing assistance measures increased from 49,797 in 2006 to 59,170 in 2011. By 2016 that total number assisted with dwellings had grown to 75,354.

In 2017, the State Government announced an investment of \$1.6 billion in social and affordable housing which will deliver 4522 new social housing dwellings in priority growth regions, including SEQ, over a 10 year period.

To respond to emerging demand from smaller and lone person households, the DCHDE is replacing older three-bedroom detached dwellings with new one and two-bedroom dwellings. As a result, approximately 93% of new additions to the portfolio since 2017 have been either 1- or 2-bedroom dwellings. In addition, in excess of 66% of new social housing dwellings have been built to liveable design standards (gold and platinum levels) in the 2019/20 financial

year. This provides accessible homes to ensure more social housing tenants can be housed in properties that suit their individual needs (2020-21 Queensland State Budget – Service Delivery Statements Volume 1: 1-115).

Best practice research

Introduction

In 2018 and 2019, the department commissioned independent experts to research and recommend best practice methods for land supply and development monitoring in South East Queensland (SEQ). The research outcomes were discussed in the best practice research sections of the 2018 and 2019 Land Supply and Development Monitoring (LSDM) Reports.

In 2020, the department has furthered Best practice research, continuing to work off the recommendations from previous reports and the priorities identified by the Growth Monitoring Program's (GMP) Data and Modelling Working Group. The research outcomes for 2020 are detailed below and include:

- Ability to service (consolidation)
- Developable area and land supply types
- Measuring development
- Small area growth assumptions (a Regional Planning Model)
- Industrial land supply and take-up
- Data sharing.

Progressively improving the method of estimating the realistic availability of planned supply is a key objective of the GMP. Stakeholder submissions during 2020 reinforced the need to continue to advance this work. The Ability to Service sub-program is a key aspect to understanding and measuring realistic availability, however there are many components. Other factors may constrain the availability of land for development even if it has the ability to be serviced. Currently, the LSDM's estimate of realistic availability (residential) in expansion areas incorporates a current intent to service, practical staging, and capability of development (realistic take-up of growth areas) and land ownership fragmentation.

To continue to advance this sub-program other factors, in addition to those currently used, are proposed to be explored. These include factors that may affect the economically feasibility of development, such as landowner intent, demand for the planned scale/density of uses, existing versus planned density, physical constraints, and the age of existing development. Initial investigations in 2020 supported progressing work in 2021 to investigate other factors, with a focus on what is required for development to be economically feasible and proceed.

In consultation with stakeholders, this proposed work will aim to continue to improve the LSDM's estimation of realistic availability.

Other relevant research

The department understands that significant research is being undertaken on land supply, housing and property matters by a wide range of research organisations such as the Grattan Institute, the Australian Housing and Urban Research Institute, and various universities. The department recognises the value of drawing on relevant research findings and is committed to working with research organisations as part of the ongoing best practice research program. In preparing the 2020 LSDM Report the Core Principles for Infrastructure Planning, Engineering, and Investment (CPIPEI) program at Griffith University made available to the department their paper - *The impact of COVID-19 on dwelling approvals in QLD: Preliminary macro-economic analysis using CCF-TCM hybrid approach*. This

paper summarises research findings on macro-economic indicators that link directly to the take-up of land supply. This paper was considered in the preparation of the Market Factors Report.

Ability to service (consolidation)

The ability to service subprogram and best practice research explores concepts of estimating the region's realistic availability of land supply for development. In 2019, six indicators were selected to represent a current intent to service layer and calculate realistic availability of planned dwelling supply for expansion areas. Realistic availability of planned dwelling supply, using the current intent to service approach, was incorporated into the 2019 Land Supply and Development Monitoring (LSDM) Report; and continues to be updated and used in the 2020 LSDM Report. For further information on the estimates of realistic availability in expansion areas, see the 2019 LSDM Best practice research and Technical notes.

In 2020, the subprogram progressed the consolidation component of the subprogram by exploring methods to better understand the land use type and location and proximity, accessibility, and capacity concepts of infrastructure within consolidation areas. To help meet *ShapingSEQ 2017* consolidation dwelling supply benchmarks, two pilot studies were undertaken to better understand and explore a land use and infrastructure planning nexus. These pilot studies included exploring an approach to better understand the type and location of redevelopment in consolidation areas, and the other, explored an approach to better understand the infrastructure proximity, accessibility, and capacity concepts for redevelopment in consolidation areas.

The intent behind undertaking the pilot studies was aimed at providing a proof of concept, in practice, to better guide the development and implementation of the ability to service subprogram.

Developable area and land supply types

In 2020, the following further work has been undertaken for developable area and land supply types:

- RPS was engaged to propose an approach to applying the land supply types and developability rules to the estimation of residential developable area, and
- The GMP team has prepared additional draft method for consideration by stakeholders and applied a revised approach as part of this draft 2020 LSDM Report, including:
 - the approach to the identification of land supply types,
 - updated planning intent and constraints information, and
 - the investigation of the application of the developability rules to land supply types other than residential and industrial.

The following sections integrate the findings of the above further work as a basis for potential application of the identified approaches. The objective is to underpin and inform a more consistent and comparable measurement of developable area across the region.

Identifying land supply types

Land supply types are a key element of the method for identifying developable area because the developability rules vary by land supply type. They are also important for other aspects of land supply measurement and analysis, e.g. they may require different approaches to the assessment of the realistic availability of land for development over time.

The following sub-sections propose approaches to the resolution of aspects of identifying land supply types to support consistent measurement for the purpose of informing land supply and infrastructure planning assumptions databases and models.

Land previously used for an urban purpose

The key distinction between the Broadhectare and Redevelopment land supply types is whether or not the land has been 'previously used for an urban purpose'. It is proposed that land be identified as 'previously used for an urban purpose', and therefore a Redevelopment land supply type, based on the combination of the following indicators:

- the land is in an existing sewerage connection area, and/or
- the land parcel is 2,500 m² or less and is located in an area equivalent to one of the following types of zones as defined in Schedule 2 of the *Planning Regulation 2017* (excluding any precincts that are for future urban development and subject to the provision of supporting infrastructure, including sewerage):
 - Residential zones
 - Centre zones
 - Mixed use zone
 - Specialised centre zone
 - Township zone

The rationale for these indicators is as follows:

- Reticulated sewerage is the fundamental service that distinguishes urban from other forms of development. For example, many rural residential subdivisions have reticulated water supplies but not sewerage, as reflected in the definition of the Rural residential land supply type.
- Under s99BO of the *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009*, service providers are required to identify existing connection areas in which they guarantee to provide connections to their wastewater service.
- Some small, generally older urban areas that do not have reticulated sewerage should still be classified as urban. The maximum lot size criteria and zonings identified above are to capture such areas.

Land supply types

The Broadhectare and Redevelopment categories as identified in the 2019 LSDM Report include residential development, including all residential zones, but also include:

- open space, recreation, community purpose, office, commercial, business, etc as mixed and supporting uses; and
- township, emerging communities and mixed-use zones as identified in Schedule 2 of the *Planning Regulation 2017*.

How should we deal with retail, commercial and community uses and zones for the purpose of developable area calculations, and what about mixed-use zones?

Consistent with the approach to mixed and supporting uses, it is proposed that retail, commercial and community uses be treated the same as urban residential uses for the purpose of identifying developable areas, i.e. they should be treated as part of the equivalent Broadhectare and Redevelopment land use types. It may be that elements of such uses are less constrained than residential uses, e.g. carparking for a shopping centre or playing fields for a school relative to flooding. However, those detailed differences are best reflected through any overriding development or preliminary approvals or master or structure plan information.

For mixed use zones there is a need to assess the extent to which the zone is likely to support the respective uses, i.e. by percentage of land area, to support the application of the developability rules. Given the proposed approach of treating other non-residential uses the same as residential, it is proposed that only where industrial uses are expected to predominate, i.e. on half or more of the land, should mixed use zones be treated as the Industrial land supply type for assessing developable area.

To accommodate these approaches, the land supply types from the 2019 LSDM Report are therefore proposed to be amended as identified in the following table.

This guidance material can be used to inform the development, or ongoing updates of land supply databases and practices across the SEQ region. Any additional subtypes identified through local circumstances would need to align to the overall SEQ land supply types.

Broad category	Land supply type	Identification	Local variation
Broadhectare ¹	Planned	Contiguous areas of land, including areas intended for supporting uses ² : <ul style="list-style-type: none"> Identified as a master planned area that generally expects over 500 new dwellings or over 500ha in area (e.g. Priority Development Areas); and Intended for urban purposes³; and Not previously used for an urban purpose. 	Expertise of local government planners would be required to determine appropriate areas.
	Fragmented	Contiguous areas of land, including areas intended for supporting uses ² : <ul style="list-style-type: none"> Comprising existing lots generally less than around 2ha where urban development is expected to require a coordinated servicing strategy for the contiguous areas of such lots; and Intended for urban purposes³; and Not previously used for an urban purpose. 	Expertise of local government planners would be required to determine appropriate areas and can include Underutilised Urban Footprint.
	Balance	Where not identified as Broadhectare (Planned) or Broadhectare (Fragmented):	

		<ul style="list-style-type: none"> Intended for urban purposes³, and areas intended for supporting uses²; and Not previously used for an urban purpose. 	
Redevelopment	Major	<p>Larger scale development (medium to high density⁴), including supporting uses²:</p> <ul style="list-style-type: none"> Exceeding three (3) storeys in height; or Up to three (3) storeys in height and greater than one (1) hectare land holding area⁵; and Intended for urban purposes³; and Previously used for an urban purpose. 	Sub-types may provide for more refined density ranges to suit local circumstances.
	Minor	<p>Smaller scale development (low to medium density⁴), including supporting uses²:</p> <ul style="list-style-type: none"> Up to three (3) storeys in height; and Up to one (1) hectare land holding area⁵; and Intended for urban purposes³; and Previously used for an urban purpose. 	Sub-types may provide for more refined density ranges to suit local circumstances.
Rural residential		<p>Large lot, unsewered development areas:</p> <ul style="list-style-type: none"> Proposed lots greater than 2500m²; and Intended, fully or partly, for rural residential/low density⁶ purposes. 	Allotment sizes may be adjusted based on the local circumstances and planning experience.
Industrial		Industrial development (excluding extractive industry) within identified industrial zones/precincts ⁷ and supporting uses ²	Industrial sub-types can be included based on local circumstances and planning experience ⁸ .

Notes:

- In line with the state government’s Broadhectare study, these areas generally relate to existing lots greater than 2,500m².
- Supporting uses may include open space, recreation, community purpose, office, commercial, business, etc.
- Urban purposes include: all residential, centre, township and emerging community zones as identified in Schedule 2 of the *Planning Regulation 2017* and mixed-use zones where not predominantly industrial in nature.
- Low, medium and high density are consistent with the planning intent identified within a local planning instrument.
- Based on known property holdings or development proposals at the time of land supply measurement.
- Rural residential, low density or equivalent are consistent with the planning intent identified within a local planning instrument
- Industrial zones/precincts included mixed-use zones where they are predominantly industrial in nature.
- It is expected that reporting will be based on summary types including low impact, medium impact, high impact, investigation, etc., generally as informed by the *Planning Regulation 2017*.

Developability rules

The developability rules reported in the tables below, for hard and soft constraints respectively, have been progressively refined through:

- Further advice on the identification of residential developable areas from RPS
- Application of this advice in the context of the identified land supply types
- Consultation with each local government on the SEQ-wide developability rules, specifically related to identification of planned industrial land supply, in the context of local circumstances and any identified updates.

Key defining parameters for the developability rules include:

- In determining developable areas, the following should be used where applicable, in order of preference, instead of applying the developability rules:
 - Vacant recently subdivided lots
 - As approved by current development permit
 - As approved by current preliminary approval
 - As master planned
 - As structure planned
 - As per a strategic assessment of environmental constraints
- The developability rules:
 - Provide guidance on a consistent region-wide interpretation of varying constraints across the region, whilst noting that there may be local differences in the current application of constraints at the local level
 - Are meant to be applied in any future assessments of developable area in SEQ to inform a shared understanding and consistent measurement of land supply
 - Vary with the land supply type, e.g. urban/residential vs industrial, its location, density and value of development, and the accuracy of the associated mapping
 - Are subject to regular update and refinement, through consultation between the GMP and stakeholders, based on better information and as new or amended constraints or new and more accurate mapping of constraints are introduced over time
 - Hard constraints - are those respected at least 90% of the time. It is generally acknowledged that land affected by a hard constraint has limited development potential.
 - Soft constraints - are those that have the potential to impact on developable land but will not necessarily prevent development from occurring. A soft constraint may be able to be managed or mitigated to some degree and therefore only a percentage of land encumbered by a soft constraint is deemed affected.
 - To reflect a practical level of accuracy and judgement in representing the variability of outcomes within a rules-based constraints assessment, the percentage scale used for constraints is: No (significant) constraint – 0%; limited constraint – 25%; moderate constraint – 50%; High constraint – 75%; and Hard constraint – 100%.

- The names of the constraints included in the tables are 'common layer names' that have been adopted for simplicity in reporting. They represent a range of locally-described constraints as identified in the Common Layer Name Table in the appendix of the Technical notes. Such a table will need to be maintained over time to enable interpretation and application of the developability rules at the local level.

For the draft 2020 LSDM the following have been adjusted to reflect the following based on RPS advice and updated and new information:

- Heritage
 - To reflect the reduced scope for development in association with heritage places on small sites, such places are proposed to be treated as a hard constraint in respect of their curtilage, or on sites less than 1,200 m² where the curtilage of the heritage matter is not defined. Outside those circumstances, heritage is a soft constraint on the balance of the property.
- Environment (High Value) – Hard constraint
 - The percentages for the 'Environment: High Value' soft constraint have been increased in line with 2019 recommendations.
 - The effect of the new koala conservation protections within a SEQ Koala Priority Area have been reflected in amended explanations of the Environment constraints.
- Environment (High Value) – Soft constraint
 - The effect of the new koala conservation protections outside a SEQ Koala Priority Area have been reflected in amended explanations of the Environment constraints.

Hard constraints	Land supply type					
	Broadhectare (planned)	Broadhectare (fragmented or balance)	Redevelopment (major)	Redevelopment (minor)	Rural residential	Industrial
Flood	100%	100%	50%	75%	75%	75%
Slope > 25% / landslide	75%	100%	25%	75%	75%	100%
Infrastructure	100%	100%	100%	100%	100%	100%
Extractive resources	100%	100%	100%	100%	100%	100%
Built Form - Heritage ¹	100%	100%	100%	100%	100%	100%
Environment (High value) ²	100%	100%	100%	100%	100%	100%
Waterways / wetlands (excluding buffers)	100%	100%	100%	100%	100%	100%
Planning exclusions ³ (e.g. Rural conservation zones)	100%	100%	100%	100%	100%	100%
Location specific / enterprise amenity / safety buffers ⁴	100%	100%	100%	100%	100%	25%

Notes:

1. Heritage – the percentage adopted regards the curtilage of the heritage matter, or where the site is less than 1,200m² and the curtilage of the heritage matter is not defined.
2. Environment (High value) – This refers to state layers of: Endangered Regional Ecosystems, Category A Regulated Vegetation, Marine Parks, Fish Habitat A+B, core and locally refined koala habitat areas within an identified Koala Priority Area, Protected Areas and Threatened species (Nature Conservation Act 1992), high conversation value wetlands (EP Act 1994) and legally secured offset areas
3. Includes areas not intended for urban/residential or industrial development, as applicable in the circumstances. Excluded zones from all land supply types listed include Community Facilities, Environmental Management and Conservation, Limited Development, Open Space, Rural and Sport and Recreation (except where particular precincts in those zones support urban/residential or industrial development).
4. Location Specific / Enterprise Amenity / Safety Buffers captures areas such as Willowbank Raceway and Amberley Air Base. A full list of applicable constraints is contained in the appendix of the [Technical notes](#).

Soft constraints	Land supply type					
	Broadhectare (planned)	Broadhectare (fragmented or balance)	Redevelopment (major)	Redevelopment (minor)	Rural residential	Industrial
Overland flow	25%	25%	25%	25%	25%	25%
Slope 15-25%	25%	25%	25%	25%	50%	75%
Extractive resource separation / buffers	75%	100%	100%	100%	75%	0%
Infrastructure buffers	75%	75%	50%	75%	50%	0%
Environment (High value) ¹	75%	75%	50%	75%	75%	75%
Environment (Low-medium value) ²	50%	50%	25%	50%	50%	50%
Coastal hazard: Erosion Prone	75%	75%	0%	0%	75%	75%
Coastal hazard: High storm tide	100%	100%	75%	75%	75%	75%
Heritage - cadastral mapping	25%	25%	50%	75%	25%	0%
Location specific	Determined through local circumstances and experience					

Notes:

1. Environment (High Value) - represents the environmental layers not adopted as hard constraints but contain strong planning scheme provisions which would limit development (e.g. core and locally refined koala habitat areas outside an identified Koala Priority Area).
2. Environment (Low-Medium Value) – represents remaining environmental layers.

To facilitate application of the developability rules, RPS also recommended adopting a reference set of overlay names and definitions that could be used when updating planning scheme overlays, as informed by the Common Layer Names (see the [Technical notes](#) for explanation of the Common Layer Names). This is a matter for further consideration in the regulation of and guidance for plan making over time.

Continual and future improvements

There has been continual progress in having a shared understanding among stakeholders of land supply types and the developability rules applying to those to assess developable areas as one major input to land supply databases. Work to build on this progress would appropriately include:

- Continual and ongoing feedback from stakeholders on the rules and allocation of categories
- Ongoing review of constraints at the local level, i.e. to identify the developability rules based on what is likely to be approved for development, will:
 - minimise duplication of effort and support consistent measurement of land supply across SEQ
 - support further refinement of the treatment of constraints, including local variations of SEQ-wide developability rules if required, to reflect the specific circumstance of local conditions and mapping
 - enable incorporation of missing data expected to result in refinement of the developable area information.
- Ongoing investigations on capturing the effect of all preliminary approvals that override the planning scheme to either include or exclude relevant land supply types, compared to planning scheme zoning, is fundamental to a more accurate appreciation of current land supply. Substantial efforts are ongoing to capture the effect of preliminary approvals to add to information on development permits, with the primary focus being on residential development and expansion areas. The 'Limitations' sections in the [Technical notes](#) indicate there are still some data gaps in this regard, particularly for approvals affecting non-residential land supply which will continue to be investigated as part of the ongoing planned industrial land supply work.
- Ongoing integration in estimating future industrial employment for planning assumptions databases, e.g. through identification of land with primarily industrial employment potential, may assist with the measurement of planned industrial land.

Measuring development

Context

In 2018 the Data Modelling Working Group identified that researching how to more accurately measure growth and development activity was one of the top five priorities for the Growth Monitoring Program (GMP). This led to the formation of the Measuring Development subprogram.

To date, the Measuring development sub-program has focused on how best to measure dwellings and net growth to align with the dwellings as captured by the *ShapingSEQ 2017* dwelling supply benchmarks. This focus has been formed due to the limitations of using dwelling building approvals for LSDM Reporting to measure Dwelling growth, particularly in areas experiencing significant redevelopment.

Property-based measurements of dwellings and other land use, as generated to provide base year measurements for planning assumptions for local infrastructure planning, potentially provide a basis for measurement of dwelling and

non-residential floor space growth. Such measurement can also provide property-level density information and, if undertaken regularly over an extended period, a better understanding of development, land use and density transitions over time, to inform future supply assumptions.

The 2019 LSDM Report proposed suggested performance measures at LGA, SA2 and SA1 spatial levels as a basis for comparing and assessing alignment between property-based measurements and those made for the most recent Census in 2016. Those performance measures were tested using Unitywater measurements for Moreton Bay, Noosa and Sunshine Coast and new measurements by Integran for Redland.

The primary objective of the performance measures was to facilitate the comparison of property-based measurements to the benchmarks, as reasonably close equivalent counts of dwellings (i.e. are they measuring similar sets of uses as dwellings?). For example, if the benchmarks effectively count some dwellings used solely by visitors, but the property-based measurements do not, then the property-based measurements may undercount dwellings and growth in comparison to the benchmarks.

The 2019 LSDM Report also:

- suggested the potential role of the proposed (from 2022) dwelling stock measurements at the SA2 spatial level by the Australian Bureau of Statistics (ABS) (work has progressed on this in 2020 with the ABS consulting stakeholders in October 2020 on preliminary data for demolitions and completions), and
- proposed that property-based measurement of dwellings should, as far as practicable, be integrated with non-residential uses, in part, due to the need to address mixed uses. More broadly, measurement of existing and potential non-residential floor space is a key part of assessing and planning for the ability to accommodate expected employment growth, in accordance with the employment planning baselines of *ShapingSEQ 2017*.

From this work a number of elements were identified that require further exploration and investigation, including:

- **Understanding any identified challenges related to counting short-term or visitor dwellings and formulating possible approaches to these in the ongoing measuring of development.**
 - How much of what property-based measurements may capture, as short-term accommodation, is counted by the Census, and therefore the projections and *ShapingSEQ 2017* benchmarks, as permanent private dwellings; and how significant is this for measuring dwellings and growth across the various parts of SEQ?
 - How can property-based measurements appropriately account for visitor dwellings for the purpose of comparison to the dwelling supply benchmarks?
- **The significance of any identified dwelling misclassifications**
 - How significant is the apparent classification by the 2016 Census of relocatable home parks, as other dwellings, rather than separate houses (as identified by the Integran study for Redland in 2019)?
- **Investigate and identify non-residential use categories, relationships and conversions that may underpin comparable future measurement of non-residential floor space and employment potential across SEQ.**
 - What are the most appropriate categories, relationships and conversion rates to provide a comparable basis for assessment of non-residential floor space and employment potential across SEQ?
- **Alignment and synergies with local government land supply databases and/or inclusion/interaction in the development of a Regional Planning Model.**
 - How can measuring development findings be best incorporated, utilised and reported?

This may include the preparation of guidance material to inform ongoing development of, and updates to, land supply information; and guided by the aim of working towards a more accurate and consistent regional approach to measuring development.

The findings of initial investigations into these elements, and proposed further work, are summarised below.

For clarity, it is noted that 'permanent private dwellings' include the 'Separate house', 'Semi-detached, row or terrace house, townhouse' and 'Flat or apartment' Census categories. In combination these align to the following uses as defined by the *Planning Regulation 2017*: Dual occupancy, Dwelling house, Multiple dwelling, Party house, Relocatable home park and Retirement facility.

Accounting for visitor dwellings

Analysis of the proportions of permanent private dwellings, by housing type, that were occupied by visitor only households or were unoccupied on 2016 Census night (Tuesday 9 August 2016), provides the following initial findings:

- Visitor only households were generally a small proportion of the occupied dwellings by LGA (mostly less than 1 per cent), except for:
 - High-rise in the Consolidation area, particularly in the Gold Coast, Sunshine Coast and Noosa, but also in Brisbane
 - Middle in the Consolidation area in Noosa.
- The percentage of unoccupied dwellings is significantly higher in the same locations and housing types as for visitor only households. This is consistent with the Census occurring mid-week during a non-school holiday period in Winter. At such times visitor numbers would be expected to be low and vacancy of dwellings normally used by visitors correspondingly high, particularly in the Gold Coast, Sunshine Coast and Noosa LGAs and SA2s such as Surfers Paradise, Caloundra – Kings Beach, Mooloolaba – Alexandra Headland, Noosa Heads and Redland Islands.

An indicative estimate of total visitor dwellings in 2016 is therefore proposed based on adding together visitor only households and an appropriate proportion of unoccupied dwellings (by SA2 and housing type). Together with the detailed analysis of these by LGA and SA2, all to be presented for consultation with stakeholders in early 2021, this may assist in identifying those parts of SEQ where the significance of visitor dwellings needs to be considered in property-based measurements, for the purpose of any comparison to *ShapingSEQ 2017* benchmarks.

LSDM research in 2019 undertaken as part of the Integran study for Redland found it effective, for comparison of property-based measurement to the 2016 Census, to exclude dwellings identified as accommodation establishments by the STR Global Accommodation Database (Australian Accommodation Monitor) (AAM) and the Australian Tourism Data Warehouse (ATDW). To assess the potential application of this approach across SEQ, it is proposed that a comparison of Census non-private dwelling counts (for Hotel, motel, bed and breakfast) to AAM and ATDW accommodation establishments (combined) form part of stakeholder consultation in early 2021, to inform the potential use of AAM and ATDW data for property-based measurements of dwellings.

The significance of any dwelling misclassifications

Residential parks with manufactured homes recorded with the Queensland Department of Communities, Housing and Digital Economy (DCHDE) for SEQ prior to August 2016 (the Census month) included 13,513 manufactured home sites.

In comparison, the Census 2016 identified only 1,839 dwellings located in 'Manufactured home estates' in SEQ, the difference being about 1% of the total Census count of separate houses (of which manufactured homes are meant to be a subset) for SEQ.

Consultation with ABS and other stakeholders will provide the opportunity to fully assess this information and identify appropriate responses.

Proposed non-residential use categories and related conversions

As part of the LSDM Report's best practice research undertaken by CDM Smith in 2018, a standard set of non-residential use categories was proposed that could underpin comparable future measurement of non-residential floor space and employment potential across SEQ.

The table below identifies proposed generic alignments between those use categories and the broad categories identified by the Minister's Guidelines and Rules (MG&R) for LGIPs and the detailed use terms of the *Planning Regulation 2017*.

MG&R category	Proposed use category	Related use terms of the <i>Planning Regulation 2017</i>
Retail	Retail	Adult store, agricultural supplies store, car wash, food and drink outlet, funeral parlour, garden centre, outdoor sales, parking station, sales office, service station, shop, shopping centre, showroom
Commercial	Office	Office, veterinary service
Industrial	Low impact industry	Brothel, bulk landscape supplies, cemetery, crematorium, hardware and trade supplies, low impact industry, rural industry, service industry, warehouse, wholesale nursery, winery
	Medium impact industry	Major electricity infrastructure, medium impact industry, renewable energy facility, substation, telecommunications facility, transport depot, utility installation
	High impact industry	High impact industry
	Other industry	Air service, detention facility, marine industry, port service, special industry
Community purpose	Health	Community care centre, health care service, hospital, residential care facility
	Education	Childcare centre, educational establishment, research and technology industry
	Public order and emergency services	Emergency services
Other	Hospitality and leisure	Bar, club, community use, environment facility, function facility, hotel, indoor sport and recreation, landing, major sport, recreation and entertainment facility, motor sport facility, nature-based tourism, nightclub entertainment facility, outdoor sport and recreation, outstation, place of worship, resort complex, short term accommodation, theatre, tourist attraction, tourist park
	Natural resources	Animal husbandry, animal keeping, aquaculture, cropping, extractive industry, intensive animal industry, intensive horticulture, permanent plantation
	Mobile	Market, roadside stall

In association with these use categories, to support translation between non-residential floor space and employment the following were also identified, separately for each LGA:

- The proposed detailed percentage allocation of employment by Australian and New Zealand Standard Industrial Classification (ANZSIC) Subdivision or two-digit level industries to the 12 proposed use categories, and
- Proposed floor space to employment conversion rates for each use category.

Ongoing consultation is proposed to consider the land use to employment relationships identified, and the need for these to be periodically reviewed to account for the impact of social and economic changes over time, e.g. the flow-on impacts of the current COVID-19 pandemic.

Next steps

Ultimately any improved methods for measuring development are proposed for consideration for inclusion in guidance material to inform land supply and infrastructure planning databases.

Prior to that however, the proposals are made available for stakeholder consideration, review and feedback, and are subject to refinement. Proposed elements include:

- Stakeholder consultation is proposed for early 2021 to consider approaches to property-based measurement of dwellings that address the following:
 - LGA- and SA2-based Census data analysis assessing those parts of SEQ where it is more important for property-based measurements to take appropriate account of visitor dwellings for the purpose of comparison to dwelling supply benchmarks)
 - comparison of the Census non-private dwelling counts to tourist accommodation establishments data, to inform the potential use of the establishments data to inform, where appropriate, property-based measurements
 - fully assess the classification of relocatable home parks for the Census.
- Subject to their periodic review over time, to align with changing economic and social circumstances, the following could be considered in relation to the measurement of non-residential uses, floor space and employment:
 - The proposed 12 non-residential use categories
 - The identified alignment of those 12 use categories with the *Planning Regulation 2017* uses
 - The estimated relationship of the proposed use categories to the ANZSIC two-digit level industries
 - The suggested floor space to employment conversion rates of the proposed use categories.

Over time, these categories, relationships and conversion rates can provide a comparable basis for assessment of non-residential floor space and employment potential across SEQ.

Small area growth assumptions (a Regional Planning Model)

The Small Area Growth Assumptions (SAGA) subprogram is designed to implement a regional planning model to produce a region-wide set of growth assumptions at a small area level of detail (e.g. property level).

An integrated set of assumptions are required, in a modelling package, to meet the purposes of SAGA by: 1) exploring regional growth planning scenarios for future regional plan reviews; and 2) assist ongoing region-wide infrastructure decision making.

To produce and explore a region-wide set of SAGA scenarios, a regional planning model is required to bring together local government area related planning assumptions across South East Queensland (SEQ) into a region-wide model. A region-wide model would provide an SEQ-wide view of existing and planned growth, within and across local government boundaries.

In 2020, the due diligence process (Step 1 – literature review and stakeholder collaboration) started under the 2019 LSDM Report was progressed through the following steps:

- **Step 2 – Identify potential modelling packages** - One hundred and thirteen (113) modelling packages were identified through this process, with 22 shortlisted modelling packages identified that were available progressed to step 3 and 4 to identify preferred modelling packages for the regional planning model.
- **Step 3 – Establish design requirements:** Sixteen (16) design requirement categories were identified and defined from the step 1. In no order of importance these requirements included: Transparent, Dynamic, Structured and process driven, Bottom up, Current, Repeatable, Operator interchangeable, Micro, Ability to run scenarios, Ability to monitor growth, Resource efficient, Integrated, Accessible, Easily updated, Easily calibrated, and Adaptable.
- **Step 4 – Assessment to identify preferred modelling packages:** Guided by the DMWG collaboration, three mandatory requirements were identified. They were identified by examining the design requirements and separating those aspects that were essential to meet the two SAGA purposes. The mandatory requirements were used to separate those modelling packages that did not meet the mandatory' requirements. Modelling packages that did not meet the mandatory requirements were removed from the preferred modelling packages list. The mandatory requirements were formed from findings of Step 1-3 and include: 1) GIS-Based; 2) Property-Based; and 3) Online Functionality.

The twenty-three (23) shortlisted modelling packages from step 2 were assessed against the step 3 design requirements and the mandatory requirements. Results of the due diligence process (steps 1-4) identified the following, in no order of preference, as the preferred three (3) modelling packages including UrbanSim, Cube Land, Forecaz Modeller and What-If Online.

Four other (sub) modelling packages were also assessed as enhancing the preferred three (3) modelling packages for one or more of the regional planning scenario inputs. The four (4) preferred sub modelling packages are, in no order of preference: UrbanAPI, Metronamica, The WISE Model, and Envision. It was further found that, the three (3) preferred modelling packages could be supplemented with modelling method inputs that are not part of a modelling package (e.g. Classifier System, Artificial Neural Networks, Boolean Networks, Spatial Networks, Agent based models etc.). These would also further inform the development of scenarios and data inputs for the regional planning model.

The results of the due diligence process undertaken in 2019-2020 are proposed to inform the regional planning model procurement, development, testing and implementation phases.

Planned industrial land supply/take-up

In addition to the significant amounts of information on residential land supply, the Land Supply and Development Monitoring (LSDM) report monitors planned industrial land supply across the SEQ region and each of its local government areas. This is an important element of the reporting that provides an understanding of the SEQ region's planned industrial land supply³.

In reporting this industrial land supply and its take-up, the department sought to identify best practice methods to determine industrial developable areas which included the use of standardised SEQ-wide land supply types and developability rules.

For the 2018 and 2019 LSDM Reports the department employed consultants to undertake this work in consultation with the SEQ region's local governments. The outputs from this analysis were incorporated and reported in the planned industrial land supply/take-up sections of the respective LSDM Reports.

As part of its ongoing commitment to best practice research and continual improvement of information within current and future LSDM Reports, in 2020 the department undertook a review of the previous methodologies to identify elements that were successful and those that may require improvement, amendment and/or updating.

Review and ongoing improvement

In reviewing previously developed methodologies, data and feedback from stakeholders on the 2018 and 2019 LSDM Reports (including local governments), it was identified that there was a need for a more consistent and repeatable process and methodology for reporting on planned industrial land supply across the SEQ region. In particular, the identification of industrial land uses considered vacant and those considered in use or taken-up.

Building on previous work and following on from the review, a proposed refined methodology and approach was identified. This method was proposed to form the basis for undertaking the planned industrial land supply and take-up reporting for the 2020 and future annual LSDM Reports.

The approach aimed to provide a clear, repeatable and consistent methodology with agreed understandings of the following and identification of:

- the make-up of a planned industrial planning intent layer (e.g. zonings/precincts identified for existing or future industrial development), and
- planned industrial developable areas, utilising the SEQ-wide constraints and developability rules established in the 2019 LSDM Report, general feedback and any identified local variations, and
- current land uses including those considered vacant or considered underutilised and/or taken-up based on a proposed visual guide.

As highlighted above a significant element identified through the review was the need to develop and provide visual guidance on the determination of the existing land uses on land determined to be primarily for industrial purposes and activity across the region. The aim of the visual guidance was to establish a clear baseline for interpretation of uses and the consistent application of this to current and future reporting.

³ Land that is vacant, has a zoning or intent for industrial purposes in a planning instrument (e.g. planning scheme, development scheme, port land use plan, etc.) and is not affected by identified constraints. This is effectively the gross developable area, i.e. it does not exclude any allowance for roads, infrastructure corridors, open space and the like. It also does not exclude any allowance for some constraints which affect the economic feasibility of industrial development, e.g. geotechnical conditions, mining impacts, availability of infrastructure and the like. See [Definitions](#) for further information.

A proposed methodology and visual guide were provided to planned industrial land supply data custodians for review, comment and feedback with a focus on the:

- review and update of the industrial zones/precincts used to determine an updated industrial planning intent layer, and
- review and update of relevant constraint and planning scheme overlay layers, and
- consideration of the treatment of constraints in line with the established SEQ-wide developability rules (e.g. as a hard constraint and not able to be developed, or as a soft constraint where a proportion of the area identified could be potentially developed).

Feedback provided on the proposed methodology and information used to inform the analysis and reporting of the 2020 and future LSDM Reports are provided below.

Feedback on proposed methodology

Feedback from planned industrial land data custodians predominantly aligned to the following elements:

- General support for the approach
- Constraints
 - identification and currency
 - new and updated constraint/overlay information
 - amend consideration/treatment of constraints (e.g. hard or soft)
 - review proportions of developability in SEQ-wide rules and
 - alignment to local government information.
- Planning intent
 - updated and new planning scheme information, and
 - alignment to LSDM industrial land supply categories
- The method employed
 - subjective determination of land use types
 - determine land use after constraints have been applied
 - underutilised areas to be split based on use through aerial photography and GIS processing or based on a nominated proportion.
 - underutilised areas are often difficult to determine whether some uses are in use
 - underutilised areas should be considered as taken-up
 - include additional land use types (e.g. approved, not likely, under construction)
 - include industrial approval information to further defined areas taken-up
 - identify serviced or un-serviced land.
- Other elements
 - Treatment of rural, agricultural and extractive industries
 - Alignment to council planning
 - Clarification of scheme information used

Revised methodology including updated visual guide

In reviewing and responding to all comments and feedback received, a revised methodology was developed. This revised methodology has been applied to produce the results provided in the 2020 LSDM.

The revised methodology includes:

- A visual guide to identify:
 - Vacant land intended for industrial use and purpose including:
 - land that does not generally contain a significant built form (except for a dwelling house), or
 - any clear evidence of operation or use, or
 - may include evidence of earthworks or clearing.
 - Land considered underutilised or taken-up for industrial purposes including:
 - Land that contains an active land use and has built form for the purpose of industrial use, or
 - contains a built-form or an operating use, or
 - may contain sites that are not fully developed with permanent structures/built form, however, are taken up with permanent storage, other land use (e.g. park) and parking areas, or
 - dwelling houses that are part of a residential estate (not likely to be available for future industrial use), or
 - land that contains construction of an improvement/building that has commenced but may not be completed, or
 - a small proportion of built form or operation, where some of the land could be considered vacant or unused, may contain storage of materials, machinery, vehicles, but is otherwise considered unavailable for use (e.g. a single parcel in one ownership).
 - Updating the planned industrial intent layer – this is undertaken annually in consultation with industrial land data custodians and includes updates or new planning schemes, master, structure or development plans
 - Updating constraints layers and overlays - this is undertaken annually in consultation with industrial land data custodians and includes new state layers and any amended or newly created planning scheme overlay information.

This work identified a number of enhancements and updates to the planned industrial land reporting for the 2020 LSDM Report for each local government area. These are provided in the summary listing below.

- Use of consistent visual guide for the identification of industrial land considered vacant for industrial uses, underutilised and taken-up
- Updates to industrial zoning/precinct information as at 30 June 2020
- Updates to constraints information for both local government areas and the state as at 30 June 2020
- Updated interpretation of vacant, underutilised and taken-up land to nominally 30 June 2019
- Amended the treatment of selected constraints to be either hard or soft
- Inclusion of a proportion of areas of Mixed-Use zonings where able to be identified for industrial purposes
- Re-categorise industrial zones where they better align to different LSDM categories (e.g. industrial land at the Mill site to High Technology).

In addition to the above further future enhancements are also proposed including use of current industrial and residential approvals and identifying serviced and un-serviced industrial land. The further enhancements section below provides additional detail.

The revised method used in the reporting of planned industrial land supply in the 2020 LSDM Report is reflected in the [Technical Notes](#).

Limitations

The following identifies some of the limitations in developing and reporting on region-wide planned industrial intent and supply information, including:

- Collection and use of industrial approvals

It is acknowledged that the reporting could be improved using this information. The incorporation of this information would need to be considered in the context of availability, accuracy, application and processing.

- Availability and timing of current aerial photography

Currently the department has access to region-wide aerial photography, captured around similar dates, 6-12 months after it is flown. Therefore, with the additional data processing and compilation time, the reporting effectively has a reporting lag of 12-18 months at the time of its release.

- Subjective nature of the interpretation of what is considered vacant, underutilised and taken-up.

It is acknowledged that the determination of land use types from the manual interpretation of aerial photography can be subjective. A visual guide assists to reduce this subjectivity and allows a more consistent region-wide interpretation. It is further acknowledged that ongoing improvements will continue to be required and be explored for future LSDM reporting.

- Differences between council information and the LSDM.

It is acknowledged there may be differences in terms of available/developable areas reported in the LSDM and those produced at greater detail by councils. Overall, the LSDM aims to provide a region-wide consistent approach to the estimation of planned industrial land supply across the region. Where councils have more detailed published information, a link to this information can be included in the relevant section of a LSDM report.

- Serviced and un-serviced land

It is acknowledged that the planned industrial land supply identified in the LSDM Reports will contain a mix of serviced and un-serviced land. This is recognised within the technical notes and a note within the main section of the LSDM reporting.

Further enhancements

From the work undertaken in producing the revised and updated methodology and the feedback received from industrial land supply data custodians, a number of potential enhancements have been identified that may be investigated for future planned industrial land reporting. These include:

- Investigation of industrial approvals

This work may include accessing preliminary and development approvals for industrial purposes. Currently residential preliminary and development approvals are captured as part of the development of the intent to service layer which informs calculations of realistic availability of planned dwelling supply in SEQ's expansion area. Therefore, the collection of industrial related approvals could be considered as an extension of this data collection process.

- Investigation of the identification of serviced and un-serviced industrial land.

Identifying serviced and un-serviced industrial land could include investigations that build on the ability to service best practice research work that produces the residential expansion intent to service layer (as mentioned above). Further this could also include learnings from the research undertaken for the 2020 LSDM Report to gain a better understanding of the ability to service in consolidation areas through using water and sewer network modelling (for further information, see Ability to Service – Consolidation Best practice research.

- Ongoing consultation with planned industrial land data custodians, and
- Ongoing and annual updates to constraint and planned industrial intent information.

Conclusion

Through feedback and consultation with industrial land supply data custodians, significant steps have been made to produce a repeatable, timely and consistent methodology for determining and reporting on planned industrial land supply and underutilised and taken-up industrial land across the region.

This method and process sets a solid foundation for future LSDM reporting and allows for a focus on continual improvement.

It is acknowledged that there remain significant elements that require ongoing consideration including:

- the need to collect and incorporate industrial related preliminary and development approvals, and
- gaining a greater appreciation of, and being able to, measure and identify serviced and un-serviced industrial land, and
- balancing the utilisation of local knowledge with the need for a region-wide consistent approach to measuring and monitoring planned industrial land supply.

Through its commitment to ongoing improvement that underpins the development of, and reporting in, LSDM Reports, the department will continue to explore, with stakeholders, ways to continually improve the planned industrial land supply and take-up reporting.

Next steps

The Growth Monitoring Program will continue to refine, monitor, improve and report on planned industrial land supply in consultation with industrial land data custodians. Future works proposed include:

- annual reviews and incorporation of new and updated industrial planning intent layer information and constraints
- investigating the collection of industrial related development activity/approvals as a key element to the ongoing monitoring of planned industrial land supply and demand for the region, and
- investigating the ability to identify serviced and un-serviced industrial land supply across the region. This could utilise learnings from the development of the current residential expansion intent to service layer and ongoing investigations in determining an ability to service layer for SEQ's consolidation areas.

Data sharing

Throughout the development of the Land Supply and Development Monitoring (LSDM) Reports the Growth Monitoring Program (GMP) has utilised a variety of land supply and development activity data, and data sources, to inform annual reporting and elements of the program's ongoing best practice research.

Since the establishment of the GMP the department has continued to work with data custodians and stakeholders to foster and develop long-term data sharing arrangements across state agencies, local governments and utility providers. The advancement of data sharing arrangements can provide for consistency and understanding across stakeholders in monitoring data associated with the region's land supply and development activity.

In 2018, data sharing was identified as one of the priorities for the ongoing GMP by the Data and Modelling Working Group (DMWG). The DMWG provided in-principal support for the development of a draft reciprocal data sharing agreement for review and execution by key stakeholders. Any proposed agreement, once actioned, could facilitate sharing of data between local governments, utility providers, and key state departments who participate in the GMP.

The department has continued to research varying methods of data custodianship and has identified new approaches to facilitate data sharing and collaboration. An example is the Ability to Service (consolidation) sub-program where the state, a local government and utility provider have collaborated on a pilot study, investigating how realistic availability in consolidation areas could be measured and monitored (for further information see Ability to Service – consolidation).

There is also scope to potentially consider, in consultation with data custodians, the inclusion of universities, and other research organisations within an agreement (in full or in part). This could provide an ability to utilise the skills, expertise and research capabilities these organisations may offer to the program and its stakeholders.

The benefits of a broader, long-term agreement would:

- reduce the administrative burden by eliminating multiple requests for the same data by multiple agencies
- allow state and local governments and utility providers to have access to the best available information that they, or other agencies, have or can share
- increase efficiencies and minimise duplication of effort in producing, collecting and processing data
- provide confidence that legal requirements (e.g. confidentiality, intellectual property, privacy, copyright and disclaimers) have been appropriately dealt with, and
- allow state and local governments and/or utility providers the flexibility to add or remove their own data from the data sharing agreement as needed.

These agreements would allow each party to the agreement to share a pre-defined list of land supply, development activity and infrastructure-related data with any other party to the agreement.

What's happened in 2020

Through the development of the draft 2020 LSDM the department has:

- undertaken stakeholder engagement to continue to better understand the data requirements and needs
- undertaken one-on-one conversations with stakeholders about their data and how it will be used in LSDM reporting
- continued to work with the Queensland Government Statisticians Office, local governments and utility providers to work towards developing a draft data sharing agreement that suits each organisation's purposes
- remained mindful of the need to ensure datasets are built and retained in a way that can be easily augmented or used for additional purposes in the future
- developed and actioned a consolidated data request for data custodians and stakeholders with a centralised online platform to facilitate efficiencies in uploading new, reviewing existing, and sharing data where appropriate

- continued to work toward a framework that facilitates the sharing of data and information across key stakeholders in SEQ. To this end, the department reviewed a draft data agreement prepared in 2019 and updated it to better respond to the needs of stakeholders as well as the requirements of the GMP.

Until a long-term data arrangement is in place, the department will continue to access data to support the development of the LSDM reports using existing arrangements with data custodians.

What's next

- The department is continuing to investigate synergies and efficiencies in accessing information provided directly to the department by local governments.
- The department has prepared a draft long-term data sharing licence based on a draft agreement being developed by the Department of Transport and Main Roads (proposed between DTMR, the department, local governments and utility providers).

Provide the draft long-term agreement to data custodian stakeholders for review and comment.

COVID-19 impacts and recovery

Economic impact of COVID-19

Queensland's Economic Recovery Plan acknowledges that the pandemic will have substantial and long-lasting impacts on our economy and society. At this stage, the extent and duration of the impacts are unknown. There is a high level of uncertainty, and this is expected to continue as the COVID-19 impacts are further investigated, identified and understood. Recognising that the economy and housing markets operate differently in different areas of South East Queensland, these impacts will also vary across the region.

In the Opening Statement to the House of Representatives Standing Committee on Economics the Reserve Bank of Australia Governor Philip Lowe acknowledged that looking forward there is a high degree of uncertainty as to the economic outlook and economic recovery depends on how successful containment of the COVID-19 virus is¹.

The Grattan Institute in their publication *The Recovery Book* (June 2020), anticipates a globally synchronised deep recession. The serious economic impacts of the crisis reinforce the importance of monitoring and reporting to better understand impacts and inform data-driven decisions, as to date most analysis has been based on projections rather than observable data trends².

The Land Supply and Development Monitoring (LSDM) Report has been delivered annually since 2018 and shares key metrics of the land supply for housing and industry and the planning and approvals system for SEQ. The benefit of the LSDM Report is in the consistent reporting of data across standardised metrics which can be used to identify trends in the short, medium and long term. For continuity between LSDM reporting years, the 2020 LSDM Report aligns to the standard structure and metrics used in the 2018 and 2019 reports. This section provides a platform to discuss the evolving impacts of the COVID-19 pandemic as it relates to development and the housing market in SEQ and as identified in the Market Factors Report and discussed below.

Gross Domestic Product

The Market Factors Report identifies that the Australian economy has been contracting quickly with the national economy to forecast to contract in 2020 by 3.75%. At this stage recovery is anticipated in the September quarter 2020 with a forecast 1.5% growth in real GDP, while remaining negative for the 2020/21 financial year³.

Population growth

The Economic and Fiscal Update presented by the Australian Government in July 2020 forecast population growth to be at its lowest rate since 1916/17 - expected to be 0.6% in 2020/21⁴.

Population growth is anticipated to be low over the next two years as a result of reduced levels of net migration, and lower fertility levels resulting from weaker economic conditions. The biggest contributor to the lower population growth is the expected contraction in net overseas migration. This is expected to decline from 232,000 persons in 2018/19 to 154,000 in 2019/20, and to 31,000 people in 2020/21³.

Dwelling activity and building approvals

Over the past 12 months Queensland accounted for around 17 per cent of new dwelling approvals across Australia. Based on this percentage of the national dwelling approvals, a fall in dwelling demand of approximately 5,200 in 2019/20 and 8,250 in 2020/21 is anticipated. In Queensland, this would represent a fall of approximately 13,450 dwellings in 2019/21 compared to pre-crisis levels – equating to around 35 – 40% in market demand³.

Dwelling investment across Australia is forecast to fall substantially in 2020/21, in the order of 16%. This includes an expected fall of 11% in the September quarter 2020. The Queensland Government has announced a number of initiatives to stimulate investment in development activity and markets, including the \$100 million housing construction - Works for Tradies, program to build new social housing across Queensland and the \$200 million Building Acceleration Fund focused on the delivery of infrastructure to encourage development and private sector investment. Additionally, the Federal Government’s HomeBuilder program is expected to reduce the potential impact contributing in the order of \$1.6 billion to residential building activity in 2020/21³.

The Market Factors Report also notes that the HomeBuilder program appears to be having an impact on home sale levels with the Housing Industry Association reporting that new house sales rose 78% in June 2020³.

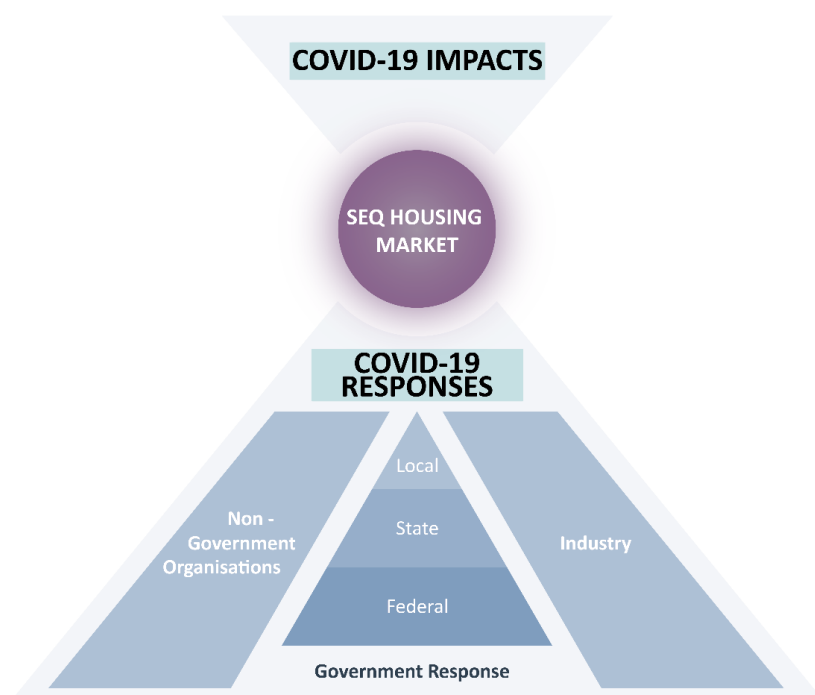
The latest fall in residential building approvals is consistent with slowing population growth at the state and regional level and a decline in employment at the SEQ region level. In the previous year the market appeared to be gathering strength and taking up the level of dwelling oversupply. This has now changed as a result of the impact of the pandemic³.

Consumer confidence

The Market Factors Report notes that consumer confidence fell to a record low in March 2020 before recovering to near pre-pandemic levels by June 2020. This is a promising trend; however total spending is still down 1.1 per cent in the March quarter 2020 with spending on discretionary goods and services down 3.9 per cent³.

Policy context

With the existing and emerging size of the economic challenges arising from COVID-19 there has, and continues to be, unprecedented responses from all levels of government. While these policy responses are implemented, they will have an impact on key elements of development in SEQ. The figure below recognises the collective effort in responding to the impacts of the COVID-19 pandemic, across the public and private sector. Response and recovery efforts will be monitored to understand the effect on the SEQ housing market and will be reflected in future LSDM reporting where appropriate.



Recovery

As recognised in Queensland's Economic Recovery Plan, recovery from COVID-19 is a long-term challenge that requires a long-term response. The economic recovery may go through a number of stages should Queensland need to manage any future outbreaks and their impacts. At this stage the broader outlook is uncertain and highly dependent on recovery measures. This uncertainty extends to the property industry in SEQ.

The Queensland Government responded to the COVID-19 pandemic with a package, totalling over \$7 billion, to support, businesses, workers and families. This immediate stimulus is strengthened by the planned investment in sustained and staged measures, and the Queensland government's commitment to work in partnership with industry in economic recovery while positioning Queensland for the 'next normal'.

The national and international economic recovery outlined in the baseline scenario by Reserve Bank of Australia and International Monetary Fund, respectively, assume a V-shaped recession. Research undertaken by Griffith University and UACS Consulting to forecast impacts to building approvals in SEQ using macro-economic variables, set out that the recovery may be extended into a U-shaped or W-shaped recession. Its findings, suggested that the housing market in Queensland may follow an oscillating quarterly trend in its recovery path due to the compounded effect and the interplay of national and global macro-economic factors⁵.

Infrastructure investment is a key driver of economic growth and job creation, this is reflected in the \$51.8 billion Queensland Government Infrastructure guarantee which provides industry with confidence to invest and sustain jobs across Queensland and SEQ. The four-year infrastructure investment program will provide a \$13.9 billion investment in 2020-21, directly supporting around 44,000 jobs. As part of the infrastructure guarantee, the Queensland Government is committed to fast-tracking vital infrastructure projects to stimulate economic recovery and sustain construction sector activity across Queensland.

The importance of the property industry has been recognised with initiatives already put in place by all levels of government to lessen the impact of the pandemic. For example, reduced interest rates, introduction of cash flow boosts to small businesses such as the Queensland Government's \$1 billion COVID-19 Jobs Support Loan scheme and Small Business COVID-19 Adaption Grants program, increased grants for first home buyers, electricity bill rebates for small and medium businesses, payroll tax relief, and job keeper payments. The Market Factors Report identifies that early indicators appear to show that government stimulus measures have had a positive impact on dwelling purchases, Stimulus measures including the Queensland Government Accelerated Works Program, Unite and Recover Community Stimulus package, HomeBuilder, Job Keeper, and extensions to Job Seeker will continue to be important measures in economic recovery.

The positive impact of stimulus on the housing market reinforces the important role the government plays in creating an environment of business confidence - with greater certainty, simplified processes, and more collaborative arrangements.

The 'next' normal

It is not possible to accurately predict what impacts the crisis will have into the future and it is feasible that some of the habits developed during these periods of social distancing will become long term, which may change long term consumer and business behaviours. If so, this is likely to have impacts on expenditure levels, and subsequently the housing market².

The COVID-19 impact analysis undertaken in the Market Factors Report indicates that there are two broad scenarios that SEQ could follow.

- The first is a relatively swift recovery, with economic activity estimated to improve from early 2021. If this was to happen, dwelling development activity may follow shortly after the broader economy begins its recovery. Employment is likely to be an important barometer of this recovery with dwelling investment generally underpinned by stable employment³.
- The alternative scenario is a more protracted recovery. This would be driven by persistent outbreaks of the virus, higher levels of business insolvencies, and suppressed levels of population growth. Queensland may be at a higher vulnerability should there be further outbreaks, given the state's reliance on Net Overseas Migration to support population growth; and the importance of Queensland's Tourism and Hospitality sector. Economic recovery in this scenario could be supported by sectors that are less reliant on population growth, for example the mining sector which is currently showing signs of increased growth³.

References:

1. Reserve Bank of Australia, Opening Statement to the House of Representatives Standing Committee on Economics, 14 August 2020,
2. Grattan Institute, The Recovery Book: What Australian governments should do now, June 2020 Source: <https://grattan.edu.au/report/recovery-book/>
3. Innovociti, SEQ Market Factors Report, Version 3, December 2020
4. Australian Government, Economic and Fiscal Update July 2020, 23 July 2020
5. Abel Silva Vieira, et al., The impact of COVID-19 on dwelling approvals in QLD: Preliminary macro-economic analysis using CCF-TCM hybrid approach, July 2020

Market factors

Introduction

The 2020 LSDM Report focuses on medium and long-term supply metrics as they relate to the policy objectives and identified dwelling supply benchmarks and employment planning baselines of *ShapingSEQ 2017*, but it also tracks recent development activity through dwelling growth, sales volume and price and changes in housing type and density. Recent development activity can be influenced by numerous macro and micro-economic factors which are not considered by this monitoring.

In response to this, and feedback from stakeholders on the first annual LSDM in 2018, the department with the support of the SEQ Housing Supply Expert Panel, commissioned Innovociti Pty Ltd to prepare a 2019 Market Factors Report to accompany the 2019 LSDM Report.

Since the release of the 2019 report, the department has continued discussions with key stakeholders about the future reporting and periodic review and update of the region's market factors reporting. Given the impact of COVID-19, it was determined that the current 2019 Market Factors Report, and findings, be reviewed and updated for 2020.

The 2020 Market Factors Report:

- discusses factors that may affect short-medium term demand for housing
- is evidence based and draws upon metrics in the public realm
- uses regularly updated metrics
- highlights trends in development activity and residential demand
- provides independent expert commentary at a whole of SEQ scale
- provides insight into how broader macroeconomic forces are influencing development approval, construction, and short and long-term supply, and
- includes specialist commentary regarding any identifiable implications.

A summary of the 2020 Market Factors compared to 2019 can be seen in the table below:

Factors		Measures		Change
		2019	2020	
Underlying	Gross State Product	3.08%	-1.07%	Negative
	Interest Rates	1.00%	0.25%	Down
	Population Growth	1.76%	1.62%	Slowing
	Employment Growth	1.87%	-5.39%	Rapid decline
	Wage Price Growth	2.34%	1.75%	Slowing
Effective	Building Approvals	28,943	25,445	Down
	House Prices	-1.30%	2.32%	Up
	Housing Finance	\$37b	\$37.2b	Stable

	Lot Registrations	22,845	20,995	Down
	Residential Construction Sentiment	-10.5	23.5	Strongly up

Fact sheets

1: Realistic availability concept

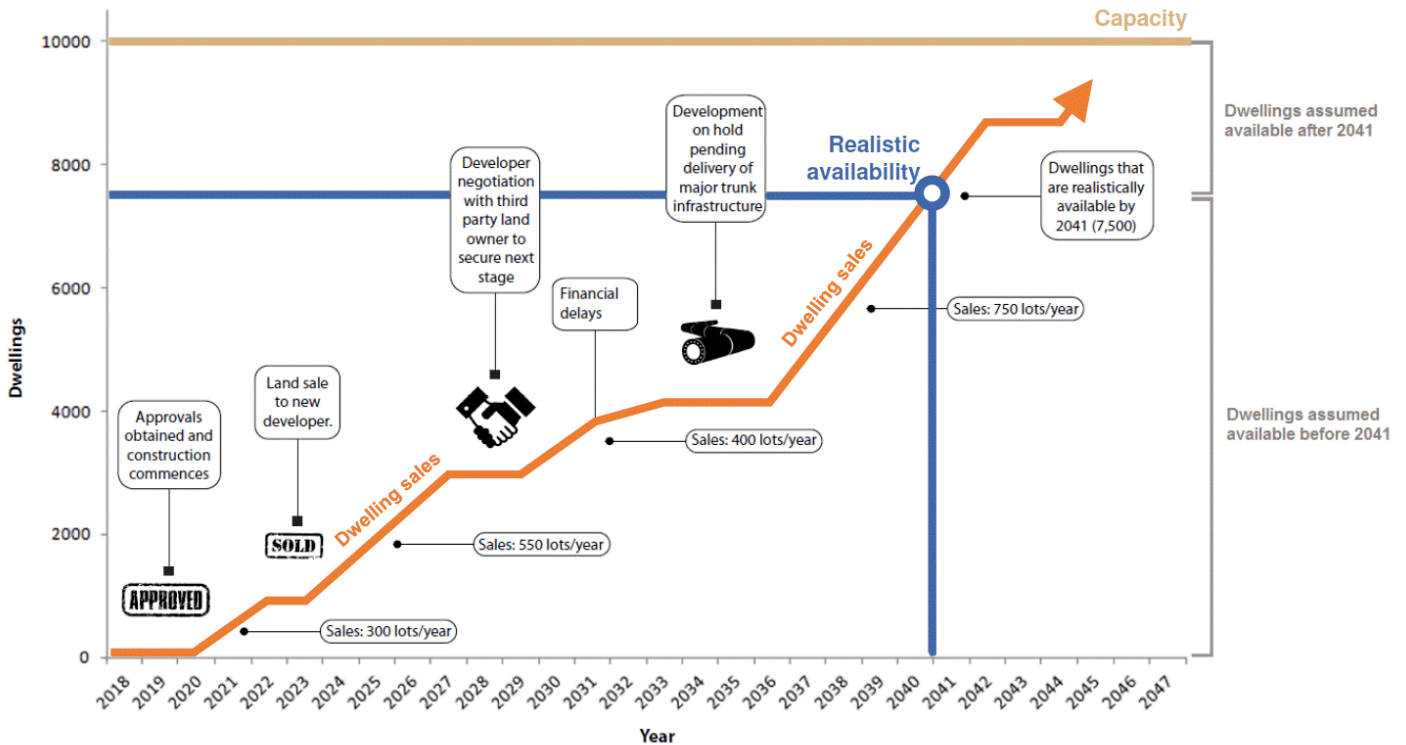
ShapingSEQ 2017 proposes that the Growth Monitoring Program monitor land supply in terms of its realistic availability, rather than its capacity. Each Land Supply and Development Monitoring Report applies scenarios which assume not all of the planned capacity will be realistically available by 2041.

The capacity of planned dwelling supply (illustrated in gold) is an estimate of the number of dwellings that current planning instruments make available for development, to an unlimited time horizon, after considering what portion of land is developable, and the likely density of development on that land.

The realistic availability of planned dwelling supply (illustrated in blue) is an estimate of the portion of the capacity of planned dwelling supply (in terms of dwellings) that is expected to be available by 2041, after considering how the following may constrain/delay development:

- infrastructure availability
- the practical staging of development
- fragmented land ownership and varying landowner intent
- insufficient demand for the planned density in some areas up to 2041
- existing versus planned density (or low value of planned development vs existing development)
- the age of existing development
- accessibility
- constraints affecting the economic feasibility of development

Major expansion area example



2: Realistic availability scenarios

① The **2041 dwelling supply benchmark** (black line) shows how many dwellings are required to accommodate expected growth in the South East Queensland (SEQ) consolidation area to 2041.

② The **capacity** (gold bar) indicates how much growth has been planned for (e.g. by local governments) in the SEQ consolidation area.

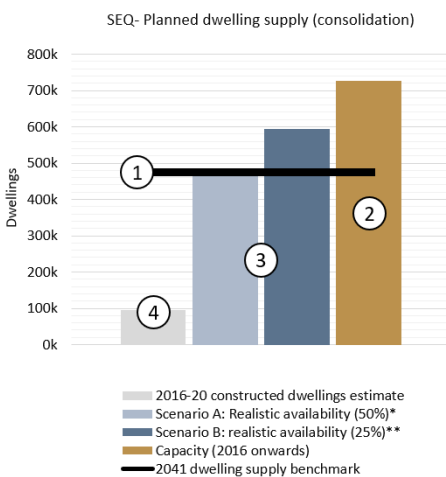
③ The **realistic availability scenarios** (blue bars) are indicative of how much capacity may be available for development up to 2041. These scenarios illustrate the potential effect of factors (e.g. infrastructure availability, fragmented land ownership, etc.) that may delay/constrain the amount of dwellings that are available for development by 2041.

The department has identified two realistic availability scenarios for the consolidation area, for SEQ only. As some of the local land supply information used to inform the Land Supply and Development Monitoring (LSDM) Report already has varying assumptions about realistic availability, no scenarios are identified for local government consolidation areas. The two indicative scenarios for the SEQ consolidation area are:

- **Scenario A** - assumes that 50 per cent of the **capacity**, that is not yet built or approved, is not available for development by 2041
- **Scenario B** - assumes that 25 per cent of the **capacity**, that is not yet built or approved, is not available for development by 2041.

④ The **2016/20 constructed dwellings estimate** (grey bar) is an estimate of how many dwellings have been built between 2016 and 2020.

Note: For expansion areas, the LSDM Report identifies one realistic availability scenario for each local government area and SEQ, based on the consistent approach and findings of previous regional studies about the effects of fragmented land ownership, infrastructure availability and the practical staging of development through the use of the current intent to service layer.



3: Ability to service

ShapingSEQ 2017 establishes a policy objective that there will always be at least 15 years' supply of land that is appropriately zoned and able to be serviced (*ShapingSEQ 2017*, p.46). This 15-year policy objective is a rolling

assessment of supply each year which considers recent growth, remaining supply, and the expected rate at which supply will be consumed.

The primary objective of the Growth Monitoring Program (GMP) Ability to Service subprogram is to provide an indication of whether this policy objective is being met. To inform this assessment, the department undertook Best practice research in 2018 in consultation with the GMP Data and Modelling Working Group to identify methods for mapping areas that have the ability to be serviced with infrastructure, focusing on indicators that related to:

- infrastructure already in place,
- decisions already made about infrastructure or development, and
- agreements, planning or funding in place for future infrastructure.

The best practice research explored numerous indicators/datasets that could indicate an area as having the ability to be serviced. The research acknowledged that the ability to service concept is seeking to assess the feasibility of urban development being provided with necessary supporting infrastructure within the subject planning horizon, not just the potential for an area to be serviced through an 'engineering solution', however costly, financially, socially or environmentally. The research shortlisted several boundary type indicators which showed a current intent to service, noting that this intent to service also indicates an 'ability to service' in accordance with the subprogram's objectives.

In 2019, and updated in 2020, the department used six shortlisted indicators to prepare a Current Intent to Service layer, consisting of:

- residential development approvals,
- residential preliminary approvals,
- priority infrastructure areas,
- existing and future sewer connection areas,
- infrastructure agreements, and
- priority development areas.

The department has used annually updated Current Intent to Service layer in the LSDM Reports to inform the 'realistic availability of planned dwelling supply' scenario in the expansion area and compared this assessment of supply to *ShapingSEQ 2017's* rolling 15-years of supply policy objective. The department has not compared this realistic availability scenario to *ShapingSEQ 2017's* 2041 dwelling supply benchmark in acknowledgement of the fact that the indicators used in the Current Intent to Service layer may have a planning horizon earlier than 2041.

The department will continue to improve the Ability to Service subprogram in partnership with GMP stakeholders, for example, exploring other boundary, capacity and proximity indicators of an areas ability to be serviced as recommended by the 2018 best practice research. These improvements will support the GMP's role as a long-term program of government, that will capitalise on research and work undertaken by key stakeholders each year to create a shared understanding of development land supply across SEQ.

Technical notes

Introduction

These technical notes provide information on data collected and compiled and calculations reported on for the 2020 release of the South East Queensland (SEQ) Regional Plan 2017 (*ShapingSEQ 2017*) Growth Monitoring Program's (GMP) Land Supply and Development Monitoring (LSDM) Report.

LSDM reporting is a core deliverable of the GMP in working to achieve the vision, goals and strategies of *ShapingSEQ 2017*. The GMP annually monitors land supply and development activity for both residential and non-residential land uses in SEQ and reports on associated measures, as appropriate.

Further detail on information used for the LSDM Report, including description, rationale, limitations, data sources, custodians, data geography, method, data updates and reporting units is provided, where relevant.

The LSDM Report has:

- been developed in good faith
- utilised appropriate data and consistent and repeatable methodologies, where possible
- made use of publicly available datasets (local, state and regional), where possible
- used information that may be refined over time and will be updated for annual reviews of the LSDM Report.

In some instances, the LSDM Report has relied on unpublished datasets provided by local governments. These are unique to each local government area and represent data captured at a point in time for the purposes of informing the 2020 LSDM Report.

For future LSDM reports, data improvements are expected to be made progressively over time through the application of new and more consistent methodologies and approaches ([Program Delivery](#)).

For the purposes of LSDM reporting, the SEQ region comprises the following local government areas:

- Brisbane
- Gold Coast
- Ipswich
- Lockyer Valley
- Logan
- Moreton Bay
- Noosa
- Redland
- Scenic Rim
- Somerset
- Sunshine Coast
- Toowoomba (urban extent, i.e. those parts within the Toowoomba Statistical Area Level 4 (SA4) boundary).

Any data collected at a lower geographical area (e.g. parcel level or Statistical Area Level 2 (SA2)) are reported on for these local government areas unless otherwise stated.

The Department of State Development, Infrastructure, Local Government, and Planning (DSDILGP), reviews and produces the LSDM Report annually to ensure the most appropriate and up-to-date information is reported.

It is acknowledged that other agencies (State and local) may have metric dashboards or other reports displaying similar information and these may provide more detail for their area.

While every care has been taken to ensure the currency and accuracy of the LSDM Report, the State of Queensland, SEQ local governments and utility providers make no representations or warranties about the report's accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage), decisions or actions taken as a result of any data, information, statement or advice, expressed or implied or contained within.

The 2020 LSDM Report has been prepared using data to 30 June 2020.

It is anticipated that the COVID-19 pandemic will continue to impact development activity and markets in SEQ. The financial year reporting period for the 2020 LSDM Report means any post 30 June 2020 impacts as a result of COVID-19 may not be reflected in this report. The GMP will continue to monitor this information and may consider addendums to the 2020 LSDM Report as information becomes available.

Further information on selected terms used through this document are listed in [definitions section](#).

Planned dwelling supply

Description

Planned dwelling supply is a collective term for both the capacity of and the realistic availability of planned dwelling supply, which are separately defined.

Planned dwelling supply is based on estimates of the dwellings that have been or could be approved, based on current planning intent and the expected nature of demand and densities over time, to accommodate the region's expected dwelling growth, within *consolidation* and *expansion* areas.

Planned dwelling supply is expressed in terms of additional dwellings (from a 2016 base) in the region and by local government area for *consolidation* and *expansion* areas. This is compared to the 2041 dwelling supply benchmarks of *ShapingSEQ 2017*. It is also expressed in terms of years of supply (from a 2020 base).

For the purposes of the 2020 Land Supply and Development Monitoring (LSDM) Report, the capacity of the planned dwelling supply has been estimated using the identified growth in dwellings (generally from 2016 to ultimate development, unless otherwise noted) from the best available local government datasets. This includes detailed planning assumptions datasets or summary reporting prepared for Local Government Infrastructure Plans (LGIPs), and other studies and databases as identified for use by the relevant local government.

The reporting also incorporates a sensitivity analysis in the form of realistic availability scenarios, which are informed by the recommendations of the best practice research (see Moving forward sections of the 2018 and 2019 and the [Program Delivery](#) section of the 2020 LSDM reports) and previous studies.

Rationale

Note: The method and data used to determine planned dwelling supply is the same as those used to inform the 2019 LSDM Report with the exception of an updated assessment of realistic availability in expansion areas.

Current status of the amount of planned dwelling supply (preferred minimum 15 years of supply) is analysed and presented for the region and for each local government area, by *consolidation* and *expansion* areas.

Each measure of realistic availability is presented as an alternative measure of supply, i.e. compared to the corresponding capacity measure. It is included as a scenario or sensitivity analysis that seeks to represent the effect of factors that may constrain the availability of some of the identified capacity for development, up to the 2041 planning horizon.

Factors that either alone or in combination may constrain the realistic availability by 2041 of the capacity for urban development include:

- infrastructure availability
- the practical staging of and capability for development
- land ownership fragmentation
- landowner intent
- insufficient demand for the planned scale/density of uses in some areas up to 2041
- existing versus planned density (or land value in the existing versus the planned use)
- the age of existing development
- accessibility
- constraints affecting the economic feasibility of development.

Consideration of realistic availability as an alternative scenario provides a greater level of confidence about the adequacy of dwelling supply.

For the LSDM Report, realistic availability has been reported by local government area for *expansion* areas only. This recognises the varying extent to which the source datasets already consider some of the identified realistic availability factors, particularly for urban redevelopment in *consolidation* areas.

Limitations

Years of supply for planned dwelling supply is calculated based on the adjusted average annual benchmark, i.e. the average annual growth of dwellings expected 2016-2031 in order to align with the relevant 2041 dwelling supply benchmarks of *ShapingSEQ 2017*. For the 2019 and 2020 LSDM Reports, this rate of growth for SEQ was adjusted to take account of the projected rate of growth from 2016-2031 identified in the Queensland Government's 2018 edition medium series projections.

There is some source data inconsistency across local government areas, including timing, outputs and assumptions about densities and developable areas. Limitations of timing also effect the development of the Current Intent to Service layer used to inform realistic availability of expansion area supply.

The interpretation, determination and timing of ultimate development may affect the consistency and comparability of reporting across local government areas.

The intent of the planned dwelling supply measure is to report dwellings that have been or could be approved based on current planning intent. However, the timing of the preparation of available datasets means that the effect of some draft changes to planning schemes may be included in, and the effect of some recently adopted changes may be excluded from, the data.

The information extracted from individual local government datasets and included in the LSDM Report may be different to the estimates of dwelling supply used to inform *ShapingSEQ 2017*. For example, vacant lots at the base date are generally counted as supply in the source data and the LSDM Report, whereas *ShapingSEQ 2017* assumed an equivalent stock of vacant lots would exist in 2041 and did not therefore count them as dwelling supply. There may be other variations in assumptions about developable area, density and land availability up to 2041.

Some local governments have more sophisticated models which are able to provide greater detail including small scale modelling which may indicate potential supply greater than shown in the LSDM report. For the LSDM Reports, the GMP has aimed for a consistent approach to measuring land supply, capacity and realistic availability across the region. The LSDM Reports continue to monitor the region's land supply information and improve this information over time in consultation with all stakeholders, in particular, local governments.

Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) is continually working towards applying a more consistent methodology across the region for calculating planned dwelling supply. This will be informed by the findings of and further work to progress and implement best practice research ([Program Delivery](#)).

DSDILGP, through its ongoing Measuring Development best practice research, is working towards developing methodologies to understand, amongst other elements, the impact of visitor or tourist dwellings in calculating the planned dwelling supply from source data. As some visitor dwellings are effectively not counted as part of the *ShapingSEQ 2017* dwelling supply benchmarks, which are a response to the projected growth of resident population and dwellings, future reporting will seek an appropriate and consistent basis for excluding them from the planned dwelling supply.

The indicative realistic availability scenarios for *consolidation* in SEQ sum the 2016-20 constructed dwellings estimate and material change of use (MCU) approvals (as at June 2019) as a base for applying proportions to the balance of the *consolidation* capacity to calculate realistic availability. There may be some overlap between the 2016-20 constructed dwellings estimate and MCU approvals, including a proportion of high-rise multiple dwellings that are counted in both data elements due to the length of time required for construction of taller buildings.

For Lockyer Valley and Somerset Regional councils parcel-level equivalent demand units (EDUs) were used as projected dwelling figures. For this analysis, one EDU was assumed to be one dwelling unit. A comparison with the dwelling units reported in the corresponding LGIPs undertaken as part of the 2018 LSDM Report found only a slight difference in values.

The Current Intent to Service layer was derived from the most recent and accessible information from local governments and utility providers, including development and preliminary approvals, infrastructure agreements, priority development areas, priority infrastructure areas and existing and future sewerage connection areas. DSDILGP is continuing to work with these agencies to prepare and utilise the most accurate and relevant information in the identification of the Current Intent to Service layer.

Data source/custodian

- DSDILGP, *ShapingSEQ 2017*, Existing Urban Area (EUA), August 2017
- DSDILGP, *ShapingSEQ 2017* growth areas, 2017 (see Appendix A)
- DSDILGP, *ShapingSEQ 2017*, Dwelling Supply Benchmarks, August 2017
- DSDILGP, SEQ regional plan boundary, 2017
- Australian Bureau of Statistics (ABS), SA2, 2016
- SGS Economics and Planning, SEQ expansion areas realistic dwelling take up – 2019 update for major precincts, October 2019 (see extracts at Appendix C)
- DSDILGP, Priority Development Areas (PDA), 2019
- Queensland Treasury, 2018 edition medium series dwellings projections, 2019.
- Queensland Treasury, Queensland Government Statisticians Office (QGSO), MCU approvals for multiple dwellings (unconstructed), as at 30 June 2019, as provided November 2019. This data is based on development approval data provided by local governments and Economic Development Queensland (EDQ).
- Planning scheme zones (see Appendix B, Table B4)

- Brisbane – Brisbane City Plan 2014 v19.00/2020
 - Gold Coast – N/A see individual local government method
 - Ipswich – Ipswich Planning Scheme, December 2019
 - Lockyer Valley – Laidley and Gatton Planning schemes v2, 27 June 2018 and Grantham development scheme
 - Logan – Planning Scheme v7., 2020
 - Moreton Bay – Planning Scheme 2020
 - Noosa – Noosa Plan, June 2018
 - Redland - N/A see individual local government method
 - Scenic Rim – Planning Scheme 2020, 20 March 2020
 - Somerset – Planning Scheme, April 2018
 - Sunshine Coast – Planning Scheme v21, adopted January 2020
 - Toowoomba - N/A see individual local government method.
- LGIPs and related datasets
 - Brisbane – Brisbane Urban Growth model 2016 data as supplied by council to reflect LGIP v1, February 2016 (parcel-level)
 - Gold Coast – LGIP Extrinsic Material Report Planning Assumptions, June 2017 (draft for state interest review) (SA2-level)
 - Ipswich – Ipswich LGIP Residential as supplied by council from the Ipswich Population Modeller in 2017 (parcel-level)
 - Lockyer Valley – External Demand Model, as supplied by council July 2018 which aligns to the LGIP as adopted June 2018 (parcel-level)
 - Logan – Logan Development Projection Model (LDPM 2016, October 2018 version) as supplied by council in May 2019 (parcel-level)
 - Moreton Bay – Dwelling Assumptions Complete LGIP2 Draft as supplied by council November 2017 (parcel-level)
 - Noosa – Unitywater DMaTT demand forecasts, March 2015 (parcel-level)
 - Redland – Redland Land Supply Review 2014, Urbis (summary data by parcel-size, zone and locality)
 - Scenic Rim – Land Supply Monitoring, as supplied by council June 2018 (parcel-level)
 - Somerset – Population and Demand Model supplied by council in May 2018 (parcel-level)
 - Sunshine Coast – Population and employment figures underpinning the LGIP as supplied by council in July 2018 (parcel-level)
 - Toowoomba – LGIP Planning Assumptions accessed in July 2018 (SA2-level).
 - Current Intent to Service layer datasets
 - Priority Infrastructure Areas
 - Brisbane – supplied by Council June 2019
 - Gold Coast – supplied by Council July 2019
 - Ipswich – supplied by Council March 2019
 - Lockyer Valley – supplied by Council June 2019
 - Logan – sourced from Council’s open data portal (layer dated May 2019)
 - Moreton Bay – sourced from Council’s open data portal (layer dated July 2017)
 - Noosa – supplied by Council March 2019
 - Redland – supplied by Council July 2019
 - Scenic Rim – supplied by Council June 2019
 - Somerset – supplied by council, July 2019

- Sunshine Coast – supplied by Council June 2019
- Toowoomba – supplied by Council July 2019
- Development Approvals (Note: for QGSO information this includes uncompleted lot approvals as at 30 December 2019)
 - Brisbane – QGSO approvals data, current to 30 December 2019
 - Gold Coast – supplied by City of Gold Coast, current from 1 January 2011 to 29 June 2020
 - Ipswich – supplied by Council current from 1 July 2003 to 30 June 2020
 - Lockyer Valley – QGSO approvals data, current to 30 December 2019
 - Logan – supplied by Council current from 19 February 2010 to January 2020
 - Moreton Bay – supplied by Unitywater from 14 July 2000 to 15 January 2020
 - Noosa – supplied by Unitywater, 7 April 2010 to 15 August 2019
 - Redland - QGSO approvals data, current to 30 December 2019
 - Scenic Rim – QGSO approvals data, current to 30 December 2019
 - Somerset – QGSO approvals data, current to 30 December 2019
 - Sunshine Coast – supplied by Unitywater current from 19 December 2008 to 3 December 2019
 - Toowoomba – QGSO approvals data, current to 30 December 2019
- Preliminary Approvals
 - Brisbane – supplied by Council, current to 01 August 2019 (outside PIA only)
 - Gold Coast – supplied by City of Gold Coast, current from 1 November 2011 to 29 June 2020
 - Ipswich – supplied by Council, current from 1 January 2014 to 15 April 2020
 - Lockyer Valley – supplied by Council, current to 25 June 2019
 - Logan – supplied by Council, current from 8 June 2010 to May 2020
 - Moreton Bay – supplied by Unitywater 2 November 2011 to 20 June 2019 (subject to update)
 - Noosa – supplied by Unitywater, current to 31 March 2019
 - Redland - no information was available at the time of reporting, council are continuing to investigate the availability of this information.
 - Scenic Rim – Council advised no preliminary approvals issued between July 2018 – June 2020
 - Somerset – Council advised one issued between July 2014 and July 2019 and no preliminary approvals issued between June 2019 and June 2020
 - Sunshine Coast – supplied by Unitywater 22 December 2006 to 3 December 2019
 - Toowoomba – supplied by Council, current from 1993 to 30 June 2019
- Existing and Future Sewerage Connection Areas
 - Brisbane, Ipswich, Lockyer Valley, Scenic Rim and Somerset –Netserv plan 2020
 - Gold Coast – supplied by Council July 2019
 - Logan – sourced from Council’s open data portal, current to 02 June 2019
 - Moreton Bay – supplied by Unitywater June 2019
 - Noosa – supplied by Unitywater June 2019
 - Redland - supplied by Council July 2019
 - Sunshine Coast – supplied by Unitywater June 2019
 - Toowoomba – incorporated into the Priority Infrastructure Area boundary
- Infrastructure Agreements
 - Brisbane – supplied by council
 - Gold Coast – supplied by Council, current from 2011 to 12 February 2020
 - Ipswich – supplied by Council, current from 1998 to 7 June 2019

- Lockyer Valley – supplied by Council, related to preliminary approvals only to 25 June 2019
 - Logan – no information was available at the time of reporting council are continuing to investigate the availability of this information.
 - Moreton Bay – supplied by Unitywater, current to 15 July 2019
 - Noosa – supplied by Unitywater, current to 15 July 2019
 - Redland – supplied by Council, current to June 2020
 - Scenic Rim – Council advised there were no infrastructure agreements issued between July 2018 and June 2020
 - Somerset – council supplied two infrastructure agreements current to July 2019
 - Sunshine Coast – supplied by Unitywater, current to 15 July 2019
 - Toowoomba – supplied by Council, current from 2010 to July 2018
- Future amendments to local government planning schemes and development schemes (including EDQ) that may increase planned dwelling supply in the future have also been considered where appropriate.

Source data geography

Various – parcel-level, ABS SA2 and by parcel-size, zone and locality.

Method

SEQ

Capacity

Calculate the capacity of the planned dwelling supply for the region by adding each local government's consolidation and expansion area's capacity using the methods outlined in each local government section below.

Realistic availability – Consolidation

To provide indicative realistic availability scenarios for the region's consolidation areas, two percentages were used to consider the impact of assuming 25 or 50 per cent of the region's total identified consolidation dwelling capacity, that is not yet built or approved, will not be available for development by 2041.

These proportions were chosen, and only applied at the overall regional level, in recognition of the range of circumstances and assumptions used in the source local government area datasets. Those circumstances and consideration of the influence of the various realistic availability factors (see Rationale section above), means that it is not appropriate to consider a more precise scale of assumed realistic availability than zero, 25, 50, 75 or 100 per cent.

Realistic availability for the region is calculated as: [(Total dwelling capacity minus (2016-20 constructed dwellings estimate plus MCU approvals)] multiplied by (0.75 or 0.5) plus 2016-20 constructed dwellings estimate plus MCU approvals.

For the purposes of this report, the 2016-20 constructed dwellings estimate includes the four years of dwelling building approvals from July 2015 to June 2019 (assumed as constructed from July 2016 to June 2020) and MCU approvals which include the unconstructed MCU approvals (multiple dwellings) as at June 2019.

No estimate of realistic availability has been made for consolidation for each local government. DSDILGP is continuing to investigate a more refined estimate of realistic availability informed by further work to progress and implement best practice research ([Program Delivery](#)).

Realistic availability – Expansion

Calculate the regional realistic availability of planned dwelling supply by adding each local government's expansion realistic availability of planned dwelling supply, as calculated using the methods outlined in the local governments section below.

In summary, the general approach to estimating expansion realistic availability by local government area involves reducing the expansion capacity by assumed unavailable 'growth area' dwellings, assumed unavailable dwellings inside and outside of the identified Current Intent to Service layer (see Appendix F for further information on the makeup of this layer) and assumed unavailable 'fragmented area' dwellings. The assumed unavailable dwellings are estimated, respectively, as follows:

- Growth Areas - the dwellings assumed unavailable to 2041 in identified growth areas are based on the difference between the base capacity and supply to 2041 identified in the SGS SEQ expansion areas realistic dwelling take up – 2019 update for major precincts, August 2019 (see extracts at Appendix C).
- Fragmented Areas - the dwellings assumed unavailable to 2041 in fragmented areas are based mainly on the rules used for the 2013 broadhectare study (BHS) to calculate expected yield from theoretical yield (see Appendix B). For Gold Coast, Redland and Toowoomba, where suitable parcel-level information was not available, the difference between 'Theoretical yield' and 'Expected yield' from the 2013 BHS (updated to June 2020) was used as an allowance for this measure (see individual local government areas below for further detail).
- Current Intent to Service layer - the dwellings assumed unavailable to 2041 (see Appendix F and the ability to service best practice research section for further detail):
- inside the Current Intent to Service layer, not covered by an existing development approval, preliminary approval or infrastructure agreement and identified as unavailable dwellings in a Fragmented Area. For Gold Coast, Redland and Toowoomba local government areas BHS 'Theoretical yield' minus 'Expected yield' in these areas was used.
 - outside the Current Intent to Service layer and inside the Urban Footprint, not covered by an existing development approval, preliminary approval or infrastructure agreement. For Gold Coast, Redland and Toowoomba local government areas BHS 'Theoretical yield' in these areas was used.
 - outside the Current Intent to Service layer and outside the Urban Footprint, not covered by an existing development approval, preliminary approval or infrastructure agreement and identified as unavailable dwellings in a Fragmented Area. For Gold Coast, Redland and Toowoomba local government areas BHS 'Theoretical yield' minus 'Expected yield' in these areas was used.

Local governments

The following provides a summary of the methodology used to calculate each SEQ local government's planned dwelling supply. This method uses the following information for each SEQ local government area:

- Parcel-level information, generally as developed for LGIPs, as provided by Brisbane, Ipswich, Lockyer Valley, Logan (as provided May 2019), Moreton Bay, Noosa (from Unitywater), Scenic Rim, Somerset and Sunshine Coast councils.
- Where suitable parcel-level information was unavailable, current LGIP documentation was used for Gold Coast and Toowoomba (urban extent) and a land supply study provided by the council was used for Redland.

Brisbane

- Identify parcels within the *consolidation* and *expansion* areas
- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings by consolidation and expansion areas.

- Determine realistic availability – Consolidation
No estimate of the *consolidation* realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.
- Determine realistic availability – Expansion
Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the total local government expansion area's capacity. The calculations were different depending on whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

- For growth areas:

Brisbane does not contain any *ShapingSEQ 2017* identified growth areas.

- For fragmented areas:

2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:

- Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for the selected zones) within the expansion area.
- Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
- Calculate the capacity of these selected areas by totalling the additional dwellings from 2021 to ultimate.
- Calculate the realistic availability of the selected areas using the identified proportions (see Appendix B) multiplied by the capacity for those areas.
- Calculate the assumed unavailable fragmented area dwellings as: capacity minus realistic availability.
- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement, calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify all parcels where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate and assume all such dwellings are unavailable.

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are

intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.

- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of these areas using the method outlined above for Fragmented Areas.
- Calculation of unavailable dwellings
 - Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.
 - Calculate overall expansion realistic availability:
 - [Total expansion area capacity minus assumed unavailable dwellings in growth areas minus unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.

- Determine years of supply
Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Consolidation

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings expected 2016-2031 in order to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 in order to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments
The following list identifies planning and development scheme amendments, recently adopted or in process, that may affect planned dwelling supply in Brisbane:
 - Northshore Hamilton PDA development scheme (EDQ reviewing development scheme)
 - Oxley PDA development scheme (adopted 9 August 2019)
 - Yeronga PDA development scheme (adopted 9 August 2019)
 - Albert Street Cross River Rail PDA development scheme (adopted 13 December 2019)

- Woolloongabba Cross River Rail PDA development scheme (Interim land Use Plan adopted 3 April 2020 - development scheme being prepared)
- Banyo-Northgate Neighbourhood Plan (adopted 26 November 2019)
- Kangaroo Point Peninsula Neighbourhood Plan (adopted 19 November 2019)
- Eight Mile Plains Gateway Neighbourhood Plan (preparing draft neighbourhood plan)
- Sandgate District Neighbourhood Plan (preparing draft neighbourhood plan)
- Bridgeman Downs Neighbourhood Plan (preparing draft strategy)
- Nathan, Salisbury, Moorooka Neighbourhood Plan (preparing draft strategy)
- Major amendment package H - restricting townhouses from single-home areas and associated consequential amendments to the balance of City Plan (adopted 11 February 2020).
- Major amendment package E, including changes to Strategic Framework and Emerging community zone code (Queensland Government approval given for adoption of amendment).

Gold Coast

At the time of reporting, the City of Gold Coast were developing new growth projections for their LGIP2. As these numbers were not available at the time of compiling this report the planned dwelling supply figures from LGIP1 have had to be used in the interim. It is acknowledged that these supply figures may overstate the available supply for the Gold Coast expansion area from 2016-2041.

- Identify SA2s within the consolidation and expansion areas.
Parcel-level information was not used for this analysis as the available information at a parcel level could not be readily concurred to the published LGIP. The City of Gold Coast Council is currently developing a new parcel-level growth model and updated LGIP information.
- Determine capacity
Extract the total number of additional dwellings from 2016 to the identified LGIP ultimate dwellings, by consolidation and expansion areas.
- Determine realistic availability – Consolidation
No estimate of the consolidation realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.
- Determine realistic availability – Expansion
As parcel-level information was not available for this analysis, realistic availability was calculated by using the findings of the SGS report and BHS information as follows:
 - For growth areas:
For the Coomera Town Centre, dwellings were identified as assumed unavailable for development to 2041 using the information in the SGS report (Appendix C, Table C1), i.e. its 'Base capacity yield' minus its 'Supply to 2041'.
 - For areas inside and outside the Current Intent to Service layer

Dwellings were assumed unavailable for development using the 2013 BHS (adjusted to account for development to June 2020) by:
 - For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement calculating 'Theoretical yield' minus 'Expected yield'

- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement including all of the 'Theoretical yield' as unavailable.

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.

- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement calculating 'Theoretical yield' minus 'Expected yield'.

- Calculate overall expansion realistic availability:

- [Total expansion area capacity minus assumed unavailable dwellings in growth areas minus unavailable dwellings inside and outside the Current Intent to Service layer].

- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Consolidation

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings expected 2016-2031 to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments

The following list identifies planning scheme amendments, recently adopted or in process, that may affect planned dwelling supply on the Gold Coast:

- Major Update – New communities (Eggersdorf Road, Ormeau) (report on submissions endorsed on 20 September 2019)
- Major Update 2 and 3 (reviewing submissions after second consultation period concluded on 10 June 2020)
- The Spit Master Plan Implementation (Ministerial consideration).

Note:

The City of Gold Coast Council (CoGC) in collaboration with the Griffith University Cities Research Institute (GU-CRI) has been working on a new urban growth model called Planning & Urban Growth (PUG) with the intention of this information being used by CoGC, once approved by council, to inform a major amendment to the LGIP. The PUG is also jointly funded by the Queensland Government Round 2 Innovation Funding program to assist CoGC in developing a more reliable and consistent urban modelling framework to inform future amendment to City Plan and LGIP. The PUG modelling framework, once finalised, could also be utilised by other councils for similar purposes.

Significant re-baselining of the existing land use database against the ABS 2016 Population Census data was completed by the project to ensure the model is as consistent with the Census as possible. The PUG model has also taken into consideration all development and building approvals up to a point in time (being February 2019) to ensure investments by the development industry sector are captured and accounted for in development projections. CoGC with support of the GU-CRI has also recalibrated the realistic estimation of development yields at small area level across all land use designations and zonings on the Gold Coast to establish a more reliable and realistic ultimate development scenario. This a clear shift in the consideration of development capacity from the conventional “ultimate capacity at 50 years horizon” nominal approach adopted by various councils and utility providers.

The preliminary findings and assessment of the PUG model works have revealed that CoGC has more realistic ultimate development capacity post 2041 and 2066 horizons based on designations in the current City Plan. It should be noted that because of CoGC recalibrating it’s baseline, the model works have departed from the conventional “ultimate capacity at a 50-year horizon” nominal approach used previously.

Once finalised, outputs from the PUG model are expected to inform future LSDM reports.

Ipswich

- Identify parcels within the consolidation and expansion areas
- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings by consolidation and expansion areas.

- Determine realistic availability

Consolidation

No estimate of the consolidation realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.

Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the total local government expansion area’s capacity.

The calculations were different depending on whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

- For growth areas:
For the Ripley Valley PDA, dwellings were identified as assumed unavailable for development to 2041 using the information identified in the SGS report (Appendix C, Table C1), i.e. its ‘Base capacity’ minus its ‘Supply to 2041’.

- For fragmented areas:

2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:

 - Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for the selected zones) within the expansion area and not within the Ripley Valley PDA or Springfield growth areas.
 - Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the capacity of these selected areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of the selected areas using the identified proportions (see Appendix B) multiplied by the capacity for those areas.
 - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.
- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement:
 - Calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify all parcels where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate and assume all such dwellings are unavailable.

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.
- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of these areas using the method outline above for Fragmented Area.
- Calculation of unavailable dwellings
 - Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.

- Calculate overall expansion realistic availability:

[Total expansion area capacity minus assumed unavailable dwellings in growth areas minus assumed unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.

- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Consolidation

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings expected 2016-2031 in order to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 in order to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments

The following list identifies planning scheme amendments recently adopted or in process that may affect planned dwelling supply in Ipswich:

- New planning scheme in preparation (preparing draft planning scheme).

Lockyer Valley

As Lockyer Valley does not contain any consolidation areas all parcels are within the expansion area.

Note: Lockyer Valley calculations are based on the number of residential equivalent demand units (EDUs), which based on the corresponding LGIP are only slightly different to the number of dwellings and are therefore counted as dwellings.

- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings.

- Determine realistic availability

Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the total local government expansion area's capacity. The calculations were different depending on

whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

- For growth areas:
Lockyer Valley does not contain any *ShapingSEQ 2017* identified growth areas that have dwelling yields in the data provided by Council.
- For fragmented areas:
2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:
 - Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for selected zones), within the expansion area.
 - Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the capacity of these selected areas by totaling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of these areas using the identified proportions (see Appendix B) multiplied by the capacity for those areas.
 - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.
- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement:
 - Calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify all parcels where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate and assume all such dwellings are unavailable

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.
- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.

- Calculate the realistic availability of these areas using the method outlined above for Fragmented Areas.
- Calculation of unavailable dwellings
 - Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.
- Calculate overall expansion realistic availability
[Total expansion area capacity minus assumed unavailable dwellings in growth areas minus assumed unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.

- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments

The following list provides planning scheme amendments either recently adopted or in process that may affect planned dwelling supply in Lockyer Valley:

- Council is currently preparing a new planning scheme (undergoing first state interest review).

Logan

- Identify parcels within the consolidation and expansion areas.
- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings by consolidation and expansion areas.

- Determine realistic availability – Consolidation

No estimate of the consolidation realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.

- Determine realistic availability – Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the total local government expansion area's capacity. The calculations were different depending on

whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

○ For growth areas:

For Greater Flagstone and Yarrabilba PDAs and Flinders, dwellings were identified as assumed unavailable for development to 2041 using information in the SGS report (Appendix C, Table C1), i.e. its 'Base capacity' minus its 'Supply to 2041'.

○ For fragmented areas:

2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:

- Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for the selected zones), within the expansion area and not within Greater Flagstone and Yarrabilba PDAs and Flinders growth areas.
 - Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the capacity of these selected areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of the selected areas using the identified proportions (see Appendix B) multiplied by the capacity for those areas.
 - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.
- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement:
- Calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
- Identify all parcels where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate and assume all such dwellings are unavailable.
- Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.
- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:

- Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
- Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.
- Calculate the realistic availability of these areas using the method outlined above for Fragmented Areas.
- Calculation of unavailable dwellings
 - Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.
- Calculate overall expansion realistic availability:

[Total expansion area capacity minus assumed unavailable dwellings in growth areas minus assumed unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.

- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*.

Consolidation

For capacity, subtract the 2016-20 constructed dwelling estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings expected 2016-2031 to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 in order to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments
 - The following list identifies planning scheme amendments either recently adopted or in process that may affect planned dwelling supply in Logan: Logan Reserve Land Use Area Amendment (Logan Reserve Plan) (adopted 30 January 2020)
 - Park Ridge South and Chambers Flat amendments (adopted 30 January 2020)
 - Meadowbrook Local Plan Amendment (expected to be adopted late 2021)
 - Springwood Local Plan amendment (on hold – under review)

Moreton Bay

- Identify parcels within the consolidation and expansion areas
- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings by consolidation and expansion areas.

- Determine realistic availability

Consolidation

No estimate of the consolidation realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.

Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the total local government expansion area's capacity. The calculations were different depending on whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

- For growth areas:

For Caboolture West and North East Business Park, dwellings were identified as assumed unavailable for development to 2041 using the information in the SGS report (Appendix C, Table C1), i.e. its 'Base capacity' minus its 'Supply to 2041'.

Note: as Caboolture West is not within the identified Current Intent to Service layer, therefore for this report its total dwelling supply has not been considered realistically available for development (see 'Base capacity' in Table C1 in Appendix C).

- For fragmented areas:

2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:

- Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for the selected zones), within the expansion area and not within Caboolture West and North East Business Park growth areas.
- Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
- Calculate the capacity of these selected areas by totalling the additional dwellings from 2021 to ultimate.
- Calculate the realistic availability of the selected areas using the identified proportions (see Appendix B) multiplied by capacity for those areas.
- Calculate the unavailable fragmented dwellings as: capacity minus realistic availability.
- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement:

- Calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
 - For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify all parcels where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate and assume all such dwellings are unavailable
- Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.
- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of these areas using the method outlined above for Fragmented Areas.
 - Calculation of unavailable dwellings
 - Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.
 - Calculate overall expansion realistic availability:

[Total expansion area capacity minus assumed unavailable dwellings in growths minus assumed unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.

- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Consolidation

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings as expected 2016-2031 in order to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of

expansion dwellings as expected 2016-2031 in order to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- The following list identifies planning scheme amendments recently adopted that may affect planned dwelling supply in Moreton:
 - Planning scheme tailored amendment no.1 (commenced 29 January 2020).

Noosa

- Identify parcels within the consolidation and expansion areas.
- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings by consolidation and expansion areas.

- Determine realistic availability

Consolidation

No estimate of the consolidation realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.

Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the total local government expansion area's capacity. The calculations were different depending on whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

- For growth areas:
 - Noosa does not contain any *ShapingSEQ 2017* identified growth areas.
- For fragmented areas:
 - 2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:
 - Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for selected zones), within the expansion area.
 - Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).

- Calculate the capacity of these selected areas by totalling the additional dwellings from 2021 to ultimate.
- Calculate the realistic availability of the selected areas using the identified proportions (see Appendix B) multiplied by the capacity for those areas.
- Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.
- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement:
 - Calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify all parcels where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate and assume all such dwellings are unavailable

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.

- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of these areas using the method outlined above for Fragmented Areas.
- Calculation of unavailable dwellings
 - Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.
- Calculate overall expansion realistic availability:

[Total expansion area capacity minus assumed unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.

- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Consolidation

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings expected 2016-2031 in order to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 in order to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments

The following list identifies planning scheme amendments either recently adopted or in process that may affect planned dwelling supply:

- Noosa Plan 2020 (adopted 16 July 2020).

Redland

- Parcel-level information was not readily available for Redland. Therefore, an estimate of the capacity of the Redland's consolidation and expansion areas was based on the Redland Land Supply Review 2014, Urbis (2014 study). This was used to estimate Redland's ultimate development growth from 2016 based on:
 - Aligning the relevant locations provided in the report with either the City's consolidation and expansion areas as best as possible by location, zoning and lot size information.
 - Where reported dwelling yields were distributed across the city, breakdowns for consolidation and expansion areas were proportionally calculated based on the relevant zoned land in each area
 - As the report identified circumstances as at January 2014, an estimate of dwelling construction to June 2016 was made using building approvals from January 2013 to June 2015 to estimate remaining capacity as at June 2016.
- Determine capacity
 - Using the above approach extract the total number of additional dwellings by *consolidation* and *expansion* areas.
 - Subtract the estimate of dwelling construction from January 2014 to June 2016
 - As the 2014 study did not include an estimate for Southern Redland Bay (Shoreline), the estimated dwelling yield of this area was added to the calculated expansion area capacity (see Table C1 in Appendix C).
- Determine realistic availability

Consolidation

No estimate of the *consolidation* realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.

Expansion

As parcel-level information was not available for this analysis, realistic availability was calculated by using the findings of the SGS report and BHS information as follows:

- For growth areas:

For Southern Redland Bay (Shoreline), dwellings were identified as assumed unavailable for development to 2041 using the information identified in the SGS report (Appendix C, Table C1), i.e. its 'Base capacity' minus its 'Supply to 2041'.

- For areas inside and outside the Current Intent to Service layer, dwellings were assumed unavailable for development using the 2013 BHS (adjusted to account for development to June 2020) by:
 - For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement calculating 'Theoretical yield' minus 'Expected yield'
 - For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement including all of the 'Theoretical yield'

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.

- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement calculating 'Theoretical yield' minus 'Expected yield'.
- Calculate overall expansion realistic availability:
 - [Total expansion area capacity minus assumed unavailable dwellings in growth areas minus unavailable dwellings inside and outside the Current Intent to Service layer].
- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Consolidation

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings expected 2016-2031 in order to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of

expansion dwellings expected 2016-2031 in order to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments

The following identifies a list of planning and development scheme amendments recently adopted or in process that may affect planned dwelling supply in Redland:

- Any additional dwelling yields from the Toondah Harbour and Weinham Creek PDAs are subject to ongoing planning and approval processes, so no changes were made to the yields estimated by the 2014 study for those areas for the purposes of the LSDM Report.
- Major planning scheme amendment package (01/19) (adopted 29 January 2020).

Scenic Rim

As Scenic Rim does not contain any consolidation areas, all parcels are within the expansion area.

- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings.

- Determine realistic availability – Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the local government expansion area's capacity. The calculations were different depending on whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

- For growth areas:

Scenic Rim does not contain any *ShapingSEQ 2017* identified growth areas that have relevant dwelling yields in the data provided by Council.

- For fragmented areas:

2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:

- Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for the selected zones), within the expansion area.
- Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - the ultimate dwellings are greater than one (effectively counting all single dwellings on vacant lots as realistically available).
- Calculate the capacity of these selected areas by totalling the additional dwellings from 2021 to ultimate.

- Calculate the realistic availability of the selected areas using the identified proportions (see Appendix B) multiplied by the capacity for those areas.
- Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.
- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement:
 - Calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify all parcels where the ultimate dwellings are greater than one developed on vacant lots as realistically available).

Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate and assume all such dwellings are unavailable

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.

- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of these areas using the method outlined above for Fragmented Areas.
- Calculation of unavailable dwellings
 - Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.
- Calculate overall expansion realistic availability:

[Total expansion area capacity minus assumed unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.

- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of

expansion dwellings expected 2016-2031 to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments

The following list identifies planning scheme amendments either recently adopted or in process that may affect planned dwelling supply in Scenic Rim:

- Scenic Rim Planning Scheme 2020 (commenced 20 March 2020).

Somerset

As Somerset does not contain any consolidation areas all parcels are within the expansion area.

Note: Somerset calculations are based on the number of residential equivalent demand units (EDUs), which based on the corresponding LGIP are only slightly different to the number of dwellings and are therefore counted as dwellings.

- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings.

- Determine realistic availability – Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the total local government expansion area's capacity. The calculations were different depending on whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

- For growth areas:
Somerset does not contain any *ShapingSEQ 2017* identified growth areas.
- For fragmented areas:
2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:
 - Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for selected zones), within the expansion area.
 - Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the capacity of these selected areas by totaling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of the selected areas using the identified proportions (see Appendix B) multiplied by the capacity for those areas.
 - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.

- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement:
 - Calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify all parcels where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate and assume all such dwellings are unavailable

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.
- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of these areas using the method outlined above for Fragmented Areas.

- Calculation of unavailable dwellings

- Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.

- Calculate overall expansion realistic availability:

[Total expansion area capacity minus assumed unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.

- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 to align with the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identified planning scheme amendments

The following list identifies planning scheme amendments either recently adopted or in process that may affect planned dwelling supply in Somerset:

- Major amendment – Somerset Regional Planning Scheme version 4.

Sunshine Coast

- Identify parcels within the consolidation and expansion areas.

Note: Sunshine Coast Council supplied information included assumptions about future dwellings that may result from the Beerwah East Major Development Area (BEMDA) and future dwelling density increases associated with the Enterprise Corridor.

The LSDM Report seeks to describe planned dwelling supply, i.e. dwellings that could be approved under the current zoning and code provisions of planning schemes. As the expected future dwelling density increases associated with the Enterprise Corridor have not been incorporated within the current Sunshine Coast planning scheme, the LSDM Report calculations have sought to exclude any future density increases attributed to the Enterprise Corridor.

Effectively, for this analysis any additional dwellings assumed for the BEMDA and Enterprise Corridor beyond 2031 are not reported.

The Sunshine Coast Council supplied information did not capture an increase in dwelling yield in the Maroochydore City Centre PDA resulting from the development scheme amendment adopted 9 August 2019. The increased dwelling yield to 4000 dwellings has been reflected in the 2020 LSDM Report calculations. The inclusion of the increased yield in LSDM reporting is considered appropriate as the amendment to the development scheme has been adopted by Council and construction activity within the PDA is advanced.

In addition, the information supplied did not include data for ultimate development, therefore the 2041 data has been used as ultimate for this analysis.

- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate (in this case 2041) dwellings by consolidation and expansion areas.

- Determine realistic availability

Consolidation

No estimate of the consolidation realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.

Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 from the total local government expansion area's capacity. The calculations were different depending on whether an area is within an identified growth area or fragmented area and/or is inside or outside the Current Intent to Service layer as follows:

- For growth areas:

- For Caloundra South PDA and Palmview, dwellings were identified as assumed unavailable for development to 2041 using the information in the SGS report (Appendix C, Table C1), i.e. its 'Base capacity' minus its 'Supply to 2041'.
- For fragmented areas:

2013 BHS rules for calculating expected yield from theoretical yield are used, including identified proportions for selected zones and parcel-size ranges (see Appendix B), as follows:

 - Identify parcels greater than 2500m² (BHS cut-off) and zoned for low density residential purposes (see Appendix B for selected zones), within the expansion area and not within the Caloundra South PDA or Palmview growth areas.
 - Using these identified parcels, select parcels where:
 - there is dwelling growth from 2021 to ultimate (it is assumed that the identified dwelling growth to 2021 is all realistically available for development to 2041, as an allowance for existing development approvals), and
 - the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the capacity of these selected areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of the selected areas using the identified proportions (see Appendix B) multiplied by the capacity for those areas.
 - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.
- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement:
 - Calculate the assumed unavailable fragmented area dwellings as above for fragmented areas generally.
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify all parcels where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate. and assume all such dwellings are unavailable

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.
- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement:
 - Identify Fragmented Areas where the ultimate dwellings are greater than one (effectively counting all single dwellings developed on vacant lots as realistically available).
 - Calculate the total capacity of these areas by totalling the additional dwellings from 2021 to ultimate.
 - Calculate the realistic availability of these areas using the method outlined above for Fragmented Areas.

- Calculation of unavailable dwellings
 - Using the identified parcels from above, calculate the total additional dwellings from 2021 to ultimate and subtract the realistic availability.
- Calculate overall expansion realistic availability:
 - [Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable dwellings inside and outside the Current Intent to Service layer].

Note: In addition to considering existing and available development approvals, dwelling growth up to 2021 has also been assumed to be realistically available.
- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Consolidation

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings expected 2016-2031 in order to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 in order to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments

The following list identifies planning and development scheme amendments either recently adopted or in process that may affect the planned dwelling supply in Sunshine Coast:

- Maroochydore City Centre PDA development scheme amendment, including an increase in dwelling yield of 2000 dwellings (adopted 9 August 2019)
- Amendments to incorporate the Caloundra Centre Masterplan (adopted 9 September 2019)
- Site Specific and Operational Matters (adopted 11 November 2019).

In addition, Sunshine Coast Council use expert analysis to estimate the dwelling take up to 2041 on at an individual lot level. Consequently, the Sunshine Coast Council supplied the information did not include data for ultimate development, therefore the 2041 data has been used as ultimate for this analysis.

In the 2019 LSDM Report, an additional 1,240 dwellings from six sites were included within the Current Intent to Service Layer and the realistic availability scenario for the Sunshine Coast expansion area. This is based on the inclusion of these sites within Sunshine Coast Planning Scheme 2014's Urban Growth Management Boundary and supporting infrastructure investigations provided by Council.

Toowoomba

- Identify SA2s within the consolidation and expansion areas.

Parcel-level information was not used for this analysis as only SA2 information was available to inform the LSDM Report.

- Determine capacity

Extract the total number of additional dwellings from 2016 to the identified ultimate dwellings by consolidation and expansion areas.

It was assumed that dwelling yields for the Westbrook (to be confirmed) and Meringandan West-Kleinton growth areas added to the Urban Footprint for *ShapingSEQ 2017* were included in the LGIP numbers used for this analysis.

- Determine realistic availability

Consolidation

No estimate of the consolidation realistic availability has been made. Ongoing research is being undertaken to improve the estimate of realistic availability in consolidation areas.

Expansion

As parcel-level information was not available for this analysis, realistic availability was calculated by using the findings of the SGS report and BHS information as follows:

- For growth areas:

For Meringandan West-Kleinton, dwellings were identified as assumed unavailable for development to 2041 using the information in the SGS report, (Appendix C, Table C1), i.e. it's 'Base capacity' minus their 'Supply to 2041'.

Note: as Meringandan West-Kleinton is not within the identified Current Intent to Service layer, for this report its dwelling supply has not been considered realistically available for development (see 'Base yield' in Table C1 in Appendix C).

- For areas inside and outside the Current Intent to Service layer

Dwellings were assumed unavailable for development using the 2013 BHS (adjusted to account for development to June 2019) by:

- For areas within the Current Intent to Service layer without a development approval, preliminary approval or infrastructure agreement calculating 'Theoretical yield' minus 'Expected yield'
- For areas outside the Current Intent to Service layer, inside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement including all of the 'Theoretical yield'

Note: it has been considered that areas outside the Current Intent to Service layer and inside the Urban Footprint are not currently realistically available. This is based on the approach that these areas are intended for urban development (requiring trunk infrastructure to service them) but no decisions, agreements or planning are currently in place to service them.

- For areas outside the Current Intent to Service layer, outside the Urban Footprint and without a development approval, preliminary approval or infrastructure agreement calculating 'Theoretical yield' minus 'Expected yield'.
- Calculate overall expansion realistic availability:
 - [Total expansion area capacity minus assumed unavailable dwellings in growth areas minus unavailable dwellings inside and outside the Current Intent to Service layer].
- Determine years of supply

Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply sought by *ShapingSEQ 2017*. The calculations are as follows:

Consolidation

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of consolidation dwellings expected 2016-2031 to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

Expansion

For capacity, subtract the 2016-20 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark, i.e. the average annual growth of expansion dwellings expected 2016-2031 to align to the 2041 dwelling supply benchmark (Figure 7 within *ShapingSEQ 2017*).

For realistic availability, subtract the 2016-20 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017's* adjusted average annual benchmark.

- Identify planning scheme amendments

The following list identifies planning and development scheme amendments either recently adopted or in process that may affect Toowoomba's planned dwelling supply:

- Amendment No. 16 – Medium Density Residential Review (adopted 19 November 2019)
- Proposed amendment No.17 – Flood Risk Assessment, Planning Evaluation and Scheme Amendment (considering round four consultation feedback prior to final state interest review)
- Drayton local plan/land use investigation (investigation commenced late 2017, Council to approve final structure plan).

Data update

Annually.

Reporting units

Capacity, being total growth in dwellings 2016 to ultimate, where available.

An estimate of realistic availability of dwellings to 2041 for the region (consolidation and expansion) and each local government area (expansion)

Years of supply in the region and by local government area for consolidation and expansion areas.

Comparison to the 2041 dwelling supply benchmarks of *ShapingSEQ 2017*.

Notes

For growth areas, DSDILGP engaged SGS to provide an update on selected growth areas' land supply take up. These areas are identified in Appendix C, Table C1.

For the 2019 LSDM Report the growth areas of Springfield and Palmview were added to the estimates of realistic availability to provide a more complete coverage of significant master planned areas, with Westbrook removed as it is not considered part of the planned supply for Toowoomba as at 30 June 2019.

For the 2019 and 2020 LSDM Reports the average annual dwelling supply benchmarks (2016-2031) were adjusted to take account of the increased rate of dwelling demand estimated by the Queensland Government 2018 edition medium series dwelling projections. The adjustment of the average annual benchmarks assumes the growth expected by *ShapingSEQ 2017* will occur at a somewhat different (in this case slightly faster) rate, but with the same spatial distribution of growth as expected by *ShapingSEQ 2017* (see Appendix G).

Approved supply

Description

Approved supply measures either the number of lots that have a development permit for reconfiguring a lot but have not yet been certified (referred to as 'uncompleted lots'), or the number of multiple dwellings that have a material change of use development permit, in the consolidation area, but have not yet been constructed (referred to as 'uncompleted multiple dwellings'), as at the relevant date.

This approved supply section also provides an indication of the number of uncompleted lots that have also obtained an operational works approval.

This measure also reports years of supply for both uncompleted lots and uncomplete multiple dwelling approvals compared to the minimum four years of supply sought by *ShapingSEQ 2017*.

Rationale

Provides a current status and identifiable trends of the amount of approved supply for the region and each local government area.

It provides an indication of supply that is available to accommodate the region's short-term residential growth.

Limitations

Accurate recording of the number of approved dwellings/lots and operational works is dependent on the complete reporting of associated parent lots in the relevant development permit decision notice.

The uncompleted multiple dwellings approvals data for June 2011 only includes material change of use approvals within the existing urban area boundary as created for the South East Queensland (SEQ) Regional Plan 2009-2031, based on an aggregation of 2006 Census Collection Districts. The current Existing Urban Area (EUA) boundary used to define the consolidation area for *ShapingSEQ 2017* is a close approximation of that boundary based on 2016 SA2 boundaries. This needs to be recognised when comparing the 2011, 2018 and 2019 uncompleted multiple dwelling data.

The 2011 uncompleted multiple dwelling data includes social housing approvals, but the 2018 and 2019 data only includes approvals for social housing if included in local government or Economic Development Queensland (EDQ) development approvals data. As social housing is generally a small proportion of dwellings, years of supply in 2018 and 2019 have still been calculated using average annual total building approvals for consolidation attached dwellings for the preceding four years.

The Australian Bureau of Statistics (ABS) from time-to-time updates and adjusts building approvals information to account for errors and new information as it becomes available. Therefore, in future updates of this data, previous years' values may change.

Data source/custodian

- ABS, Building Approvals (excluding houses), catalogue 8731.0, extracted August 2020 for approvals July 2008 to June 2020.
- Queensland Treasury, Queensland Government Statisticians Office (QGSO), unsealed (uncompleted) reconfiguring a lot approvals (RaL), as extracted in November 2020 for the year ending 30 June 2020.
- Queensland Treasury, QGSO, lot certifications, as extracted in November 2020 to 30 June 2019.
- Queensland Treasury, QGSO, operational works approvals (uncompleted), as extracted November 2020 for 2011/12 to 2019/20.
- Queensland Treasury, Material change of use (MCU) approvals for multiple dwellings (unconstructed), June 2011. This data is based on development approvals data provided by local governments, the then Urban Land Development Authority and Southbank Corporation, and on social housing approvals from the Department of Communities.
- Queensland Treasury, QGSO, MCU approvals for multiple dwellings (unconstructed), June 2018, as provided 30 October 2018. This data is based on development approval data provided by local governments and EDQ.
- Queensland Treasury, QGSO, MCU approvals for multiple dwellings (unconstructed), June 2019, as provided November 2019. This data is based on development approval data provided by local governments and EDQ.
- Queensland Treasury, QGSO, MCU approvals for multiple dwellings (unconstructed), June 2020, as provided November 2020. This data is based on development approval data provided by local governments and EDQ.

Source data geography

SEQ region and local government area.

Method

Uncomplete lot approvals (reconfiguring a lot)

- Extract total uncompleted residential lots as at 30 June for each year (2011/12 to 2019/20) for the region and each local government area.
- Determine years of supply by dividing the total number of uncompleted lots (at 30 June of each reporting period) by the average annual lot certifications of the previous four years as at each reporting period. For example, for 2017/18 years of supply was calculated as the total number of uncompleted lots as at 30 June 2018 divided by the average annual number of lot certifications from 2014/15 to 2017/18 inclusive. Note as 2019/20 only contained 6 months of data, the 2019/20 years of supply was calculated as the total number of uncompleted lots as at 31 December 2019 divided by 4 years of lot certifications from 2016/17 to 2019/20 inclusive.

Uncompleted multiple dwelling approvals (material change of use)

- Extract total number of uncompleted multiple dwellings as at June 2011, June 2018, June 2019 and June 2020 for each local government area and the region within consolidation areas.
- Determine years of supply by dividing the total number of uncompleted multiple dwellings by the average annual consolidation attached dwelling building approvals of the previous four years as at each reporting period. Attached dwelling building approvals are used as they best correlate with multiple dwelling approvals.

Operational works approvals

- Extract total uncompleted operational works approvals for the year ending 30 June for each year (2011/12 to 2019/20) for the region and each local government area.

Data update

Annually.

Reporting units

Number of lots, operational works or multiple dwellings approved and years of supply for SEQ and local government areas.

Notes

For further information about consolidation and expansion areas, please see pages 174-175 of *ShapingSEQ 2017*.

For further information on reconfiguring a lot, operational works and MCU approvals see Queensland Treasury, QGSO, Residential Land Development Activity Profiles and Spreadsheet.

The four years of supply minimum for approved supply is identified within *ShapingSEQ 2017* (see Measures that Matter, page 167).

As there are no benchmarks for years of supply for operational works approvals (uncompleted), this value has not been determined.

For the 2019 and 2020 LSDM Report the average annual dwelling supply benchmarks (2016-2031) were adjusted to take account of the increased rate of dwelling demand estimated by the Queensland Government 2018 edition medium series dwelling projections. The adjustment of the average annual benchmarks assumes the growth expected by *ShapingSEQ 2017* will occur at a somewhat different (in this case slightly faster) rate, but with the same spatial distribution of growth as expected by *ShapingSEQ 2017*. See Appendix G for a detailed explanation on the calculation.

Dwelling growth

Description

Dwelling growth monitors new residential building approvals in South East Queensland (SEQ) within consolidation and expansion areas, as identified in *ShapingSEQ 2017*.

Rationale

Trends in annual, new residential building approvals are compared against adjusted average annual benchmarks, i.e. average annual expected dwelling growth 2016-2031, with such growth aligning to the 2041 dwelling supply

benchmarks as outlined on pages 42 and 43 of *ShapingSEQ 2017*. For the 2019 and 2020 LSDM report, this rate of growth for SEQ was adjusted to take account of the projected rate of growth from 2016-2031 identified in the Queensland Government's 2018 edition medium series projections.

This provides an indication of the progress of development towards realising the actual dwelling growth expected by the dwelling supply benchmarks of *ShapingSEQ 2017*.

Limitations

The Australian Bureau of Statistics (ABS) from time-to-time updates and adjusts building approvals information to account for errors and new information as it becomes available. Therefore, in future updates of this data, previous years' values may change.

The information used for this measure only reports on building approvals and does not measure net change in dwellings. For example, it does not take into consideration approvals not constructed or dwelling demolitions, relocations or conversions to other uses and may include visitor dwellings.

Data source/custodian

- ABS, Building Approvals, catalogue 8731.0, extracted October 2020 for approvals July 2011 to June 2020.
- DSDILGP, *ShapingSEQ 2017*, Existing Urban Area, August 2017.
- DSDILGP, *ShapingSEQ 2017*, Dwelling Supply Benchmarks, August 2017.
- Queensland Treasury, Projected dwellings to 2041, 2018 edition medium series, 2019.
- DSDILGP, local government area boundaries, 2017.
- DSDILGP, SEQ regional plan boundary, 2017.

Source data geography

ABS, Statistical Area Level 2 (SA2).

Method

Using ABS.Stat (beta) ABS website extract total new dwelling building approvals for the SEQ region by SA2, filtered by new approvals, both private and public, for:

- houses
- semi-detached, row or terrace houses, townhouses – one storey
- semi-detached, row or terrace houses, townhouses – two or more storeys
- flats, units or apartments – in a one or two storey block
- flats, units or apartments – in a three storey block, and
- flats, units or apartments – in a four or more storey block.

Align SA2 information to the relevant local government area and existing urban area (EUA), with inside the EUA being *consolidation* and outside the EUA being *expansion*.

Data update

Annually.

Reporting units

Total new dwelling building approvals (financial year) are reported at SEQ region and local government area levels against adjusted average annual benchmarks, i.e. average annual expected dwelling growth 2016-2031, by consolidation and expansion areas.

Notes

For further information about *consolidation* and *expansion* areas, please see pages 174-175 of *ShapingSEQ 2017*.

For the 2019 and 2020 LSDM Reports the average annual dwelling supply benchmarks (2016-2031) were adjusted to take account of the increased rate of dwelling demand estimated by the Queensland Government 2018 edition medium series dwelling projections. The adjustment of the average annual benchmarks assumes the growth expected by *ShapingSEQ 2017* will occur at a somewhat different (in this case marginally faster) rate, but with the same spatial distribution of growth as expected by *ShapingSEQ 2017*. See Appendix G for a detailed explanation on the calculation.

Changes in dwelling density

Description

Changes in dwelling density monitors changes in median lot size for new urban lots and mean population-weighted dwelling density to provide an indication of how efficiently land is being utilised in South East Queensland (SEQ).

Rationale

State reporting on median lot sizes, new urban lot registrations and overall dwelling density being delivered, are analysed to measure the changes to dwelling density across the SEQ region, for each local government area and within the Existing Urban Area (*consolidation* area).

The individual aspects that contribute towards the overall analysis and measurement for the changes in dwelling density for SEQ include:

- *median lot size of new lots*
- *new lot registrations*
- *mean population-weighted dwelling density.*

Further information on each individual change in dwelling density component is provided below.

Median lot size

Rationale

State reporting on *median lot size* for new urban lots on a region-wide and local government area basis.

Limitations

N/A.

Data source/custodian

- Queensland Treasury, Queensland Government Statistician's Office (QGSO), Residential Land Development Activity Spreadsheet, as provided in November 2020.

Source data geography

SEQ region and local government areas.

Method

Extract *median lot sizes* for the region and each local government area utilising QGSO Residential Land Development Activity Spreadsheet.

Data update

Annually.

Reporting units

Median lot size (m²) by financial year.

Notes

Median lot size information relates to new standard urban lots of 60m² to < 2500m².

Lot registrations

Rationale

State reporting on urban lot registrations on a region-wide and local government area basis.

Limitations

N/A.

Data source/custodian

- Queensland Treasury, QGSO, Residential Land Development Activity Spreadsheet, as provided in November 2020.

Source data geography

SEQ region and local government areas.

Method

Extract total urban lot registrations for the region and each local government area utilising QGSO Residential Land Development Activity Spreadsheet.

Data update

Annually.

Reporting units

Number of new urban lot registrations by financial year.

Notes

Lot registration information relates to standard urban lots of 60m² to < 2500m².

Mean population-weighted dwelling density

Rationale

The mean population-weighted dwelling density provides a measure of the average density at which the population of the region lives. Changes in dwelling density have been calculated using the mean population-weighted dwelling density for all Census mesh blocks in SEQ each local government area and the *consolidation* area.

This measure is more meaningful than a gross density averaged across the whole of an area, as parts of the region comprise large areas without urban settlement which affects a gross density calculation.

The area of non-residential mesh blocks, e.g. commercial, industrial, parkland, transport or water mesh blocks with no dwellings or no population, has no weight in the calculation. This measure is therefore comparable to net residential density as used by *ShapingSEQ 2017*.

Limitations

This measure is based on the boundaries and areas of dwelling and population counts reported for SEQ *mesh blocks* at each Census. It is therefore an approximation of actual dwelling densities over time.

Data source/custodian

- ABS, 2074.0 Mesh blocks, 2011, including land areas and dwelling and population counts.
- ABS, 2074.0 Mesh blocks, 2016, including land areas and dwelling and population counts.
- DSDILGP, local government area boundaries, 2017.
- DSDILGP, *ShapingSEQ 2017*, Existing Urban Area, August 2017.
- DSDILGP, SEQ regional plan boundary, 2017.

Source data geography

ABS, *Mesh blocks* (SEQ).

Method

Extract relevant years' ABS *mesh blocks* for the region, each local government area and *consolidation* areas.

Calculate *mean population-weighted dwelling density* for the region, each local government area and *consolidation* areas using the following formula:

{The sum for all *mesh blocks* of [(*mesh block* dwelling count / area of *mesh block*) multiplied by *mesh block* population count]} divided by the sum of all *mesh block* population counts for an area.

Data update

Five yearly, to align with the release of ABS Census data.

Reporting units

Dwellings per hectare as at the Census of each reporting year.

Notes

Mesh blocks are the smallest geographical area defined by the ABS and form the building blocks for the larger regions of the Australia Statistical Geography Standard (ASGS). All other statistical areas or regions are built up from or approximated by them. They broadly identify land use such as residential, commercial, primary production, parkland and can be combined to accurately approximate a large range of other statistical regions.

The 2011 Census *mesh block* data sourced from the ABS was modified to account for an error identified in the allocation of dwellings and population to two adjoining mesh blocks. In the ABS data, *mesh block* 30178550000 was incorrectly allocated all of the dwellings and population that should have been allocated to the adjoining *mesh block* 30179712000. The very small size of *mesh block* 30178550000 meant that this error significantly distorted the calculation of the *mean population-weighted dwelling density* in the Moreton Bay local government area and SEQ as a whole. The error was verified through review of aerial imagery from close to the 2011 Census date and corrected by reallocating the dwellings and population from *mesh block* 3017855000 to *mesh block* 30179712000.

The ABS was notified of and supported the approach to rectifying the error. The ABS acknowledged this was one case among a small number of *mesh blocks* that were misallocated dwellings and population due to automated coding and imputation processes used for the 2011 Census. A check was undertaken of the 2011 and 2016 *mesh block* data for each SEQ local government area to identify any other significant dwelling density outliers in the data (i.e. where the population-weighted dwelling density for any *mesh block* was more than 10 times that for any other *mesh block* in that local government area). No other significant outliers were found in the data.

For further information about *consolidation* and *expansion* areas, please see pages 174-175 of *ShapingSEQ 2017*.

Changes in housing type

Description

Changes in housing type monitors the different types of new residential buildings being approved across the region as a proportion of total building approvals.

Rationale

The proportionate trends in the diversity of residential buildings are analysed and reported on, by extracting dwelling growth data for three main housing types (as reported in *ShapingSEQ 2017*) for the region and each local government area.

Limitations

ABS periodically update and adjust building approvals information to account for errors and new information as it becomes available. Therefore, in future updates these data values may change.

Information used for this measure currently only reports on building approvals and does not provide an indication of net change in dwellings. For example, it does not take into consideration approvals not constructed, demolition of buildings or relocations and may include visitor dwellings.

Data source/custodian

- ABS, Building approvals, catalogue 8731.0, extracted October 2020 for approvals July 2011 to June 2020.
- ABS, Census 2016, Dwelling structure data (dwellings by type), 2016.
- DSDILGP, local government area boundaries, 2017.
- DSDILGP, SEQ regional plan boundary, 2017.

Source data geography

ABS, SA2.

Method

Using information extracted for the dwelling growth measure, group ABS reported dwelling types into three main categories:

- *Houses*: includes detached dwellings
- *Middle* (attached dwellings one to three storeys) includes:
 - Flats, units or apartments, in a one or two storey block
 - Flats, units or apartments, in a three-storey block

- Semi-detached, row or terrace houses, or townhouses of one storey
- Semi-detached, row or terrace houses, or townhouses of two or more storeys
- *High-rise* (attached dwellings four or more storeys) includes: flats, units, or apartments (in a four or more-storey block)

Percentages of dwelling building approvals by type may be compared to the percentages of total existing dwellings by type at the 2016 Census to indicate how approvals, over time, are changing the diversity of housing types overall.

Data update

Annually.

Reporting units

Percentage of total new dwelling building approvals by type for the region and each local government area to 30 June of each reporting year.

Notes

The housing types reported align to those used in *ShapingSEQ 2017* and available through ABS dwelling building approval reporting. As such they relate to *houses* as detached dwellings, *middle* as attached dwellings up to three storeys and *high-rise* as attached four or more storeys.

Housing type data used may not fully align to use definitions in planning schemes. For example, some dual occupancy, auxiliary units and secondary dwellings may be classified by the ABS as Houses. This may impact on the reporting of Houses and Middle housing types compared to the closest equivalent planning scheme classification.

Treatment of housing types may differ across the region. Local governments may categorise medium and *high-rise* housing types differently, for example *high-rise* could be considered as buildings above eight storeys. Better categorisation of medium and *high-rise* dwellings is continuing to be investigated.

Sales and price

Description

Sales and price measures the *number of sales* and *median sales price* information for residential development including vacant lots, vacant lots price per m², *house and land*, *houses* and *attached dwellings*, within *consolidation* and *expansion* areas.

Rationale

To show trends in the *number of sales*, and lower, *median* and upper quartile *sales price* for developed lots and dwellings for the region and each local government area.

Limitations

Lower, median and upper *sales price* cannot represent the full range of sales prices in an area.

There is a potential lag in the reporting of sales information.

Reporting for 2019/20 is to 30 June 2020.

Data source/custodian

- Queensland Treasury, Queensland Government Statisticians Office (QGSO), as provided October 2020.

Source data geography

SEQ region and local government area.

Method

Extract QGSO supplied *number of sales* and lower, *median and upper quartile sales price* information on vacant lots (per lot and per square metre), house and land, *houses* and *attached dwellings* for the period July 2011 to June 2020, within *consolidation* and *expansion* areas.

Data update

Annually.

Reporting units

Total *number of sales*, lower, *median* and upper *sales price* (\$), lower, median and upper sales price per m² to the year ending 30 June of each reporting year.

Notes

N/A.

Industrial land take-up

Description

Industrial land take-up within the region estimates the amount of take-up of developed industrial land from 2011-2019, recognising that a suite of other land uses could occur on industrial zoned land that are not industrial in nature, e.g. commercial, residential, recreational and community uses.

Rationale

The take-up of developed industrial land is measured for the region and each local government area. It was undertaken in conjunction with the Planned industrial land supply analysis.

Limitations

Identification and categorisation of industrial land was based on information available at the time of analysis, which did not include all development approvals that may affect industrial development.

The date of aerial photography used to determine whether an area has been developed varies across the region.

Interpretation of relevant zones and planning intent from local government planning schemes, structure, master and precinct plans and Priority Development Area development schemes and context plans may vary across the region.

Developed industrial land areas are based on the total areas of developed land parcels, excluding roads, which for many locations will differ from the land area if identified constraints were excluded, as has been done in determining

planned industrial land. This needs to be recognised when comparing developed industrial land take-up to planned industrial land supply.

Areas that may not be fully developed, or underutilised, are considered taken-up for the purposes of the 2020 LSDM.

Data source/custodian

- State government aerial imagery, 2011 (dates vary), 2018 (dates vary from 10 May to 15 July 2018) and 2019 (dates vary from 5 May to 4 August 2020)
- Local government planning schemes zoning, precinct and sub-area data and local and neighbourhood plans, generally as at June 2020.
- State Government constraints datasets, generally as at June 2020
- Local government planning scheme overlays, generally as at June 2020
- Zones, precincts, structure plan and context plan areas, generally as at June 2020, for:
 - 2014 Airport Master Plan (Brisbane)
 - Gold Coast Airport 2017 Master Plan
 - Archerfield Airport Master Plan 2017
 - Port of Brisbane Land Use Plan 2015 (2017 Update)
 - All SEQ Priority Development Areas
 - Bromelton State Development Area.

Source data geography

SEQ region and local government area.

Method

A review and update of industrial land underutilised/take-up data was undertaken in consultation with, and feedback from SEQ local governments, on land with a revised planned industrial intent layer in 2020 for the period 2011 to 2019.

This work was undertaken after a review of previous planned industrial land supply analysis was undertaken for the 2018 and 2019 LSDMs by CDM Smith and RPS.

A planned industrial intent layer for the 2020 report was identified through a review of currently available and relevant planning schemes, development schemes, structure, master, precinct and context plans and in consultation with SEQ local governments.

Planned industrial intent was identified based on the particular zone and/or precinct having a predominant industrial land use focus or overall industrial purpose.

Vacant land in 2019 and underutilised/take-up 2011 to 2019 were identified on areas with planned industrial intent based on interpretation of state government aerial imagery. Values for developed industrial land underutilised/take-up 2011 to 2019 were extracted by identified industrial land types for the 2020 LSDM Report.

Data update

Annually, subject to further work to progress and implement best practice research ([Program Delivery](#)) and feedback from industrial land supply custodians.

Reporting units

Area (hectares) of developed industrial land take-up (2011-2019), by type of industrial land, for the region and each SEQ local government area.

Notes

For the purposes of this report the following industrial land categories, intended to align to relevant zone types in the Planning Regulation 2017, were used:

- Low Impact Industry
- Medium Impact Industry
- High Impact Industry
- Waterfront and Marine Industry
- High Technology Industry
- Airports and air bases
- Industry Investigation Area.

For a concordance of local government zonings to each of the above categories see Table D1 in Appendix D.

Planned industrial land supply

Description

Planned industrial land supply estimates the planned industrial land, by industrial land type, as at mid-2019, for South East Queensland (SEQ) and each local government area.

Rationale

Provides an indication of the amount of planned industrial land there is within the region and each local government area to potentially accommodate future industrial employment growth.

Limitations

Identification and categorisation of industrial land was based on information available at the time of analysis, which did not include all development approvals or planning scheme changes in process that may affect future industrial development.

Identification and interpretation of vacant and developed industrial land may be subject to varying interpretation of aerial imagery across the region and over time.

The date of aerial photography used to determine whether an area has been developed varies across the region.

Interpretation of relevant zones and planning intent from local government planning schemes, structure, master and precinct plans and Priority Development Area development schemes and context plans may vary across the region.

Changes in land parcel geometry over time have resulted in small 'slivers' of land created by mismatching lot boundaries. Despite cleaning of the data some slivers remain.

Areas identified as vacant and developable may contained serviced and un-serviced industrial land.

Data source/custodian

- DSDILGP, Industrial Land Supply Developable Area, June 2020, which utilised:
 - State government aerial imagery, 2011 (dates vary), 2018 (dates vary from 10 May to 15 July 2018) and 2019 (dates vary from 5 May to 4 August 2019)
 - Local government planning schemes zoning, precinct and sub-area data and local and neighbourhood plans, generally as at June 2020
 - State Government constraints datasets, generally as at June 2020
 - Local government planning scheme overlays, generally as at June 2020
 - Zones, precincts, structure plan and context plan areas, generally as at June 2020, for:
 - 2014 Airport Master Plan (Brisbane)
 - Gold Coast Airport 2017 Master Plan
 - Archerfield Airport Master Plan 2017
 - Port of Brisbane Land Use Plan 2015 (2017 Update)
 - All SEQ Priority Development Areas
 - Bromelton State Development Area.

Source data geography

SEQ region and local government area.

Method

Utilising a revised methodology based on previous CDM Smith and RPS work, the LSDM report analyses and reports on the SEQ region's industrial land, including the amount of planned industrial land.

Through consultation with stakeholders, information and data was updated to produce a revised planned industrial intent layer based on a review of relevant planning schemes, development schemes, structure, master, precinct and context plans.

Planned industrial intent was identified based on the particular zone, precinct or the like having a predominant industrial land use focus or overall industrial purpose.

Vacant land in 2019 on areas with planned industrial intent based on interpretation of state government aerial imagery were also identified.

SEQ-wide developability (constraint) rules and local variations of those were generated as follows:

- As reported in the 2019 LSDM Report, in 2018 RPS undertook land suitability best practice research in consultation with the GMP Data and Modelling Working Group (DMWG) to recommend standard developability rules across SEQ
- RPS were then engaged to review the SEQ-wide residential developability rules in consultation with DSDILGP, to identify potential guidance material on using the rules to identify developable areas for residential land.

- DSDILGP sort feedback from local governments on the SEQ-wide developability rules as part of the review of the planned industrial land supply analysis for the 2020 LSDM report. to identify any local variations or general changes to those rules.

The resulting developability rules (see [Developable area and land supply types best practice research](#) for the developability rules) were applied to constraints to vacant planned industrial areas to create an industrial developable area dataset (planned Industrial land). See Table D2 in Appendix D for the actual constraints layers corresponding to the 'common layer names' used by the developability rules.

Where there were overlapping soft constraints as identified by the developability rules, the developable area was calculated as explained in Appendix H.

Values for planned industrial land areas were extracted for SEQ and each local government area, with DSDILGP applying identified industrial land types informed by included zoning and precinct information and the categorisation applied to Planned industrial land for the 2018 and 2019 LSDM Reports.

Data update

Annually, subject to further work to progress and implement best practice research ([Program Delivery](#)).

Reporting units

Area (in hectares) of planned industrial land, by industrial land type, for SEQ and each local government area.

Notes

The developed industrial land measure identifies the total area of developed parcels (take-up) and is calculated independently of the estimates of planned industrial land supply. Further, Planned industrial land supply is calculated differently from Planned industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

Rural and agricultural industrial and extractive resource areas are not considered as part of the analysis or reporting.

For the purposes of this report the following industrial land categories, intended to align to relevant zone types in the Planning Regulation 2017, were used:

- Low Impact Industry
- Medium Impact Industry
- High Impact Industry
- Waterfront and Marine Industry
- High Technology Industry
- Airports and air bases
- Industry Investigation Area.

For a concordance of local government zonings to each of the above categories see Table D1 in Appendix D.

Note: the Helidon explosives area has been removed from inclusion as planned industrial land supply.

Planned industrial employment supply

Description

Planned industrial employment supply estimates the total industrial jobs growth capacity (2016 to ultimate) within the region and for each local government area.

A realistic availability scenario is also estimated to reflect the effect of factors which may constrain the availability of the industrial jobs growth capacity, within some Major Enterprise and Industry Areas (MEIAs), to accommodate industrial employment up to 2041.

The capacity and realistic availability of planned industrial employment supply are compared to the corresponding 2041 industrial employment planning baseline of *ShapingSEQ 2017*.

Rationale

The capacity of planned industrial employment supply provides the basis for assessing the ability, based on current planning intent, to accommodate the 2041 industrial employment planning baselines of *ShapingSEQ 2017*.

The realistic availability scenarios for planned industrial employment supply have been generated to represent the effect of various factors that may constrain the availability to 2041 of the identified industrial employment capacity. Such factors may include:

- infrastructure availability
- the practical staging of and capability for development
- land ownership fragmentation
- landowner intent
- lower employment densities than expected
- accessibility
- constraints affecting the economic feasibility of development.

Consideration of realistic availability as an alternative scenario provides a greater level of confidence about the adequacy of industrial employment supply.

The capacity of planned industrial employment supply is based on information supplied by SEQ local governments and the realistic availability of planned industrial employment supply is informed by a market-based economic assessment by Urban Economics (see Data source/custodian below).

Limitations

There is some inconsistency of the source data across local government areas including timing, outputs and assumptions about densities and developable area. The extent to which the planned industrial employment supply captures all industrial employment potential, e.g. including that not located on land zoned for industry, depends on the approaches of the source data.

Use of different parameters across local government areas in determining industrial employment supply, and the interpretation of what ultimate development is for each area, may impact on the consistency and comparability of reporting across local government areas.

Over time, it is intended to continue to progressively apply a consistent methodology across the region for calculating planned industrial employment supply. This will be informed by ongoing consultation with stakeholders and further work to progress and implement best practice research ([Program Delivery](#)).

The 2041 industrial employment baselines of *ShapingSEQ 2017* provide an approximation only of industrial employment demand based on the ANZSIC 1-digit industry categories from the Queensland Treasury 2015 edition employment projections. As advised by the CDM Smith report, reflecting different objectives to the 2015 edition projections, a more refined assessment of industrial and other land use employment demand could be based on ANZSIC 2-digit industry categories.

The intent of the planned industrial employment supply measure is to report industrial employment growth that could be accommodated by development that could be approved based on current planning intent. However, the timing of the preparation of available datasets means that the effect of some draft changes to planning schemes may be included in, and the effect of some recently adopted changes may be excluded from, the data. Likewise, the effect of all preliminary approvals overriding the planning scheme may not be reflected in the data.

Industrial employment growth potential identified for MEIAs, based on the Urban Economics report, does not consider growth from more intensive use of existing developed but underutilised sites, e.g. sites that have potential for increased GFA. For those local governments where the assessment of realistic availability is not informed by property-level data (see Method below), this may contribute to underestimation of the realistic availability of planned industrial employment supply. However, this may be offset by the following:

- the assumption that the growth areas of the MEIAs are developed solely for industrial use, when parts of the land are likely to be developed for other uses, e.g. commercial, community and recreational uses, and
- the calculation of employment potential based on the estimated developable areas identified for those MEIAs, consistent with the planned industrial land supply measurement, when some of those areas will require re-subdivision and the loss of roads, parks and infrastructure corridors to create development sites yielding employment.

The likely availability timeframes identified by the Urban Economics report, for developable land within MEIAs (see Appendix E), were based on information available up to mid-October 2019. For the purpose of the 2020 LSDM report the same proportions have been used for the slightly shorter 2019-2041 period as for the 2018-2041 period identified by the Urban Economics report (see appendix E below). The circumstances underpinning those assumptions are also subject to change over time, e.g. due to infrastructure and development decisions which may affect land availability and will be reviewed in future years.

Data source/custodian

- State government aerial imagery, 2011 (dates vary), 2018 (dates vary from 10 May to 15 July 2018) and 2019 (dates vary from 5 May to 4 August 2019)
- local government planning schemes zoning, precinct and sub-area data and local and neighbourhood plans, generally as at -June 2020
- State Government constraints datasets, generally as at June 2020
- local government planning scheme overlays, generally as at June 2020
- zones, precincts, structure plan and context plan areas, generally as at March-June 2020, for
 - 2014 Airport Master Plan (Brisbane)

- Gold Coast Airport 2017 Master Plan
- Archerfield Airport Master Plan 2017
- Port of Brisbane Land Use Plan 2015 (2017 Update)
- All SEQ Priority Development Areas
- Bromelton State Development Area.
- DSDILGP, *ShapingSEQ 2017*, employment planning baselines (2015/16 to 2040/41), August 2017
- DSDILGP, SEQ regional plan boundary, 2017
- LGIPs and related datasets:
 - Brisbane – NonRes CP2014 dataset as supplied by council to reflect LGIP v1, February 2016 (industrial job field provided in dataset)
 - Gold Coast – LGIP extrinsic material report Planning assumptions, June 2017
 - Ipswich – LGIP NonRes Industrial Interims as supplied by council in 2017 (industrial only dataset)
 - Lockyer Valley – LGIP, June 2018
 - Logan – Logan Development Projection Model (LDPM 2016), October 2018 run as supplied by council in May 2019 (industrial fields provided in the dataset)
 - Moreton Bay – Employment assumptions LGIP2 Draft April 2016 as supplied by council November 2017 (industrial fields provided in the dataset)
 - Noosa – DMaTT demand forecasts, March 2015 as supplied by Unitywater on behalf of Council (where land use field is limited to industry)
 - Redland – Adopted LGIP sourced August 2018
 - Scenic Rim – LGIP, Attachment 1a, November 2017 (first state interest check)
 - Somerset – Extrinsic Material to the LGIP, May 2016
 - Sunshine Coast – Population and employment figures underpinning the LGIP as supplied by Council in July 2018 (where existing and ultimate land use fields are limited to industry)
 - Toowoomba – LGIP planning assumptions tables sourced July 2018.
- Urban Economics Realistic Availability of Planned Industrial Employment Supply: Major Enterprise and Industry Areas report (Urban Economics report – see extracts at Appendix E), October 2019, (assessments of employment potential in Table E1 are updated from the Urban Economics report utilising the identified planned industrial vacant developable areas for MEIAs as reported by LGA in the 2020 LSDM Report’s Planned industrial land supply/take-up).
- MEIA boundaries as generated by Urban Economics and used for the Urban Economics report, modifying some of those used for the CDM Smith report in 2018.

Source data geography

SEQ region and local government area.

Method

SEQ

Determine the planned industrial employment supply for the region by:

- For capacity— adding each local government’s industrial employment capacity as calculated using the methods outlined in the local government section below.
- For the realistic availability scenario—adding each local government’s industrial employment realistic availability as calculated using the methods outlined in the local government section below.

Local governments

The following provides a summary of the methodology used to calculate each SEQ local government’s planned industrial employment supply. This method utilises the following information for each SEQ local government area:

- Parcel-level or small area information for industrial employment for Brisbane, Ipswich, Logan, Moreton Bay, Noosa and Sunshine Coast.
- Where parcel-level information was unavailable summary LGIP documentation for industrial employment was used for the Gold Coast, Lockyer Valley, Redland, Scenic Rim, Somerset and Toowoomba.
- Determine capacity
 - Extract the total number of additional industrial employment from 2016 to the identified ultimate for the whole local government area.
- Determine realistic availability
 - To determine the realistic availability scenario, Brisbane, Gold Coast, Ipswich, Lockyer Valley, Logan, Moreton Bay, Scenic Rim, Sunshine Coast and Toowoomba have significant growth MEIAs. For those selected MEIAs, adjusted Urban Economics reporting provides employment growth potential by likely availability timeframes, including the period 2019-2041 (Table E1 in Appendix E). That employment growth potential is based on industrial land estimates considered to be available for development to accommodate industrial employment in those MEIAs within the same timeframes.
 - In turn those industrial land estimates are informed by the application of a market-based assessment of overarching constraints to development of the planned industrial land identified for those MEIAs. That assessment (see Table E2 in Appendix E) results in the conclusion that some of the subject land will not be available for development that could accommodate industrial employment up to 2041 (see Table E3 in Appendix E).
 - The realistic availability scenarios for Brisbane, Ipswich, Logan and Sunshine Coast, which have property-level LGIP related datasets, were determined as follows:
 - For each MEIA, use available LGIP datasets to calculate the industrial employment growth from 2019 to ultimate on those parcels that contain developable area, interpolating on a proportional basis between available figures to estimate employment growth from 2016 to 2019.
 - Where the 2019 to ultimate employment growth potential identified by the Urban Economics report (with adjustment to 2019) for a selected MEIA is greater than 1000 and the equivalent 2019-2041 employment growth identified for that MEIA is less than the 2019 to ultimate figure calculated above, sum those differences for all such MEIAs in the local government area and subtract that sum from the total capacity figure for the local government area to get the realistic availability scenario for that area.

- For the remaining local government areas which have relevant growth MEIAs, including Gold Coast, Lockyer Valley, Moreton Bay, Scenic Rim and Toowoomba, the realistically availability scenarios were determined as follows:
 - For each MEIA, use available LGIP datasets to calculate the industrial employment growth from 2019 to ultimate for the closest geographic area identified in the LGIP datasets, interpolating on a proportional basis between available figures to estimate employment growth from 2016 to 2019.
 - Where:
 - the 2019 to ultimate employment growth potential identified by the Urban Economics report for a selected MEIA is greater than 1000 and more than 75% of the 2019 to ultimate figure calculated above from the LGIP datasets, and
 - the 2019-2041 employment growth identified by the Urban Economics report (with adjustments to 2019) for that MEIA is less than the 2019 to ultimate figure calculated from the LGIP datasets.
 - sum those differences for all such MEIAs in the local government area and subtract that sum from the total capacity figure for the local government area to get the realistic availability scenario for that area.
- Determine years of supply
 - Determining years of supply provides the basis for assessing whether there is the minimum 15 years of supply as sought by *ShapingSEQ 2017*.
 - Calculate estimates of the years of supply by dividing each of the identified industrial employment capacity and realistic availability by *ShapingSEQ 2017's* average annual baseline, i.e. the average annual growth of industrial employment expected 2016-2031 in order to align with the 2041 industrial employment planning baseline (Appendix A of *ShapingSEQ 2017*) and subtract four years to align the information to 2020.

Data update

Annually.

Reporting units

Growth of industrial jobs and years of supply for the region and each local government area.

Notes

Planned industrial land supply is calculated differently from Planning industrial employment supply which reflects total anticipated growth in industrial employment from local land supply databases.

For Gold Coast, Lockyer Valley, Scenic Rim and Toowoomba, there were only SA2-level datasets available to calculate the industrial employment capacity for the Yatala-Stapylton, Gatton North, Bromelton and Charlton/Wellcamp MEIAs, respectively. The available figures for the Ormeau-Yatala, Gatton, Beaudesert and Toowoomba-West SA2s, respectively, were therefore used as approximations for those MEIAs.

For Scenic Rim and Sunshine Coast, none of the selected MEIAs had 2019-2041 employment growth potential estimated by the Urban Economics report (with adjustments to 2019) which was less than the estimated employment growth from 2019 to ultimate from the LGIP datasets. For those areas the realistic availability scenario is therefore the same as the capacity.

For Noosa, Redland and Somerset, there are no MEIAs so the realistic availability scenario for those LGAs is the same as the capacity.

Planning and development scheme amendments recently adopted or in process which may affect planned industrial employment supply include:

- Brisbane
 - Industry provisions in Brisbane City Plan 2014 Major amendment package E
 - Banyo-Northgate Neighbourhood Plan (adopted 26 November 2019)
 - Oxley PDA development scheme (adopted 9 August 2019)
 - Yeronga PDA development scheme (adopted 9 August 2019)
 - Eight Mile Plains Gateway Neighbourhood Plan (preparing draft neighbourhood plan)
 - Sandgate District Neighbourhood Plan (preparing draft neighbourhood plan)
 - Nathan, Salisbury, Moorooka Neighbourhood Plan (preparing draft strategy)
 - Bowen Hills PDA (adopted 21 June 2019)
- Northshore Hamilton PDA (reviewing the development scheme) Gold Coast
 - Major Update 2 and 3 (reviewing submissions after second consultation period concluded on 10 June 2020)
- Ipswich
 - New planning scheme in preparation (preparing draft planning scheme)
- Lockyer Valley
 - New planning scheme in preparation (undergoing first state interest review).
- Logan
 - Logan Reserve Land Use Area Amendment (Logan Reserve Plan) (adopted 30 January 2020)
 - Park Ridge South and Chambers Flat amendments (adopted 30 January 2020)
 - Meadowbrook Local Plan Amendment (expected to be adopted 2021).
 - Springwood Local Plan amendment
- Moreton Bay
 - Planning scheme tailored amendment no.1 (commenced 29 January 2020).
- Noosa
 - Noosa Plan 2020 (adopted 16 July 2020).
- Redland
 - Major planning scheme amendment package (01/19) (adopted 29 January 2020).
- Scenic Rim
 - Scenic Rim Planning Scheme 2020 (commenced 20 March 2020).
- Somerset
 - Major amendment – Somerset Regional Planning Scheme version 4
- Sunshine Coast
 - Sunshine Coast – Planning Scheme, version 21, adopted January 2020.
- Toowoomba
 - Proposed amendment no.17 – Flood Risk Assessment, Planning Evaluation and Scheme Amendment (considering round four consultation feedback prior to progressing to final state interest review)
 - Drayton local plan/land use investigation (investigation commenced late 2017).

Impact of new region-wide state constraints

Description

An analysis was conducted to provide an indicative estimate of the impact of new constraints on the region's residential (within *expansion* areas) and industrial land supply.

For the purposes of this analysis new constraints are considered as those that have been newly developed or updated and adopted by the state government since the release of *ShapingSEQ 2017* in August 2017.

Rationale

This information will be used to inform responses on how the addition of these new constraints may affect the ability of the region to accommodate its expected growth to 2041.

As new constraints emerge, and data is made available, their potential impact on developable areas and land supply within the region can be measured.

Limitations

The accuracy of the analysis is limited by:

- the overall accuracy of the constraints mapping used
- the identification of all areas not affected by the constraints, e.g. the accurate identification and location of all relevant and active development approvals
- the timing and use of available region-wide datasets to represent developable areas and land supply, e.g. the 2013 BHS data (updated to June 2020).

At the time of reporting the location and area of preliminary approvals and non-residential development permits were not available for consideration in this analysis.

Within the scope of the analysis, for the reasons identified above the estimated impact of the new constraints on the region's land supply is likely to be overstated.

For residential, the analysis relates only to the impact on supply within *expansion* areas.

Data source/custodian

- RPS, Growth Monitoring Program (GMP) Best Practice Research, Land Suitability, 2019
- Queensland Treasury (QT), 2013 BHS, updated to take account of development (removal of parcels < 2500m²) up to June 2016
- QT, 2013 BHS, updated to take account of development (removal of parcels < 2500m²) up to June 2020
- QT, Material Change of Use approvals (multiple dwelling), June 2020
- QT, Reconfiguring a lot approvals, June 2020
- DSDILGP, Planned Industrial Land Supply Developable Area, to June 2019
- Department of Resources (DR), Digital Cadastral Database (DCDB), July 2016.
- DR, DCDB, July 2017
- DR, DCDB, July 2018
- DR, DCDB, July 2019
- DR, DCDB, July 2020
- Department of Environment and Science (DES), *Vegetation Management Act 1999*, Endangered Regional Ecosystems, 2020
- DES, All Matters of State Environmental Significant (MSES), as at June 2020
- DES, Wildlife Habitat (endangered or vulnerable wildlife), as at February 2020

- DES, Wildlife habitat (special least concern animal), as at February 2020
- DES, MSES, Fish Habitat Areas A and B, as at February 2020
- DES, Protected Area Estates, as at February 2020
- DES, Legally secured offsets (offset register), as at February 2020
- DES, Legally secured offsets (vegetation offset), as at July 2017
- DES, Essential Habitat, as at April 2020
- DES, Regulated vegetation (category B – endangered or of concern), as at April 2020
- DES, Regulated vegetation (category C – endangered or of concern), as at April 2020
- DES – Koala Priority Area, as at February 2020
- DES – Wildlife habitat (koala habitat areas – core areas), as at February 2020
- DES – Wildlife habitat (koala habitat areas – locally refined area), as at February 2020
- DES, High conservation value wetlands (high environmental significance), as at March 2020.
- DES, High conservation value wetlands (high environmental value), as at June 2020.

Source data geography

SEQ region.

Method

Constraints used

The following new constraints layers were identified for this analysis:

- Koala Conservation and habitat areas
- Matters of State Environmental Significance (MSES)
- Vegetation Management Act.

In accordance with the land suitability GMP best practice research and SEQ-wide developability rules, new constraints are categorised as either a hard constraint (100 per cent of an area is not considered available for development) or soft constraint (50 per cent of an area is not considered available for development).

For the purposes of the 2020 LSDM Report the following constraints were analysed to determine an estimate of their potential impact on the region's residential and industrial developable areas:

- Hard constraints:
 - MSES areas including:
 - Marine Parks
 - Fish habitat areas A and B
 - Wildlife
 - High conservation value wetlands (Environment Protection Act 1994), including high environmental value and high environmental significance
 - Legally secured offsets
 - Protected Areas and Nature Refuges
 - Endangered Regional Ecosystems

- Regulated vegetation Categories C and B
- Regulated vegetation Category R
- Core and locally refined koala habitat areas within a Koala Priority Area.
- Soft constraints:
 - All MSES areas not identified as a hard constraint (see above)
 - Essential Habitat
 - Core and locally refined koala habitat areas outside a Koala Priority Area.

Note: Other constraints identified in the land suitability GMP best practice research did not form part of this analysis as they were not the subject of state-level updates since the development of *ShapingSEQ 2017*.

Developable areas

For the purposes of the analysis the region's developable areas included:

- Residential (expansion areas only)
 - BHS land (as at June 2020)
 - where not captured by the BHS, growth areas within the Urban Footprint as used to assess *ShapingSEQ 2017's* overall land supply to 2041 (as at June 2020).
- Industrial
 - planned industrial land (as at 2019) developable area, June 2020.

Excluded areas

The following areas were excluded from the analysis as they were identified as exempt from the impact of the new constraints in relevant legislation:

- SEQ Priority Development Areas, August 2018
- Springfield Structure Plan, August 2013
- Mango Hill Infrastructure Development Control Plan, December 2011
- Kawana Development Control Plan 1, December 2013
- State Planning Policy identified Strategic Airports (including Archerfield, Brisbane, Wellcamp, Gold Coast, Amberley, Sunshine Coast and Toowoomba), August 2018.

Approved/assumed developed areas

The following areas were considered as approved for development and not affected by the new constraints.

- MCU (multiple dwellings) development permits as at June 2020.
- Reconfiguring a lot development permits, as at June 2020
- Property parcels $\leq 2500\text{m}^2$ or identified road easements as at June 2020 (In line with the BHS methodology).

Assessment and analysis

Residential

- Determine the total capacity of the expansion area using BHS theoretical dwelling yields (as at 30 June 2016) and total growth area dwellings.
- Union identified constraints (hard and soft), approved/assumed developed areas and excluded areas to each of the BHS and growth area developable areas.
- Calculate the area, in hectares, of land affected by new constraints by:
 - Determining the potential number of dwellings affected by:
 - BHS
 - For hard constraints selecting areas potentially impacted by hard constraints (not including excluded and approved/assumed developed areas).
 - Multiply the area affected by the identified BHS dwelling density and multiply by 100 per cent (as all of these dwellings are not considered available for development).
 - For soft constraints
 - Selecting areas potentially impacted by soft constraints but not affected by hard constraints (not including excluded areas and approved/assumed developed areas).
 - Multiply the area affected by the identified BHS dwelling density and multiply by the relevant soft constraints developable percentage (as identified in the LSDM's best practice research section developable area and land supply types).
 - Growth areas
 - For hard constraints
 - Selecting areas potentially impacted by hard constraints (not including excluded areas and approved/assumed developed areas).
 - Multiply the area potentially affected by the area's dwelling density and multiply by 100 per cent (as all of these dwellings are not considered available for development).
 - For soft constraints
 - Selecting areas potentially affected by soft constraints but not affected by hard constraints (not including excluded areas and approved/assumed developed areas).
 - Multiply the area potentially affected by the area's dwelling density and multiply by the relevant soft constraints developable percentage (as identified in the LSDM's best practice research section developable area and land supply types).
 - Determine total dwellings potentially affected
 - Add together the number of dwellings potentially affected by hard and soft constraints for both the BHS and growth areas.
 - Calculate the regional proportion of expansion dwellings potentially affected by new constraints by dividing the total number of dwellings potentially affected by new constraints by the total expansion dwelling capacity.

- Determine the total area of planned industrial land.
 - Union identified constraints (hard and soft), excluded areas and approved/assumed developed areas to the 2019 planned industrial land.
 - Calculate the area, in hectares, of land affected by the new constraints.
 - Determine the potential area affected by:
 - For hard constraints
 - Selecting areas potentially affected by hard constraints (not including excluded areas and approved/assumed developed areas).
 - Multiply the area potentially affected by 100 per cent (as all of these areas are not considered available for development).
 - For soft constraints
 - Selecting areas potentially affected by soft constraints but not affected by hard constraints (not including excluded areas and approved/assumed developed areas).
 - Multiply the area impacted by the relevant soft constraints developable percentage (as identified in the LSDM's best practice research section developable area and land supply types).
 - Determine total area potentially affected
 - Add together the areas affected by hard and soft constraints.
 - Calculate the region's proportion of planned industrial land affected by the new constraints by dividing the area potentially affected by new constraints by the total planned industrial land.

Data update

Annually or as new constraints layers are identified.

Reporting units

Residential – proportion of the region's *expansion* area dwelling capacity potentially affected by the new constraints.

Industrial – proportion of the region's total vacant planned industrial land potentially affected by the new constraints.

Notes

The 2020 analysis only reports at the SEQ level due to the limitations of the data used. Improvements in information supporting this analysis are expected to enable reporting at a local government level in the future.

There has been significant change in areas identified as Matters of State Environmental Significance from those used in analysis of the 2019 LSDM, in particular the removal/update of Threatened Species data. This has impacted the reported values.

Appendices

Appendix A: Growth areas (*ShapingSEQ 2017*)

Table A1: List of *ShapingSEQ 2017* growth areas used for analysis in the 2020 LSDM Report.

LGA	Growth Area
Brisbane	N/A
Gold Coast	<ul style="list-style-type: none"> • Coomera Town Centre
Ipswich	<ul style="list-style-type: none"> • Ripley Valley Priority Development Area (PDA) • Springfield
Lockyer Valley	N/A
Logan	<ul style="list-style-type: none"> • Greater Flagstone PDA • Yarrabilba PDA • Flinders
Moreton Bay	<ul style="list-style-type: none"> • Caboolture West • North East Business Park
Noosa	N/A
Redland	<ul style="list-style-type: none"> • Southern Redland Bay
Scenic Rim	N/A
Somerset	N/A
Sunshine Coast	<ul style="list-style-type: none"> • Caloundra South PDA • Palmview
Toowoomba	<ul style="list-style-type: none"> • Meringandan West - Kleinton

Note: For the estimated supply to 2041 assumed for these growth areas by the SGS study see Appendix C.

Appendix B: Treatment of fragmented areas

Local government areas with parcel level land supply information (Brisbane, Ipswich, Lockyer Valley, Logan, Moreton Bay, Noosa, Scenic Rim, Somerset, and Sunshine Coast)

Assessment of the realistic availability of fragmented areas was based on an approximation of the 2013 Broadhectare Studies (BHS) rules for calculating expected yield from theoretical yield:

- identified proportions by parcel-size ranges – tables B1, B2 and B3. These proportions are drawn directly from the BHS rules.
- selected residential zones used for the fragmented area analysis– Table B4. The zones in Table B4 were identified from the relevant planning schemes as being intended for low density residential use, predominantly houses. If the relevant land supply databases used for the fragmented area analysis did not include any additional dwelling yields on parcels greater than 2500 m² in those zones, then the fragmented area analysis would not affect those areas.
- the BHS rules do not apply to master/structure plan areas or local development areas identified by the South East Queensland Regional Plan 2009-2031—this report’s fragmented area analysis does not apply to the growth areas identified in Appendix A
- the BHS rules do not apply to land with development approvals—this report’s fragmented area analysis does not affect assumed dwelling growth up to 2021, as an allowance for the implementation of development approvals in the short term.

Note: Allowance for fragmented areas for Gold Coast, Redland and Toowoomba, where parcel-level information was not used, was based solely on BHS theoretical and expected yields as stated in table B5 below.

Table B1: Brisbane, Ipswich, Lockyer Valley, Logan, Scenic Rim and Somerset

LGA	Small lot existing house Lots less than 1.2 ha with an existing house	Small lot vacant Lots less than 1.2 ha that are vacant	Medium lot Lots greater than 1.2 ha and less than 2.1 ha	Large lot (2.1-10) Lots greater than 2.1 ha up to 10 ha	Large lot (10+) Lots greater than 10ha
Brisbane	50%	95%	95%	95%	95%
Ipswich	10%	30%	30%	50%	80%
Lockyer Valley	10%	30%	30%	40%	90%
Logan	10%	30%	30%	50%	80%
Scenic Rim	10%	30%	30%	40%	90%
Somerset	10%	30%	40%	90%	90%

Table B2: Sunshine Coast

LGA	Small lot existing house Lots less than 1.2 ha with an existing house	Small lot vacant Lots less than 1.2 ha that are vacant	Medium lot Lots greater than 1.2 ha and less than 2.1 ha	Large lot Lots greater than 2.1 ha
Noosa	25%	75%	75%	100%
Caloundra	25%	50%	50%	95%
Maroochy	25%	60%	60%	95%

Table B3: Moreton Bay

LGA	Small lot existing house Lots less than 1.2 ha with an existing house	Small lot vacant Lots less than 1.2 ha that are vacant	Medium lot Lots greater than 1.2 ha and less than 5 ha	Large lot (5-10) Lots greater than 5 ha and less than 10 ha	Large lot (10+) Lots greater than 10ha
Caboolture	40%	60%	60%	70%	80%
Pine Rivers	20%	40%	40%	50%	80%
Redcliffe	90%	100%	100%	100%	100%

Table B4: Selected residential zones used for fragmented area analysis

LGA	Residential zones
Brisbane	<ul style="list-style-type: none"> Emerging communities Low density character Character residential Rural residential
Ipswich	<ul style="list-style-type: none"> Large lot residential Residential low density Future urban Bundamba race stables area Urban investigation Township residential Township character housing
Lockyer Valley	<ul style="list-style-type: none"> Rural residential Urban residential Park residential Residential expansion Homestead residential
Logan	<ul style="list-style-type: none"> Emerging community Low density residential Rural residential.
Moreton Bay	<ul style="list-style-type: none"> Emerging community (interim and transitional) General residential (suburban neighbourhood and coastal communities precincts) Rural residential Township residential precinct
Noosa	<ul style="list-style-type: none"> Detached housing Semi attached housing Rural settlement
Scenic Rim	<ul style="list-style-type: none"> Emerging community Low density residential Rural residential Township (Township Residential precinct)
Somerset	<ul style="list-style-type: none"> Emerging community General residential

LGA	Residential zones
	<ul style="list-style-type: none"> • Rural residential
Sunshine Coast	<ul style="list-style-type: none"> • Low density residential • Rural residential • Limited development (landscape residential) • Emerging community

Local government areas without parcel level land supply information include Gold Coast, Redland and Toowoomba.

Assessment of the realistic availability of fragmented areas of these local government areas was based on the difference between 2013 BHS (updated to account for development to June 2020) theoretical and expected dwelling yields.

Table B5: BHS values used to determine realistic availability of expansion areas in the Gold Coast, Redland, and Toowoomba.

LGA	BHS theoretic yield	BHS expected yield
Gold Coast	6,722	5,782
Redland	1,266	1,175
Toowoomba	14,055	10,506

Appendix C: SGS –major greenfield precincts 2019 update

The figures in table C1 are drawn from the SGS Economics and Planning, SEQ expansion areas realistic dwelling take up – 2019 update for major precincts, October 2019.

This information is used to assist in determining realistic availability for selected SEQ major growth areas.

Table C1: Assumed supply to 2041 (selected areas)

The following information was used to assist in determining *realistic availability* for growth areas.

LGA	Area	Base capacity	Estimated supply to 2041
Gold Coast	Coomera Town Centre	9620	8800
Ipswich	Ripley Valley Priority Development Area (PDA)	49,463	30,670
	Springfield	40,088	33,700
Logan	Greater Flagstone PDA	52,881	22,897
	Yarrabilba PDA	20,416	15,700
	Flinders	5804	2900
Moreton Bay	Caboolture West	29,752	10,200
	North East Business Park	1169	995
Redland	Southern Redland Bay	4045	2318
Sunshine Coast	Caloundra South PDA	19,932	16,119
	Palmview	7282	6500
Toowoomba	Meringandan West-Klienton	1300	530

Appendix D: Industrial land supply developable area

The following categorisation was applied by DSDILGP to the identified planned industrial developable area data. It outlines the concordance of local government planning scheme and other precincts and zonings to industrial land categories used in the 2020 LSDM. It should be noted that due to limitations of the data, there are some identified precincts and zones that may not correctly align to a nominated industrial reporting category. These are considered to affect only a minor proportion of land and are shown here for completeness.

Table D1: Industrial land zonings by category

LGA	Industrial reporting category	Local government precincts and zones (non-local government zoning)
Brisbane	Low impact industry	<ul style="list-style-type: none"> • Elliot Road North C Sub-precinct (NPP-002c) - Banyo-Nudgee Neighbourhood Plan • IN1 – General Industry A • LII – Low Impact Industry • SC5 – Specialised centre (mixed industry and business)
	Medium impact industry	<ul style="list-style-type: none"> • IN2 – General Industry B • Port of Brisbane Master Plan <ul style="list-style-type: none"> ○ Port Industry ○ Special Industry ○ Motor Vehicle Storage Processing and Distribution) • Brisbane Airport Master Plan • General Industry B
	High impact industry	<ul style="list-style-type: none"> • IN3 – Industry • SI – Special Industry
	Waterfront and Marine industry	<ul style="list-style-type: none"> • Port of Brisbane Master Plan <ul style="list-style-type: none"> ○ Port Industry ○ Wharves / Loading / Unloading facilities ○ Terminals (Bulk, General Purpose) ○ General Industry C (Wharves / Loading / Unloading facilities) ○ Special Industry (Wharves / Loading / Unloading facilities) • Dredge Rehandling Area
	High Technology Industry	<ul style="list-style-type: none"> • N/A
	Airports and air bases	<ul style="list-style-type: none"> • Archerfield Airport Master Plan <ul style="list-style-type: none"> ○ General Industry • Brisbane Airport Master Plan • Industry
	Industry Investigation Area	<ul style="list-style-type: none"> • II – Industry investigation • Industry Investigation Area – Northshore Hamilton PDA (Medium Impact Employment Zone)
Gold Coast	Low impact industry	<ul style="list-style-type: none"> • No precinct - Low impact industry • Future low impact industry precinct - Low impact industry
	Medium impact industry	<ul style="list-style-type: none"> • No Precinct - Medium impact industry • Future medium impact industry precinct - Medium impact industry
	High impact industry	<ul style="list-style-type: none"> • No Precinct - High impact industry • Future high impact industry precinct - High impact industry
	Waterfront and Marine industry	<ul style="list-style-type: none"> • No Precinct - Waterfront and marine industry
	High Technology Industry	<ul style="list-style-type: none"> • N/A
	Airports and air bases	<ul style="list-style-type: none"> • N/A
	Industry Investigation Area	<ul style="list-style-type: none"> • N/A
Ipswich	Low impact industry	<ul style="list-style-type: none"> • LB03 - Local Business and Industry • LB04 – Local Business and Industry

LGA	Industrial reporting category	Local government precincts and zones (non-local government zoning)
		<ul style="list-style-type: none"> • LB06 - Local Business and Industry • LB09 - Local Business and Industry • LB10 – Local Business and Industry • LB11 - Local Business and Industry • LB12 - Local Business and Industry • LB13 - Local Business and Industry • LB14 – Local Business and Industry • LB15 - Local Business and Industry • LB16 - Local Business and Industry • LBB – Local Business and Industry • RBB01 – Local Business and Industry • RB01L - Regional Business and Industry - Low Impact • RB02L - Regional Business and Industry - Low Impact • RB03L - Regional Business and Industry - Low Impact • RB04L - Regional Business and Industry - Low Impact • RBB – Regional Business and Industry – Low Impact • RBB01 – Regional Business and Industry – Low Impact • RBB - Regional Business and Industry Buffer • SFTC - SF Town Centre
	Medium impact industry	<ul style="list-style-type: none"> • RB01M - Regional Business and Industry - Medium Impact • RB02M - Regional Business and Industry - Medium Impact • RB03M - Regional Business and Industry - Medium Impact • RB04M - Regional Business and Industry - Medium Impact • RB05L - Regional Business and Industry (Low Impact Sub Area) • RB05M - Regional Business and Industry - Medium Impact • RB05M - Regional Business and Industry (Med Impact Sub Area)
	High impact industry	<ul style="list-style-type: none"> • N/A
	Waterfront and Marine industry	<ul style="list-style-type: none"> • N/A
	High Technology Industry	<ul style="list-style-type: none"> • N/A
	Airports and air bases	<ul style="list-style-type: none"> • N/A
	Industry Investigation Area	<ul style="list-style-type: none"> • LBIA01 - Local Business and Industry Investigation • LBIA02 - Local Business and Industry Investigation • LBIA03 - Local Business and Industry Investigation • RBB01 – Regional Business and Industry Investigation • RBIA01 - Regional Business and Industry Investigation • RBIA02 - Regional Business and Industry Investigation • RBIA03 - Regional Business and Industry Investigation • RBIA04 – Regional Business and Industry Investigation •
Lockyer Valley	Low impact industry	<ul style="list-style-type: none"> • Jubilee Street Industrial • Helidon William (Railway) Street Industrial • Grantham – Low Impact Industry • Gatton North Side Industrial • Gatton South-East Industrial
	Medium impact industry	<ul style="list-style-type: none"> • Gatton - No Precinct • South-West Industrial • Gatton Eastern Gateway Industrial • Helidon Lawlers Road Industrial • Withcott Precinct
	High impact industry	<ul style="list-style-type: none"> • N/A

LGA	Industrial reporting category	Local government precincts and zones (non-local government zoning)
	Waterfront and Marine industry	<ul style="list-style-type: none"> N/A
	High Technology Industry	<ul style="list-style-type: none"> N/A
	Airports and air bases	<ul style="list-style-type: none"> N/A
	Industry Investigation Area	<ul style="list-style-type: none"> N/A
Logan	Low impact industry	<ul style="list-style-type: none"> No Precinct - Low Impact Industry No Precinct - Mixed Use (except lots listed as high impact below)
	Medium impact industry	<ul style="list-style-type: none"> No Precinct - Medium Impact Industry Greater Flagstone PDA – Industry and Business Yarrabilba PDA – Business and Industry
	High impact industry	<ul style="list-style-type: none"> 122W31722 – Mixed Use 123P174628 – Mixed Use 124SP174628 – Mixed Use 127SP174628 – Mixed Use 2RP46665 – Mixed Use
	Waterfront and Marine industry	<ul style="list-style-type: none"> N/A
	High Technology Industry	<ul style="list-style-type: none"> N/A
	Airports and air bases	<ul style="list-style-type: none"> N/A
	Industry Investigation Area	<ul style="list-style-type: none"> N/A
Moreton Bay	Low impact industry	<ul style="list-style-type: none"> Light industry - Industry Mixed industry and business – Industry Township Industry - Township
	Medium impact industry	<ul style="list-style-type: none"> General industry – Industry Industry Zone (General Industry Precinct_ - The Mill at Moreton Bay)
	High impact industry	<ul style="list-style-type: none"> Restricted industry - Industry
	Waterfront and Marine industry	<ul style="list-style-type: none"> Marine industry - Industry
	High Technology Industry	<ul style="list-style-type: none"> The Mill at Moreton Bay PDA
	Airports and air bases	<ul style="list-style-type: none"> N/A
	Industry Investigation Area	<ul style="list-style-type: none"> Caboolture West – Enterprise and employment – Emerging community
Noosa	Low impact industry	<ul style="list-style-type: none"> No precinct – Shire Business Centre
	Medium impact industry	<ul style="list-style-type: none"> No precinct - Industry
	High impact industry	<ul style="list-style-type: none"> N/A
	Waterfront and Marine industry	<ul style="list-style-type: none"> N/A
	High Technology Industry	<ul style="list-style-type: none"> N/A
	Airports and air bases	<ul style="list-style-type: none"> N/A
	Industry Investigation Area	<ul style="list-style-type: none"> N/A
Redland	Low impact industry	<ul style="list-style-type: none"> No precinct - Low Impact Industry No precinct - Mixed use
	Medium impact industry	<ul style="list-style-type: none"> No precinct – Medium Impact Industry
	High impact industry	<ul style="list-style-type: none"> N/A
	Waterfront and Marine industry	<ul style="list-style-type: none"> No precinct – Waterfront and Marine Industry
	High Technology Industry	<ul style="list-style-type: none"> N/A
	Airports and air bases	<ul style="list-style-type: none"> N/A

LGA	Industrial reporting category	Local government precincts and zones (non-local government zoning)
	Industry Investigation Area	<ul style="list-style-type: none"> N/A
Scenic Rim	Low impact industry	<ul style="list-style-type: none"> Commercial industry precinct – Mixed use
	Medium impact industry	<ul style="list-style-type: none"> Industry Precinct – Industry No precinct – Rural Industry Bromelton SDA - Rural Industry Precinct
	High impact industry	<ul style="list-style-type: none"> Bromelton SDA – Medium-High Impact Industry Precinct Bromelton SDA – Rail Dependent Industry Precinct Bromelton SDA – Special Industry Precinct
	Waterfront and Marine industry	<ul style="list-style-type: none"> N/A
	High Technology Industry	<ul style="list-style-type: none"> N/A
	Airports and air bases	<ul style="list-style-type: none"> N/A
	Industry Investigation Area	<ul style="list-style-type: none"> N/A
Somerset	Low impact industry	<ul style="list-style-type: none"> Industry
	Medium impact industry	<ul style="list-style-type: none"> N/A
	High impact industry	<ul style="list-style-type: none"> High impact industry
	Waterfront and Marine industry	<ul style="list-style-type: none"> N/A
	High Technology Industry	<ul style="list-style-type: none"> N/A
	Airports and air bases	<ul style="list-style-type: none"> N/A
	Industry Investigation Area	<ul style="list-style-type: none"> N/A
Sunshine Coast	Low impact industry	<ul style="list-style-type: none"> No Precinct - Low Impact Industry
	Medium impact industry	<ul style="list-style-type: none"> No Precinct - Medium Impact Industry Caloundra South PDA – Industry and Business
	High impact industry	<ul style="list-style-type: none"> No Precinct - High Impact Industry No Precinct – Medium Impact Industry - Coolool Local Plan Area
	Waterfront and Marine industry	<ul style="list-style-type: none"> No precinct - Waterfront and Marine Industry
	High Technology Industry	<ul style="list-style-type: none"> N/A
	Airports and air bases	<ul style="list-style-type: none"> N/A
	Industry Investigation Area	<ul style="list-style-type: none"> N/A
Toowoomba	Low impact industry	<ul style="list-style-type: none"> No Precinct – Low Impact Industry 47 Wellcamp Low Impact Industry - Low Impact Industry
	Medium impact industry	<ul style="list-style-type: none"> No Precinct - Medium Impact Industry 36 Intermodal Facility - Medium Impact Industry 37 Transport and Warehousing - Medium Impact Industry 38 General Industry - Medium Impact Industry
	High impact industry	<ul style="list-style-type: none"> No precinct – High impact industry 39 Heavy Industry - High Impact Industry 44 Quarry - High Impact Industry
	Waterfront and Marine industry	<ul style="list-style-type: none"> N/A
	High Technology Industry	<ul style="list-style-type: none"> N/A
	Airports and air bases	<ul style="list-style-type: none"> N/A
	Industry Investigation Area	<ul style="list-style-type: none"> N/A

Table D2: Common Layer Names Table (the common layer names are the main sub-headings of the table)

The following explain the actual constraints which the 'common layer names' used by the developability rules represent.

Note: Available polygon constraints are used in the analysis of planned industrial land supply, therefore any identified line constraint information has not been considered.

LGA	Scheme	Layer
Hard Constraint - Flood (Q100) ¹		
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> Flood Hazard Overlay – <ul style="list-style-type: none"> Brisbane River flood planning area 1 Creek/Waterway flood planning area 1
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> Flood Depth - Extremely High Flood Depth – High Note: Based on method suggested by council
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> Adopted Flood Regulation Line 1 in 20 Development Line
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i> <i>TLPI 01/2019</i>	<ul style="list-style-type: none"> Flood Overlay - High
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> Flood Hazard Overlay <ul style="list-style-type: none"> Flooding and inundation area
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> Flood Hazard Overlay <ul style="list-style-type: none"> High risk flood hazard area
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> Flood Overlay <ul style="list-style-type: none"> Flood Hazard Area (1% AEP to year 2100)
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> Flood Prone Area Overlay <ul style="list-style-type: none"> 2016 Storm Tide Inundation Area Note: Scheme notes confirm this relates to Q100
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> Flood Hazard Category Area High
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> Flood Overlay <ul style="list-style-type: none"> Extreme Flood Hazard High Flood Hazard Significant Flood Hazard
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> Flood Hazard Overlay
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> Flood Hazard: <ul style="list-style-type: none"> High Flood Hazard
Hard Constraint – Slope > 25% / Landslide ²		
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> Landslide Overlay – landslide susceptibility area

LGA	Scheme	Layer
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Landslide hazard overlay - very high
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • Difficult Topography Overlay - Slope > 25%
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	<ul style="list-style-type: none"> • Unknown Source: <ul style="list-style-type: none"> – 30-32%, 31.3%-38%, 32%-36%, 36-40%, 38-44%, 44-50%, 50-56.3%, 25-30%, 30-35%, 35-40% and >40%
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • Steep Slope and Landslide Hazard Area Overlay <ul style="list-style-type: none"> – Trigger map
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Landslide hazard area (>15% Slope)
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • Landslide Hazard Area
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Landslide Hazard Overlay <ul style="list-style-type: none"> – Very High Landslide Hazard
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • Steep Slope Overlay: Steep Slope Area <ul style="list-style-type: none"> - >25% Slope ○ Steep Slope Overlay: Landslide Hazard Area • Medium, high and very high
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • N/A
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> • Landslide hazard and steep land overlay <ul style="list-style-type: none"> – Steep Land - Slope >25%
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> • N/A
Hard Constraint - Infrastructure (excl. buffers)		
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Regional Infrastructure Overlay <ul style="list-style-type: none"> – Major electricity infrastructure high voltage powerline easement – Oil Pipeline 15m – Gas Pipeline 20m
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Regional Infrastructure Overlay <ul style="list-style-type: none"> – Major electricity infrastructure (Energex) – Major electricity infrastructure (Powerlink) – Water supply properties – Water storage
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • High Voltage Electricity Transmission Lines • High Pressure Pipelines
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i> <i>TLPI 01/2019</i>	<ul style="list-style-type: none"> • N/A

LGA	Scheme	Layer
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • Regional infrastructure corridors and substations overlay <ul style="list-style-type: none"> – Powerline corridor 40m buffer – Petroleum pipeline corridor – Pipeline water corridor – Trigger map – Greenbank training are – Substation – Wastewater facility
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Infrastructure Buffers <ul style="list-style-type: none"> – Electricity supply substation buffer - 10m – Landfill site – Wastewater treatment site – Property containing bulk water facility
Noosa	<i>Noosa Plan</i>	N/A
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Regional infrastructure corridors and substations overlay <ul style="list-style-type: none"> – Electricity Infrastructure Easement – Wastewater
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • Airport Environs and Defence Land Overlay <ul style="list-style-type: none"> – Defence land – Defence land buffer area • Regional Infrastructure Overlay: Major Electricity, Roads and Rail Infrastructure <ul style="list-style-type: none"> – Electricity substation – Road investigation corridor • Regional Infrastructure Overlay: Water and Wastewater Infrastructure <ul style="list-style-type: none"> – Pump station facility (Bulk Water Supply) – Bulk water facility – Wastewater treatment plant –
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Infrastructure Overlay <ul style="list-style-type: none"> – Gas Pipeline – Sewerage Treatment Plant – Waste Stations
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> • Wastewater treatment plant and buffer
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	– N/A
Hard Constraint – Built Form (Heritage) ³		
State Data	<i>State Mapping</i>	<ul style="list-style-type: none"> • State Heritage Place
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Heritage Overlays
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Heritage Overlay <ul style="list-style-type: none"> – Heritage place – State heritage place

LGA	Scheme	Layer
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • Character Places Overlay
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	<ul style="list-style-type: none"> • Cultural Heritage Places and Precincts OverlayPlaces / Areas of Cultural Heritage Significance
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • Heritage Overlay • – Heritage character grave site
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Heritage Landscape Character
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • Heritage Overlay
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Heritage Overlay
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • Local Heritage Overlay
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Local Heritage Register Overlay
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> – Heritage and character areas overlayState Heritage Place- Local Heritage Place
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> ▪ Heritage Overlay
Hard Constraint – State Environment		
State Data	State Data	<ul style="list-style-type: none"> • Endangered Regional Ecosystems v11 • Category A Regulated Vegetation, version 4.02 • Marine Parks • Fish Habitat A & B • Protected Areas (estates and nature refuges) • High ecological significance wetlands • High conversation value wetlands • Legally secured offset areas • Wildlife habitat endangered and vulnerable • Wildlife habitat species least concern • Koala habitat (core and local refined habitat) within a Koala Priority Area
Hard Constraint – Environmental		
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Biodiversity Area Overlay <ul style="list-style-type: none"> • High ecological significance • High ecological significance strategic
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Environment Significance Overlay <ul style="list-style-type: none"> – Local significance species
Hard Constraint – Waterways / Wetlands (excl. buffers)		
State	<i>QGSO</i>	<ul style="list-style-type: none"> • QGSO waterways and wetlands

LGA	Scheme	Layer
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Waterway Corridor Overlay – Wetlands Overlay
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Environment Significance Overlay – Wetlands and Waterways – Local significant wetlands – Waterways
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • N/A
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	N/A
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • Waterway Corridors and Wetlands Overlay – Waterway corridor trigger – Waterway stream order 1 to 5
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Riparian Wetland Setbacks – W1 Waterway – W2 Waterway – W3 Waterway – 20m, 30m and 50m waterway buffer area • Environmental Areas - Waterways – MLES - Wetlands
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • Biodiversity Overlay – Waterways
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Waterway corridors and wetlands overlay ▪ – Waterway Corridor - MLES and MNES
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • Environmental Significance Overlay: Wetlands and Waterways – High ecological value waters (wetlands) – High ecological significance wetlands – Waterways and wetland buffer area • Environmental Significance Overlay: Local Watercourses Watercourse buffer areas A-C
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Biodiversity Overlay – High Ecological Significance Wetlands • High Ecological Value Waters (wetlands)
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> • Biodiversity, waterways and wetlands overlay – Waterway corridors – Wetlands – Riparian Protection Area – Ramsar Wetlands • Waterbodies
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> • Environmental Significance Overlay – Waterways and Wetlands – Wetlands (Category 2)
Hard Constraint – Location Specific / Enterprise Amenity / Safety Buffers		

LGA	Scheme	Layer
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Airport Environs Overlay <ul style="list-style-type: none"> – Airport Boundary – Public Safety Area – Airport Runway • Airport Runway Centreline
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • N/A
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • Explosive Storage Safeguard, Public Safety Areas and Purga Rifle Range <ul style="list-style-type: none"> – Explosive Storage Safeguard Buffer – Public Safety Area – Purga Rifle Range
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	<ul style="list-style-type: none"> • Good Quality Agricultural Land Overlay
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • Greenbank military training buffer area
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Scenic Amenity
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • Natural Resources Overlay <ul style="list-style-type: none"> – Agricultural Land Conservation Areas
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Airport environs overlay <ul style="list-style-type: none"> – Birkdale Area A • Mt Hardgrave Zone A
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • Agricultural Land Overlay <ul style="list-style-type: none"> – Agricultural land classification – Agricultural land buffer area
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Agricultural land overlay <ul style="list-style-type: none"> – Important Agricultural Area – Agricultural Land Classification (Class A and B) • Air transport overlay <ul style="list-style-type: none"> – Zone A 0-100 metres – Zone A 0-60 metres – Zone A/B 60-300 metres • Scenic amenity overlay
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> • Airport environs overlay <ul style="list-style-type: none"> – Safety Zones – Sunshine Coast Airport – Safety Zones – Caloundra Aerodrome • Scenic amenity overlay
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> • Agricultural Land Overlay • Airport Environs <ul style="list-style-type: none"> – Light Restriction Zone A – Height Restriction Zone (All Structures) – Public Safety – Runway • Scenic Amenity Overlay
Hard Constraint – Local variation		

LGA	Scheme	Layer
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Gold Coast Foreshore seawall line setback 8m • Lot 50SP170649 for future recreation park
Soft Constraint – Overland Flow		
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Flood Overlay • – Overland flow flood planning area
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • N/A
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • Development Constraints Overlay • – Urban Catchment Flow Paths
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i> <i>TLPI 01/2019</i>	<ul style="list-style-type: none"> • N/A
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • N/A
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Flood Overlay • – Overland Flow Path
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • N/A
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> ○ N/A
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> ○ N/A
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> ○ N/A
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	N/A
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	– N/A
Soft Constraint – Slope 15-25% ⁴		
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • N/A
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Landslide hazard overlay <ul style="list-style-type: none"> – high – moderate
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • Difficult Topography Overlay <ul style="list-style-type: none"> ○ 15% to 20% – 20% to 25%
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	<ul style="list-style-type: none"> • Slope <ul style="list-style-type: none"> – – 15-20%, 15-20% and 20-25%
Logan	<i>Logan Planning Scheme 2015</i>	– N/A
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • N/A

LGA	Scheme	Layer
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • N/A
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Landslide Hazard Overlay <ul style="list-style-type: none"> – High Landslide Hazard – Medium Landslide Hazard
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • Steep Slope Overlay: Steep Slope Area <ul style="list-style-type: none"> – 15.1% to 20% – 20.1% to 25%
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Landslide Hazard Overlay • Slope is equal to or greater than 15%
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> • Landslide hazard and steep land overlay <ul style="list-style-type: none"> – Steep Land - Slope 15-20% – Steep Land - Slope 20-25%
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> – Landslide Hazard
Soft Constraint – Environment (High value) ⁵		
State	<i>State mapping</i>	<ul style="list-style-type: none"> – Koala Habitat (core and locally refined) outside a Koala Priority Area
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> – N/A
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Environment Significance Overlay <ul style="list-style-type: none"> – MLES –priority species, vegetation management – MSES – vegetation management, priority species – Regulated vegetation – Biodiversity (not high value)
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • N/A
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	<ul style="list-style-type: none"> • Biodiversity Overlay <ul style="list-style-type: none"> – Significant Habitat Areas • Areas of Natural and Environmental Significance Overlay <ul style="list-style-type: none"> – High Ecological Significance – Very High Ecological Significance
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • Biodiversity Areas Overlay <ul style="list-style-type: none"> – Koala corridor – Environmental management and conservation area – Locally significant vegetation – Locally significant vine forest area – Locally significant Gossia gonoclada area • Locally significant Malaleuca
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • N/A
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • Biodiversity Overlay <ul style="list-style-type: none"> – Environmental Protection – Environmental Enhancement
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Environmental Significance Overlay <ul style="list-style-type: none"> – MSES

LGA	Scheme	Layer
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • Environmental Significance Overlay <ul style="list-style-type: none"> – MSES protected areas – MSES regulated vegetation – MSES state significance species • MLES core corridors, node corridors, stepping stones and critical linkages
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Biodiversity Overlay <ul style="list-style-type: none"> – Protected Area – Wildlife Habitat – Regulated Vegetation • Legally Secured Offset Areas
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> • Biodiversity, waterways and wetlands overlay <ul style="list-style-type: none"> – High value bushland habitat (Koala habitat value)
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> – N/A
Soft Constraint – Environment (Low-Medium Value)		
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Biodiversity Areas Overlay <ul style="list-style-type: none"> – Koala habitat area – General ecological significance
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • Environment Significance Overlay <ul style="list-style-type: none"> – MLES – Hinterland to coast critical corridors category B and C vegetation – MLES – General priority vegetation – MLES – Medium priority vegetation
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> – N/A
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	<ul style="list-style-type: none"> • Areas of Natural and Environmental Significance Overlay <ul style="list-style-type: none"> • – Moderate Ecological Significance
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • Biodiversity Areas Overlay <ul style="list-style-type: none"> – Matters of Local Significance – Vegetation management areas – Biodiversity corridor
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Environmental Areas <ul style="list-style-type: none"> – Offset receiving areas • MLES - Matters of Local Environmental Significance
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • Biodiversity Overlay <ul style="list-style-type: none"> – Koala Conservation Area – Koala Habitat Koala Habitat Regrowth – Riparian Buffer Areas
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Environmental Significance Overlay <ul style="list-style-type: none"> • – MLES
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • Environmental Significance Overlay • Vegetation management area

LGA	Scheme	Layer
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Biodiversity Overlay <ul style="list-style-type: none"> – Bushland Koala Habitat – Primary Habitat Areas • Bushland Koala Habitat – Secondary Habitat Areas
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> • Biodiversity, waterways and wetlands overlay <ul style="list-style-type: none"> – Native vegetation area
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> • Environmental Significance Overlay <ul style="list-style-type: none"> – Biodiversity Corridors • Areas of Ecological Significance
Soft Constraint – Coastal Hazard: Erosion Prone Area		
State	<i>State mapping</i>	<ul style="list-style-type: none"> • Erosion Prone Area – coastal management district (16/11/2016), used for: <ul style="list-style-type: none"> – Gold Coast – Ipswich • Logan
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Coastal Hazard Overlay <ul style="list-style-type: none"> – Erosion prone area – coastal erosion Erosion prone area – permanent inundation due to sea level rise at 2100
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • N/A
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • N/A
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	<ul style="list-style-type: none"> • N/A
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • Waterway corridors and wetlands trigger <ul style="list-style-type: none"> - Erosion Prone Area Trigger
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	Coastal Hazard Overlay (Erosion Prone Area)
Noosa	<i>Noosa Plan LGIP/DMaTT</i>	<ul style="list-style-type: none"> • Natural Hazards and Natural Resources Overlay <ul style="list-style-type: none"> – Coastal Protection Area
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • Coastal Protection (Erosion prone areas) Overlay
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • N/A
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • N/A
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	Coastal Protection Area Overlay
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> • N/A
Soft Constraint – Coastal Hazard: High Storm Tide		

LGA	Scheme	Layer
State	<i>State mapping</i>	<ul style="list-style-type: none"> • High storm tide hazard (08/07/2015), used for: <ul style="list-style-type: none"> – Gold Coast – Ipswich – Logan – Noosa – Redland – Sunshine Coast
Brisbane	<i>Brisbane City Plan 2014</i>	<ul style="list-style-type: none"> • Coastal Hazard Overlay • – High Storm Tide Inundation Area
Gold Coast	<i>Gold Coast City Plan 2016</i>	<ul style="list-style-type: none"> • N/A
Ipswich	<i>Ipswich Planning Scheme 2006</i>	<ul style="list-style-type: none"> • N/A
Lockyer Valley	<i>Gatton Shire Planning Scheme 2007</i> <i>Laidley Shire Planning Scheme 2003</i>	<ul style="list-style-type: none"> • N/A
Logan	<i>Logan Planning Scheme 2015</i>	<ul style="list-style-type: none"> • N/A
Moreton Bay	<i>Moreton Bay Planning Scheme 2016</i>	<ul style="list-style-type: none"> • Coastal Hazard Overlay (Storm Tide) • – High Risk Storm Tide Inundation Area
Noosa	<i>Noosa Plan</i>	<ul style="list-style-type: none"> • N/A
Redland	<i>Redland City Plan 2018</i>	<ul style="list-style-type: none"> • N/A
Scenic Rim	<i>Scenic Rim Planning Scheme 2020</i>	<ul style="list-style-type: none"> • N/A
Somerset	<i>Somerset Region Planning Scheme 2016</i>	<ul style="list-style-type: none"> • N/A
Sunshine Coast	<i>Sunshine Coast Planning Scheme 2014</i>	<ul style="list-style-type: none"> • N/A
Toowoomba	<i>Toowoomba Regional Planning Scheme</i>	<ul style="list-style-type: none"> • N/A

Notes (the following notes are drawn from the 2019 RPS report to provide more detailed explanation of the use of constraints):

1. Q100 has been selected as a benchmark flood layer owing to its prominence and accepted use amongst the industry. However:
 - Where a single flood layer exists in a planning scheme and there is no confirmation as to its relationship to Q100, it is not used as a hard constraint (it will be covered as a soft constraint); and
 - Where multiple flood layers exist in a planning scheme and there is no confirmation as to their relationship to Q100, only those labelled high or above are used as a hard constraint
 - This methodology has been adopted on the basis that Q100 is the most widely used and recognised flood constraint. Whilst both higher (e.g. post climate change) and lower (more frequent) flood immunities are often mapped or otherwise recognised, Q100 represents a reasonable balance: e.g. whilst post climate change flood levels may be required for new development, there are also a variety of circumstances where land subject to more frequent flooding may be developed via appropriate mitigation methods.

- Where required, a review of Council's flood overlay code or administrative sections was undertaken to confirm whether a flood category applied to Q100 or the like.
2. To be considered a hard constraint slope must exceed a grade of 25%. Where a slope layer overlaps each of these % categories - for example a layer including land with a slope of greater than 15% or between 20 – 30%, the layer has been treated as a soft constraint. If a slope category is described as high, medium or low (i.e. no % allocated), only the high category is included as a hard constraint. Where a Council has a Landslide overlay but not a slope overlay (e.g. Gold Coast) this is considered a hard constraint, due to the greater risk associated with landslide than slope. Moreton Bay's landslide layer was not however treated as hard, as it actually just maps slope >15%.
 3. The Heritage hard constraint includes:
 - a. The Queensland Heritage Register mapping
 - b. Council mapping which relates to the curtilage of the heritage matter, not the cadastral boundary of the land containing the heritage matter.

Where higher order approvals or more feature specific mapping is not available, RPS proposed adoption of heritage as a soft constraint. For industry, this constraint was assessed as 0% owing to the typically small extent of the heritage feature/s compared to the large land holdings used for industrial land supply.

To reflect the reduced scope for development in association with heritage places on small sites, such places are proposed to be treated as a hard constraint in respect of their curtilage, or on sites less than 1,200 m² where the curtilage of the heritage matter is not defined. Outside those circumstances, heritage is a soft constraint on the balance of the property.

4. The slope 15-25% layers include:
 - a. Slope layers of between a 15-25% grade
 - b. If the layer is nominated as low, medium and high, then only the low and medium layers have been included
 - c. If no % differentiation is provided and the council has no other information available, then the layer has been included as a soft constraint.
5. A High Value soft constraint is required to have strong planning scheme provisions which do not readily permit flexible arrangements for clearing. To be included in this category the relevant code provisions generally include a Performance Outcome not permitting clearing.

Gold Coast Local Variation - for new development in the beachfront precinct where protected by a seawall. In this area the only constraint excluded will be the 8m setback zone.

Appendix E: Urban Economics Realistic Availability of Planned Industrial Employment Supply

Tables E2 and E3 below are extracts from the Urban Economics report. Table E1 derives employment potential by timeframe utilising the percentages from Table E3, land area to employment conversion factors adopted by the Urban Economics report and the updated and refined planned industrial land supply developable areas within selected MEIAs.

Table E1: Estimated employment potential by likely availability timeframe, selected MEIAs

LGA	MEIA	Employment Potential (persons)		
		0-22 years (2019-41)		22+ years (2041+)
Brisbane	Lytton (M4)	3,282		0
	Murarie/Colmslie (M5)	1,613		0
	Pinkenba/Bulwer Island (M7)	1,774		444
	Archerfield (M9)	145		97
	Richlands (M17)	1,954		0
	Wacol (M21)	2,005		0
Gold Coast	Yatala-Stapylton (M24)	4,512		8,379
Ipswich	Bundamba / Riverview (M11)	660		5,944
	New Chum (M15)	192		3,639
	Redbank (M16)	3,091		0
	Swanbank (M20)	2,911		16,496
	Wulkaraka/Karrabin (M28)	325		2,927
	Ebenezer (M29)	0		68,306
Lockyer Valley	Gatton North (M34)	124		2,356
Logan	Crestmead/Berrinba (M33)	1,655		0
	Park Ridge (M40)	70		1,329
Moreton Bay	Brendale (M23)	3,620		2,414
	Narangba (M25)	2,531		0
	Morayfield (M31)	1,573		6,294
	Elimbah East (M35)	1,866		7,464
Scenic Rim	Bromelton SDA (M38)	15,647		23,470
Sunshine Coast	Caloundra (M32)	2,460		237
	Coolum (M36)	89		133
Toowoomba	Toowoomba Enterprise Hub (Charlton / Wellcamp) (M26)	2,696		24,264

Table E2: Development constraint assessment

LGA	MEIA	Key Enabling Infrastructure	Competitive Advantage	Shovel Readiness	Sum Score
Brisbane	Lytton (M4)	1	1	1	3
	Murarie/Colmslie (M5)	1	1	1	3
	Pinkenba/Bulwer Island (M7)	1	1	2	4
	Archerfield (M9)	1	1	1	3

LGA	MEIA	Key Enabling Infrastructure	Competitive Advantage	Shovel Readiness	Sum Score
	Richlands (M17)	1	1	1	3
	Wacol (M21)	1	1	1	3
Gold Coast	Yatala-Stapylton (M24)	1	1	2	4
Ipswich	Bundamba / Riverview (M11)	2	2	2	6
	New Chum (M15)	2	3	3	8
	Redbank (M16)	1	1	1	3
	Swanbank (M20)	2	2	2	6
	Wulkaraka/Karrabin (M28)	3	3	1	7
	Ebenezer (M29)	3	3	2	8
Lockyer Valley	Gatton North (M34)	2	2	2	6
Logan	Crestmead/Berrinba (M33)	2	1	1	4
	Park Ridge (M40)	3	2	2	7
Moreton Bay	Brendale (M23)	1	1	1	3
	Narangba (M25)	2	2	1	5
	Morayfield (M31)	2	2	2	6
	Elimbah East (M35)	2	2	2	6
Scenic Rim	Bromelton SDA (M38)	2	1	2	5
Sunshine Coast	Caloundra (M32)	1	1	1	3
	Coolum (M36)	2	1	1	4
Toowoomba	Toowoomba Enterprise Hub (Charlton / Wellcamp) (M26)	1	1	1	3

Table E3: Developable land by period

LGA	MEIA	0-5 years (%)	5-22 years (%)	22+ years (%)
Brisbane	Lytton (M4)	25	75	0
	Murarie/Colmslie (M5)	40	60	0
	Pinkenba/Bulwer Island (M7)	20	60	20
	Archerfield (M9)	20	40	40
	Richlands (M17)	25	75	0
	Wacol (M21)	25	75	0
Gold Coast	Yatala-Stapylton (M24)	5	30	65
Ipswich	Bundamba / Riverview (M11)	2	8	90
	New Chum (M15)	0	5	95
	Redbank (M16)	20	80	0
	Swanbank (M20)	2	13	85
	Wulkaraka/Karrabin (M28)	0	10	90
	Ebenezer (M29)	0	0	100
Lockyer Valley	Gatton North (M34)	0	5	95
Logan	Crestmead/Berrinba (M33)	60	40	0
	Park Ridge (M40)	0	5	95
Moreton Bay	Brendale (M23)	10	50	40
	Narangba (M25)	20	80	0
	Morayfield (M31)	0	20	80
	Elimbah East (M35)	0	20	80

LGA	MEIA	0-5 years (%)	5-22 years (%)	22+ years (%)
Scenic Rim	Bromelton SDA (M38)	10	30	60
Sunshine Coast	Caloundra (M32)	20	70	10
	Coolum (M36)	10	30	60
Toowoomba	Toowoomba Enterprise Hub (Charlton / Wellcamp) (M26)	2	8	90

Appendix F: Current Intent to Service layer creation and integration with realistic availability calculations

The Current Intent to Service layer creation is summarised below with further detail provided in the 'best practice' ability to service research section of the 2019 LSDM Report. The Current Intent to Service layer is used to refine realistic availability calculations as detailed in the integration with realistic availability calculations section of the 'best practice' ability to service research and in the planned dwelling supply technical notes.

A range of indicators were identified in the Ability to Service best practice research in 2018 and applied in the 2019 LSDM Report utilising boundary, zoning and statutory approval type indicators only. The layers that make up the current intent to service layer are identified below and have been updated, where data was available, to 30 June 2020 to inform the 2020 LSDM Report. Other indicators relate to proximity and capacity were not readily available for incorporation into the 2020 LSDM Report.

The Current Intent to Service layer is made up of the following six indicators:

- priority infrastructure area,
- existing and future sewerage connection area,
- priority development area,
- infrastructure agreements,
- preliminary approvals, and
- development permits.

The ability to service subprogram continues to progress data collection and preparation to explore the use of other indicators in future years.

Data Collection and preparation

Table F1 below provides a summary of the information collected and processed by DSDILGP. The notes section of the Table illustrates the variance among datasets and future work to be undertaken to update and expand these indicator data inputs. Changes are constantly occurring to all datasets, some more frequently than others. However, for this year's LSDM, DSDILGP was able to prepare and combine the data included in Table F1 to create the Current Intent to Service layer. Where possible, complete datasets have been built for this year's report and to be able to build upon these complete datasets for future LSDM reporting enhancements. For example, a pilot project was undertaken (see Ability to Service (consolidation) best practice research) to explore the development of an Ability to Service layer for consolidation areas.

Table F1: Indicator Datasets used for Current Intent to Service layer creation for each local government area

Local Government Area	Priority Infrastructure Area	Development Permit	Preliminary Approval	Infrastructure Agreement	Existing & Future Sewerage	Priority Development Area
Brisbane	☑	☑	☑~	☑	☑	☑
Gold Coast	☑	☑	☑	☑	☑	☑
Ipswich	☑	☑	☑”	☑	☑	☑
Lockyer Valley	☑	☑	☑	☑#	☑	n/a
Logan	☑	☑	☑		☑	☑
Moreton Bay	☑	☑	☑	☑	☑	☑
Noosa	☑	☑	>	☑	☑	n/a
Redland	☑*	☑		☑	☑	☑
Scenic Rim	☑	☑	=	+	☑	n/a
Somerset	☑	☑	-	☑	☑	n/a
Sunshine Coast	☑!	☑	☑	☑	☑	☑
Toowoomba	☑	☑	☑	☑	☑	☑

Notes: Refer to ability to service technical notes for a detailed description of each dataset’s inclusion and exclusion rationale, data availability and processing undertaken. ~Outside PIA only; *PIA in parts covers large areas not included with sewerage connection areas (existing and future) #Infrastructure agreements that relate to preliminary approvals; +No Infrastructure agreements not connected to DAs and none issued between July 2018 to June 2020; -Only one non-residential preliminary approval issued in past 5 years; ”From 2014-2019; = No Preliminary Approvals Issued between July 2018 to June 2019. > no residential preliminary approvals extracted from the development approvals dataset supplied by Council and processed by Unitywater. Based on additional infrastructure investigations for sites outside the PIA but within the planning scheme’s Urban Growth Management Boundary, an additional 1,240 dwellings have been included within the Current Intent to Service Layer.

Further detailed explanation on creation of the Current Intent to Service layer including, data collection, preparation and processing is provided in the Best Practice section of the 2019 LSDM.

Appendix G: Adjustment to average annual dwelling supply benchmarks

The average annual benchmarks are used to measure years of Planned dwelling supply, and to provide a corresponding comparison for the Dwelling growth measure. In accordance with *ShapingSEQ 2017* (see page 173), years of supply are intended to be measured by the average annual expected demand over the next 15 years, based on the small area growth assumptions (SAGA). The SAGA are meant to align with each new round of state government projections, commencing with the 2018 edition (see page 163 of *ShapingSEQ 2017*). In the absence of the SAGA, for the 2019 LSDM Report the 2016-2031 growth figures of *ShapingSEQ 2017* were adjusted to align with the overall SEQ rate of dwelling growth 2016-2031 of the new 2018 edition projections (released in early 2019). This calculation has been retained for the 2020 LSDM Report.

The actual revised calculation of the average annual benchmarks is: (A divided 15 years) multiplied by (B divided by C), where:

A = Expected annual dwelling growth 2016-2031 – from Figure 7 in *ShapingSEQ 2017* (for the relevant consolidation/expansion area by LGA)

B = The 2018 projected total dwelling growth 2016-2031 for SEQ = 479,683

C = The expected total dwelling growth 2016-2031 for SEQ (from Figure 7 in *ShapingSEQ 2017*) = 452,900

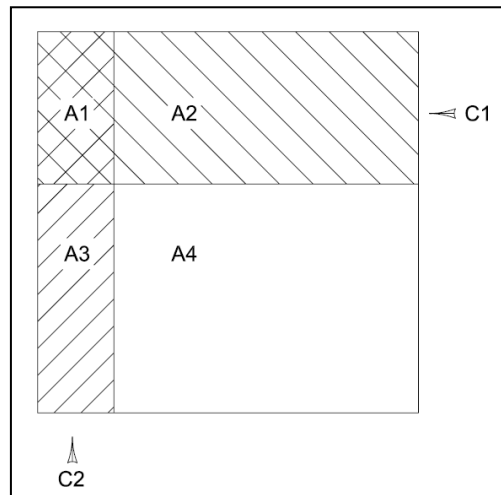


Appendix H: Calculation of developable area where soft constraints overlap (drawn from RPS report)

There are many situations where multiple soft constraints impact the same portions of land. For example, vegetated areas on steep slopes or coastal hazard areas. Typically, the presence of multiple constraints will reduce the likelihood of development. The following explains the methodology adopted for the RPS report to determine developable land where this occurs.

In the below example, we have a portion of land, with an area of 10,000m². It is impacted by two constraints, C1, allowing 50% of land to be developed; and C2, allowing 25% of land to be developed (i.e. 75% constrained). The portion of land has four distinct areas, as shown on the diagram below:

- A1 – constrained by both C1 and C2
- A2 – constrained by only C1
- A3 – constrained by only C2
- A4 – no constraints



The calculation of the developable area in this case is as follows:

Land portion	Area	Constraints	Multiplier	Calculated Developable Land
A1	800m ²	C1 + C2	50% x 25%	100m ²
A2	3200m ²	C1	50%	1600m ²
A3	1200m ²	C2	25%	300m ²
A4	4800m ²	Nil	-	4800m ²
			Total Developable Land	6,800m²

Where the multiplier effect results in an area less than 12.5% remaining available for development then this area was considered fully constrained and 100% removed as a hard constraint. Where the result is 12.5% or greater this was still treated as developable and included in the land supply calculations.

Selected land supply and development mapping

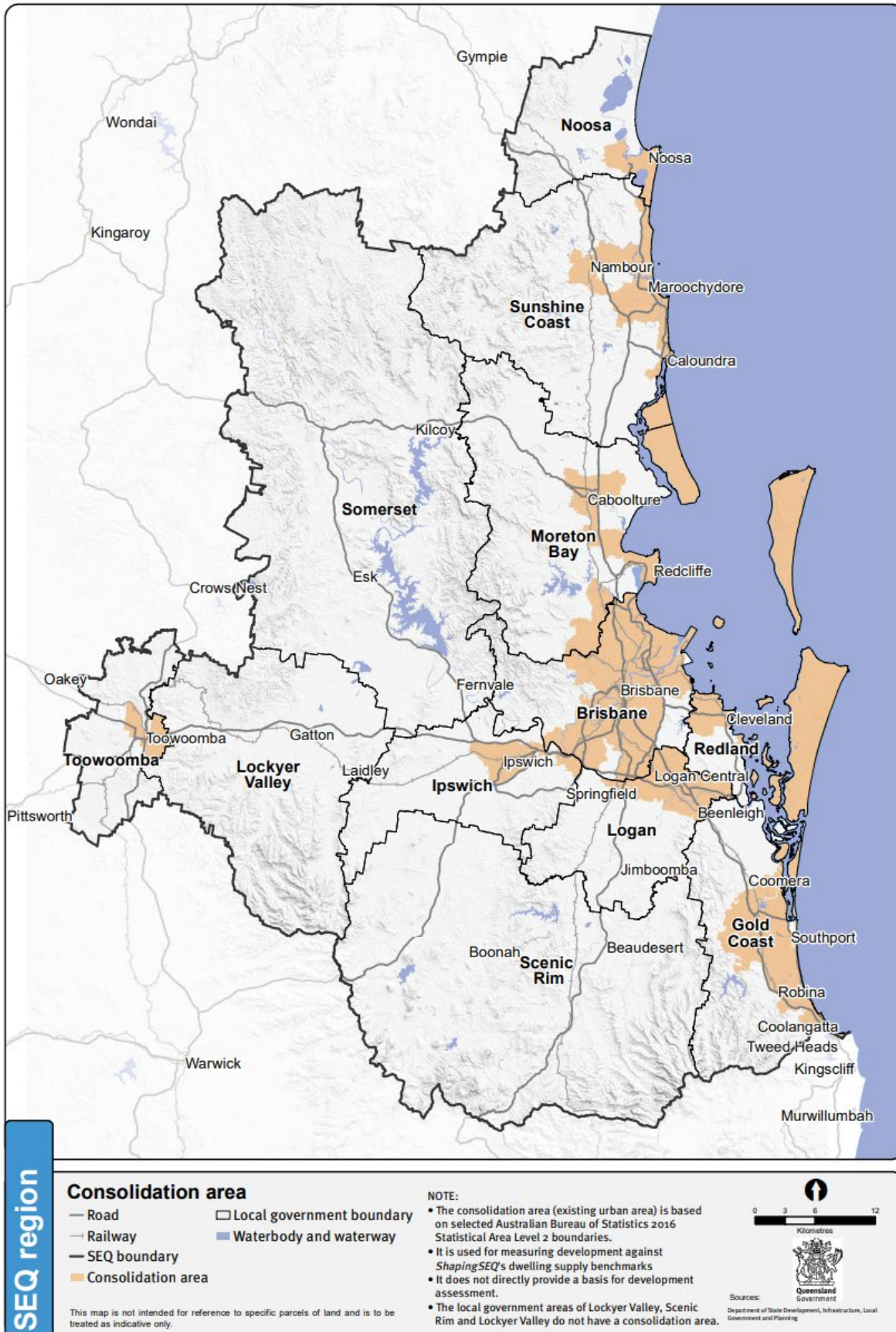
Introduction

This section provides access to all the mapping products produced in support of the report. These maps have been developed to display and help visually explain a number of reporting outputs and concepts including; dwelling growth, planned dwelling supply, planned industrial land supply, housing type, the existing urban area, broadhectare land and the Urban Footprint.

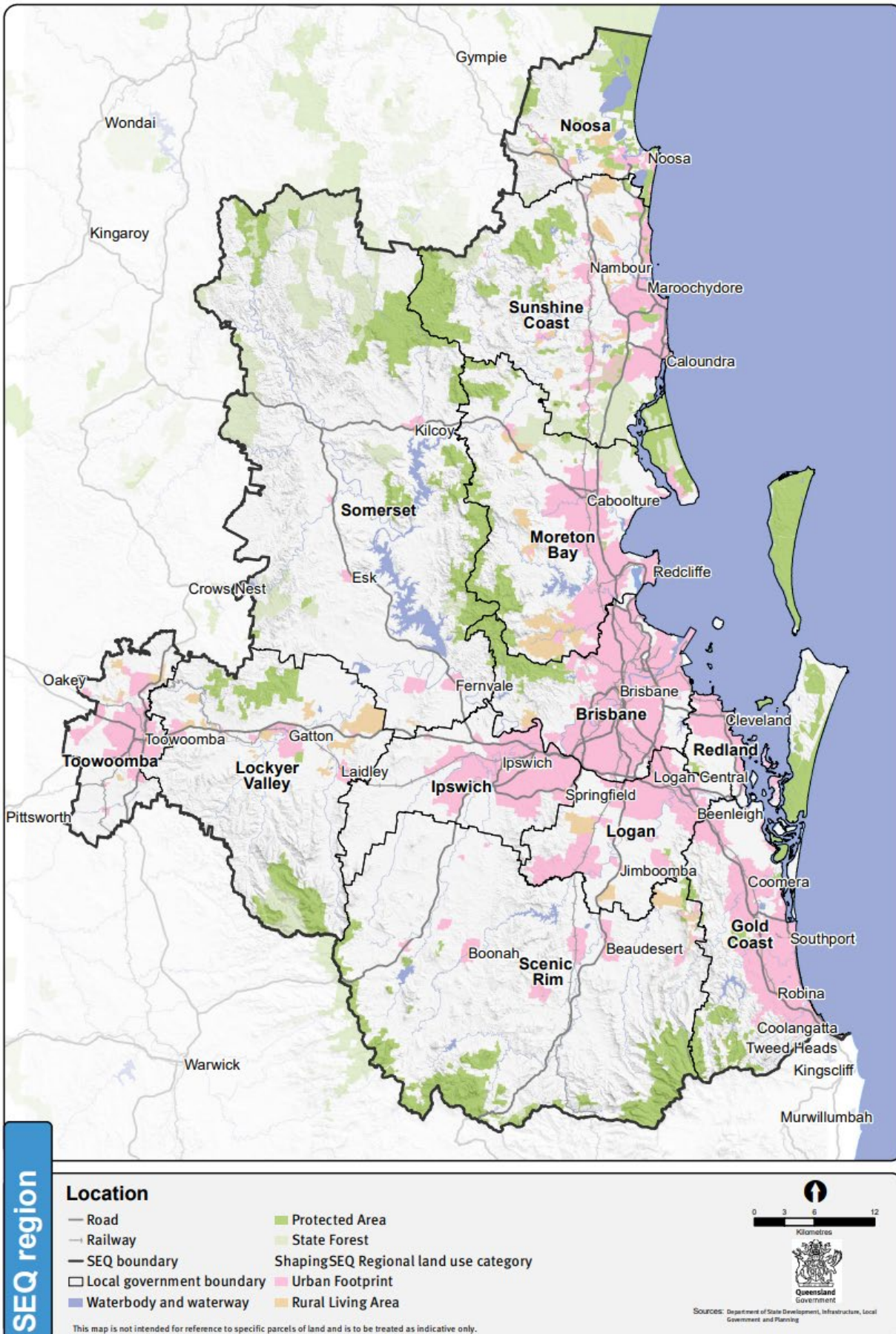
These maps, listed below, are also available by clicking on the more information button in relevant sections of the report.

General

Consolidation Area (SEQ)



SEQ Regional land use categories



SEQ region

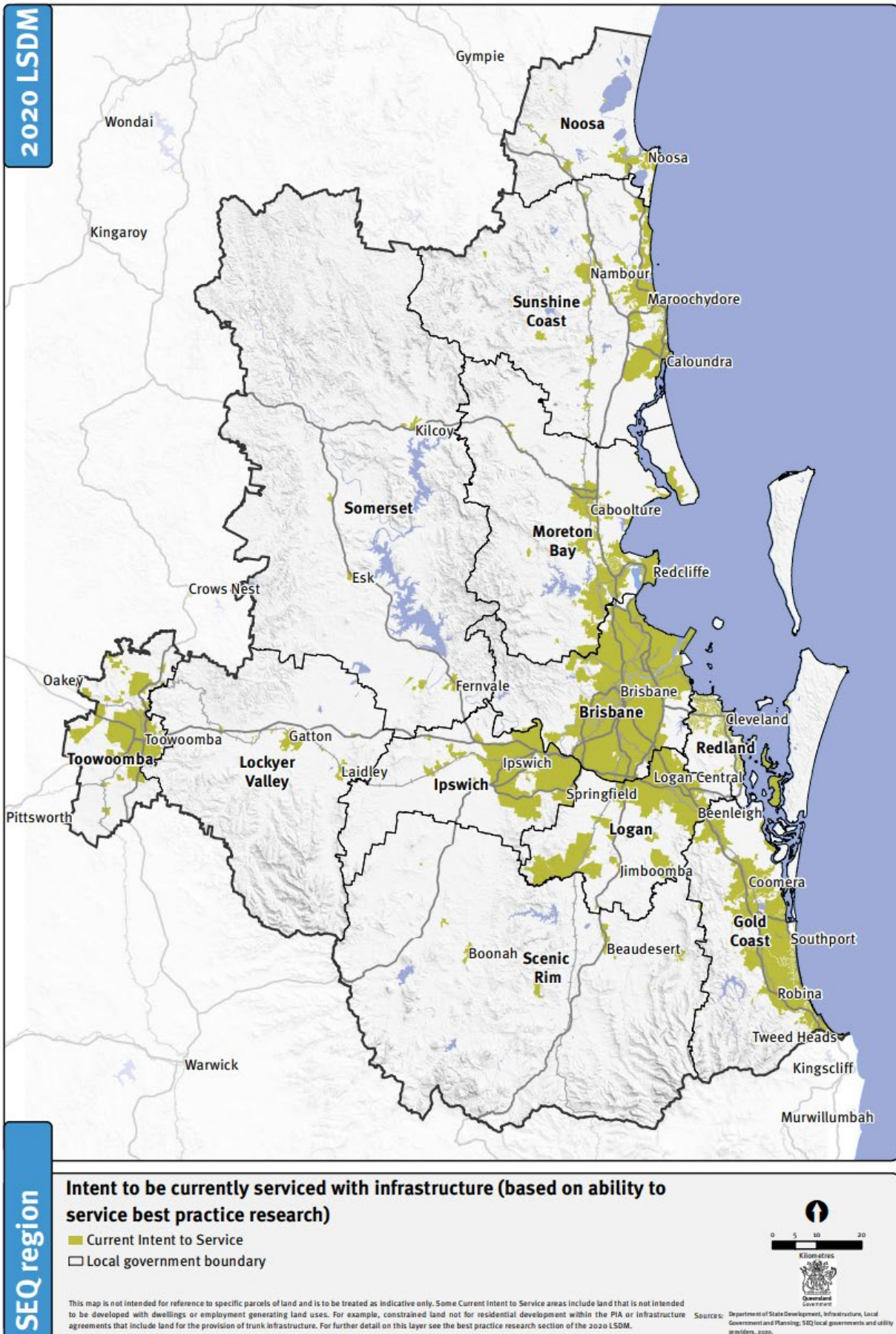
- Location**
- Road
 - Railway
 - SEQ boundary
 - Local government boundary
 - Waterbody and waterway
 - Protected Area
 - State Forest
 - ShapingSEQ Regional land use category
 - Urban Footprint
 - Rural Living Area

This map is not intended for reference to specific parcels of land and is to be treated as indicative only.

0 3 6 12
Kilometres

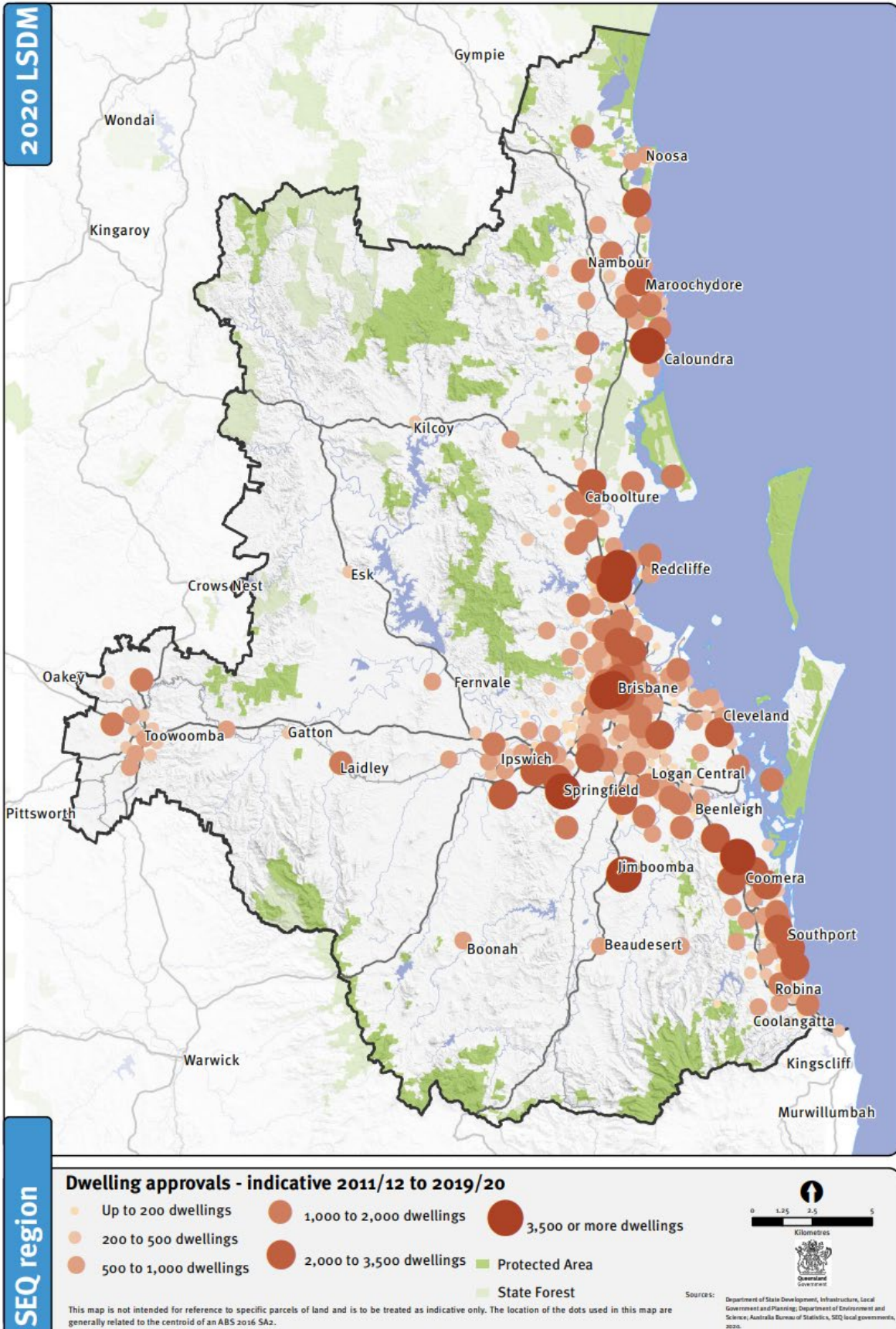
Sources: Department of State Development, Infrastructure, Local Government and Planning

Current intent to be serviced (SEQ)

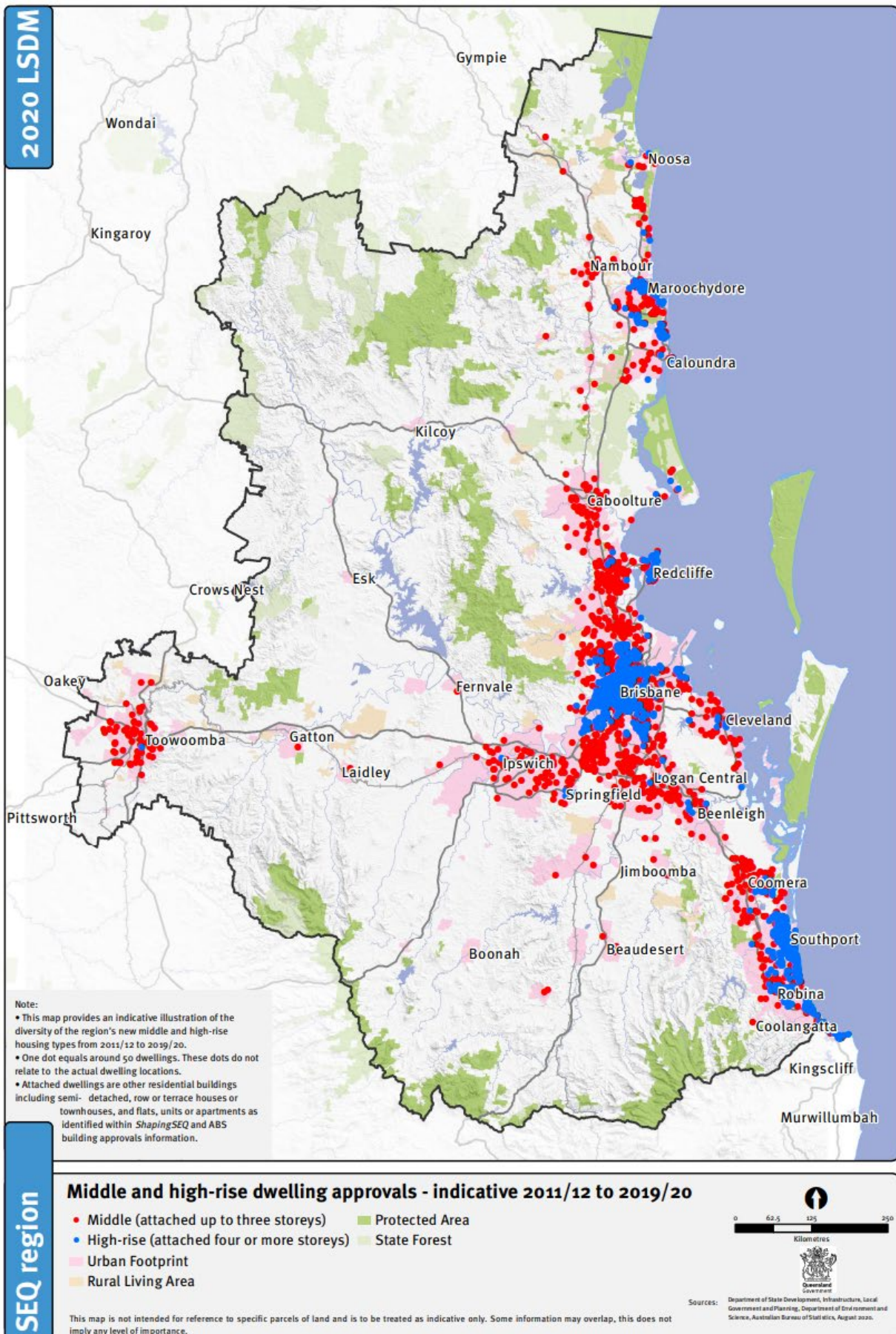


SEQ

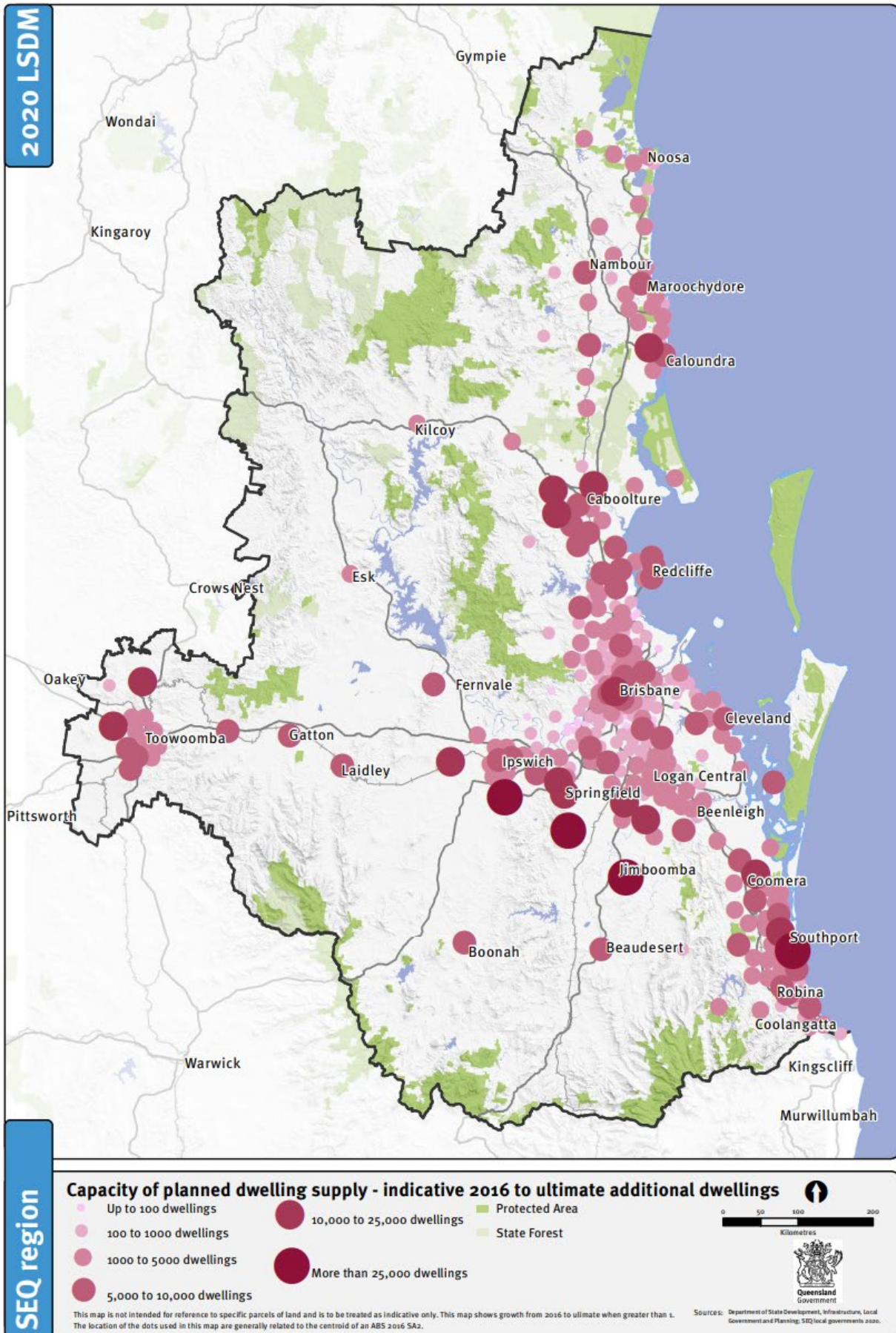
SEQ - Dwelling approvals



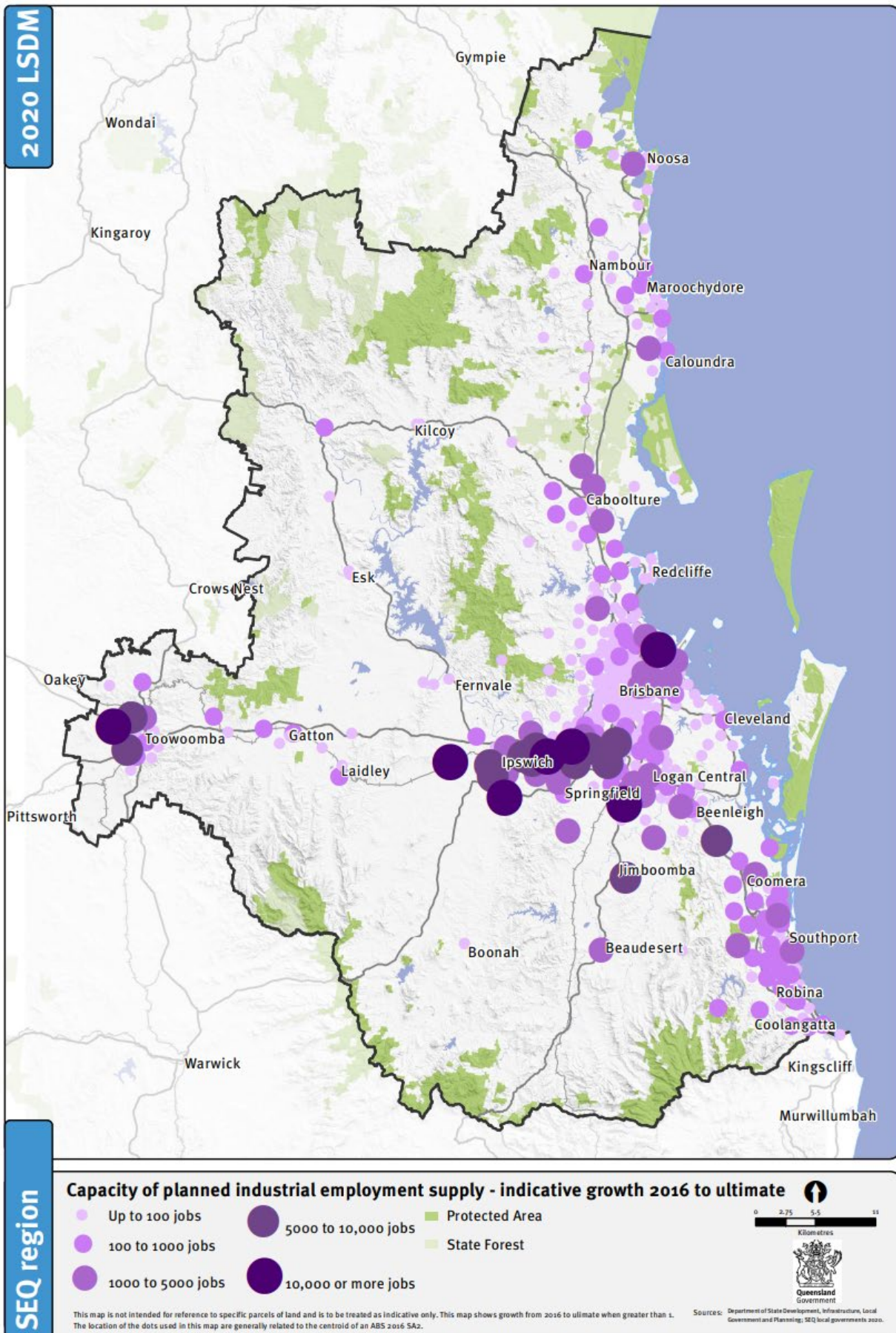
SEQ - Housing type



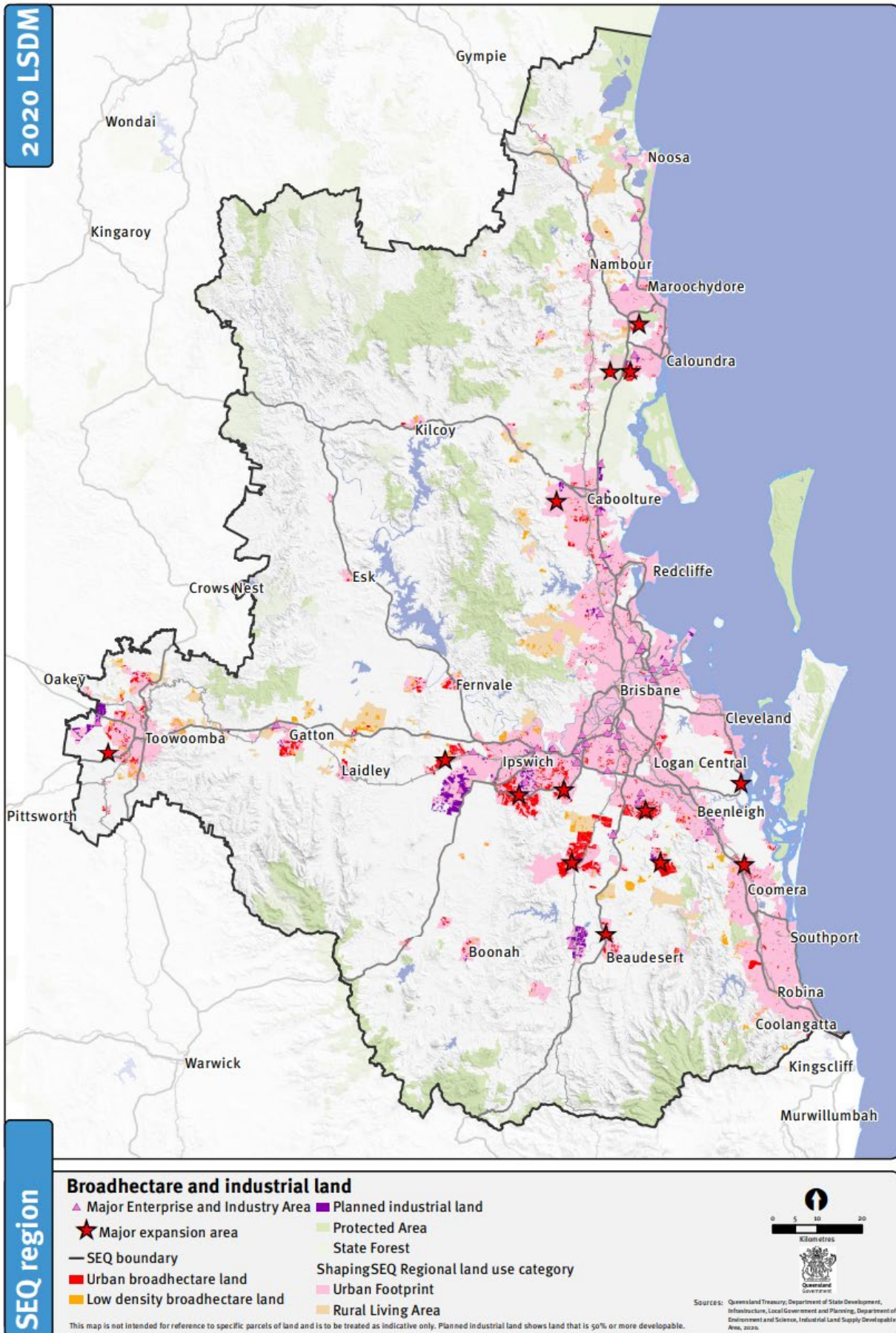
SEQ - Planned dwelling supply



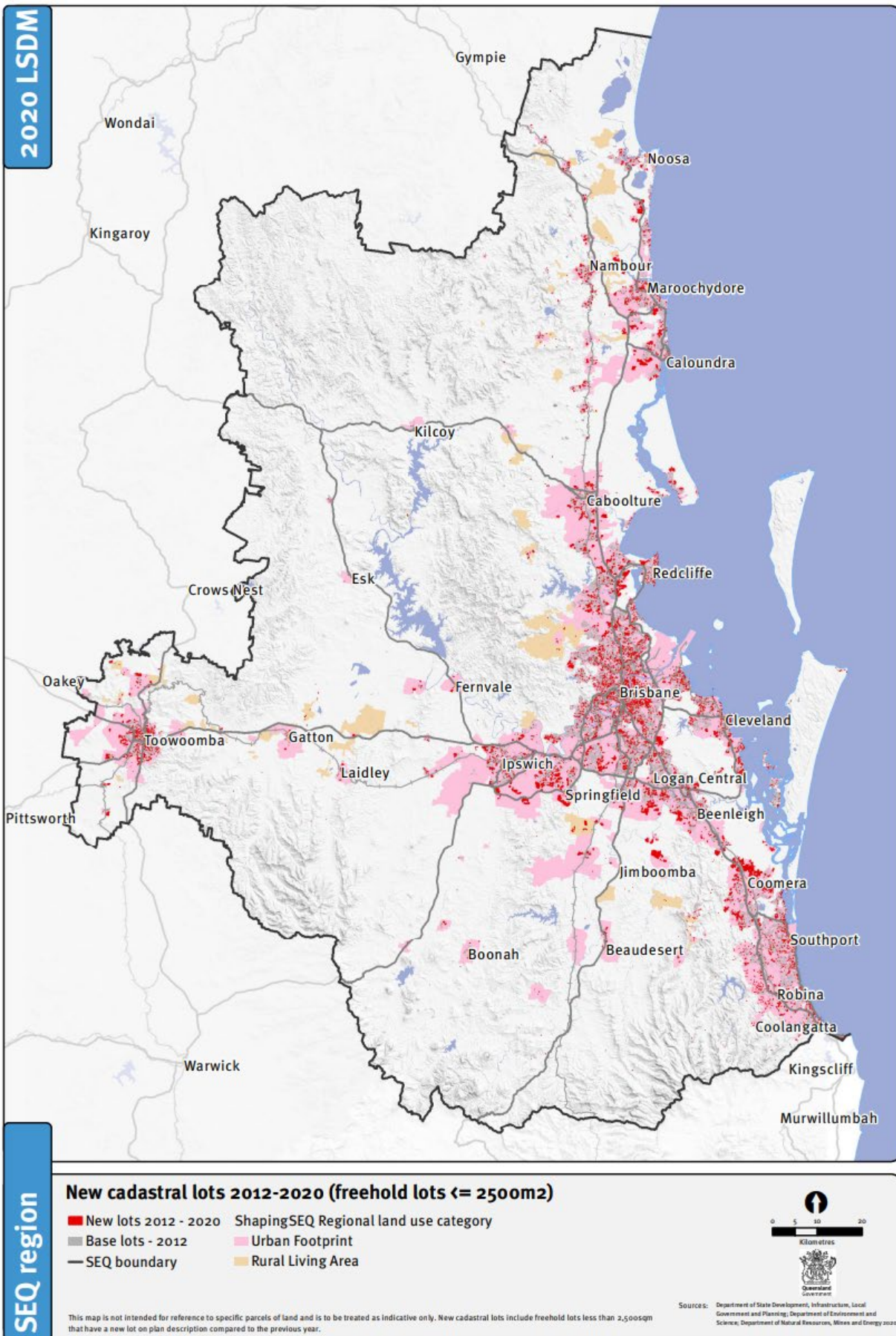
SEQ - Planned industrial employment supply



SEQ - Broadhectare and industrial lands



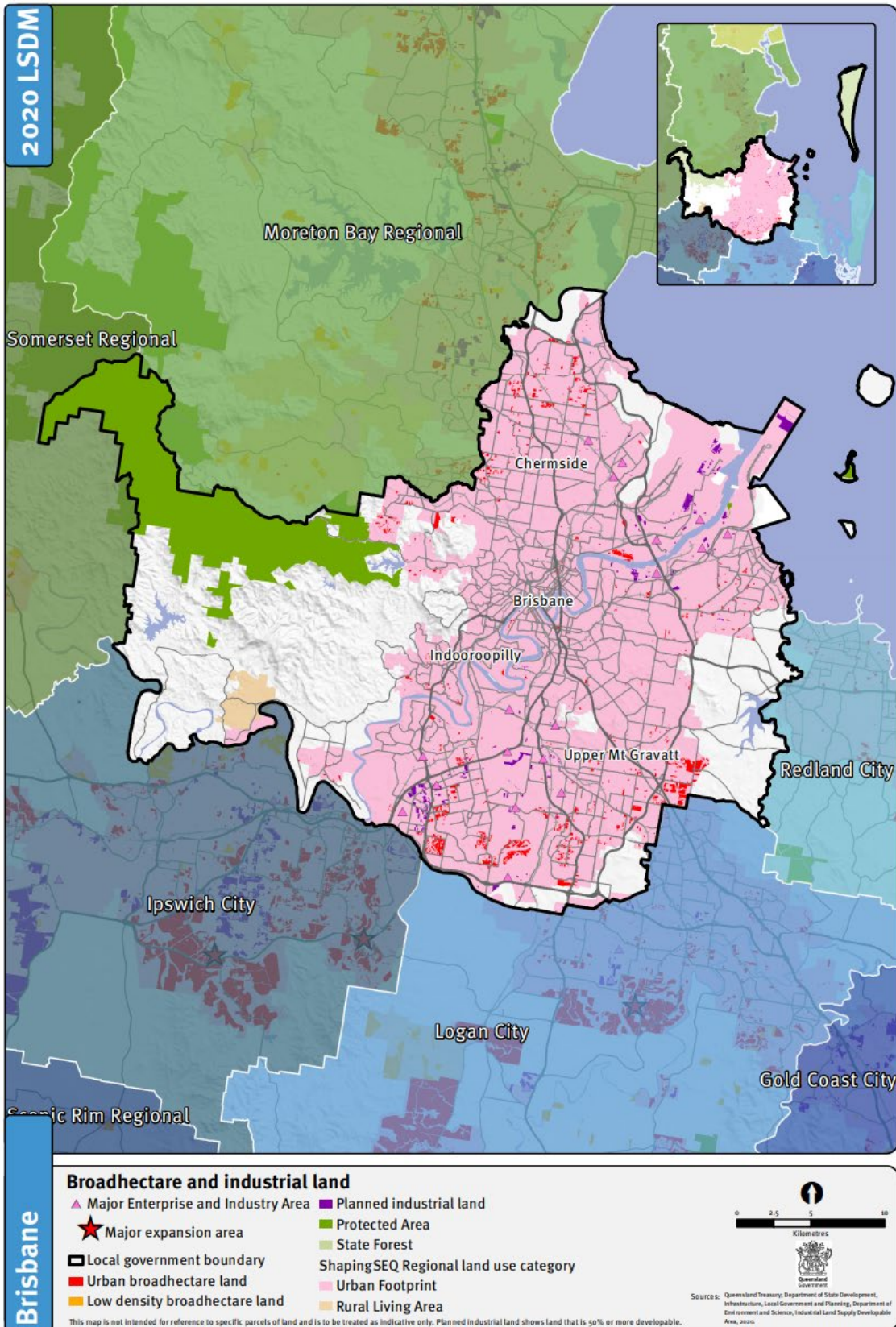
SEQ - New cadastral lots (freehold <= 2500m²)



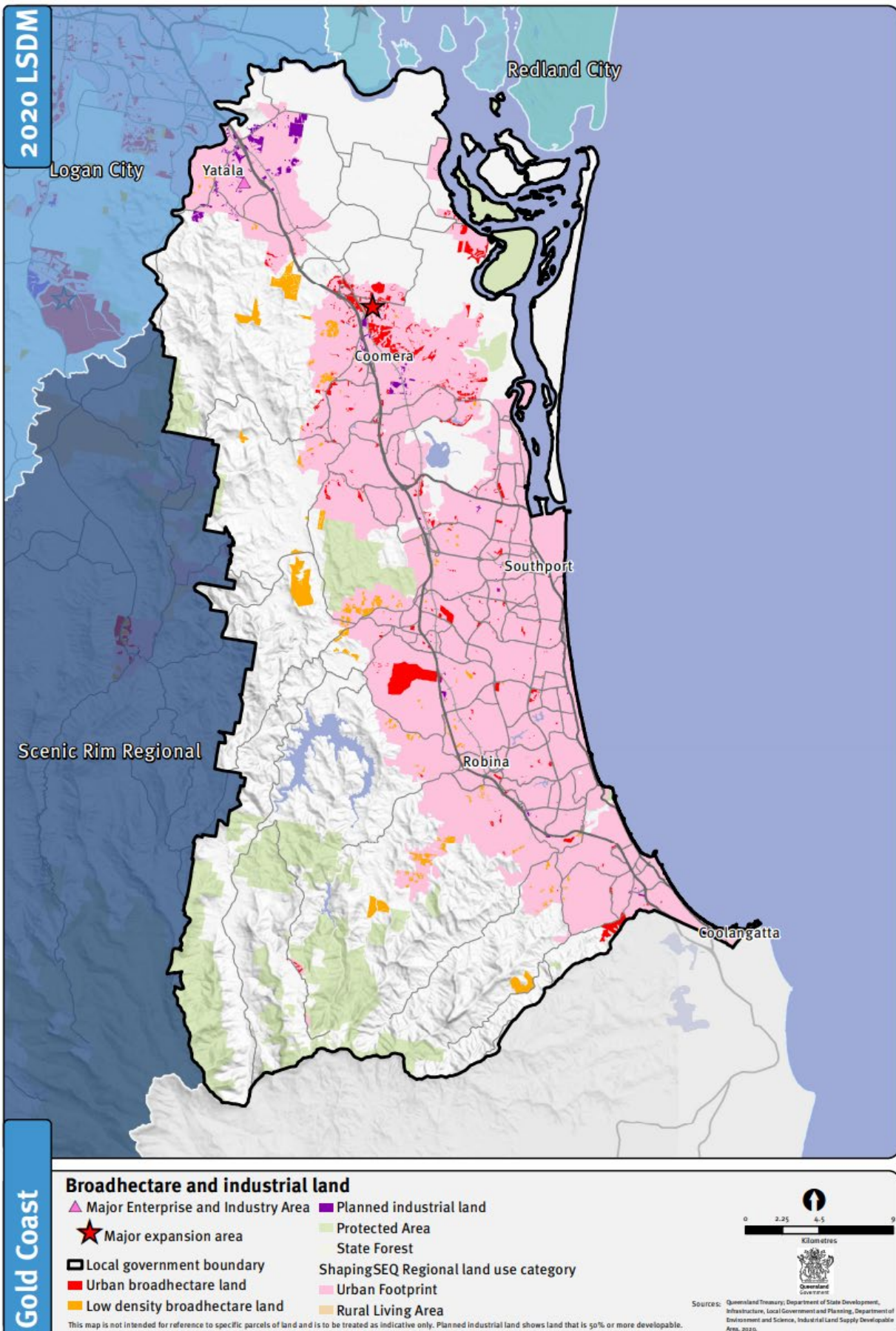
Local government

Broadhectare and industrial lands (as at June 2020)

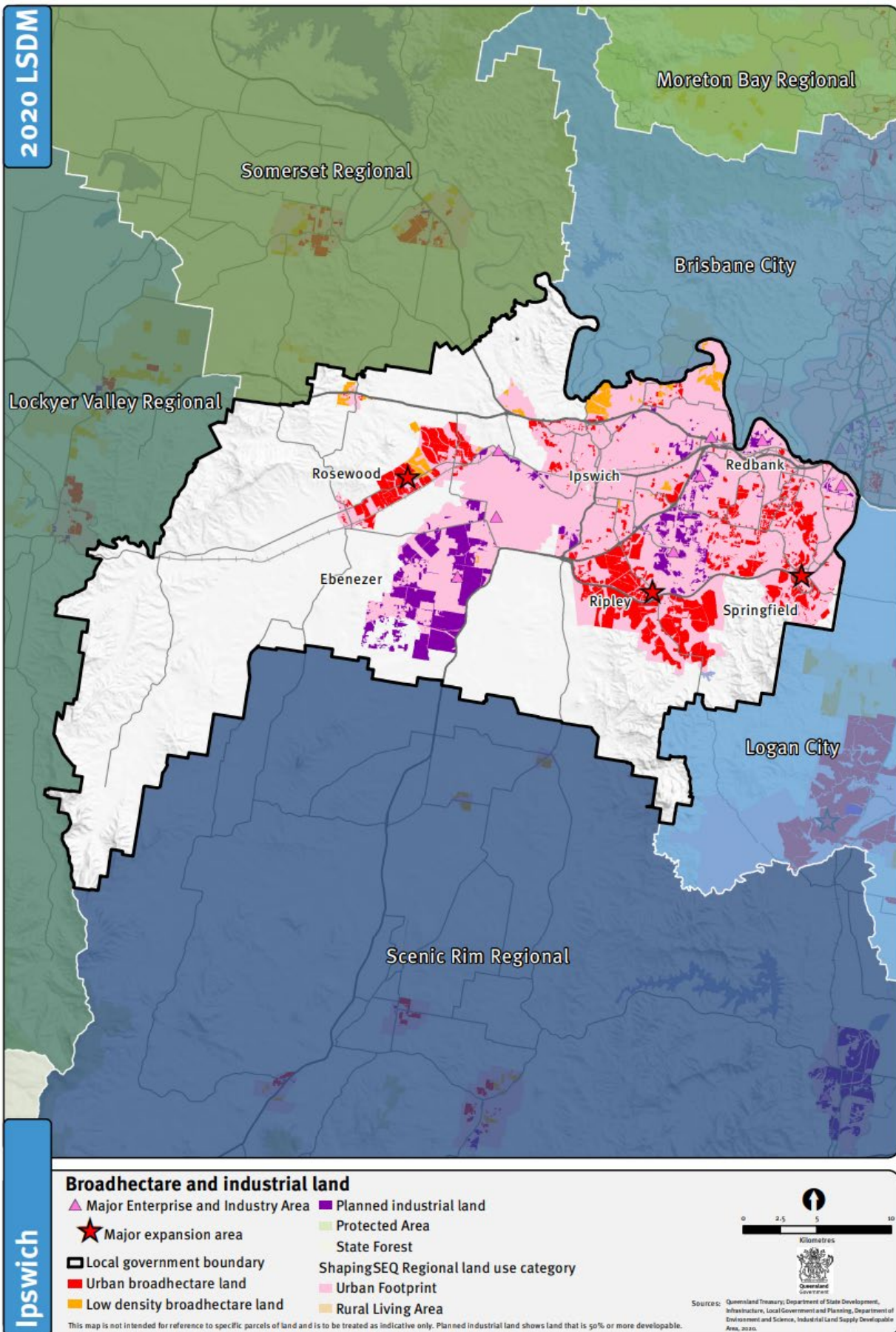
Brisbane - Broadhectare and industrial lands



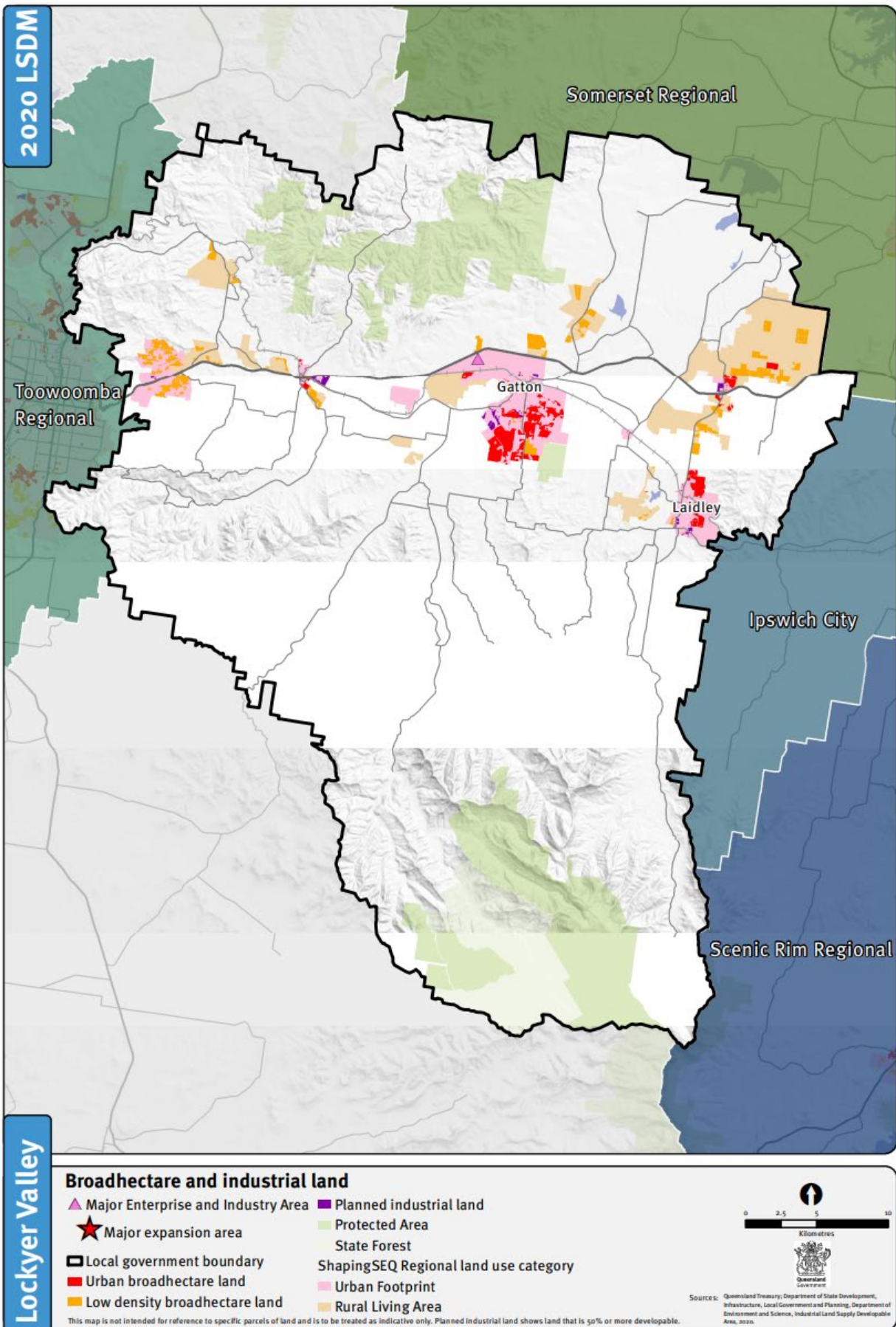
Gold Coast - Broadhectare and industrial lands



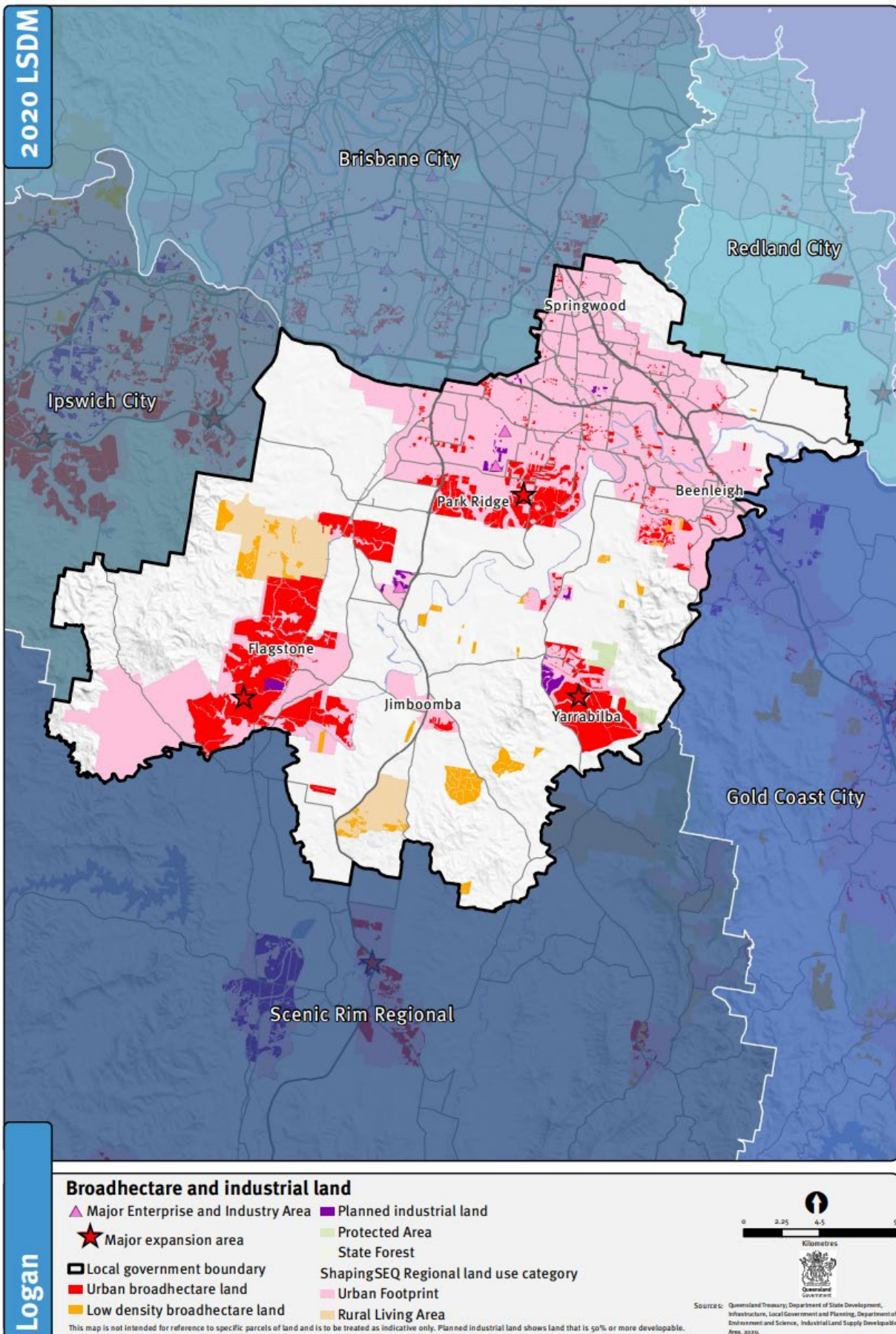
Ipswich - Broadhectare and industrial lands



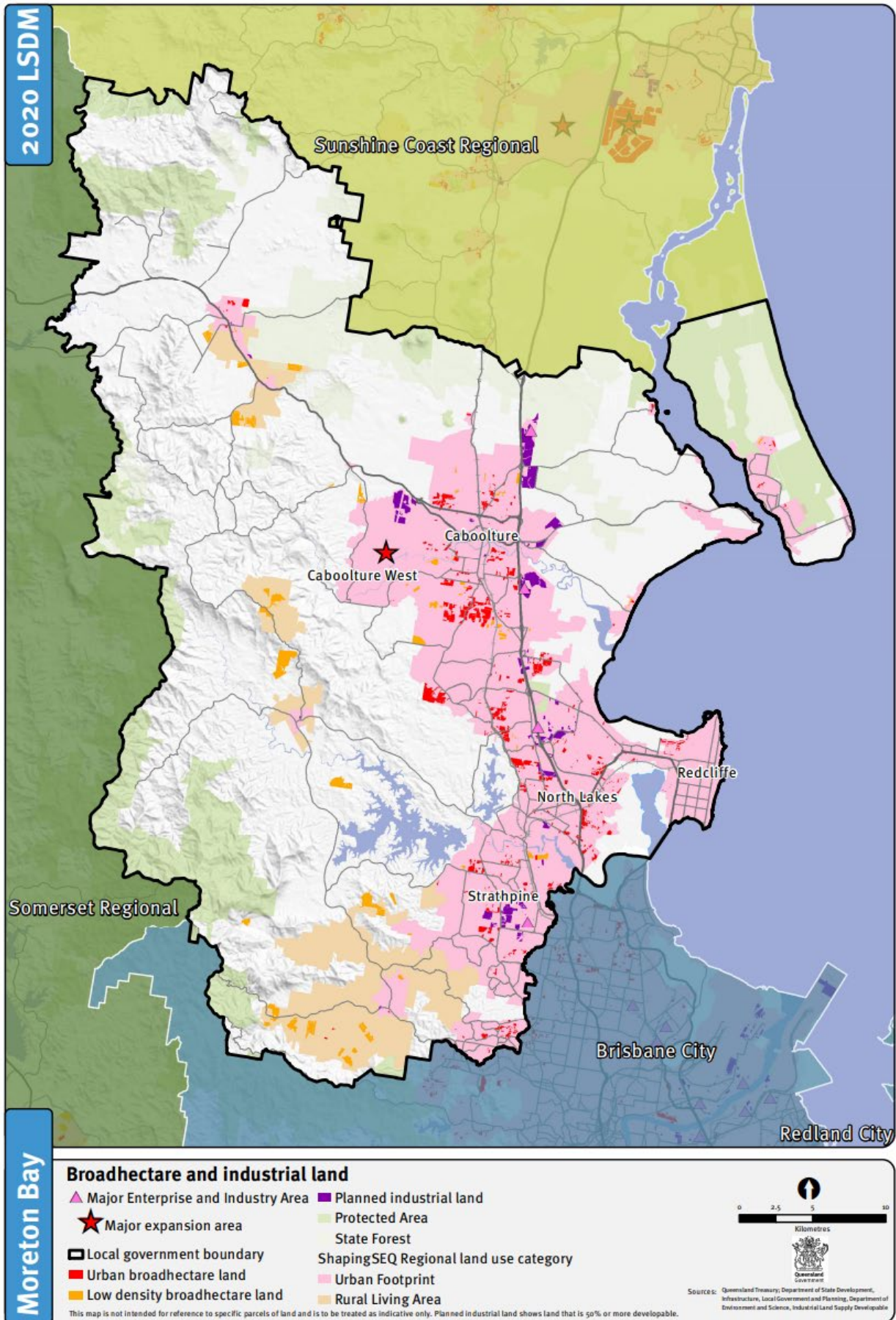
Lockyer Valley - Broadhectare and industrial lands



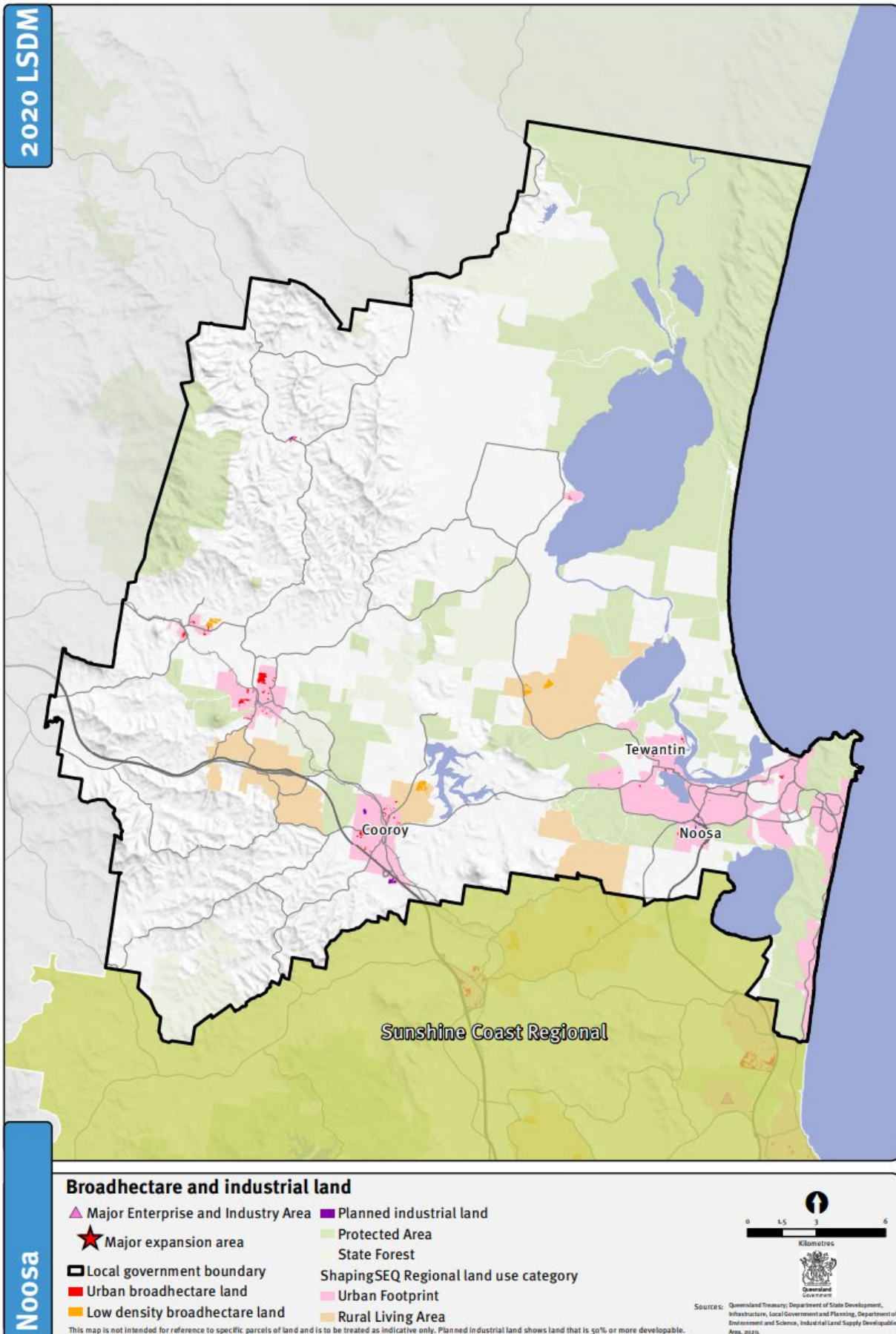
Logan - Broadhectare and industrial lands



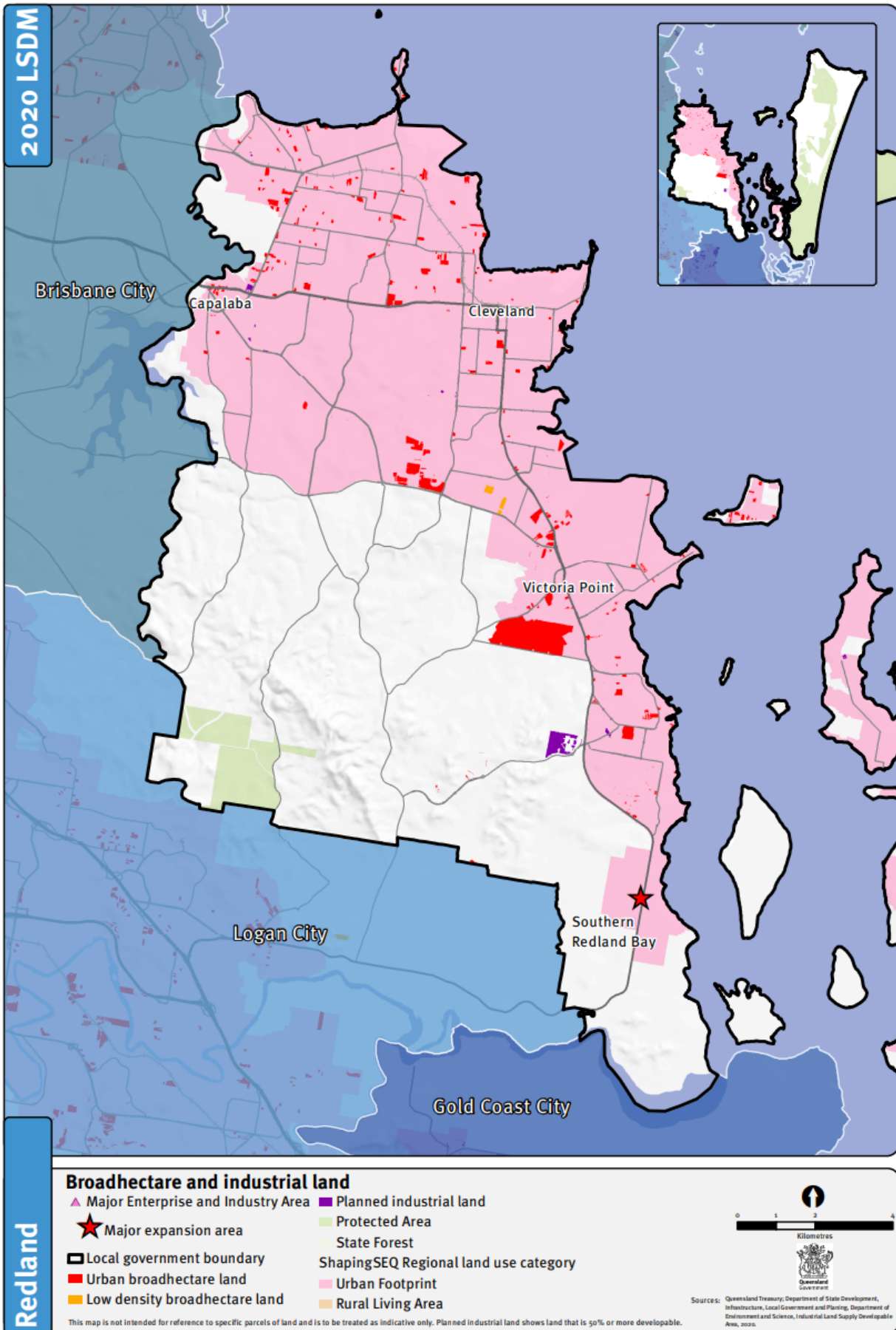
Moreton Bay - Broadhectare and industrial lands



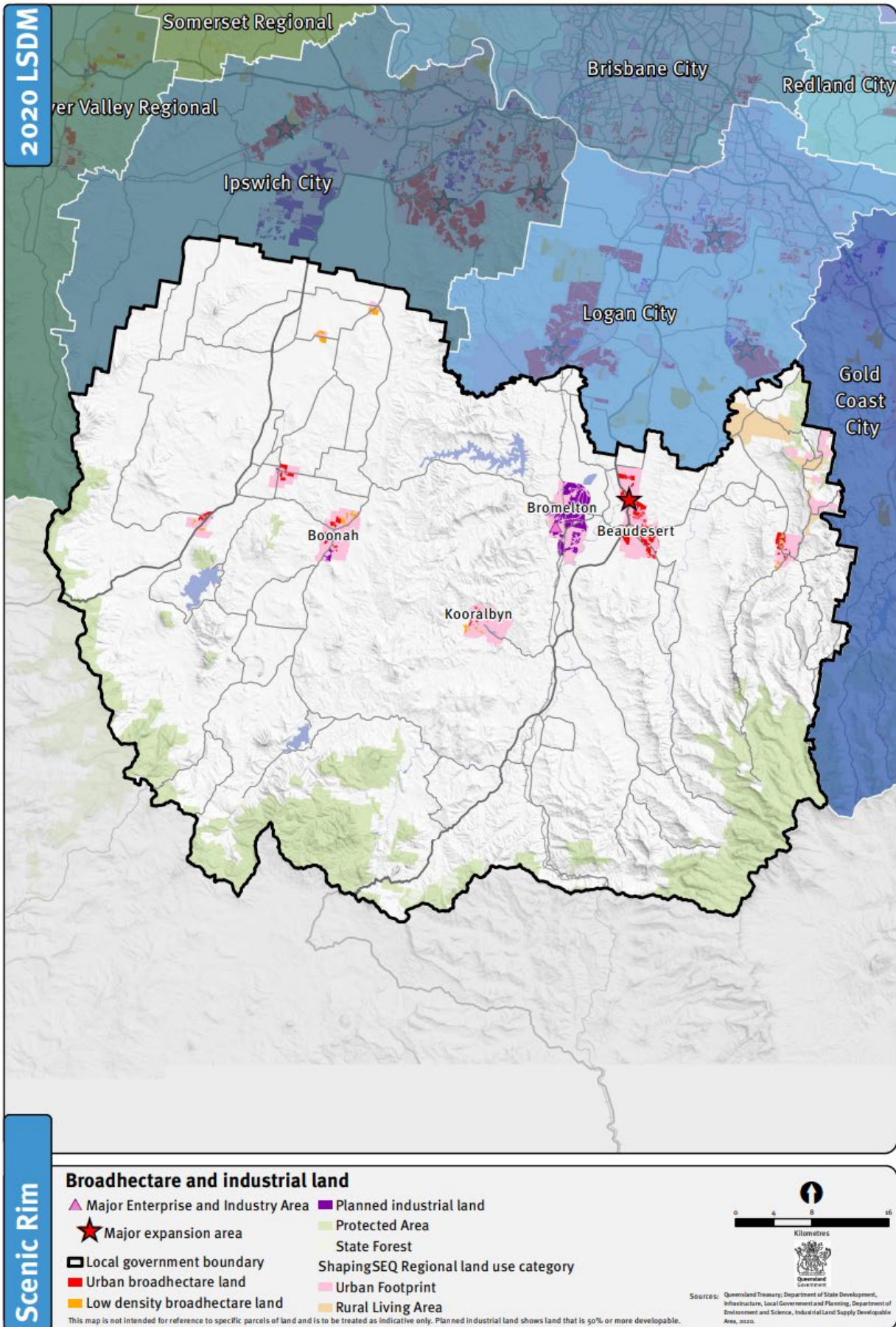
Noosa - Broadhectare and industrial lands



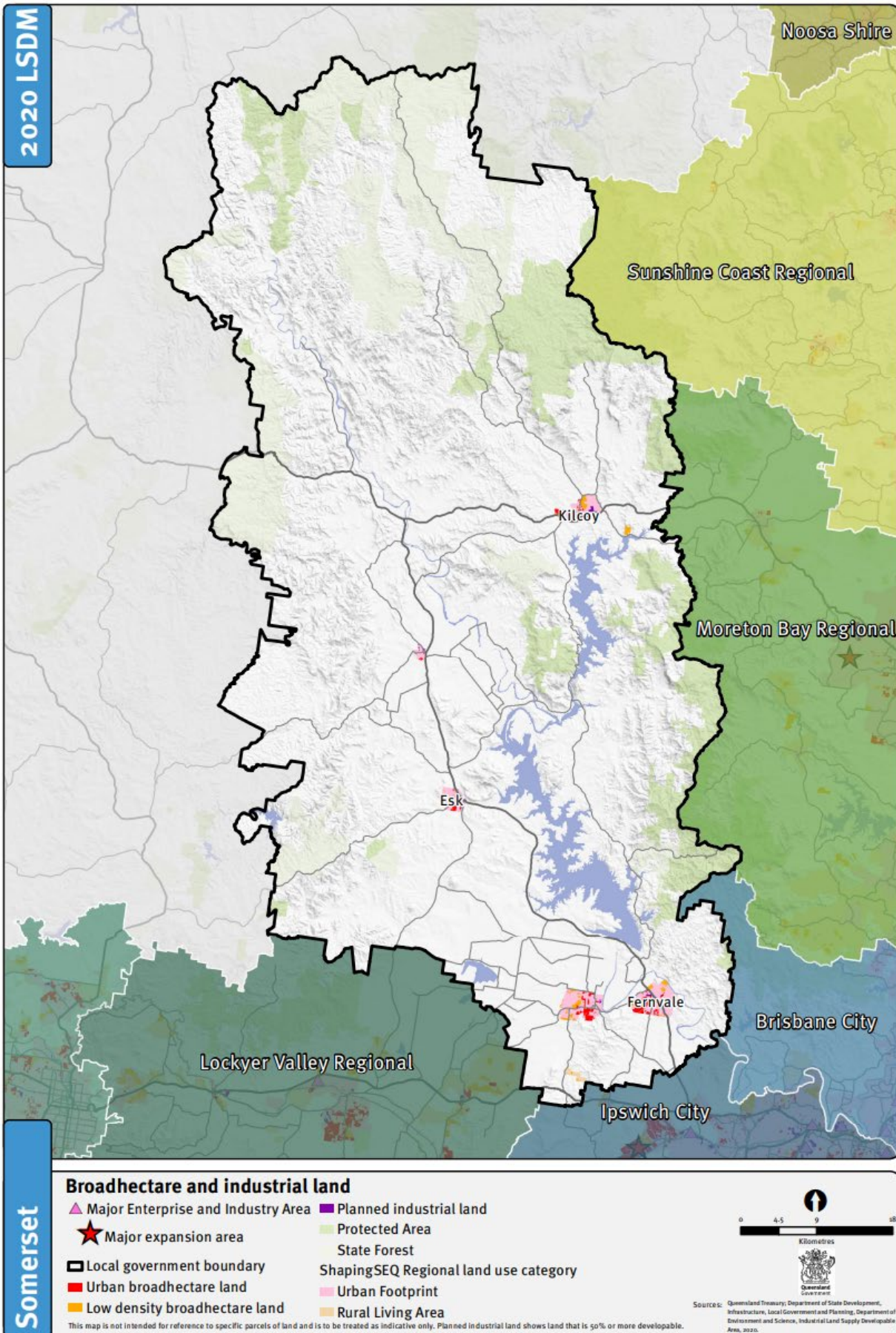
Redland - Broadhectare and industrial lands



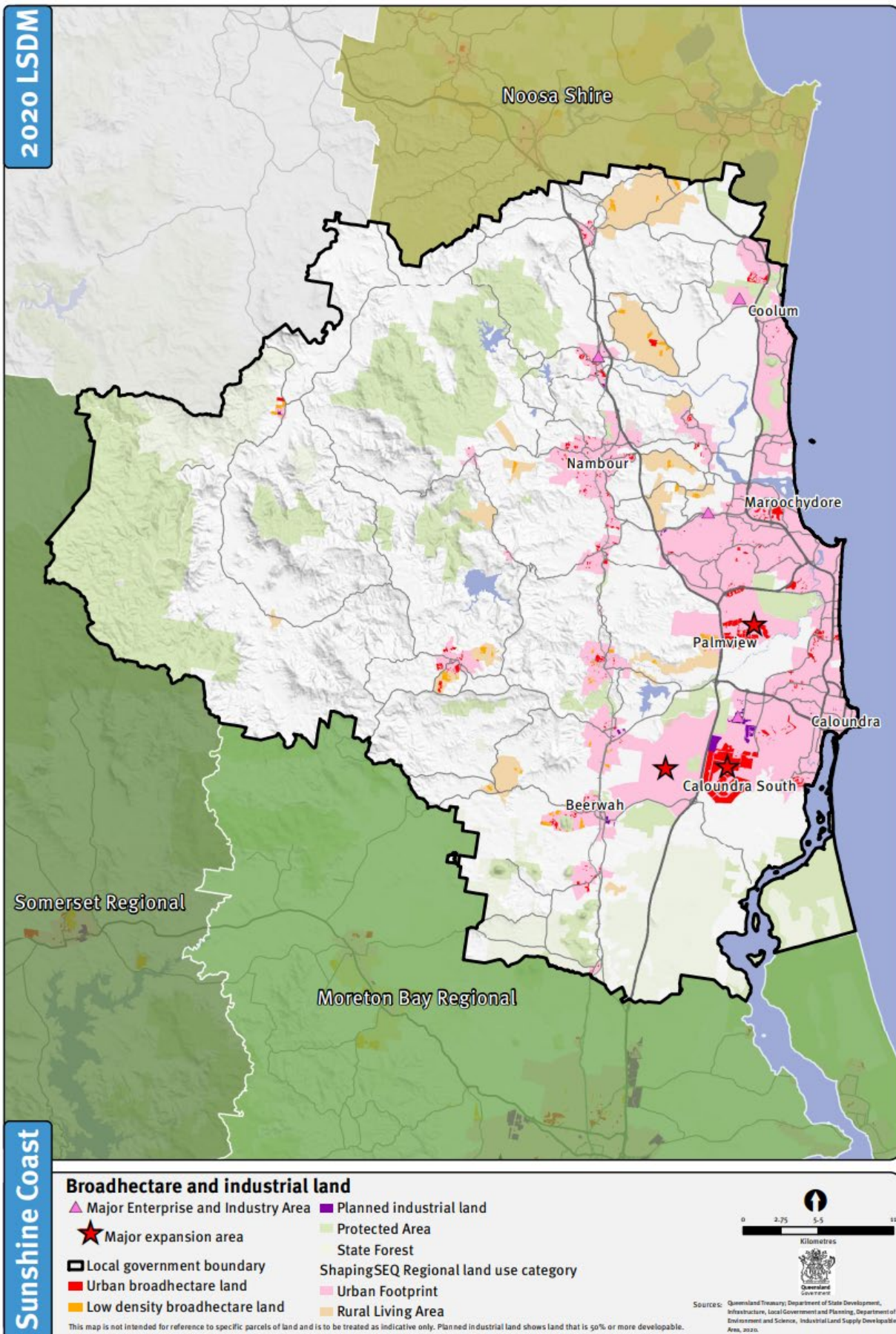
Scenic Rim - Broadhectare and industrial lands



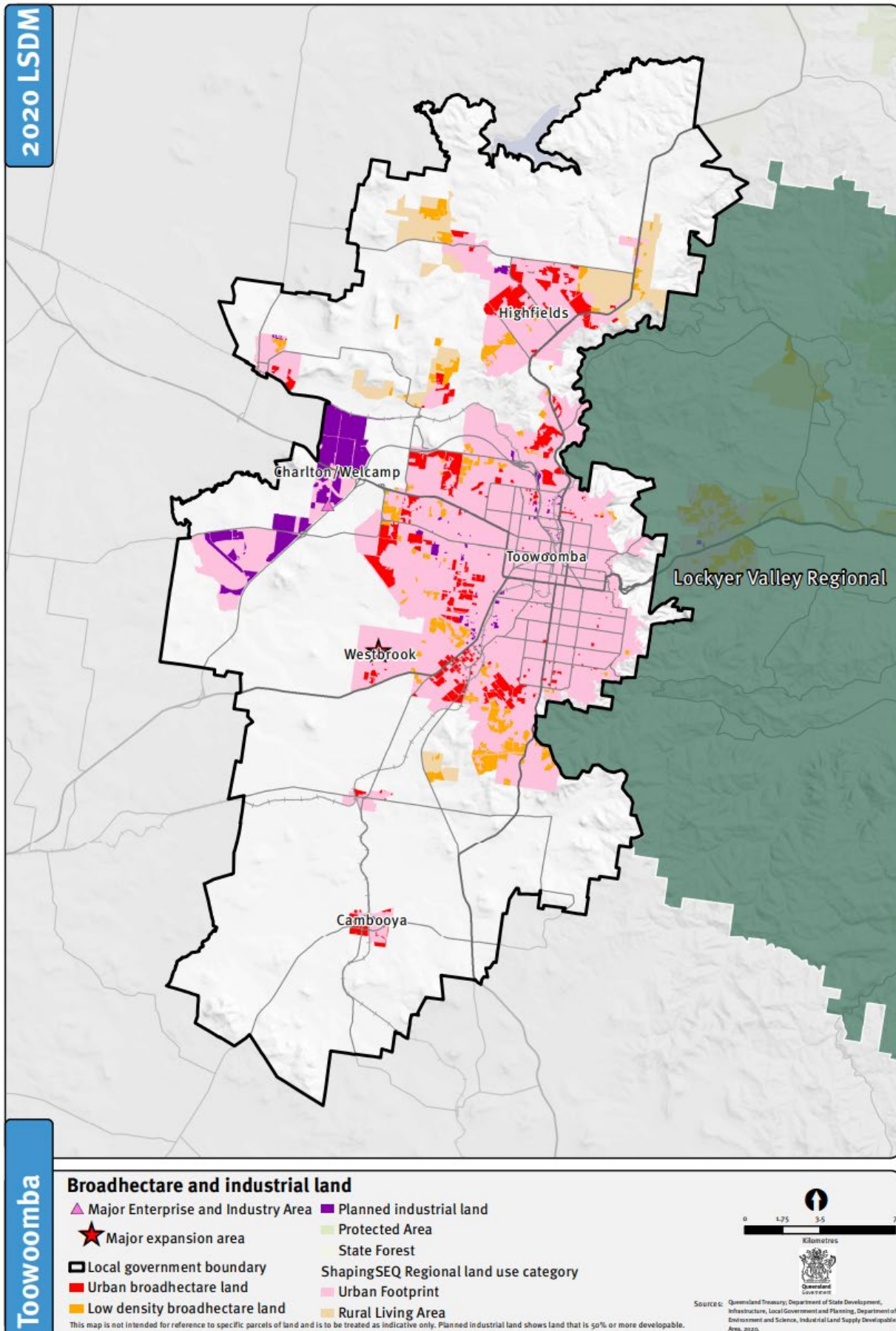
Somerset - Broadhectare and industrial lands



Sunshine Coast - Broadhectare and industrial lands

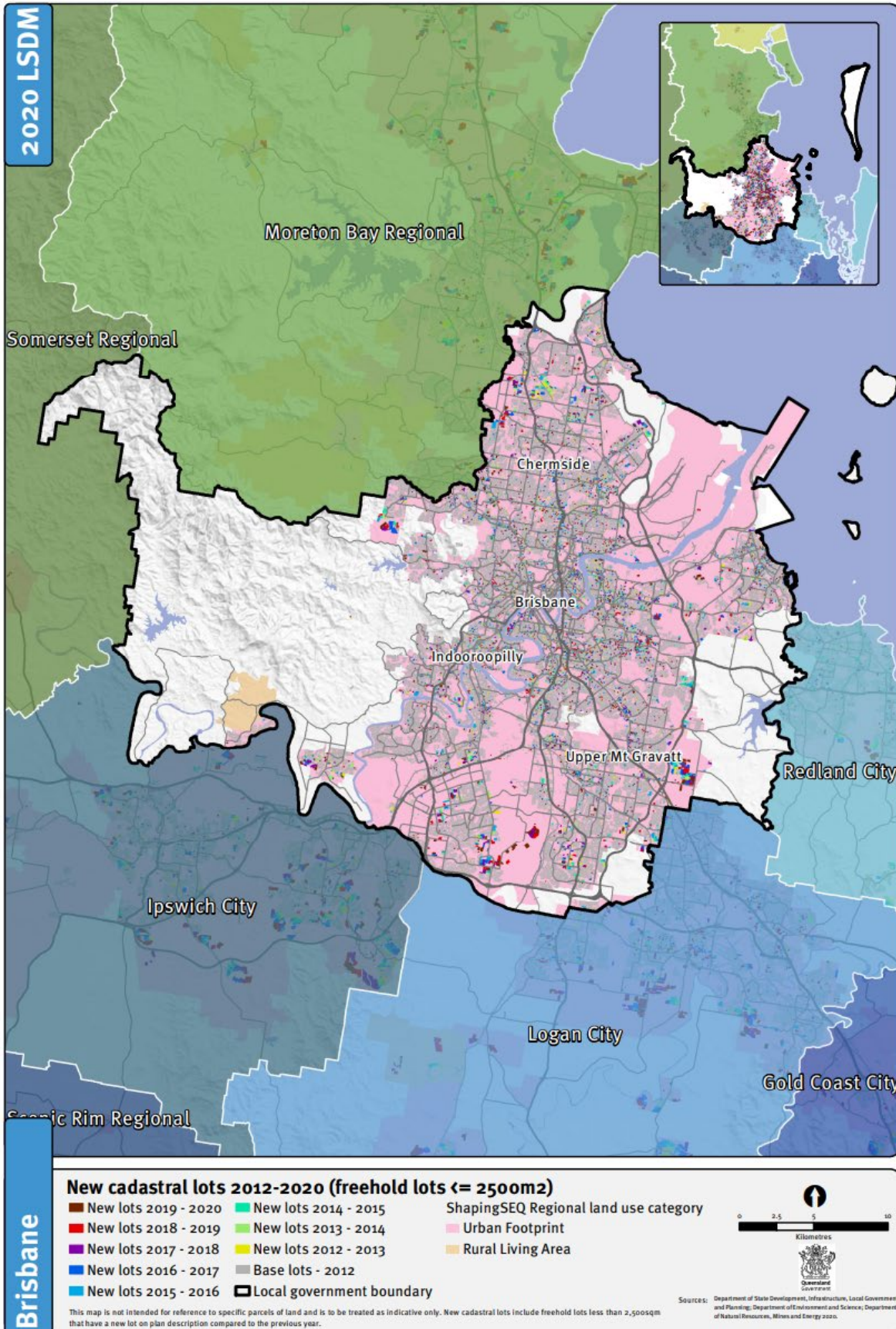


Toowoomba - Broadhectare and industrial lands

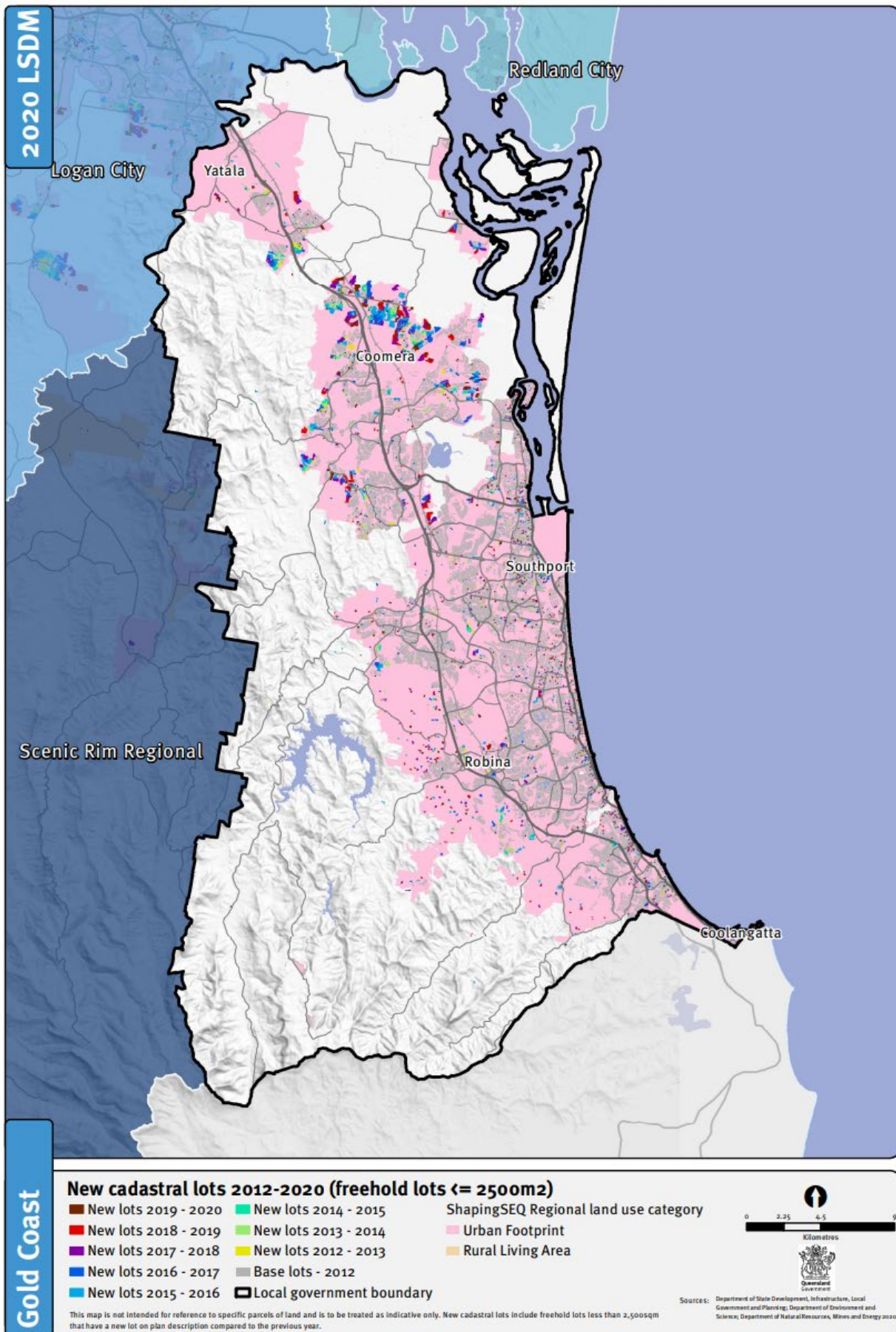


New freehold cadastral parcels (less than 2500m²) from 2011/12 to 2019/20

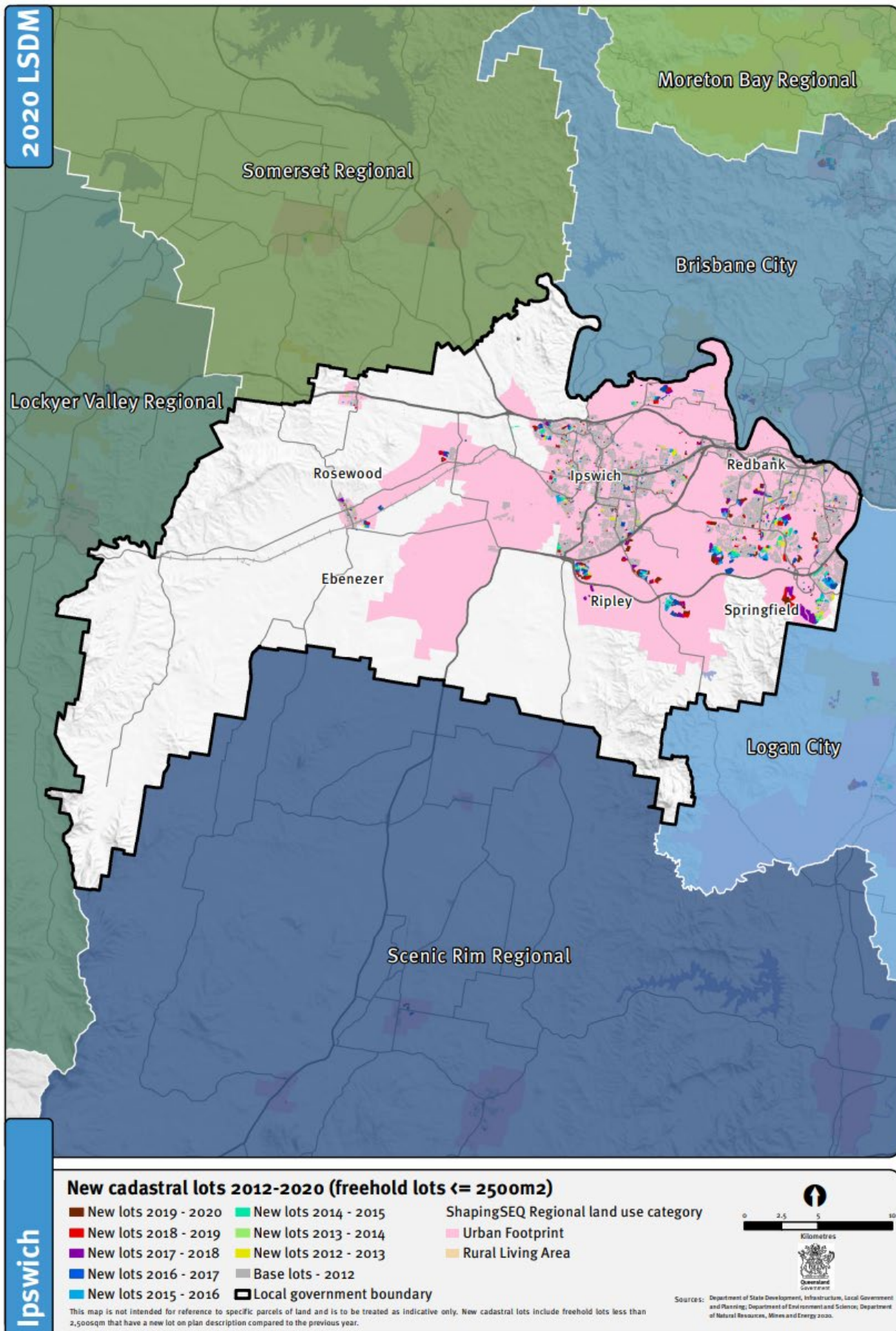
Brisbane - New cadastral lots (freehold <= 2500m²)



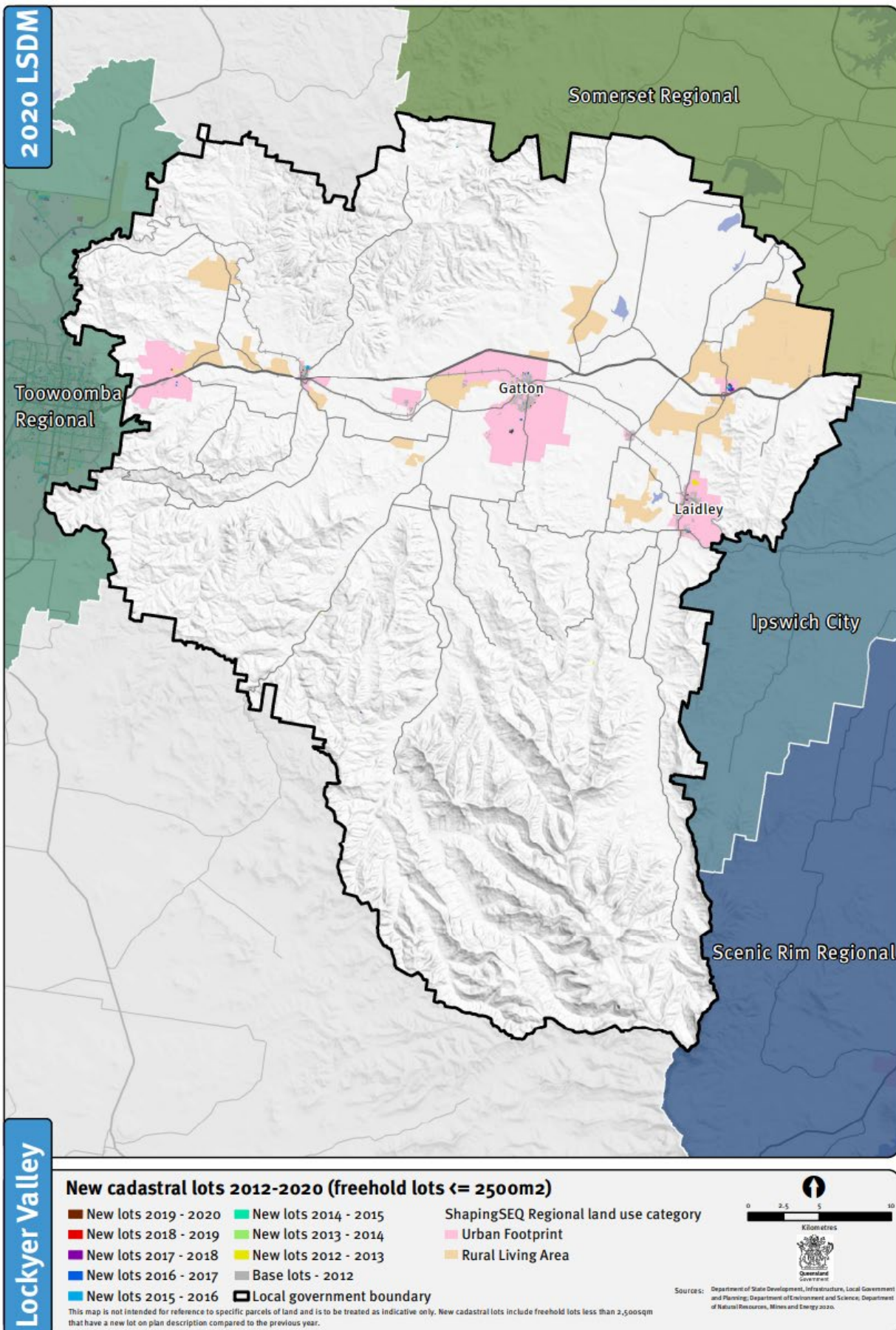
Gold Coast - New cadastral lots (freehold <= 2500m²)



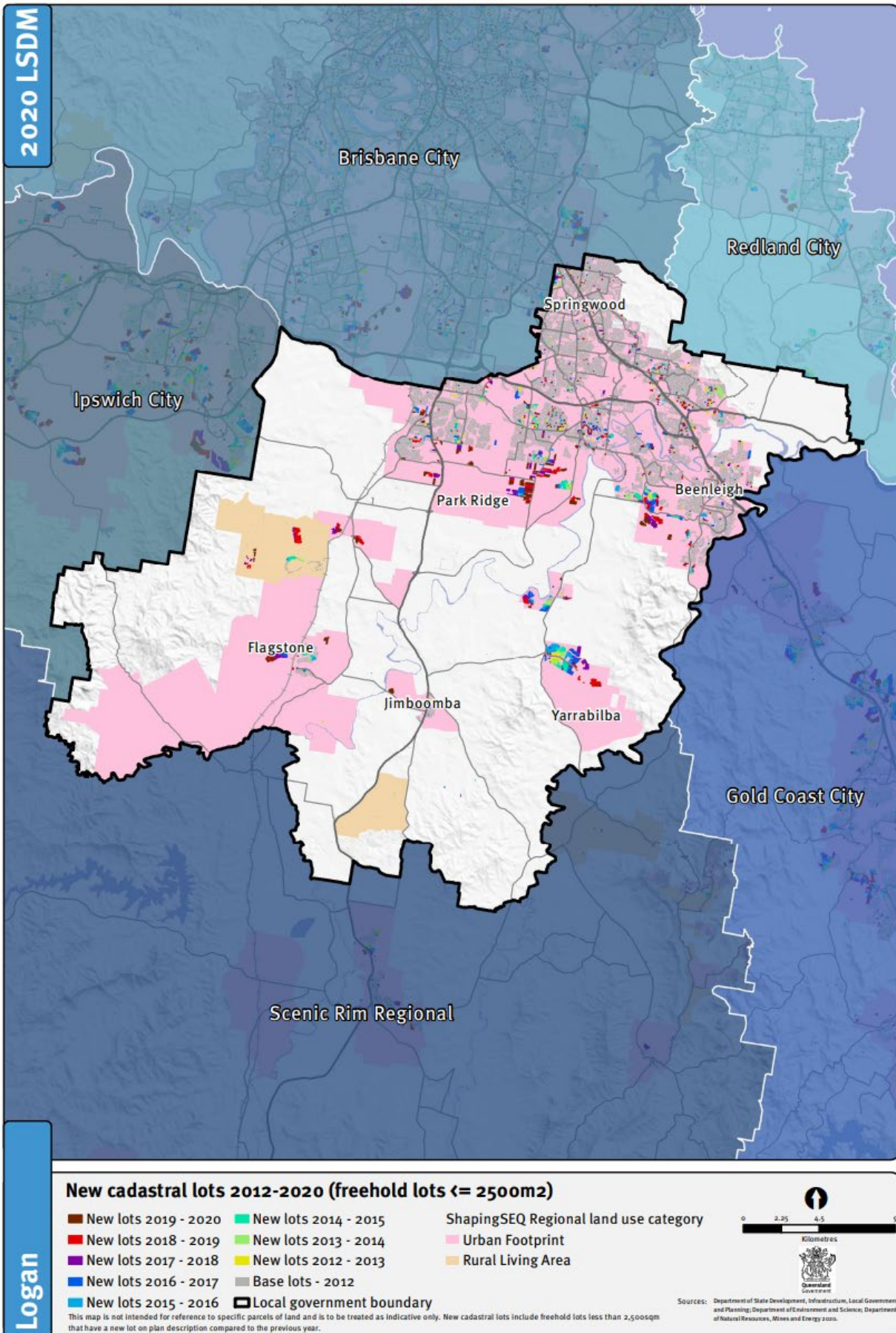
Ipswich - New cadastral lots (freehold <= 2500m²)



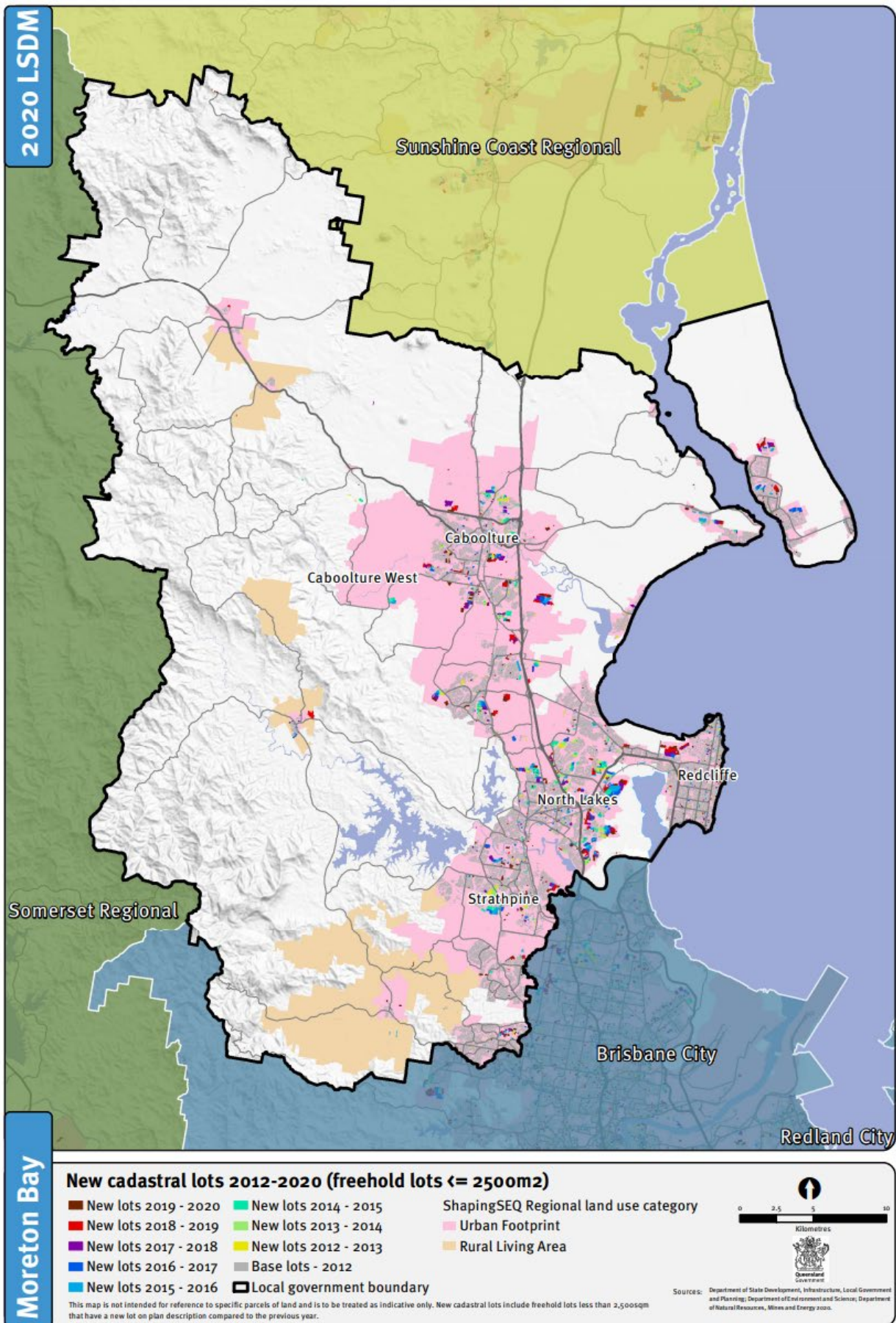
Lockyer Valley - New cadastral lots (freehold <= 2500m²)



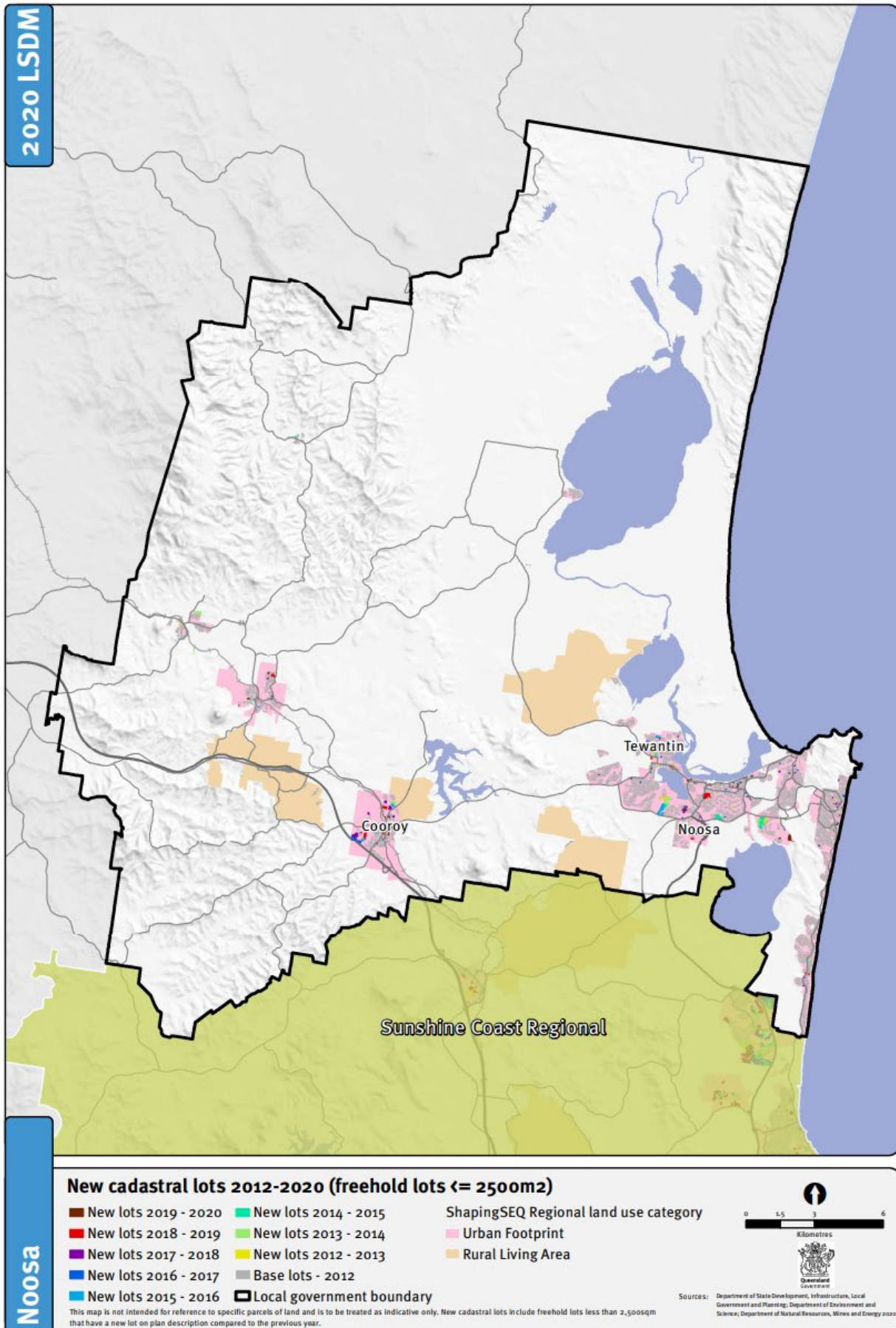
Logan - New cadastral lots (freehold <= 2500m²)



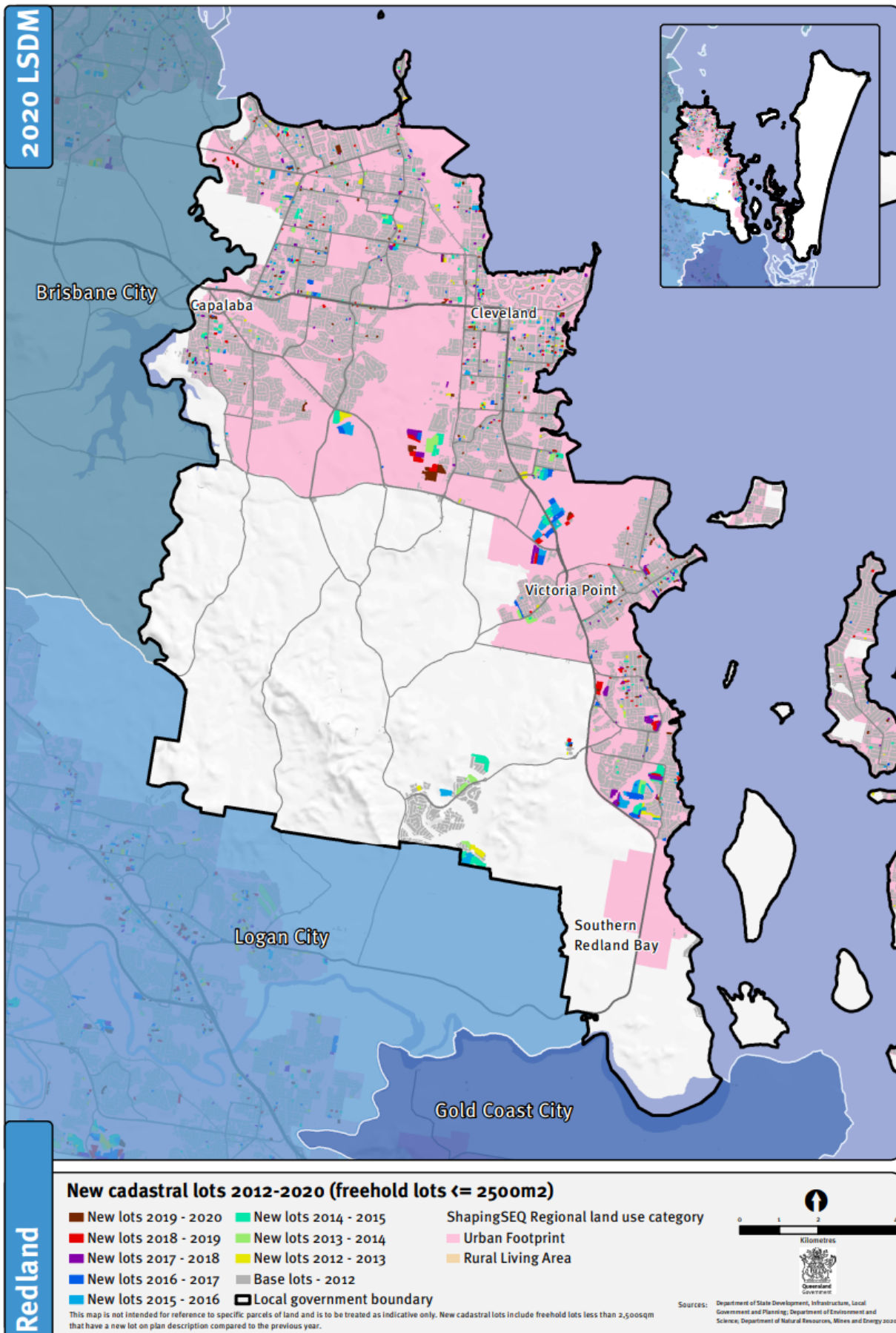
Moreton Bay - New cadastral lots (freehold <= 2500m²)



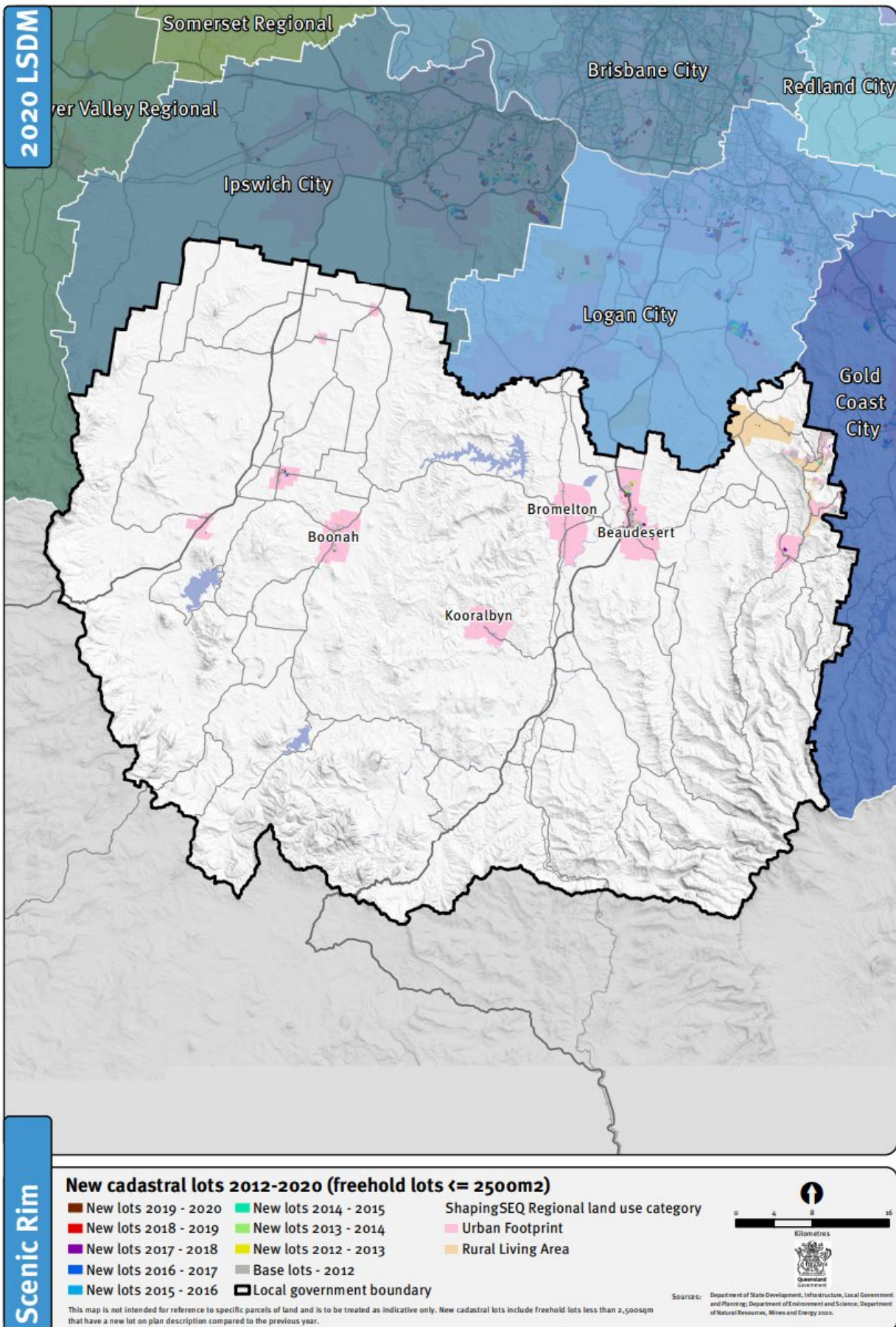
Noosa - New cadastral lots (freehold <= 2500m²)



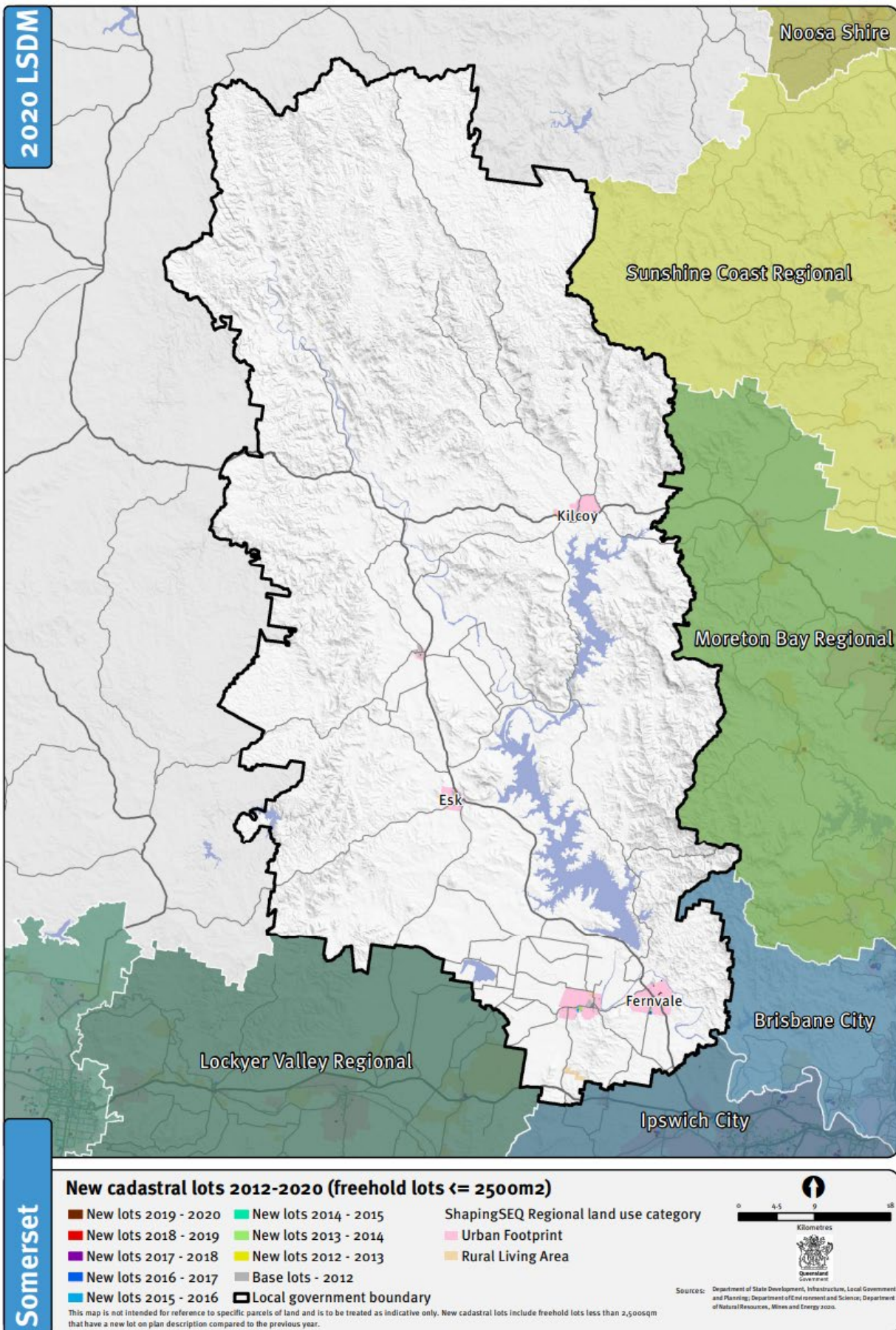
Redland - New cadastral lots (freehold <= 2500m²)



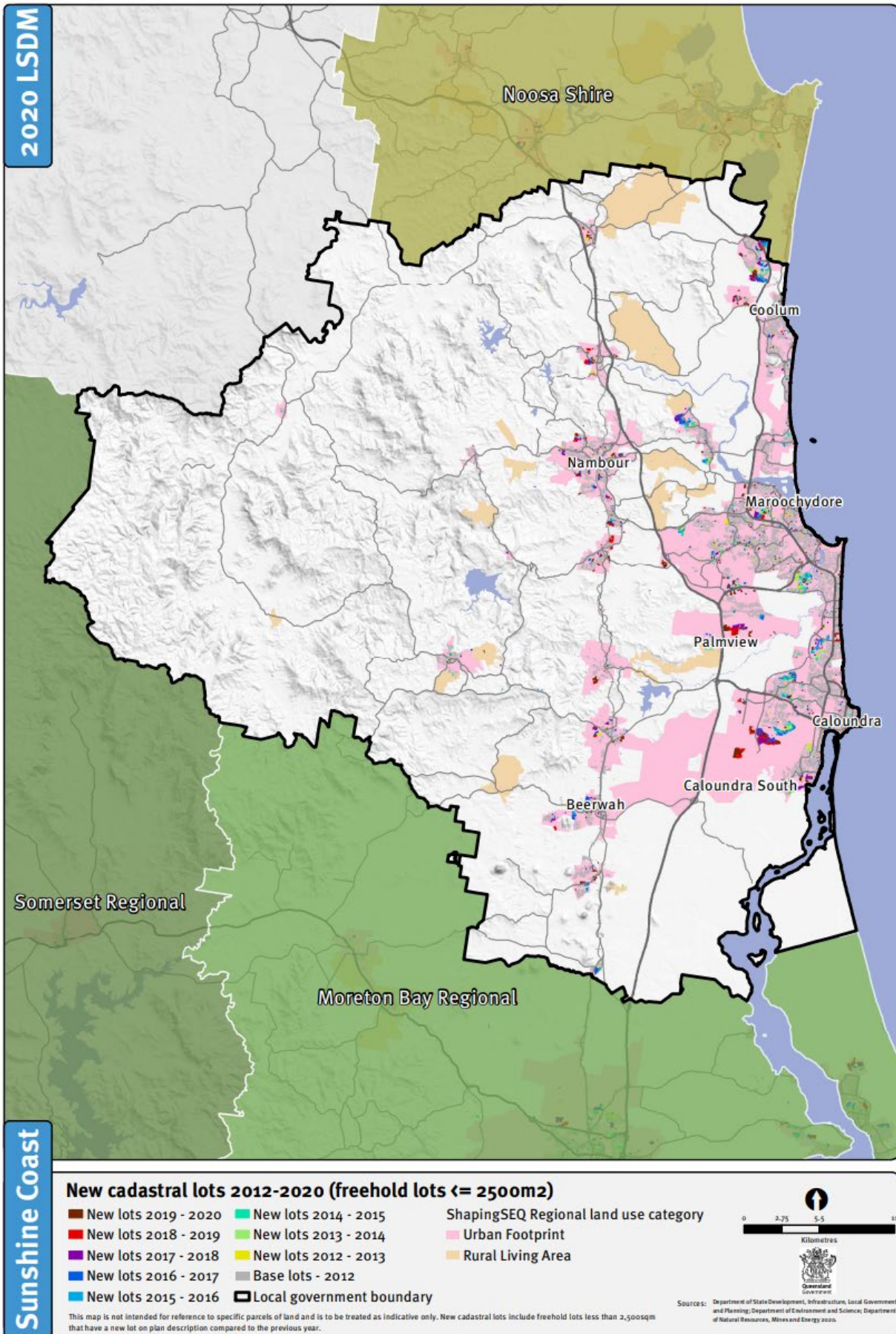
Scenic Rim - New cadastral lots (freehold <= 2500m²)



Somerset - New cadastral lots (freehold <= 2500m²)



Sunshine Coast - New cadastral lots (freehold <= 2500m²)



Toowoomba - New cadastral lots (freehold <= 2500m²)

