Land Supply and Development Monitoring (LSDM) Report 2018

SEQ Growth Monitoring Program (GMP)

Contents

Disclaimer

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Message from the Housing Supply Expert Panel

Welcome to the first Land Supply and Development Monitoring (LSDM) Report for South East Queensland (SEQ). An additional 1.9 million people are expected to call SEQ home between 2016-2041, requiring an additional 794,000 dwellings and close to one million jobs.

The Growth Monitoring Program (GMP) brings to life the vision of *ShapingSEQ 2017* to grow sustainably, compete globally and offer high-quality living and is a best practice approach to monitoring land supply and development across the region. The Government is to be commended on the initiative and the Housing Supply Expert Panel acknowledges it as nation-leading work.

It has been a busy foundation year for the GMP and the implementation of its three core deliverables being the Measures that Matter, the establishment of the Housing Supply Expert Panel and the completion of this inaugural LSDM Report.

The Housing Supply Expert Panel is unique in Australia. The purpose of the Housing Supply Expert Panel is to provide the Queensland Government with independent advice on the supply of land for housing and other types of development in SEQ. The panel views the monitoring of land supply and development activity as an essential component for achieving and maintaining housing affordability in SEQ. We acknowledge the multiple initiatives that are occurring within and outside of Government to address housing affordability. The panel's contribution to that effort is to provide advice on the government's land supply and its land supply policy decisions.

It is important to acknowledge that this report is the first step towards ensuring the region is well-placed to move towards consistency in collecting development data and calculating land supply. The established framework is commendable, and a good basis to build upon in subsequent versions as the program matures.

The report demonstrates that SEQ, from a regional perspective, currently has sufficient planned dwelling supply as measured against the *ShapingSEQ 2017* benchmarks. Certain geographies however show markers around supply constraints in the future and will require closer monitoring in the short term to allow time for adequate policy considerations. It is imperative therefore that SEQ moves towards consistency in reporting on land supply and development activity.

The panel acknowledges that the four research projects completed this year provide a range of recommendations that should be incorporated into the monitoring program as it matures, to ensure a better understanding of what land supply is realistically available. The panel also recognises the importance of market intelligence and is seeking some feedback on the inclusion of measures to monitor markets and market shifts into future reports.

As our region grows, density will have an increasing importance in supporting housing supply and affordability. It is important that all stakeholders play a role in supporting greater density and ensuring an ongoing narrative with the broader community on the benefits of density when coupled with good design and high amenity.

The Moving Forward section outlines the next key steps, and a road map is currently being developed to clearly articulate the pathway to achieving an optimum monitoring state. This will help resource and budget considerations for all stakeholders and is also complemented by a range of communication tools. Key next steps include:

- Development of a road map outlining the key initiatives to mature the program over a period of time
- Exploring and facilitating greater data sharing between the state government, local governments and utility providers
- Further research on a range of topics including how to more accurately measure growth and development activity and standardised land supply types
- Investigating creating a single mapped dataset of developable land, considering constraints like flood, slope and vegetation
- Exploring guidance documentation about the findings of the above research and collaboration for use by stakeholders.

On behalf of the Panel I congratulate all stakeholders for their commitment and collaboration in the production of this report which I commend to you.

Julie Saunders

Chair of the Housing Supply Expert Panel

Introduction

More people are calling South East Queensland (SEQ) home and with this growth comes many exciting opportunities but also challenges. Working with local councils, we need to allocate land appropriately, to ensure future generations can live, work and play in SEQ.

It is important we continually monitor the region's land supply and development activity to ensure we have adequate land in the right locations to maintain SEQ's enviable lifestyle and unique characteristics. This will ensure we have the right infrastructure, housing and jobs we need now and in the years ahead.

This Land Supply and Development Monitoring (LSDM) Report, a key implementation action of *ShapingSEQ 2017*, compiles a wide range of data in one easy-to-use location to monitor land supply across the region.

This 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.

This is an important foundation year for the LSDM Report which will be updated annually with new and improved data.

LSDM purpose

The 2018 Land Supply and Development Monitoring (LSDM) Report addresses residential and industrial land supply, development activity and land and housing prices for South East Queensland (SEQ). It compares residential and industrial development activity and land supply in SEQ to the dwelling supply benchmarks and employment planning baselines contained in *ShapingSEQ 2017*.

It has been based on data provided by local governments and utility providers and has been prepared in consultation with those stakeholders and the development industry. It is the first 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 LSDM Report is to work progressively towards a single point of truth for land supply and development activity data in SEQ to better inform infrastructure planning and land supply planning and policy. 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.

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

LSDM context

By 2041, SEQ is expected to be home to almost 1.9 million additional people, requiring approximately 794,000 new dwellings and about 1 million new jobs to be delivered over that time. Therefore, it is important that growth is managed efficiently to support the economy and housing affordability.

To manage this growth the Queensland Government published *ShapingSEQ 2017*, in August 2017. *ShapingSEQ 2017* delivered on the Queensland Government's commitment to release a considered and effective growth management framework for the state's most populous region. It provides the framework to sustainably manage this growth, supported by 36 implementation actions.

The Growth Monitoring Program (GMP) is a key implementation action of *ShapingSEQ 2017* and includes the preparation of an annual Land Supply Development Monitoring (LSDM) Report. The other two core deliverables of the GMP are the Housing Supply Expert Panel (HSEP) and the Measures that Matter (MtM), both of which were established in 2018. These three deliverables are supported by a comprehensive stakeholder governance framework engaging state and local government, utility providers and the development industry.

2018 is the foundational year for the GMP and annual LSDM Report, which will create a transparent and robust platform for ongoing land supply and development monitoring in SEQ.

Progressive implementation of best practice research findings, undertaken in collaboration with local governments, industry and utility providers, will help inform and improve future annual LSDM reporting.

SEQ

Summary

The population of South East Queensland (SEQ) is expected to grow by 1.9 million people between 2016 and 2041. This growth will require about 794,000 additional dwellings and the creation of about 1 million more jobs.

Dwelling approvals in SEQ are substantially exceeding *ShapingSEQ 2017's* average annual benchmarks for additional dwellings, while the capacity and realistic availability of planned dwelling supply in SEQ provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

Housing in SEQ is becoming more diverse and dwelling density is increasing in accordance with *ShapingSEQ 2017's* preferred future. The price of vacant lots in the consolidation area and houses continues to show an upwards trend, while the price of attached dwellings in the consolidation areas has decreased slightly since 2015/16.

There are currently four years of supply of reconfiguring a lot approvals in SEQ, and six years of supply of material change of use approvals for multiple dwellings in the SEQ consolidation area, meeting and above the minimum four years of supply sought by *ShapingSEQ 2017*.

The capacity and realistic availability of planned industrial employment supply in SEQ provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*. The estimated take-up of developed industrial land between 2011 and 2017 in SEQ was about 1233 hectares, with about 12,442 hectares of planned industrial land remaining as at 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.

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 figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figures provide land supply scenarios that assume some of the capacity is not realistically available by 2041.

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

availability scenarios are based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

In the SEQ consolidation area, the capacity of planned dwelling supply is about 559,500 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 364,000 dwellings (around 17 years of supply) if 50 per cent of the capacity, that is not yet built or approved, is not available for development by 2041*
- about 462,000 dwellings (around 22 years of supply) if 25 per cent of the capacity, that is not yet built or approved, is not available for development by 2041.**

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

- Brisbane
- Gold Coast
- Moreton Bay.

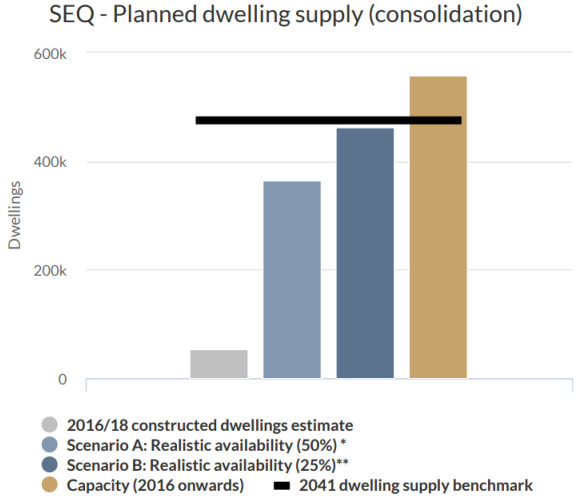
In the SEQ expansion area, the capacity of planned dwelling supply is about 554,000 dwellings, while the realistic availability is about 419,000 dwellings. These figures substantially exceed the 2041 expansion dwelling supply benchmark of 318,800 dwellings.

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

- Ipswich
- Logan
- 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.

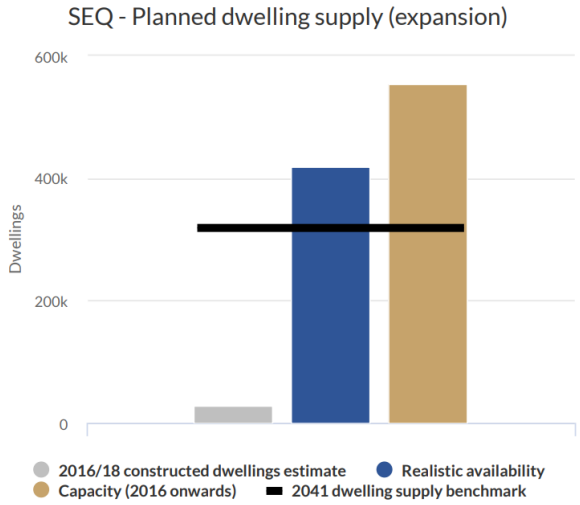
For more detail about the calculation of planned dwelling supply, see the Technical notes.



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. To view fact sheets on the concept of realistic availability, click here.

*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.



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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

Approved supply – SEQ

There is 4 or more years of new lot approvals (overall) and multiple dwelling approvals (consolidation).

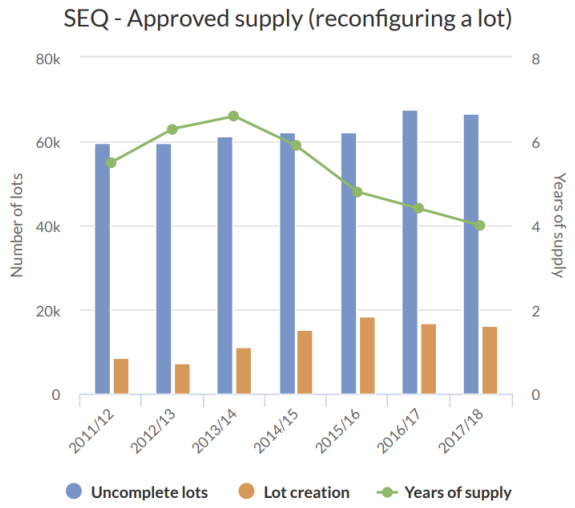
Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings across the region.

There is about four years of supply of reconfiguring a lot approvals across the SEQ consolidation and expansion areas. This meets the minimum four years of supply sought by *ShapingSEQ 2017*, with the total number of current reconfiguring a lot approvals (66,550) close to an historical high. The very high rate of lot creation over the past four years has increased the average annual demand figure

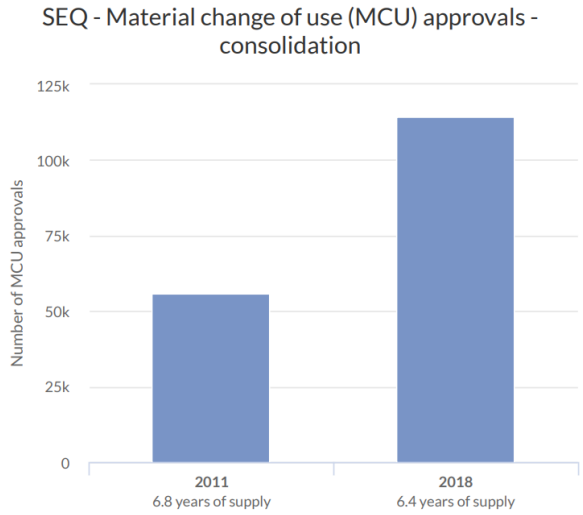
used in calculating years of supply and contributed to a slightly lower years of supply figure for 2017/18.

There is about six years of supply of material change of use approvals for multiple dwellings in the SEQ consolidation area. This exceeds the minimum four years of supply sought by *ShapingSEQ 2017*. The June 2018 supply is more than twice the number of approvals that were current in June 2011. However, the years of supply figures are similar because the rate of multiple dwelling construction in the consolidation area in recent years is proportionately higher than that leading up to June 2011.

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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

Dwelling growth – SEQ

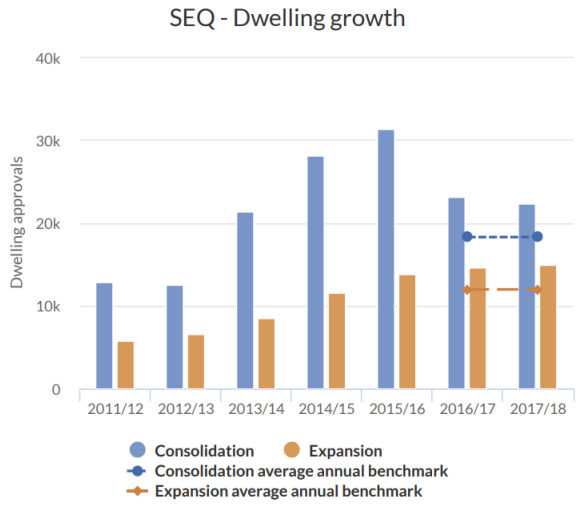
SEQ is exceeding *ShapingSEQ 2017* benchmarks for dwelling growth.

In recent years, dwelling approvals (used to measure dwelling growth) in the SEQ consolidation and expansion areas have substantially exceeded the average annual benchmarks.

In 2017/18, there were 22,378 dwelling approvals in the SEQ consolidation area, which was approximately 4000 dwellings more than the consolidation average annual benchmark of 18,253 additional dwellings. There were 15,012 dwelling approvals in the SEQ expansion area in 2017/18, which was approximately 3000 dwellings more than the expansion average annual benchmark of 11,940 additional dwellings.

Approximately 61 per cent of dwelling approvals were in the SEQ consolidation area for 2016/18, which meets the expected share of dwelling growth to 2031 as identified in *ShapingSEQ 2017* (60 per cent). Approximately 39 per cent of dwelling approvals over the same period were in the expansion area, which is close to the expected share of 40 per cent.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – SEQ

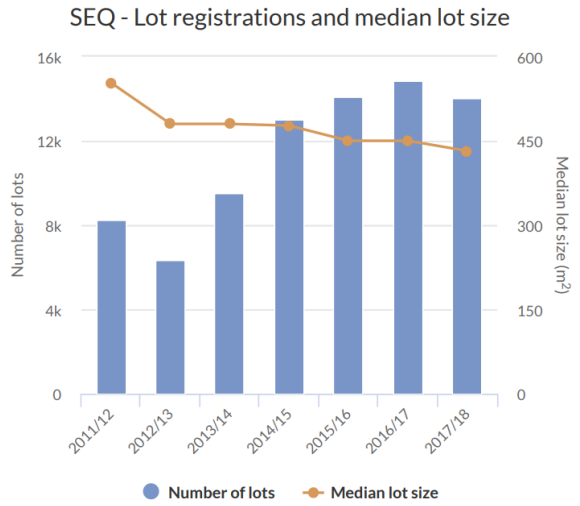
Housing density in the region is increasing.

Overall dwelling density (measured through median lot size and mean population-weighted density) is increasing across SEQ in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

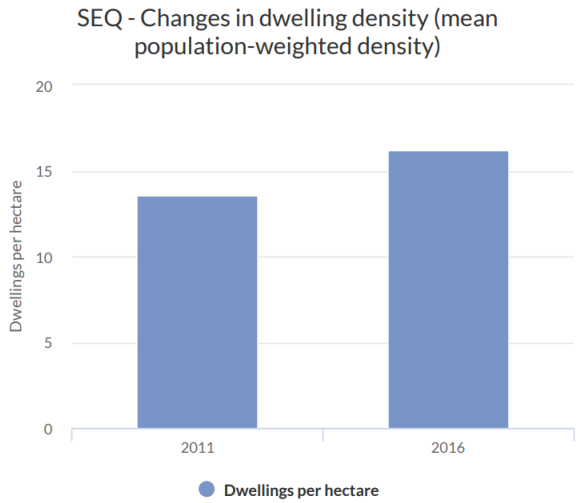
Mean population-weighted dwelling density increased across SEQ between 2011 and 2016, from 13.6 to 16.2 dwellings per hectare. This represents the average dwelling density at which the population of SEQ lives and is comparable to the net residential density as used by *ShapingSEQ 2017*.

Between 2011/12 and 2017/18, the median lot size in SEQ decreased from approximately 550m^2 to 430m^2. This was accompanied by an upward trend in the volume of lot registrations to 2016/17. 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 lot size, see the Technical notes.



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



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

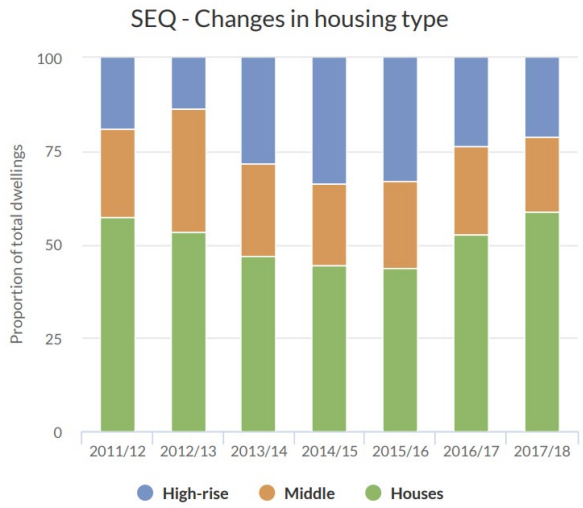
Changes in housing type – SEQ

Housing across the region is becoming more diverse.

Recent dwelling approvals in SEQ indicate an increase in housing diversity. This is consistent with the *ShapingSEQ 2017* Measures that Matter preferred future to provide a greater diversity of housing across the region.

Houses in SEQ comprised 56 per cent (41,862 dwellings) of new dwelling approvals for 2016/18, which was less than existing dwelling stock as at the 2016 Census (72 per cent). The proportion of dwelling approvals for middle (22 per cent or 16,411 dwellings) in 2016/18 remained the same as for the existing dwelling stock at the 2016 Census (22 per cent). The proportion of dwelling approvals for high-rise (23 per cent or 16,837 dwellings) exceeded existing dwelling stock (6 per cent as at the 2016 Census) over 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.

Sales and price – SEQ

The residential median sales prices across SEQ have increased.

Residential sales numbers across the region peaked between 2014/15 and 2016/17.

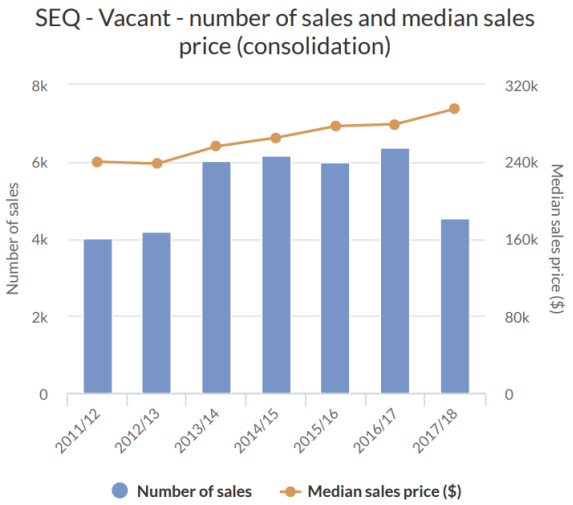
The median sales price for all categories in SEQ (vacant lots, houses and attached dwellings) in the consolidation and expansion areas increased over the 2011/12 to 2017/18 period. This increase was reflected across most local governments in SEQ.

The general trend in the number of sales across all categories in SEQ was for sales to peak between 2014/15 and 2016/17 and declined by 2017/18.

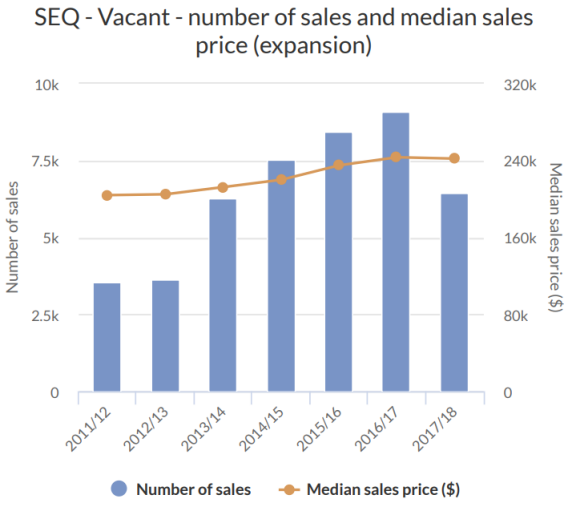
The rate of growth in median sales price from 2011/12 to 2017/18 was greater in the consolidation area than for the expansion area across all categories, particularly for houses (approximately 13 per cent greater than in the expansion area). The median sales price for both vacant lots and attached dwellings in the consolidation area increased approximately 4 per cent more than in the expansion area over the same period.

Across SEQ, actual median sales price is higher across all categories (vacant lots, houses and attached dwellings) in the consolidation area compared to the expansion area. Some local government areas depart from this general trend. For example, the major expansion growth areas of Ipswich, Logan and Moreton Bay generally have greater median sales prices in the expansion area than in the consolidation area.

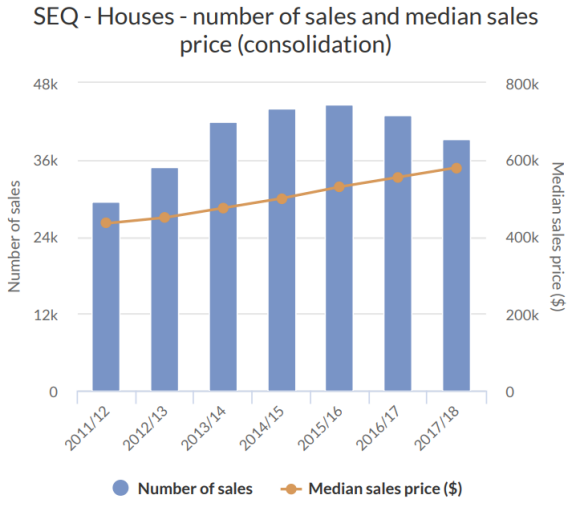
For more detail about the median sales price and number of sales, see the Technical notes.



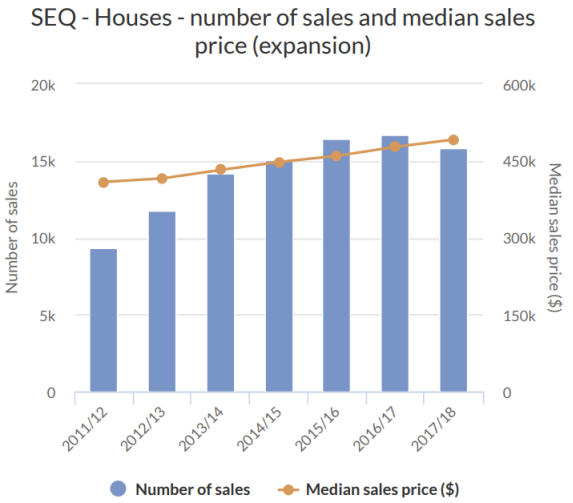
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



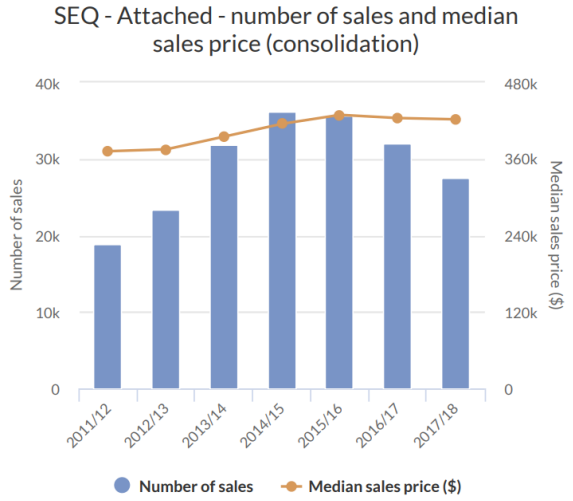
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



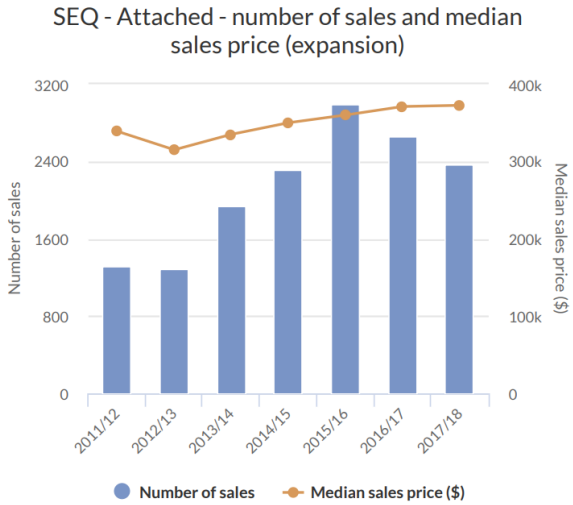
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

Industrial – SEQ

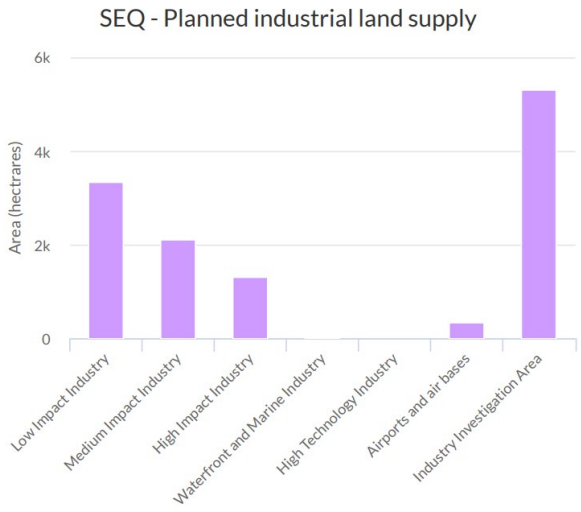
Planned industrial land supply/take-up – SEQ

The region has more than 12,000ha of land planned for industrial purposes.

The estimated take-up of developed industrial land between 2011 and 2017 in SEQ was about 1233 hectares, the majority of which occurred on land zoned low, medium or high impact industry. The four areas of greatest take-up were Brisbane, Gold Coast, Scenic Rim and Toowoomba, with the development of the Toowoomba Wellcamp Airport and associated business park the major single component of all take-up in SEQ.

There were about 12,442 hectares of planned industrial land in SEQ as at 2017. This planned industrial land comprised land across all types, including land intended for high, medium and low impact industry, waterfront and marine industry, high technology industry and airports and airbases, as well as substantial industry investigation areas of approximately 5310 hectares.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 1233 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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. For example, full consideration of land use concept master plans for Ebenezer and Swanbank in Ipswich may substantially reduce the identified planned industrial land. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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, while the realistic availability figure provides a supply scenario that assumes some of the capacity is not realistically available by 2041.

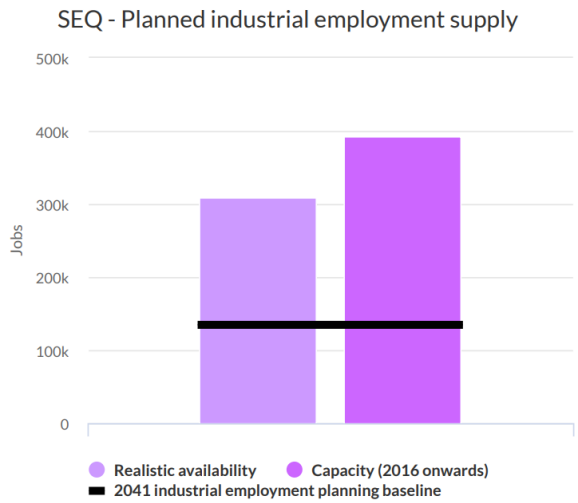
The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities. The realistic availability scenario is based on a method which provides an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned industrial employment supply in SEQ is about 392,000 employees, while the realistic availability of this supply is about 309,000 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 was recognised by the best practice research, which is explained in more detail in Moving forward.

The major 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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Brisbane

Summary

The population of Brisbane is expected to increase by 386,800 people between 2016 and 2041. This growth will require an additional 188,200 dwellings.

The capacity and realistic availability of planned dwelling supply in the Brisbane expansion area provides 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.

Dwelling approvals in Brisbane have exceeded the average annual benchmarks for consolidation and expansion area growth in recent years. Growth in the consolidation area should proportionately increase as expansion land supply diminishes and could be supported by the provision of key regional transport infrastructure.

In recent years, housing in Brisbane has become increasingly diverse and dwelling density in Brisbane has increased in accordance with the *ShapingSEQ 2017* preferred future.

There are currently 2.7 years of supply of reconfiguring a lot approvals in Brisbane, which is less than the minimum four years of supply sought by *ShapingSEQ 2017*. However, the total number of lot approvals is the highest it has been in Brisbane for 10 years. There are currently 5.1 years of supply of material change of use approvals for multiple dwellings in the Brisbane consolidation area, which exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

There are more than 15 years of planned industrial employment supply in Brisbane, however the capacity of planned industrial employment supply falls 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.

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 figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land 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 development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

In the Brisbane consolidation area, the capacity of planned dwelling supply is about 163,000 dwellings. This represents 19 years of supply and is about 14,000 dwellings less than the consolidation 2041 dwelling supply benchmark of 176,800 dwellings.

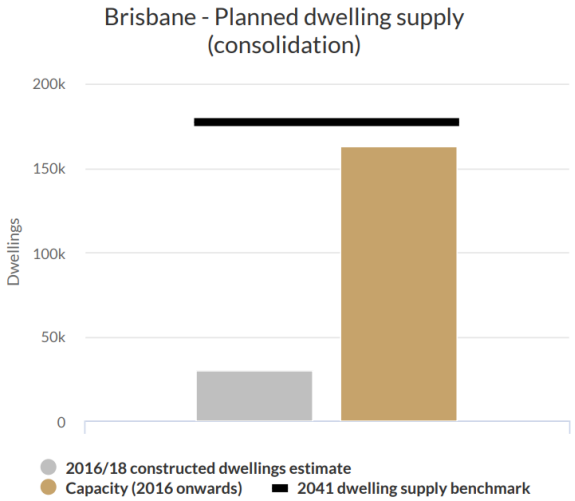
In the Brisbane expansion area, the capacity and realistic availability of planned dwelling supply are roughly 13,000 and 12,000 dwellings respectively. These figures are slightly more than the expansion 2041 dwelling supply benchmark of 11,400 dwellings.

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, 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.

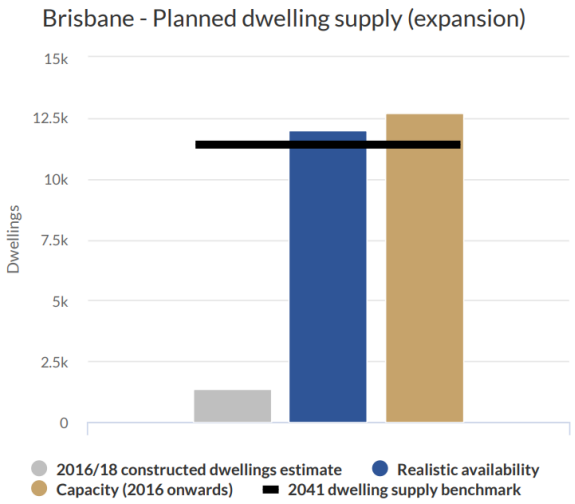
Brisbane City Council is currently preparing and seeking feedback on amendments to its planning scheme, some of which could increase planned dwelling supply in appropriate locations within the consolidation area. Economic Development Queensland is also preparing amendments to development schemes for Brisbane-based Priority Development Areas which would increase planned dwelling supply in the consolidation area.

Brisbane City Council has also nominated future growth nodes in the strategic framework of its planning scheme 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.

For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning and development scheme amendments 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 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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

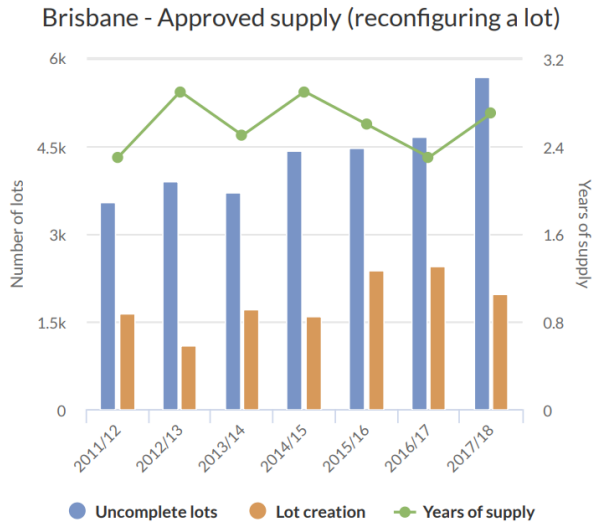
Approved supply – Brisbane

Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings across Brisbane.

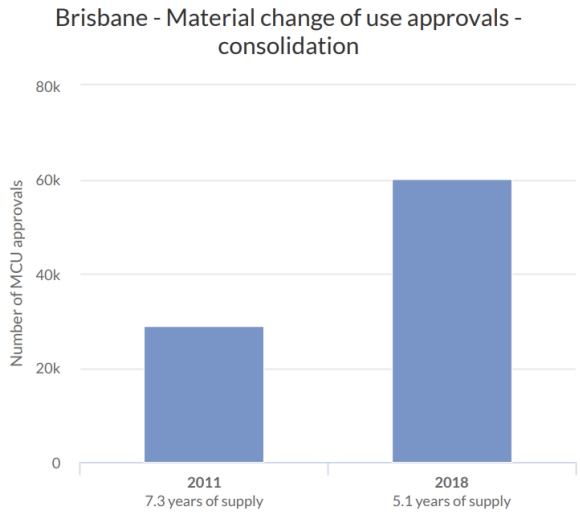
There are 2.7 years of supply of reconfiguring a lot approvals in the Brisbane consolidation and expansion areas overall, which is less than the minimum four years of supply sought by *ShapingSEQ 2017*. However, the total number of approvals is the highest it has been in Brisbane for about 10 years. The years of supply shows a general trend of about three years or less since 2011/12.

There are 5.1 years of supply of material change of use approvals for multiple dwellings in the Brisbane consolidation area. This is more than the minimum four years of supply sought by *ShapingSEQ 2017*. At June 2018, supply is more than twice the number previously reported for June 2011. The number of years of supply in June 2018 is less than in June 2011 because of the high rate of multiple dwelling construction in recent years, which increases the average annual demand figure used in calculating the years of supply.

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 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 dwellings that have received a development permit but have not yet been constructed, as at 30 June 2011 and 30 June 2018.

Dwelling growth – Brisbane

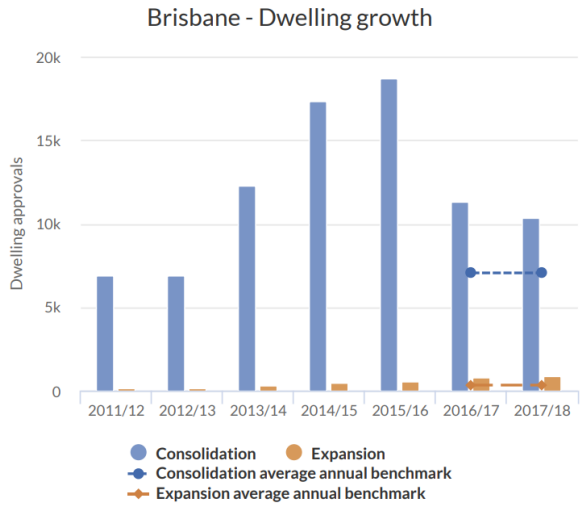
In recent years, dwelling approvals (used to measure dwelling growth) in Brisbane have substantially exceeded the average annual benchmarks, particularly for the consolidation area.

In 2017/18, there were 10,353 dwelling approvals in Brisbane's consolidation area, which was approximately 3300 dwellings more than the consolidation average annual benchmark of 7047 additional dwellings. There were 893 dwelling approvals in Brisbane's expansion area in 2017/18, which was approximately 560 dwellings more than the expansion average annual benchmark of 327 additional dwellings.

Dwelling approvals in the Brisbane consolidation and expansion areas for 2016/18 generally met the expected shares of growth to 2031 as identified in *ShapingSEQ 2017*, with dwelling growth in the

expansion area slightly above the expected share of four per cent. Approximately seven per cent of dwelling approvals were in the Brisbane expansion area for 2016/18. Approvals in the consolidation area (approximately 93 per cent) over the same period were slightly less than the expected share of 96 per cent.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – Brisbane

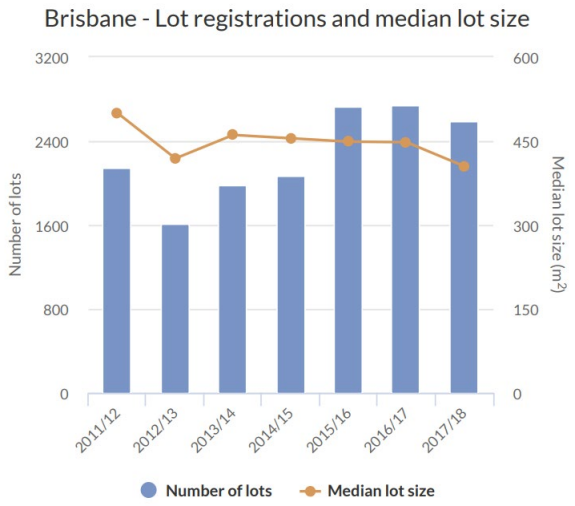
Overall dwelling density (measured through median lot size and mean population-weighted density) is increasing in Brisbane in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

Mean population-weighted dwelling density increased in Brisbane 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*.

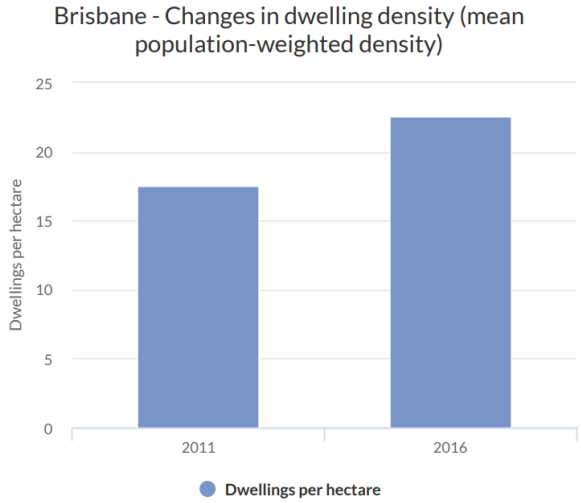
Median lot size in Brisbane decreased from 500m^2 to approximately 400m^2 from 2011/12 to 2017/18. This was associated with higher lot registrations in recent years. This measure is indicative of increased dwelling densities in new urban subdivisions in Brisbane.

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 lot size, see the Technical notes.



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



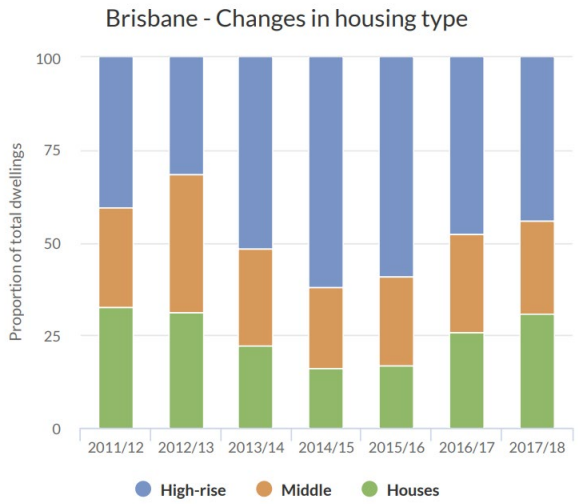
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Brisbane

Recent dwelling approvals indicate an increase in housing diversity in Brisbane, consistent with the *ShapingSEQ 2017* Measures that Matter preferred future.

Houses in Brisbane comprised 28 per cent (6607) of all new dwelling approvals for 2016/18, 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 6047 dwellings) and high-rise (46 per cent or 10,755 dwellings) over the same period were higher than their share of the dwelling stock (middle 25 per cent, high-rise nine per cent) as at the 2016 Census.

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.

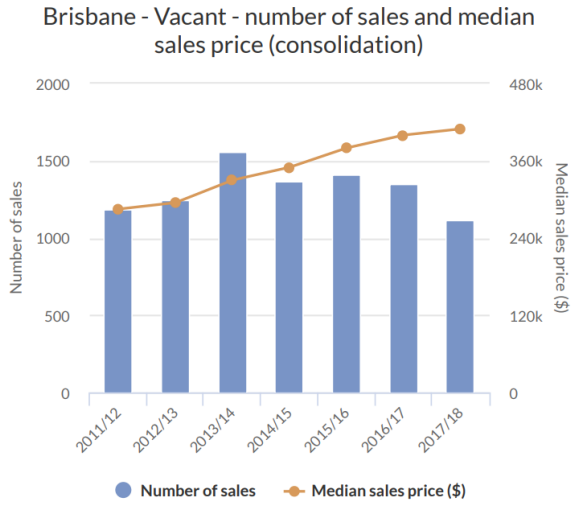
Sales and price – Brisbane

The median sales price for each category (vacant lots, houses and attached dwellings), in the consolidation and expansion areas, is higher in Brisbane than for South East Queensland (SEQ). The rate of price growth was also higher than or the same in Brisbane as for SEQ for vacant lots in the consolidation area and for houses in consolidation and expansion areas.

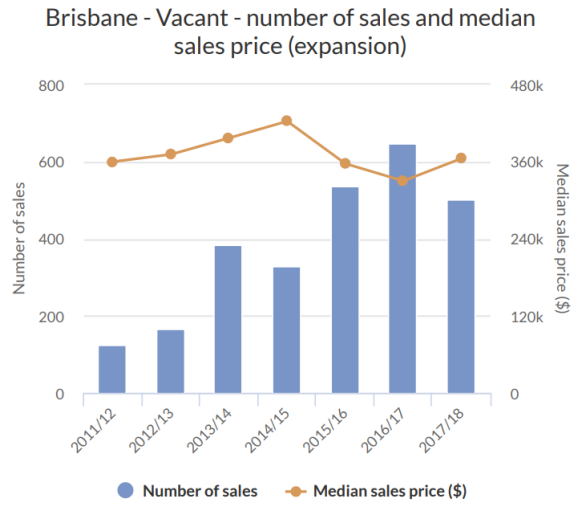
In the Brisbane consolidation area, from 2011/12 to 2017/18, the greatest growth in median sales price was for vacant lots (44 per cent) and houses (34 per cent). Across all categories, the rate of median price growth was consistently higher in the Brisbane consolidation area than in the Brisbane expansion area.

The median sales price is higher for vacant lots in the consolidation area than the expansion area. The median sales price for houses is 21 per cent higher in the expansion area, and for attached dwellings is 5 per cent higher, but these both represent a much lower number of sales than in the consolidation area.

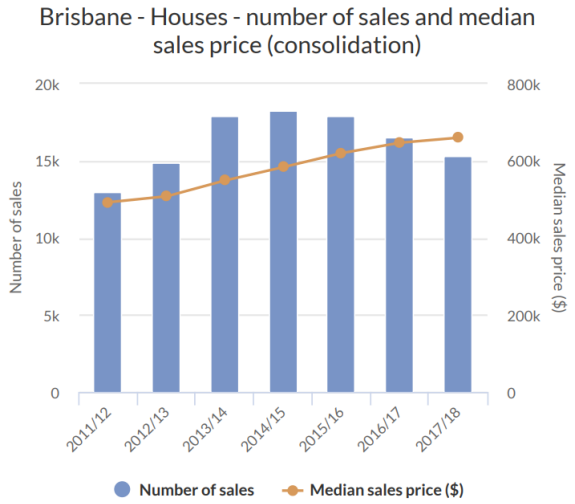
For more detail about the median sales price and number of sales, see the Technical notes.



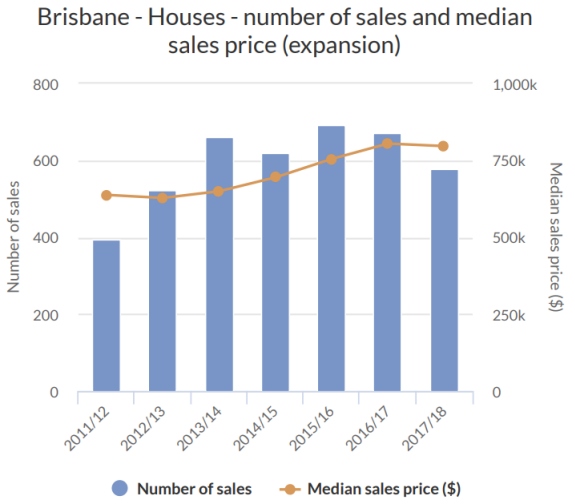
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



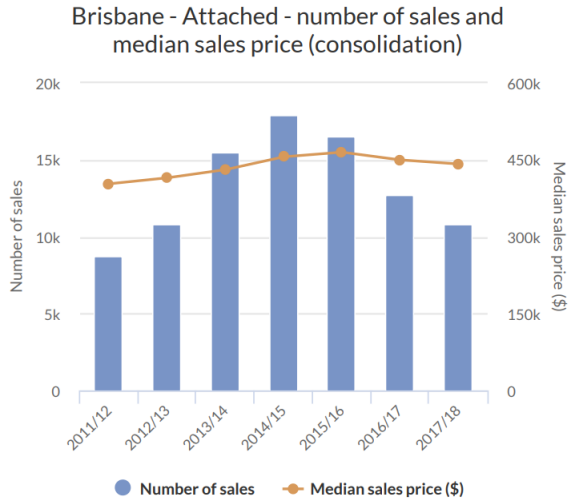
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



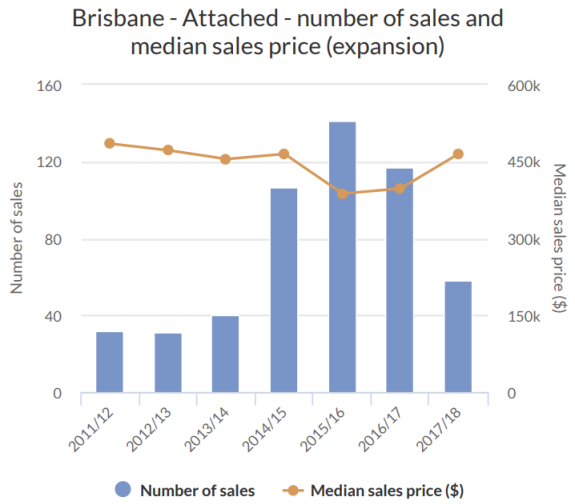
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

Industrial – Brisbane

Planned industrial land supply/take-up – Brisbane

The estimated take-up of developed industrial land between 2011 and 2017 in Brisbane was 265 hectares. The majority of this take-up was on land intended for medium impact industry, followed by high impact, airports and air bases and then low impact industry.

There were about 774 hectares of planned industrial land in Brisbane as at 2017. This planned industrial land comprised land intended for high, medium and low impact industry and other land categories, including airports and airbases and industry investigation areas.

For more detail about planned industrial land and take-up, see the Technical notes.

This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 265 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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*.

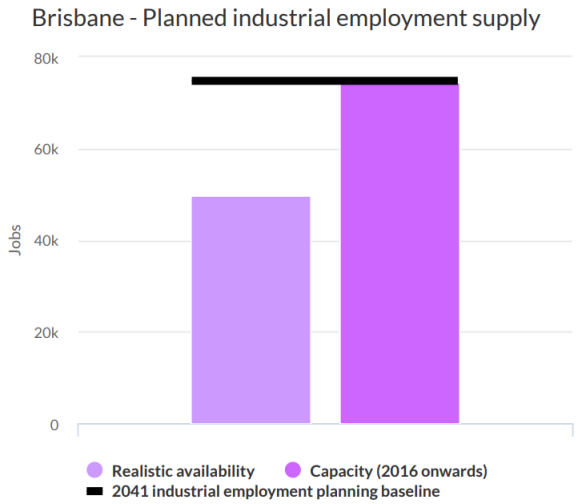
The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent, while the realistic availability figure provides a supply scenario that assumes some of the capacity is not realistically available 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned industrial employment supply in Brisbane is about 74,500 employees, which falls very slightly below the 2041 industrial employment planning baseline of about 74,700 employees. This represents about 27 years of supply. In contrast, the realistic availability of planned industrial employment supply in Brisbane is about 49,700 employees, representing about 18 years of supply, and well below the 2041 industrial employment planning baseline.

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.

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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Gold Coast

Summary

The population of the Gold Coast is expected to grow by approximately 350,000 people between 2016 and 2041, requiring an additional 158,900 dwellings.

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*.

Dwelling approvals in the Gold Coast consolidation area have typically been below the consolidation average annual benchmark in recent years, while dwelling approvals in the expansion area have exceeded the expansion average annual benchmark. As expansion land diminishes, the Gold Coast could increase its proportion of consolidation growth over time.

Recent dwelling approvals on the Gold Coast indicate a lower proportion of houses and a higher proportion of high-rises relative to existing dwelling stock, consistent with the *ShapingSEQ 2017* preferred future. However, the proportion of one to three storey attached dwelling approvals was lower, relative to existing dwelling stock, which is inconsistent with the *ShapingSEQ 2017* preferred future. Dwelling density on the Gold Coast has increased in accordance with the *ShapingSEQ 2017* preferred future.

There are currently 2.2 years of supply of reconfiguring a lot approvals on the Gold Coast, which is below the minimum four years of supply sought by *ShapingSEQ 2017*. The total number of lot approvals has been declining since 2011/12. As the supply of expansion land diminishes, it is expected that the supply of lot approvals and lot creation would reduce to lower levels. There are currently 10.7 years of supply of material change of use approvals for multiple dwellings in the Gold Coast consolidation area.

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

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 figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land 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 development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in

future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

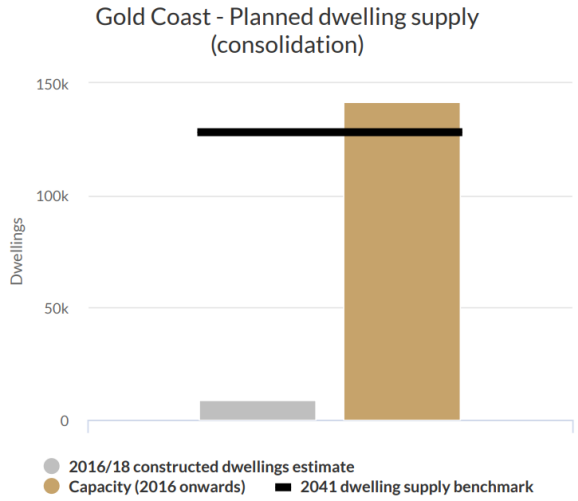
In the Gold Coast consolidation area, the capacity of planned dwelling supply is 141,944 dwellings, about 14,000 more than the consolidation 2041 dwelling supply benchmark.

In the Gold Coast expansion area, the capacity and realistic availability of planned dwelling supply are 46,911 and 45,376 dwellings respectively, well above the expansion 2041 dwelling supply benchmark.

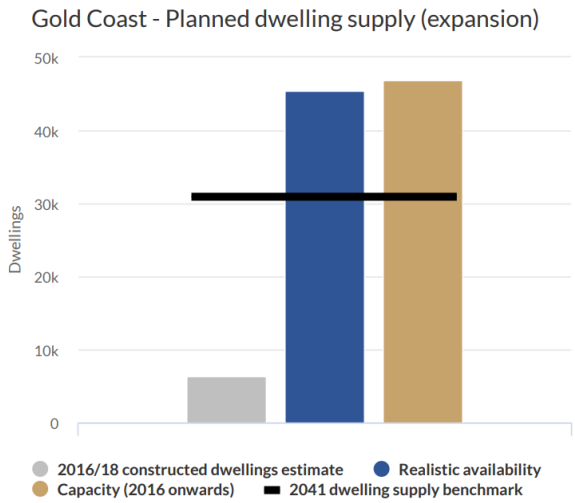
Realisation of planned dwelling supply in the Gold Coast consolidation area would be supported by extension of high-frequency public transport connections, including light rail services from Broadbeach to Coolangatta, as identified in *ShapingSEQ 2017* and the State Infrastructure Plan.

Gold Coast City Council is preparing amendments to its planning scheme, which could increase planned dwelling supply in the consolidation area.

For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning and development scheme amendments 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 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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

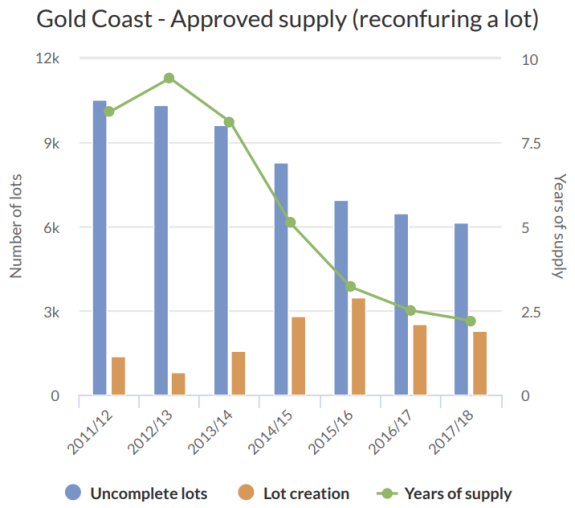
Approved supply – Gold Coast

Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings across the Gold Coast.

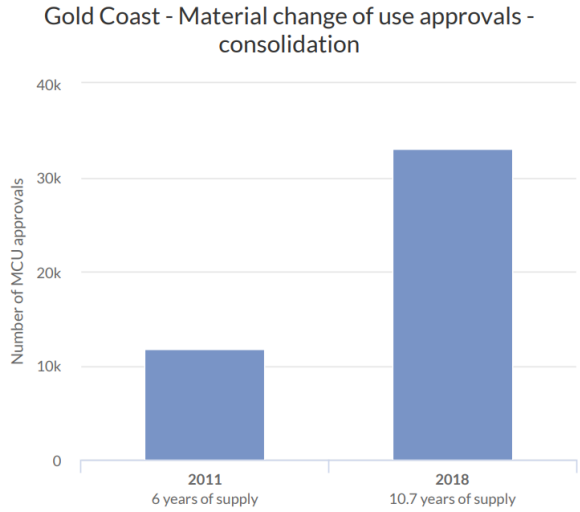
There are 2.2 years of supply of reconfiguring a lot approvals in the Gold Coast consolidation and expansion areas overall, less than the minimum four years of supply sought by *ShapingSEQ 2017*. The total number of current reconfiguring a lot approvals has declined since 2011/12, and lot creation has declined over the past two years. As the supply of expansion land diminishes, it is expected that the supply of 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 10.7 years of supply of material change of use approvals for multiple dwellings in the consolidation area, well above the minimum four years of supply sought by *ShapingSEQ 2017*. The number of material change of use approvals for multiple dwellings current in June 2018 is nearly three times the number reported as at June 2011, and nearly twice the number of years of supply at that time.

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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

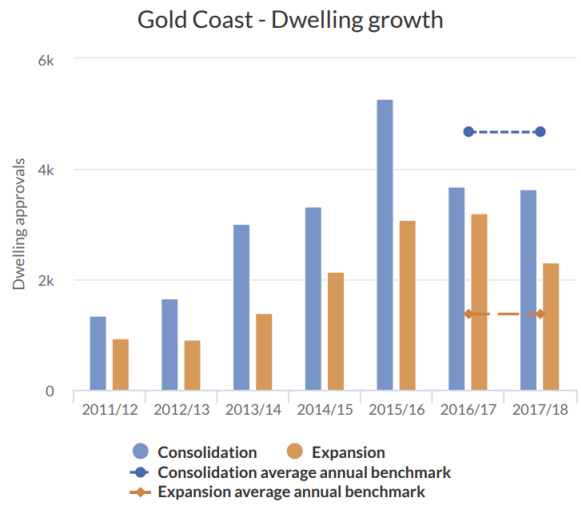
Dwelling growth – Gold Coast

In the Gold Coast consolidation area, dwelling approvals (used to measure dwelling growth) have typically been below the consolidation average annual benchmark. In the Gold Coast expansion area, in recent years, dwelling approvals have substantially exceeded the expansion average annual benchmark.

There were 3638 dwelling approvals in the Gold Coast consolidation area in 2017/18, which was approximately 1040 fewer than the consolidation average annual benchmark of 4667 additional dwellings. Over the same period, there were 2309 dwelling approvals in the Gold Coast's expansion area, which was approximately 930 dwellings more than the expansion average annual benchmark of 1373 additional dwellings.

Approximately 43 per cent of dwelling approvals were in the Gold Coast expansion area for 2016/18, which exceeded its expected share of growth to 2031 as identified in *ShapingSEQ 2017* (23 per cent). Dwelling approvals in the consolidation area (approximately 57 per cent) over the same period were less than the expected share of 77 per cent.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – Gold Coast

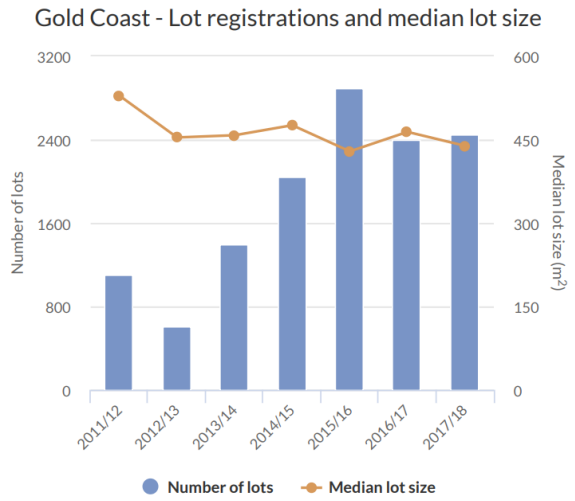
Dwelling density (measured through median lot size and mean population-weighted density) is increasing on the Gold Coast in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

Mean population-weighted dwelling density increased on the Gold Coast 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*.

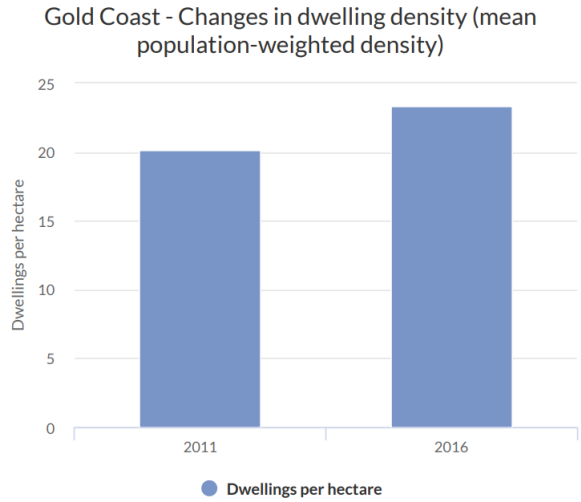
Median lot size decreased from approximately 530m^2 to 440m^2 from 2011/12 to 2017/18 on the Gold Coast. This was accompanied by a significant increase in lot registrations over the same period. This measure indicates increased dwelling densities in new subdivisions on the Gold Coast.

Changes to the Gold Coast planning scheme, and Priority Development Area development schemes over time, have supported increased dwelling densities.

For more detail about the calculation of mean population-weighted dwelling density and median lot size, see the Technical notes.



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



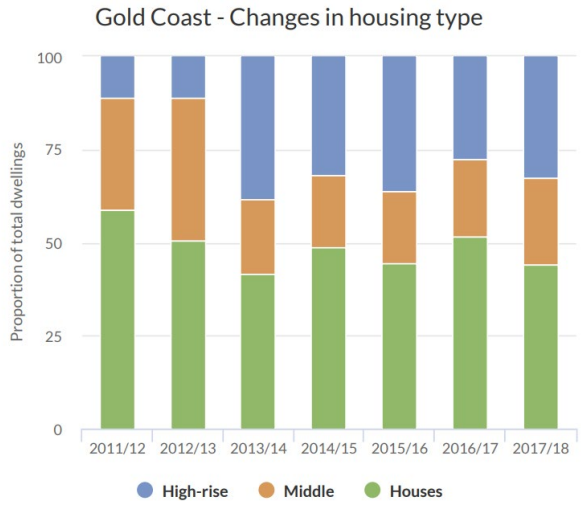
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Gold Coast

Recent dwelling approvals indicate a reduction in the proportion of houses and an increase in the proportion of high-rise on the Gold Coast, consistent with the *ShapingSEQ 2017* Measures that Matter preferred future. Recent dwelling approvals also show a reduction in the proportion of middle, which is not consistent with the preferred future.

Forty-eight per cent (6172 dwellings) of new dwelling approvals on the Gold Coast for 2016/18 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 (22 per cent or 2826 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 (30 per cent or 3840 dwellings) exceeded their proportion of the existing dwelling stock (12 per cent).

For more detail about dwelling approvals, see the Technical notes.



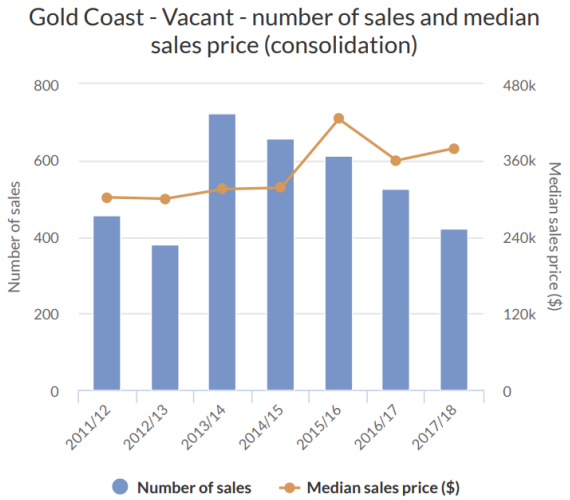
This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.

Sales and price – Gold Coast

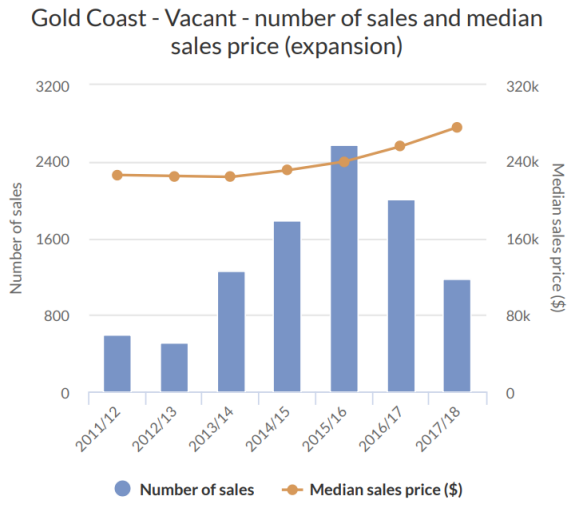
The median sales price for each category (vacant lots, houses and attached dwellings), in the consolidation and expansion areas, is higher on the Gold Coast than for South East Queensland (SEQ). The rate of price growth on the Gold Coast for each category exceeded or matched SEQ.

Over the 2011/12 to 2017/18 period, the greatest growth in median sales price within Gold Coast was for houses (44 per cent) and then vacant lots (26 per cent) in the consolidation area. For each category the rate of price growth and actual prices are consistently higher in the consolidation area than in the expansion area on the Gold Coast. This is consistent with the outcome for all of SEQ.

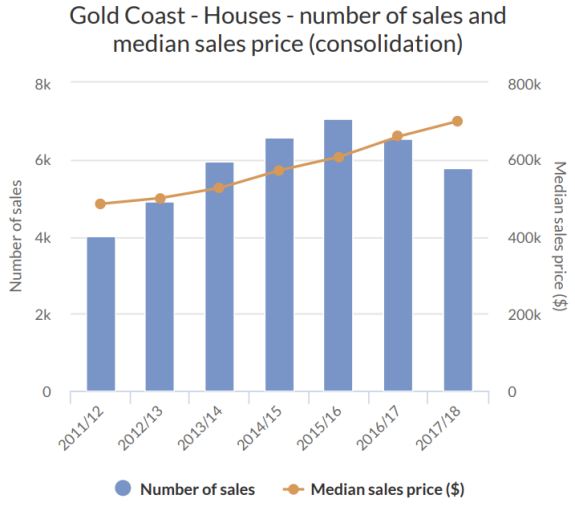
For more detail about the median sales price and number of sales, see the Technical notes.



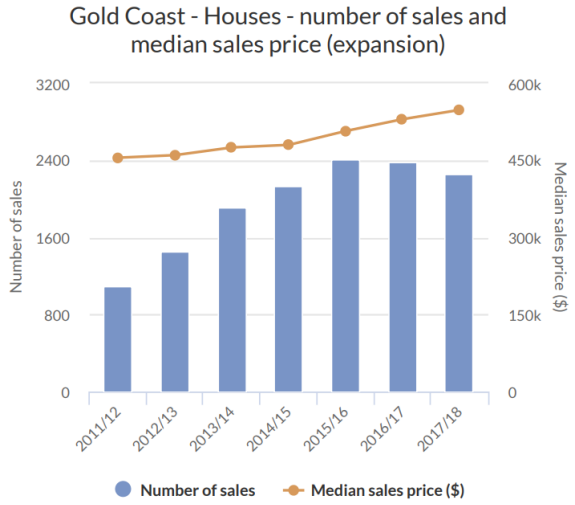
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



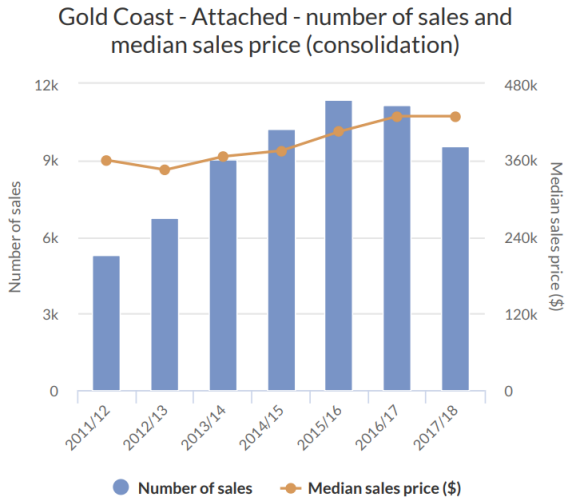
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



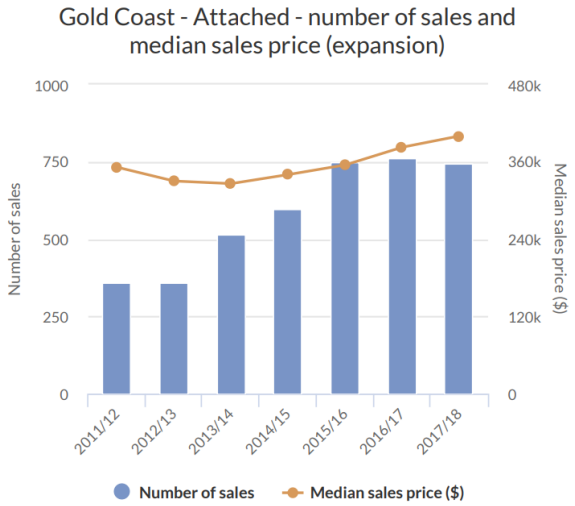
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

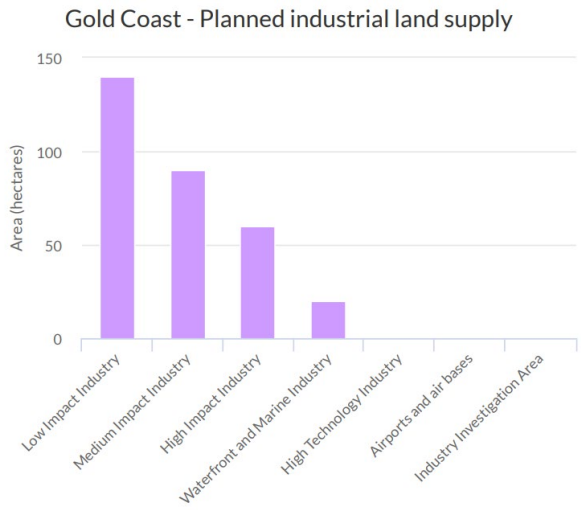
Industrial – Gold Coast

Planned industrial land supply/take-up – Gold Coast

About 121 hectares of developed industrial land was taken-up on the Gold Coast between 2011 and 2017. The take-up occurred mostly on land intended for low, medium and high impact industry.

There were about 304 hectares of planned industrial land on the Gold Coast as at 2017, including about 228 hectares at Yatala-Stapylton. This planned industrial land comprised land intended for low, medium, high impact industry and waterfront and marine industry.

For more detail about the meaning and calculation of the planned industrial land and take-up measures, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 121 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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*.

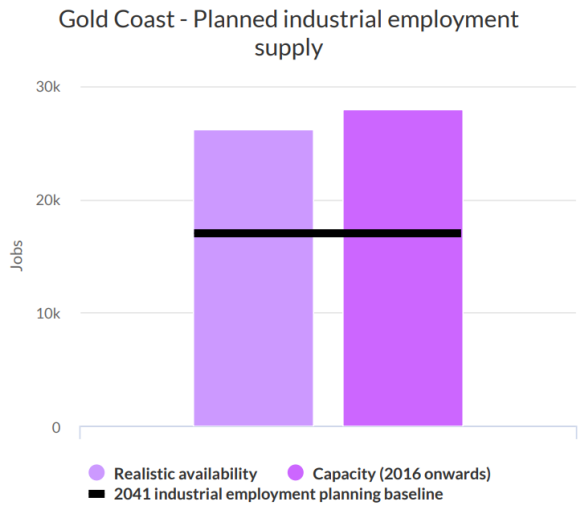
The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent, while the realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned industrial employment supply on the Gold Coast is about 28,000, while the realistic availability of this supply is about 26,000 employees. The capacity figure represents about 45 years of supply and is markedly above the 2041 industrial employment planning baseline of about 17,000 employees. The realistic availability figure represents about 42 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 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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Ipswich

Summary

The population of Ipswich is expected to increase by approximately 319,900 people between 2016 and 2041, requiring an additional 111,700 dwellings.

Dwelling approvals in the Ipswich consolidation area have typically 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.

The capacity and realistic availability of planned dwelling supply in the Ipswich consolidation and expansion areas provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*. 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 would be expected to continue as urban development momentum gathers and continues in the major growth areas of Ripley Valley and Springfield.

Recent dwelling approvals indicate an increase in housing diversity in Ipswich, and dwelling density has also increased, consistent with the *ShapingSEQ 2017* preferred future.

There are currently 6.1 years of supply of reconfiguring a lot approvals in Ipswich, which exceeds the minimum four years of supply sought by *ShapingSEQ 2017*. There are currently 7.1 years of supply of material change of use approvals for multiple dwellings in the Ipswich consolidation area, which also exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

The capacity and realistic availability of the planned industrial employment supply in Ipswich provides the minimum 15 years of supply sought by *ShapingSEQ 2017* and substantially exceeds the 2041 industrial employment planning baseline.

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 figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land 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 development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

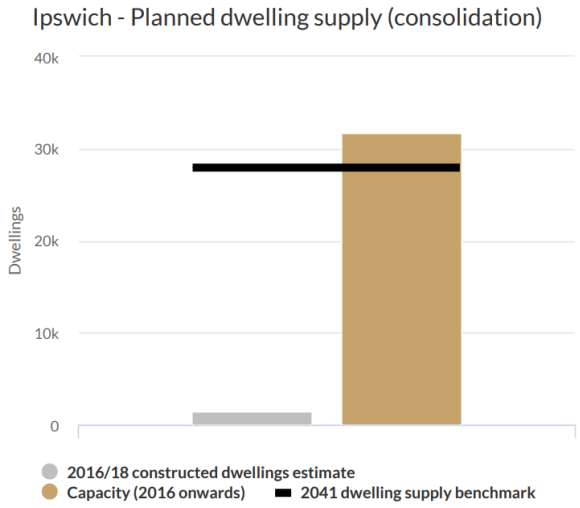
In the Ipswich consolidation area, the capacity of planned dwelling supply is about 31,700 dwellings. This figure is slightly above the consolidation 2041 dwelling supply benchmark of 27,900.

In the Ipswich expansion area, the capacity and realistic availability of planned dwelling supply are significantly above the expansion 2041 dwelling supply benchmark of 83,800 dwellings. The capacity is about 124,400 dwellings and the realistic availability is about 97,200 dwellings.

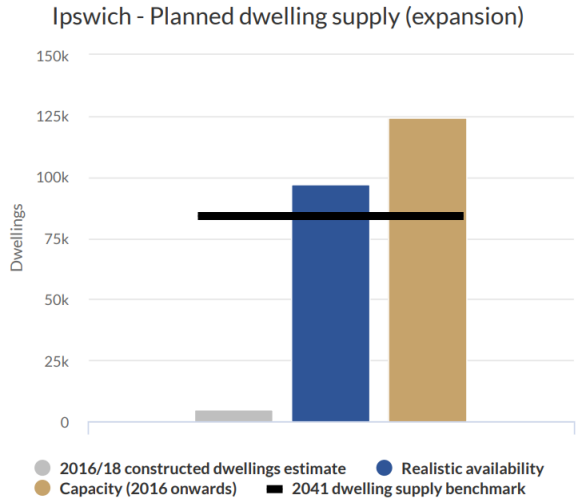
Realisation of the planned dwelling supply in the expansion area needs to be supported by sub-regional sewerage and local road upgrades for the Ripley Valley Priority Development Area. It would also be supported by region-shaping infrastructure identified in *ShapingSEQ 2017* and the State Infrastructure Plan, including the Ipswich to Springfield Public Transport Corridor.

Ipswich City Council has identified, in the strategic framework of its planning scheme, a variety of areas for further investigation to encourage increased planned dwelling supply in the Ipswich consolidation area. Council is currently preparing a new planning scheme which could increase planned dwelling supply in Ipswich.

For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning and development scheme amendments in process for Ipswich, 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 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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

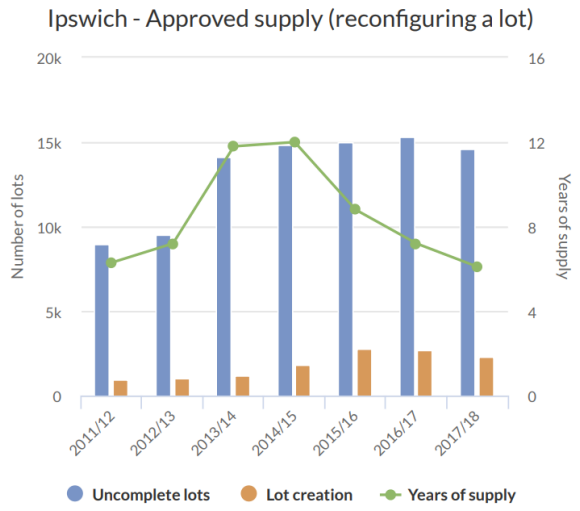
Approved supply – Ipswich

Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings across the Ipswich area.

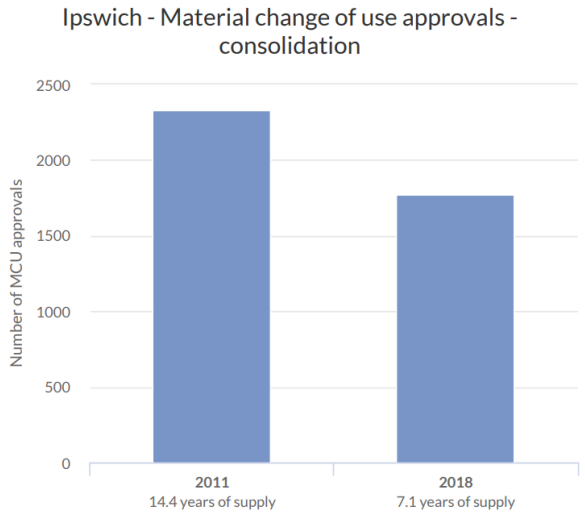
There are 6.1 years of supply of reconfiguring a lot approvals in the Ipswich consolidation and expansion areas overall, which exceeds the minimum four years of supply sought by *ShapingSEQ 2017*. The total number of reconfiguring a lot approvals currently is about 700 lots below the long-term historical high for Ipswich.

Ipswich also has 7.1 years of supply of material change of use approvals for multiple dwellings in the consolidation area, 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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

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. In the Ipswich expansion area, dwelling approvals exceeded the expansion average annual benchmark in 2017/18, which is indicative of an upward trend in expansion area dwelling approvals in recent years.

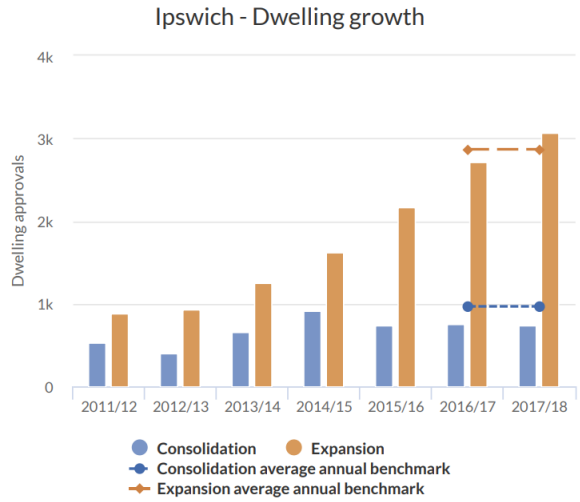
There were 737 dwelling approvals in the Ipswich consolidation area in 2017/18, which was approximately 230 dwellings less than the consolidation average annual benchmark of 967 additional dwellings. Over the same period, there were 3063 dwelling approvals in Ipswich's expansion area, which was approximately 200 dwellings more than the expansion average annual benchmark of 2867 additional dwellings.

Eighty per cent of dwelling approvals were in Ipswich's expansion area for 2016/18, which is more than its expected share of 75 per cent. Dwelling approvals in the consolidation area were approximately 20 per cent over the same period, which is less than the expected share of 25 per cent.

High rates of expansion dwelling growth would be expected to continue as urban development momentum gathers and continues in the major growth areas of Ripley Valley and Springfield.

Increased dwelling growth in the consolidation area may 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 Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – Ipswich

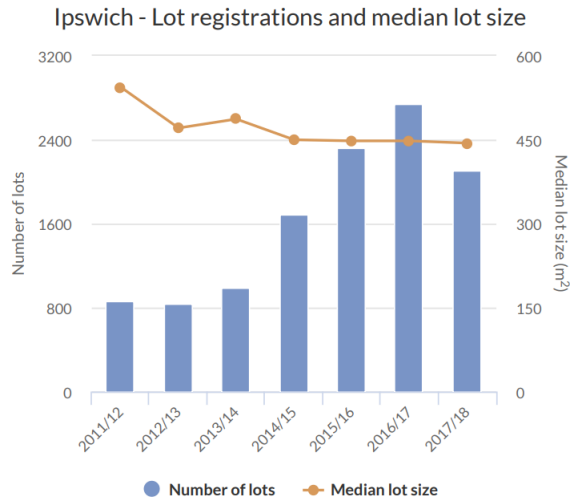
Overall dwelling density (measured through median lot size and mean population-weighted density) is increasing in Ipswich in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

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*.

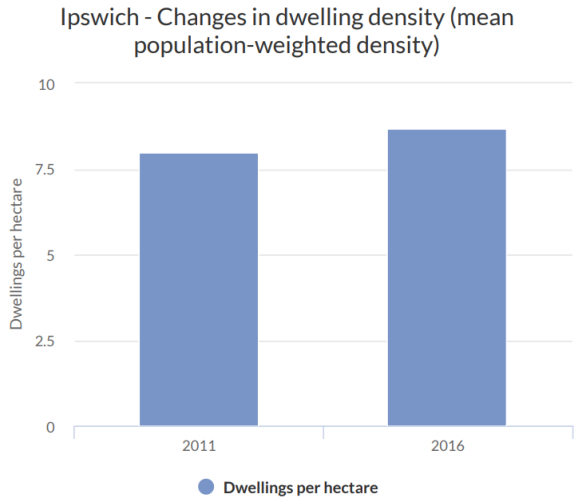
Median lot size in Ipswich decreased from approximately 550m^2 to 440m^2 from 2011/12 to 2017/18. This was accompanied by a greater number of lot registrations in recent years. This measure indicates increased dwelling densities in new urban subdivisions in Ipswich.

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 lot size, see the Technical notes.



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



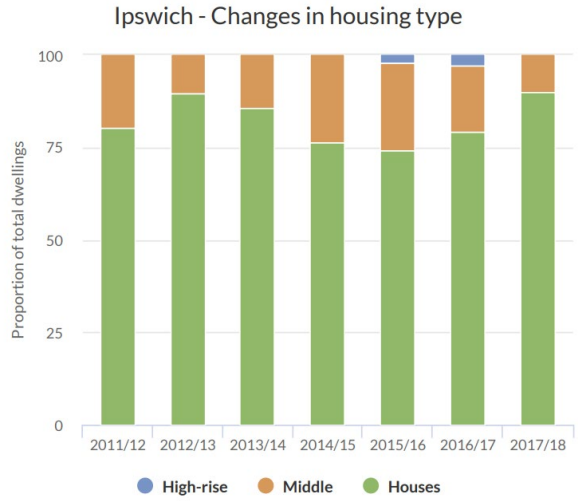
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Ipswich

Recent dwelling approvals indicate an increase in housing diversity in Ipswich, consistent with the *ShapingSEQ 2017* Measures that Matter preferred future.

Eighty-five per cent (6180) of all new dwelling approvals in Ipswich for 2016/18 were for houses, which was less than existing dwelling stock (89 per cent as at the 2016 Census). Dwelling approvals for middle (14 per cent or 989 dwellings) and high-rise (one per cent or 104 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.

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.

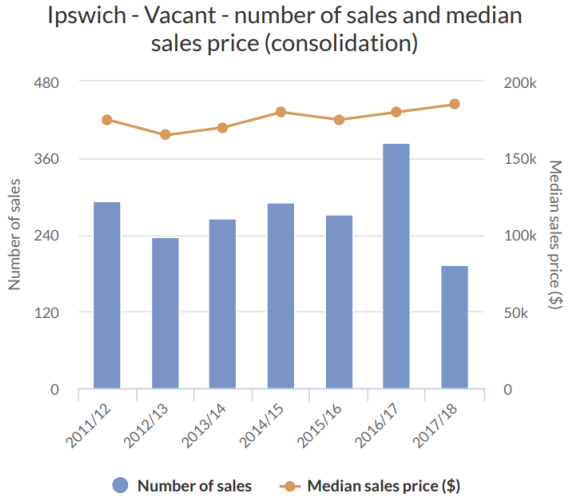
Sales and price – Ipswich

The median sales price for all categories (vacant lots and houses and attached dwellings) in the consolidation and expansion areas is lower in Ipswich than for South East Queensland (SEQ).

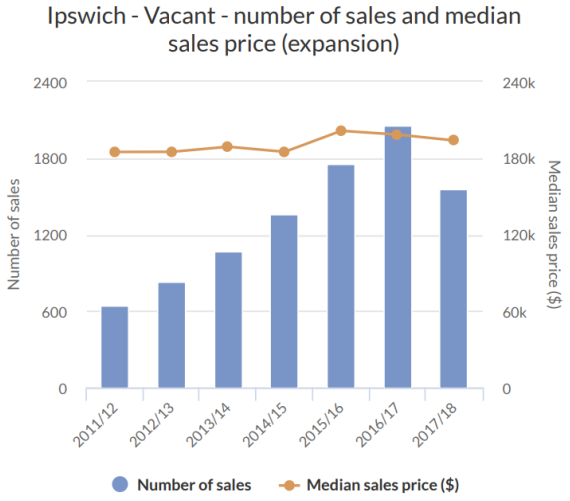
The rate of price growth was lower for Ipswich than SEQ for vacant lots and houses, but higher for attached dwellings, in consolidation and expansion areas.

Over the 2011/12 to 2017/18 period, the greatest growth in median sales price within Ipswich was for attached dwellings in the consolidation area (27 per cent) and then houses in the expansion area (17 per cent). The rate of price growth and actual prices for houses are higher in the expansion area than in the consolidation area within Ipswich. This is contrary to the outcome for all of SEQ.

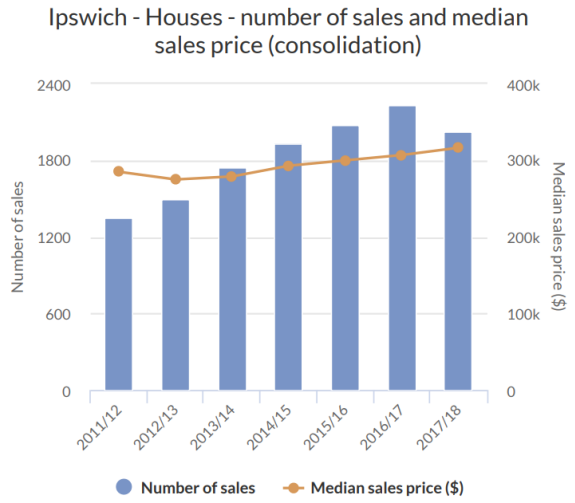
For more detail about the median sales price and number of sales, see the Technical notes.



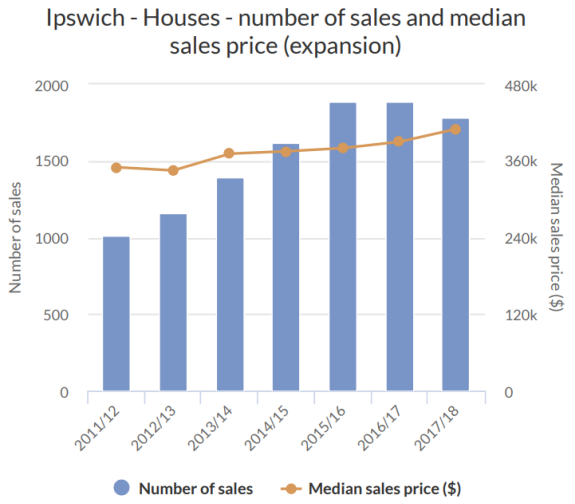
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



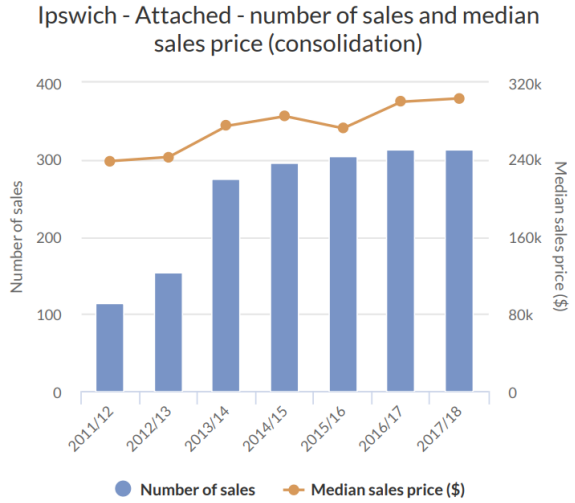
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



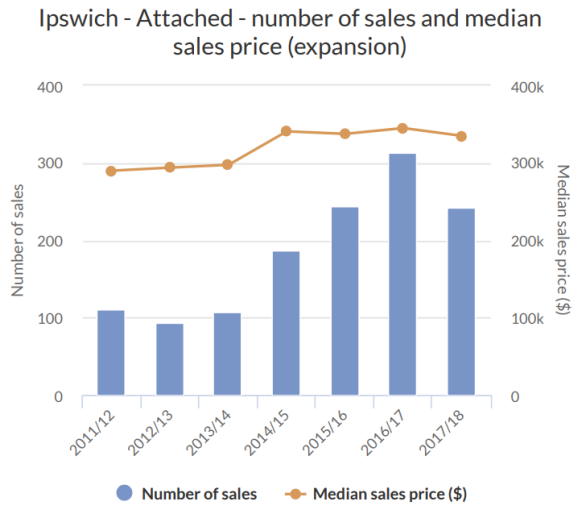
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

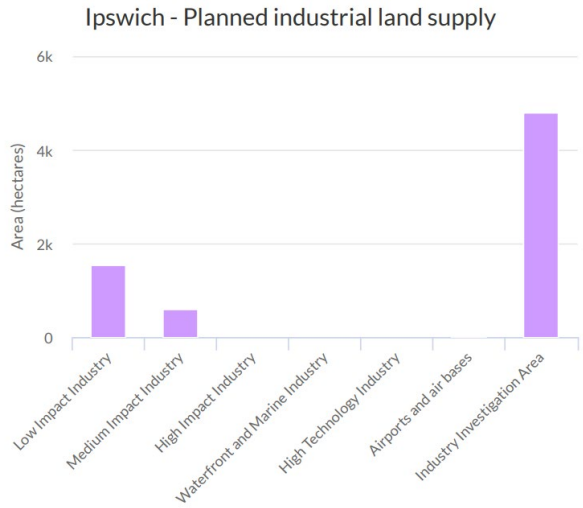
Industrial – Ipswich

Planned industrial land supply/take-up – Ipswich

The estimated take-up of developed industrial land between 2011 and 2017 in Ipswich was about 46 hectares, about 33 hectares of which occurred at Redbank. The take-up occurred on land intended for low and medium impact industry.

There were about 6,978 hectares of planned industrial land in Ipswich as at 2017. This planned industrial land comprised land intended for medium and low impact industry, and an industry investigation area of approximately 4810 hectares.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 46 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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. For example, full consideration of land use concept master plans for Ebenezer and Swanbank in Ipswich may substantially reduce the identified planned industrial land. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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*.

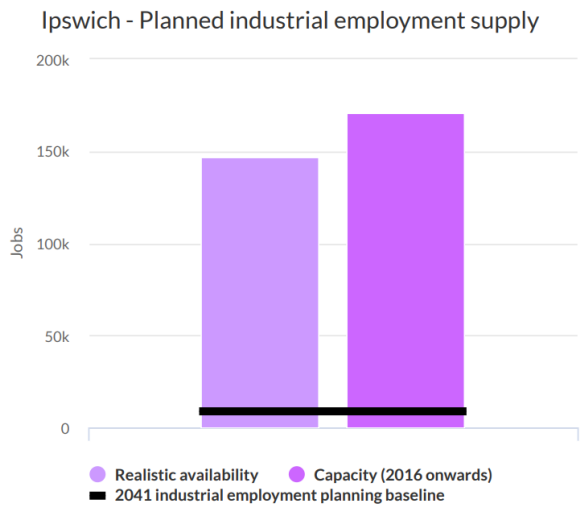
The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent, while the realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned industrial employment supply in Ipswich is about 171,200 employees, while the realistic availability of this supply is about 146,600 employees. Most of this planned industrial employment supply is at Ebenezer and Swanbank. These figures are considerably greater than the 2041 industrial employment planning baseline of about 8,700 employees. However, some excess of planned industrial employment supply may be appropriate to facilitate strategic economic development opportunities when they arise. This was recognised by the best practice research, which is explained in more detail in Moving forward.

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.

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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Lockyer Valley

Summary

The population of the Lockyer Valley is expected to increase by approximately 21,500 people between 2016 and 2041, requiring an additional 9600 dwellings.

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*.

In recent years, dwelling approvals in the Lockyer Valley have been consistently below the expansion average annual benchmark (there is no consolidation area in the Lockyer Valley).

Recent dwelling approvals continue the dominance of houses in the Lockyer Valley, and dwelling density has not changed significantly, contrary to the *ShapingSEQ 2017* preferred future.

The area currently has 7.4 years of supply of reconfiguring a lot approvals, which far exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

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*.

Residential – Lockyer Valley

Planned dwelling supply – Lockyer Valley

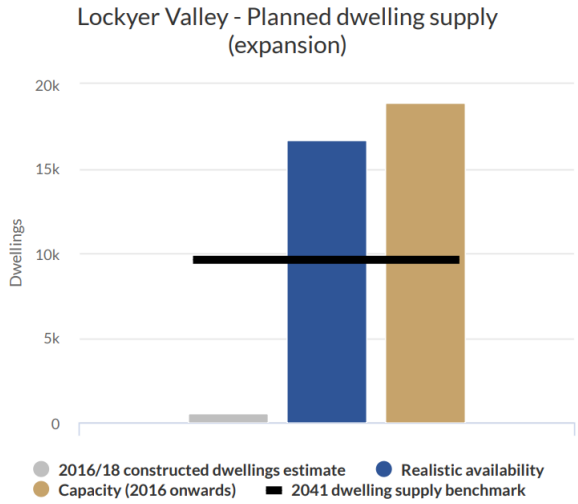
The capacity and realistic availability of planned dwelling supply in Lockyer Valley, which is wholly within the expansion area, provide more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land 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 development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned dwelling supply in Lockyer Valley is about 18,900 dwellings, while the realistic availability is about 16,700 dwellings. These figures are significantly above the expansion 2041 dwelling supply benchmark of 9600 dwellings.

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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

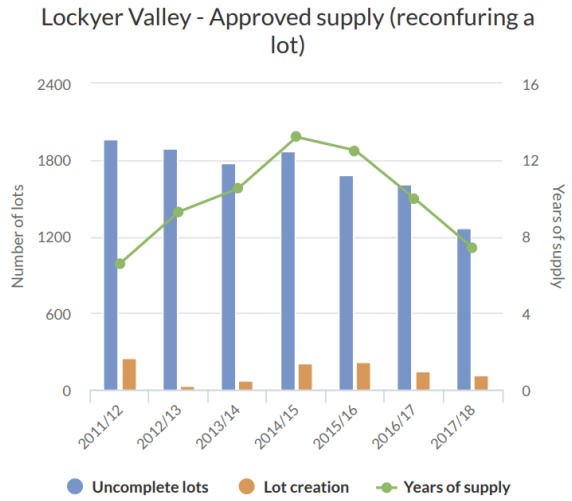
Approved supply – Lockyer Valley

Approved supply is measured by analysing reconfiguring a lot approvals across the Lockyer Valley.

Lockyer Valley has 7.4 years of supply of reconfiguring a lot approvals. This is well above the minimum four years of supply sought by *ShapingSEQ 2017*. In 2018 the total number of current reconfiguring a lot approvals indicates a declining trend relative to previous reporting years. However, the declining level of recent lot creation means the years of supply are adequate.

There are no material change of use approvals for multiple dwellings 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 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.

Dwelling growth – Lockyer Valley

The expansion area applies to the whole of the Lockyer Valley, and this report indicates that there is sufficient planned dwelling supply to accommodate the 2041 dwelling supply benchmark.

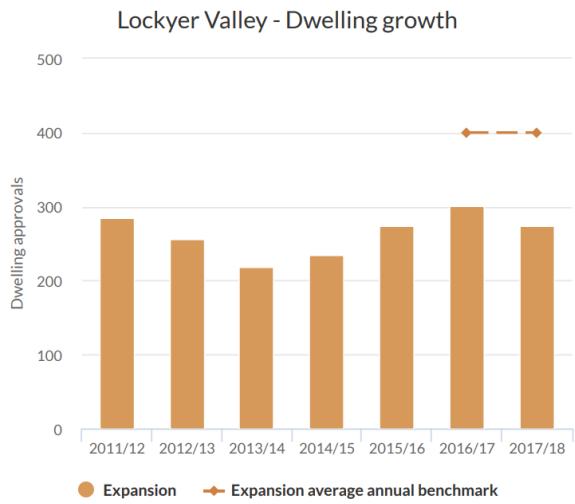
In recent years, dwelling approvals (used to measure dwelling growth) in Lockyer Valley have been consistently below the expansion average annual benchmark.

There were 274 dwelling approvals in the Lockyer Valley expansion area in 2017/18, which was approximately 130 fewer than the expansion average annual benchmark of 400 additional dwellings.

Given the relatively high overall rate of dwelling growth experienced recently across most of south-east Queensland, dwelling growth in the Lockyer Valley may increase proportionate to the availability of and access to local employment opportunities and services.

For more information about improvements to the measurement of net growth over time, see Moving forward.

For more detail about dwelling approvals, see the Technical notes.



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

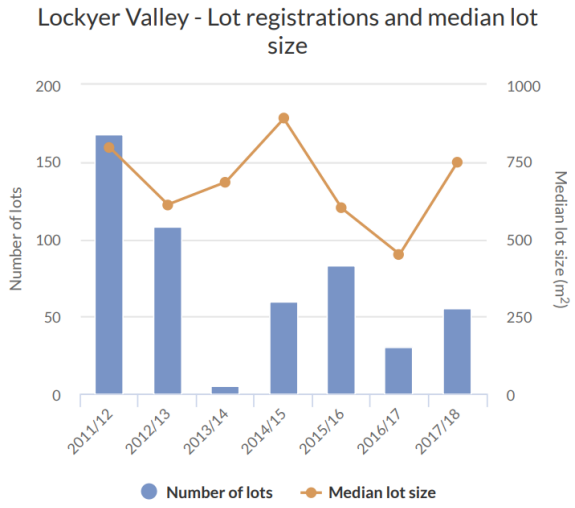
Changes in dwelling density – Lockyer Valley

Dwelling density (measured through median lot size and mean population-weighted density) has not changed significantly in Lockyer Valley in recent years and has not contributed to the *ShapingSEQ 2017* Measures that Matter preferred future for increased dwelling densities and smaller lot sizes.

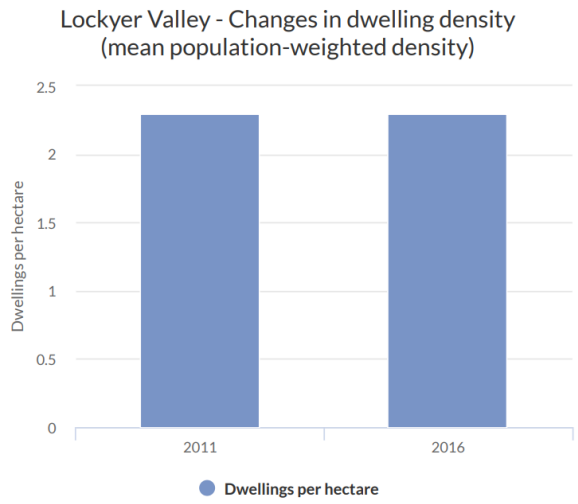
Mean population-weighted dwelling density in the Lockyer Valley remained static between 2011 and 2016, at 2.3 dwellings per hectare. This represents the average dwelling density at which the population of Lockyer Valley lives and is comparable to the net residential density used by *ShapingSEQ 2017*.

Median lot size in the Lockyer Valley fluctuated from 2011/12 to 2017/18. This fluctuation may be due 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 lot size, see the Technical notes.



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



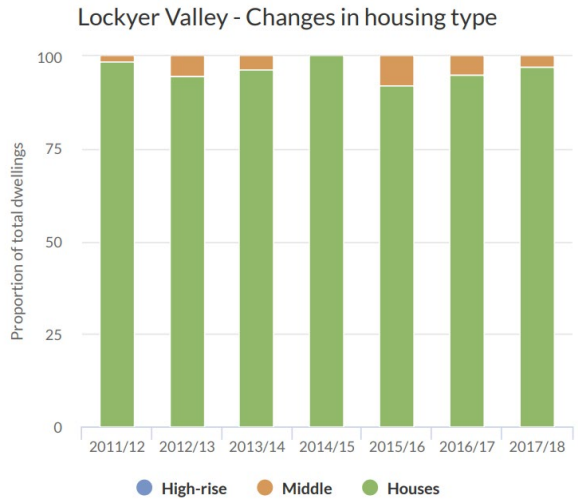
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Lockyer Valley

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

Ninety-six per cent (552 dwellings) of all new dwelling approvals in Lockyer Valley for 2016/18 were for houses, which was a slightly higher proportion than for existing dwelling stock as at the 2016 Census (95 per cent). Dwelling approvals for middle were four per cent (23 dwellings) over the same period, which was slightly less than for dwelling stock as at the 2016 Census (five per cent). There were no approvals for high-rise dwellings for 2016/18.

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.

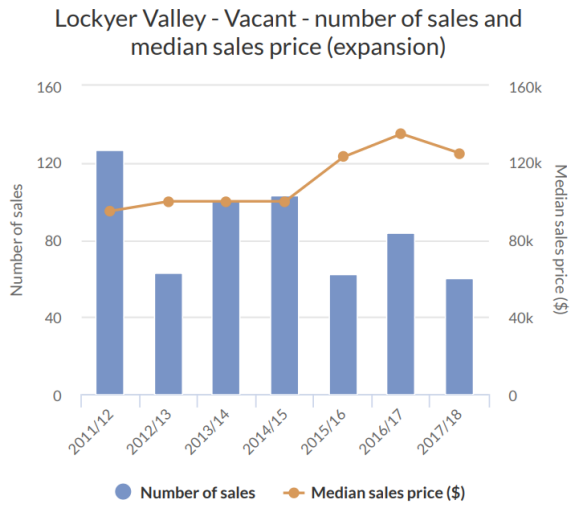
Sales and price – Lockyer Valley

The median sales price for each category (vacant lots, houses and attached dwellings) is lower in Lockyer Valley than for South East Queensland (SEQ). The rate of growth in median sales price from 2011/12 to 2017/18 was also lower than in SEQ as a whole, except for vacant lots which are about half the median sales price of SEQ but experienced a high rate of price growth (32 per cent).

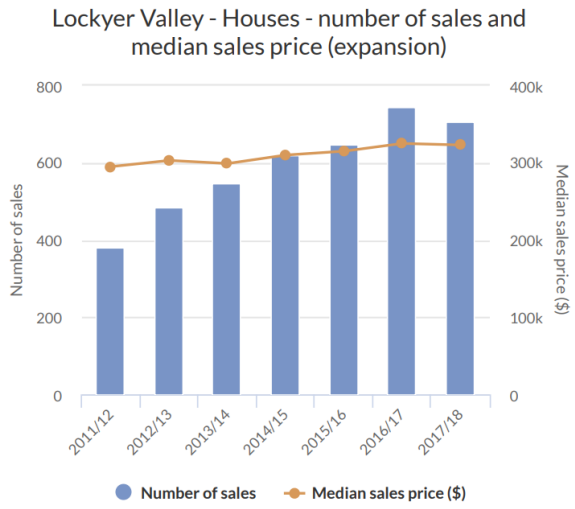
The number of sales for Lockyer Valley is low, particularly for vacant lots and attached dwellings. This is typical for rural local government areas in SEQ and contributes to more variation in median sales price from year to year.

For more detail about the median sales price and number of sales, see the Technical notes.

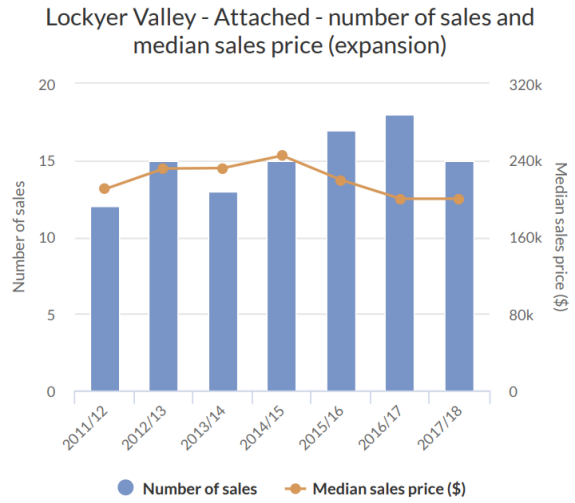
Note: No consolidation area is identified for Lockyer Valley.



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



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



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

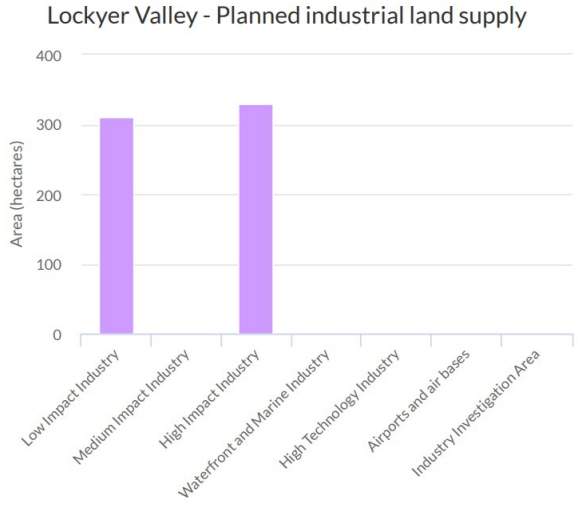
Industrial – Lockyer Valley

Planned industrial land supply/take-up – Lockyer Valley

The estimated take-up of developed industrial land between 2011 and 2017 in Lockyer Valley was 3.3 hectares.

There were about 637 hectares of planned industrial land in Lockyer Valley as at 2017. This planned industrial land comprised land intended for low and high impact industry.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 3.3 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

Planned industrial employment supply – Lockyer Valley

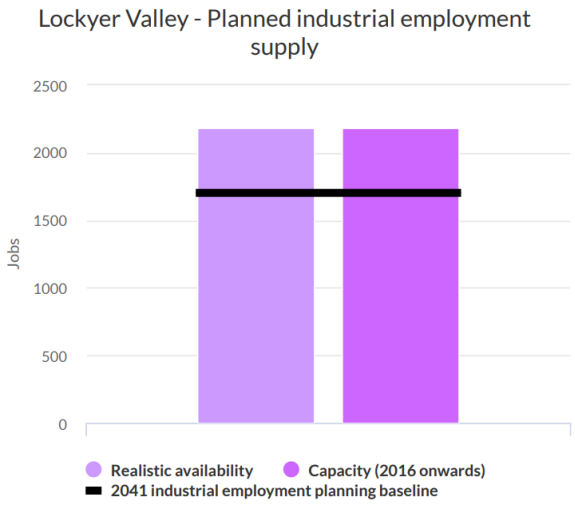
The capacity and realistic availability of planned industrial employment supply in Lockyer Valley provides the minimum 15 years of supply sought by *ShapingSEQ 2017*.

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, while 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

Both the capacity and realistic availability of planned industrial employment supply in Lockyer Valley are about 2,200 employees. These figures are more than the 2041 industrial employment planning baseline of about 1,700 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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Logan

Summary

The population of Logan is expected to grow by more than 272,000 people between 2016 and 2041, requiring approximately 89,900 additional dwellings.

The capacity and realistic availability of planned dwelling supply in the Logan consolidation area provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*. The capacity of planned dwelling supply in the Logan expansion area also exceeds the minimum 15 years of supply sought by *ShapingSEQ 2017*, however the realistic availability of this planned dwelling supply is marginally below the 2041 dwelling supply benchmark.

Dwelling approvals in the Logan expansion area have typically been below the expansion area average annual benchmark in recent years, while dwelling approvals in the consolidation area have exceeded the consolidation average annual benchmark in recent years. Increased expansion area dwelling growth would be supported over time by the infrastructure arrangements identified for the Greater Flagstone Priority Development Area and the Yarrabilba Priority Development Area.

Recent dwelling approvals indicate an increase in housing diversity in Logan, and dwelling density has also increased, consistent with the *ShapingSEQ 2017* preferred future.

There are currently 4.9 years of supply of reconfiguring a lot approvals and 13.2 years of supply of material change of use approvals in Logan, which are above the minimum four years of supply sought by *ShapingSEQ 2017*.

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

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 figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land supply scenario that considers whether some of the capacity is not realistically available by 2041.

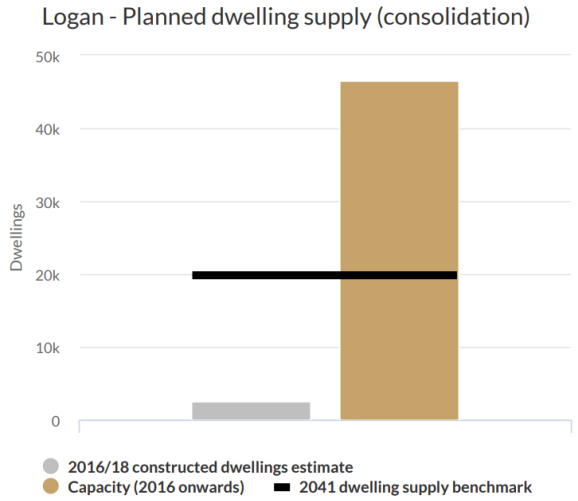
The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

In the Logan consolidation area, the capacity of planned dwelling supply is significantly greater than the consolidation 2041 dwelling supply benchmark of 19,900 dwellings.

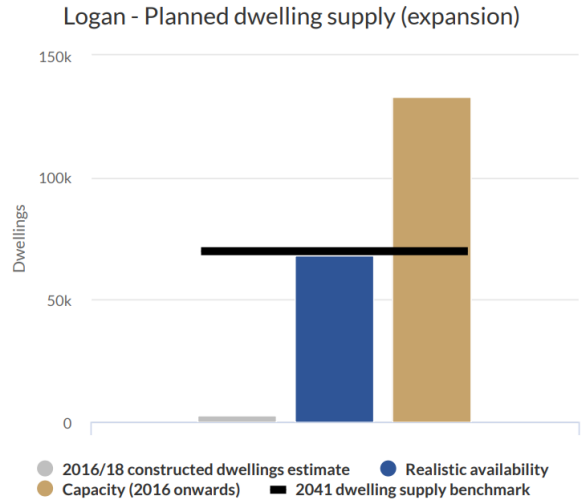
In the Logan expansion area, the capacity of planned dwelling supply is significantly greater than the expansion 2041 dwelling supply benchmark of 70,000 dwellings, while the realistic availability is much lower, and marginally below the benchmark. The realistic availability figure of about 68,300 dwellings equates to around 30 years of supply.

Much of the planned dwelling supply in the Logan expansion area is located within the Greater Flagstone and Yarrabilba priority development areas. Realisation of this planned dwelling supply needs to be supported by sub-regional arrangements for sewerage provision and upgrades to local and state roads and the Salisbury to Beaudesert rail corridor. It would also be supported by frequent public transport services as identified by *ShapingSEQ 2017*. An infrastructure agreement is currently under negotiation to support local government infrastructure provision in those areas.

For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning and development scheme amendments 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 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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

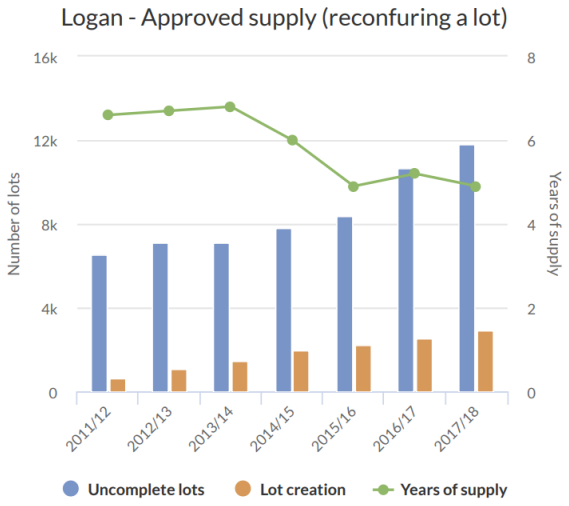
Approved supply – Logan

Approved supply is measured by analysing reconfiguring a lot and material change of use approvals for multiple dwellings across Logan.

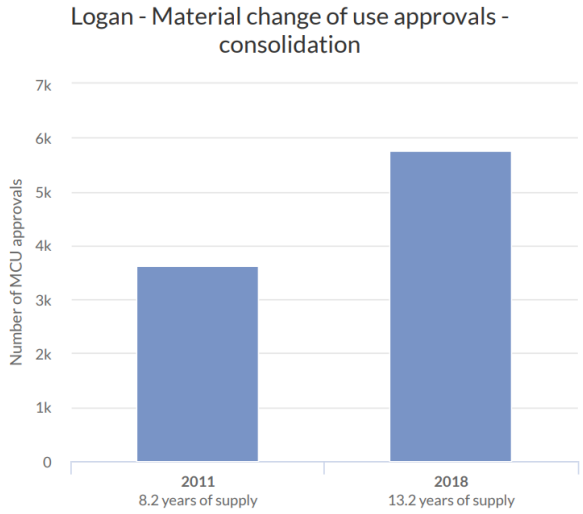
There are 4.9 years of supply of reconfiguring a lot approvals in the Logan consolidation and expansion areas overall, which is above the minimum four years of supply sought by *ShapingSEQ 2017*. The total number of current reconfiguring a lot approvals has been increasing since 2011/12 and is the highest it has been in Logan for about 10 years. The years of supply of lot approvals have consistently been above four years of supply since 2011/12. A decline in the years of supply in recent years has been accompanied by an increasing rate of lot creation.

Logan has 13.2 years of supply of material change of use approvals for multiple dwellings in the consolidation area, which is well above the minimum four years of supply sought by *ShapingSEQ 2017*. The June 2018 supply of material change of use approvals for multiple dwellings is significantly higher than the number of approvals current in June 2011.

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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

Dwelling growth – Logan

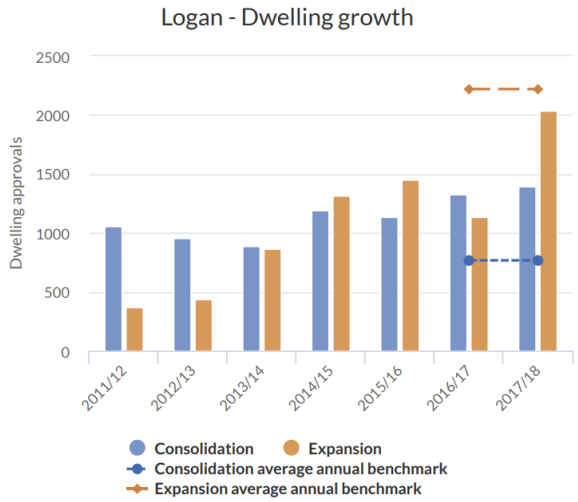
In the Logan consolidation area, dwelling approvals (used to measure dwelling growth) have consistently exceeded the consolidation average annual benchmark. In the Logan expansion area, dwelling approvals have been below the expansion average annual benchmark, but approvals for 2016/18 indicate a significant upward trend towards the benchmark.

In 2017/18, there were 1396 dwelling approvals in Logan's consolidation area, which was approximately 620 dwellings more than the consolidation average annual benchmark of 767 additional dwellings. There were 2038 dwelling approvals in Logan's expansion area in 2017/18, which was approximately 180 dwellings below the expansion average annual benchmark of 2220 additional dwellings.

Approximately 46 per cent of dwelling approvals for 2016/18 combined were in Logan's consolidation area, more than the expected share of growth to 2031 as identified in *ShapingSEQ 2017* (26 per cent). A total of 54 per cent of dwelling approvals were in Logan's expansion area over the same period, below the expected share of 74 per cent.

Increased expansion dwelling growth would be supported over time by the infrastructure arrangements identified 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 Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – Logan

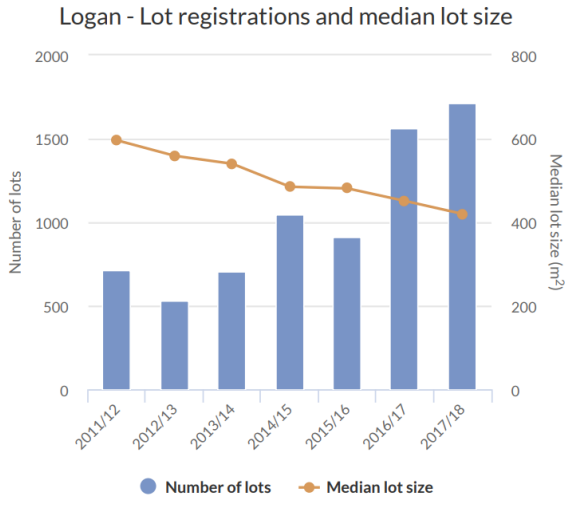
Dwelling density (measured through median lot size and mean population-weighted density) is increasing in Logan in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

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*.

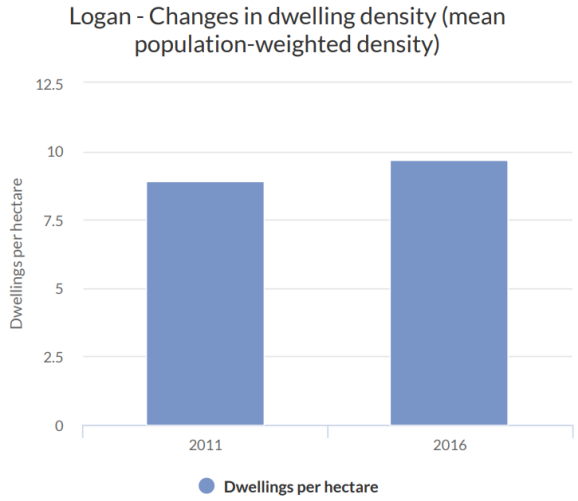
Median lot size in Logan decreased from about 600m^2 to 420m^2 from 2011/12 to 2017/18. This was accompanied by a significant increase in lot registrations over the same period. This measure is indicative of increased dwelling densities in new urban subdivisions in Logan.

The planning scheme and 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 lot size, see the Technical notes.



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



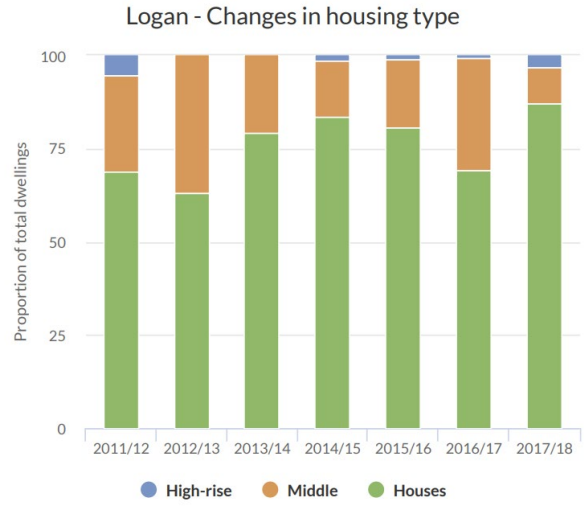
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Logan

Recent dwelling approvals indicate an increase in housing diversity in Logan, consistent with the *ShapingSEQ 2017* Measures that Matter preferred future.

Eighty per cent (4693 dwellings) of all new dwelling approvals in Logan for 2016/18 were for houses, which was less than for the existing dwelling stock (86 per cent as at the 2016 Census). Dwelling approvals for middle (18 per cent or 1071 dwellings) and high-rise (2.2 per cent or 129 dwellings) over the same period were higher than their share of the dwelling stock (middle 14 per cent, high-rise zero per cent) as at the 2016 Census.

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.

Sales and price – Logan

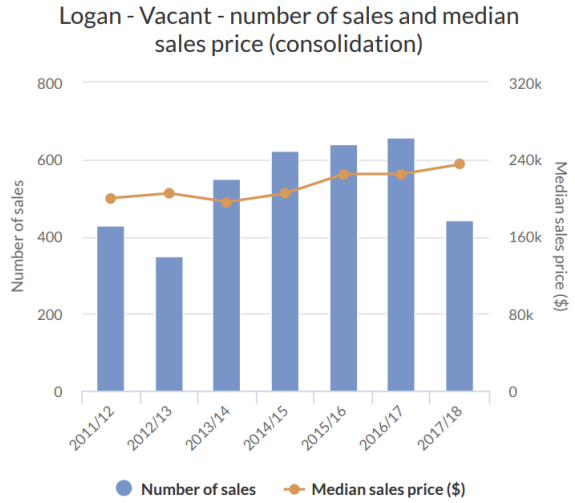
The median sales price for each category (vacant lots, houses and attached dwellings) in the consolidation area is lower in Logan than for South East Queensland (SEQ). Conversely, the median sales price for houses in the expansion area is higher in Logan than for SEQ. Vacant lots and attached dwellings in the expansion area currently have a lower median sales price compared to SEQ.

The rate of price growth from 2011/12 to 2017/18 was lower for Logan than SEQ for each category in the consolidation area. The rate of price growth in Logan was also lower than SEQ for vacant lots and houses in the expansion area. Attached dwellings in the expansion area experienced a high rate of price growth (150 per cent), but this is from a very low price in 2012/13 which was based on a very low number of sales.

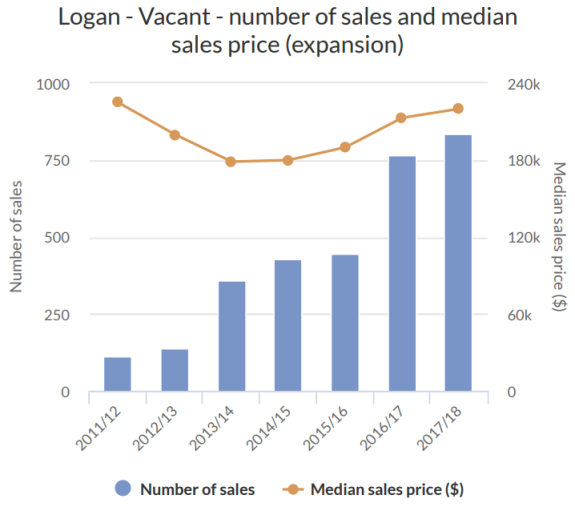
The next highest rate of median sales price growth was for houses in the consolidation area (about 19 per cent). Unlike SEQ as a whole, vacant lots in the expansion area and attached dwellings in the consolidation area experienced a decline in median sales price over the whole 2011/12 to 2017/18 period.

Unlike for SEQ as a whole, median sales price for houses and attached dwellings are higher in the Logan expansion area than the consolidation area. In recent years the median sale price for vacant lots is higher in the consolidation area than in the expansion area, but this has varied across the 2011/12 to 2017/18 period.

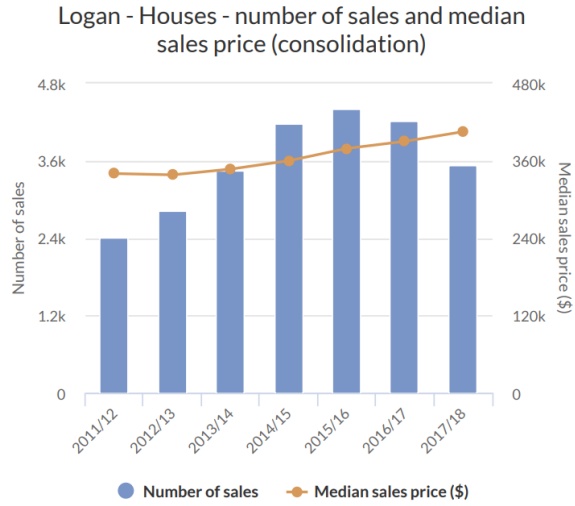
For more detail about the median sales price and number of sales, see the Technical notes.



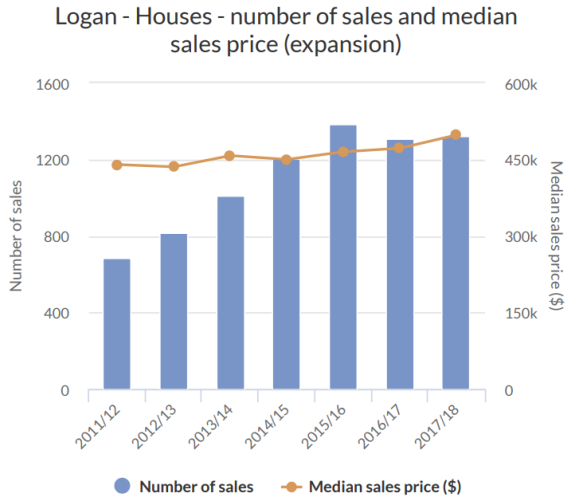
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



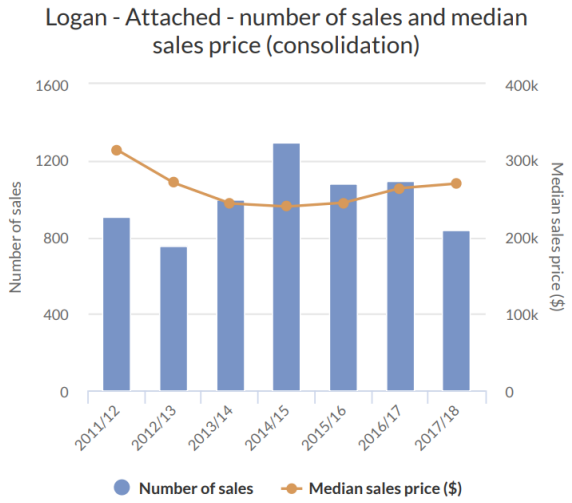
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



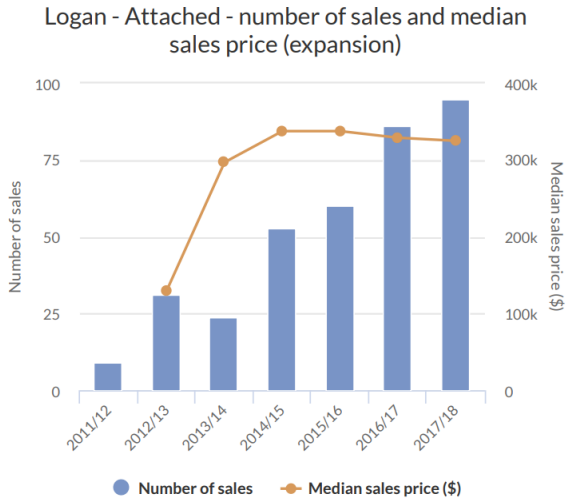
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

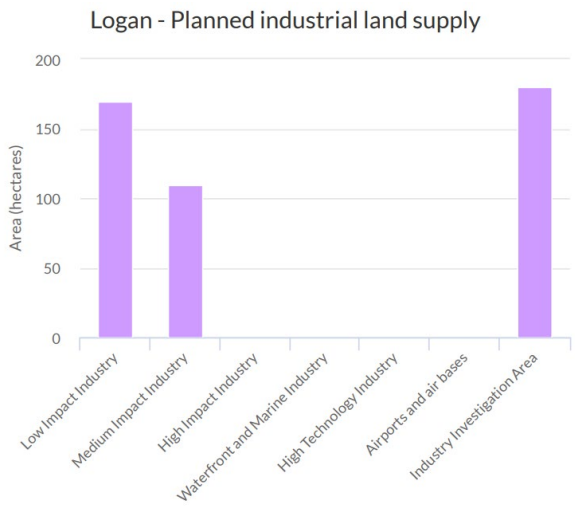
Industrial – Logan

Planned industrial land supply/take-up – Logan

The estimated take-up of developed industrial land between 2011 and 2017 in Logan was about 54 hectares, mostly on land intended for low and medium impact industry.

There were about 457 hectares of planned industrial land in Logan as at 2017. This planned industrial land comprised land intended for low and medium impact industry and industry investigation area.

For more detail about developable industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 54 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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*.

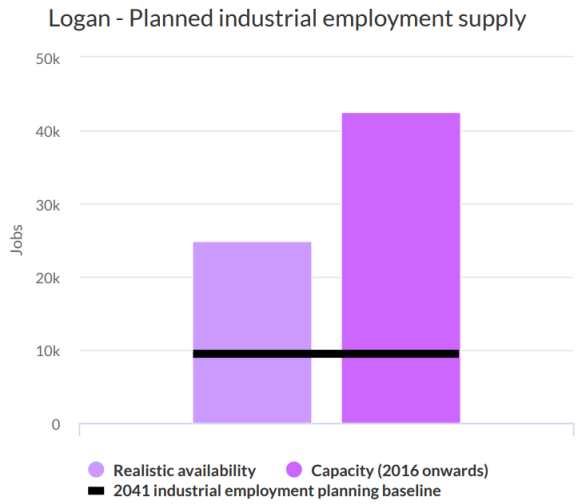
The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent, while the realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned industrial employment supply in Logan is about 42,500 employees, while the realistic availability of this supply is about 24,900 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 was recognised by the best practice research, which is explained in more detail in Moving forward.

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*.

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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Moreton Bay

Summary

The population of Moreton Bay is expected to grow by about 220,000 people between 2016 and 2041, requiring an additional 88,300 dwellings.

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

Dwelling approvals in Moreton Bay have been above the expansion average annual benchmark in recent years and exceeded the consolidation average annual benchmark in 2017/18.

Recent dwelling approvals indicate an increase in housing diversity in Moreton Bay, and dwelling density has also increased, consistent with the *ShapingSEQ 2017* preferred future.

There are currently 3.8 years of supply of reconfiguring a lot approvals in Moreton Bay, slightly below the minimum four years of supply sought by *ShapingSEQ 2017*. The high rate of lot creation in Moreton Bay has contributed to the low years of supply figure. There are currently seven years of supply of material change of use approvals for multiple dwellings in the Moreton Bay consolidation area, which also exceeds the four years of supply sought by *ShapingSEQ 2017*.

The capacity and realistic availability of the planned industrial employment supply in Moreton Bay provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017* and exceeds the 2041 industrial employment planning baseline.

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 figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land supply scenario that considers whether some of the capacity is not realistically available by 2041.

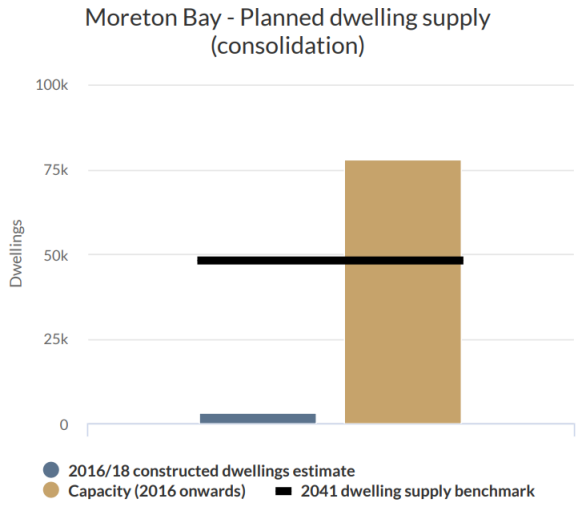
The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

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

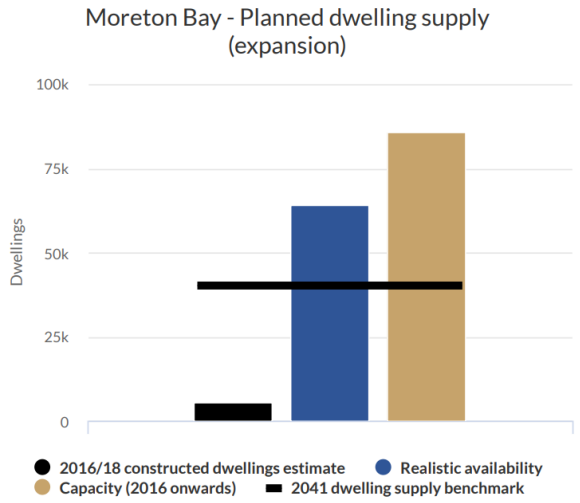
In the Moreton Bay expansion area, the capacity of planned dwelling supply is about 86,000 dwellings, while the realistic availability of that supply is about 64,000. These figures are significantly above the expansion 2041 dwelling supply benchmark of 40,100.

Much of the planned dwelling supply in the Moreton Bay expansion area is located within the proposed master planned community of Caboolture West. 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.

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 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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

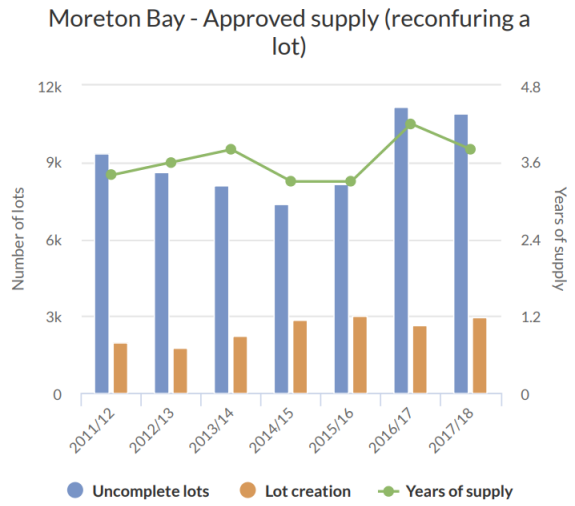
Approved supply – Moreton Bay

Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings across Moreton Bay.

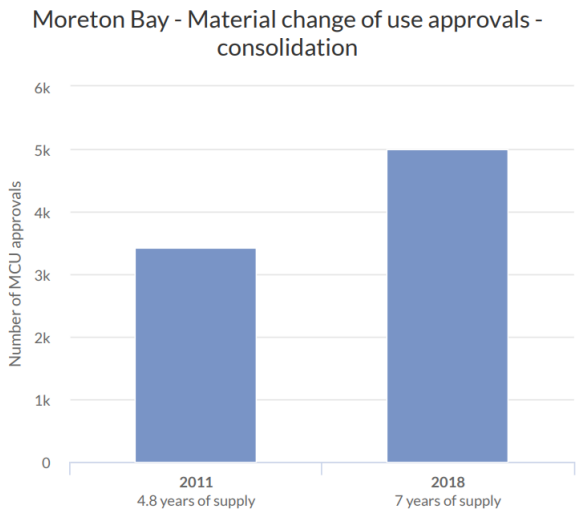
There are 3.8 years of supply of reconfiguring a lot approvals in the Moreton Bay consolidation and expansion areas overall, which is just short of the minimum four years of supply sought by *ShapingSEQ 2017*. However, the total number of current reconfiguring a lot approvals is close to the highest it has been in Moreton Bay for about 10 years. The high rate of lot creation in recent years has contributed to the slightly low years of supply figure.

In contrast, Moreton Bay has seven years of supply of material change of use approvals for multiple dwellings in the consolidation area, which is well above the minimum four years of supply sought by *ShapingSEQ 2017*. The June 2018 supply of material change of use approvals for multiple dwellings is significantly higher than the number reported as at June 2011.

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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

Dwelling growth – Moreton Bay

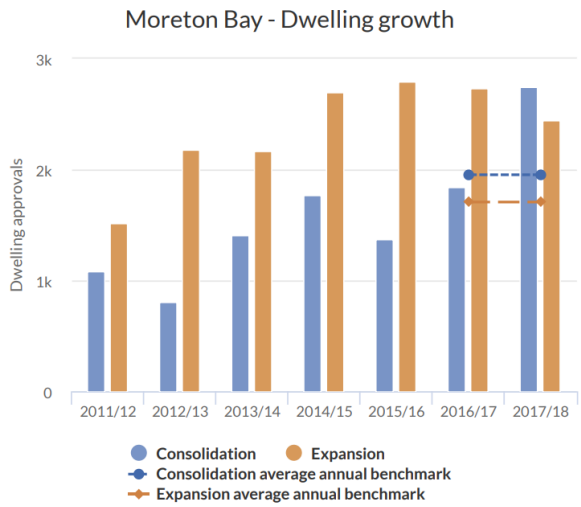
In recent years, dwelling approvals (used to measure dwelling growth) in the Moreton Bay consolidation area increased, exceeding the consolidation average annual benchmark for the first time in 2017/18. Dwelling approvals in the Moreton Bay expansion area have exceeded the expansion average annual benchmark for a number of years.

In 2017/18, there were 2741 dwelling approvals in Moreton Bay's consolidation area, which was approximately 800 dwellings more than the consolidation average annual benchmark of 1953 additional dwellings. There were 2440 dwelling approvals in Moreton Bay's expansion area in 2017/18, which was approximately 730 dwellings more than the expansion average annual benchmark of 1707 additional dwellings.

Approximately 47 per cent of dwelling approvals for 2016/18 were in Moreton Bay's consolidation area, which is less than its expected share of 53 per cent. Fifty-three per cent of dwelling approvals were in Moreton Bay's expansion area over the same period, which exceeds the expected share of 47 per cent of additional dwellings.

As the actual number of dwelling approvals in the consolidation and expansion areas are above the average annual benchmarks, Moreton Bay is on track to be able to accommodate the 2041 dwelling supply benchmarks.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – Moreton Bay

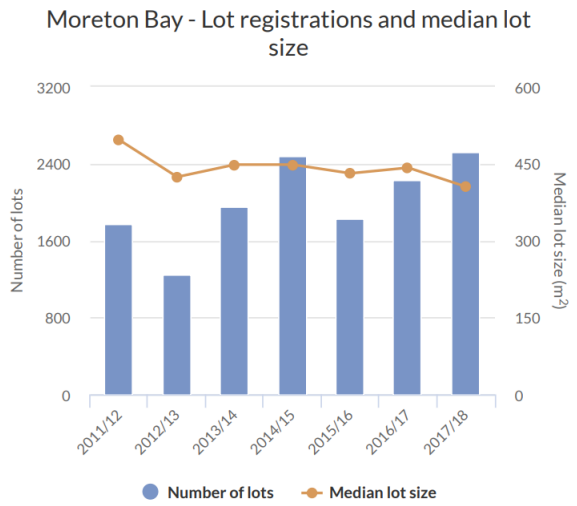
Dwelling density (measured through median lot size and mean population-weighted density) is increasing in Moreton Bay in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

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*.

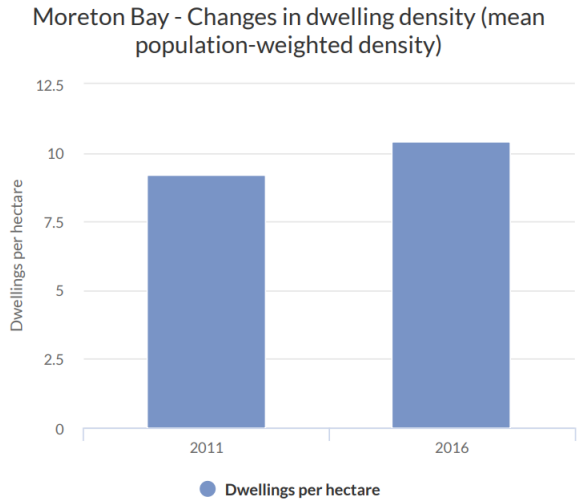
Median lot size in Moreton Bay decreased from about 500m^2 to 410m^2 from 2011/12 to 2017/18. The number of lot registrations fluctuated over the same period. This measure is indicative of an increase in dwelling densities in new urban subdivisions in Moreton Bay.

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 lot size, see the Technical notes.



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



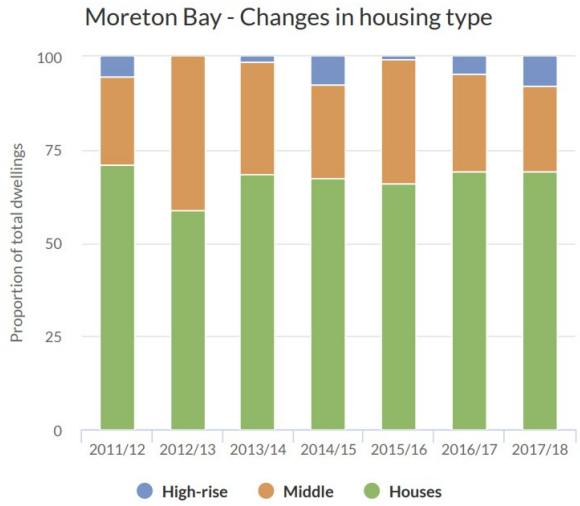
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Moreton Bay

Recent dwelling approvals indicate an increase in housing diversity in Moreton Bay, consistent with the *ShapingSEQ 2017* Measures that Matter preferred future.

Sixty-nine per cent (6751 dwellings) of all new dwelling approvals in Moreton Bay for 2016/18 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 2375 dwellings) and high-rise (six per cent or 627 dwellings) over the same period were higher than their share of the dwelling stock (middle 16 per cent, high-rise two per cent) as at the 2016 Census.

For more detail about dwelling approvals, see the Technical notes.



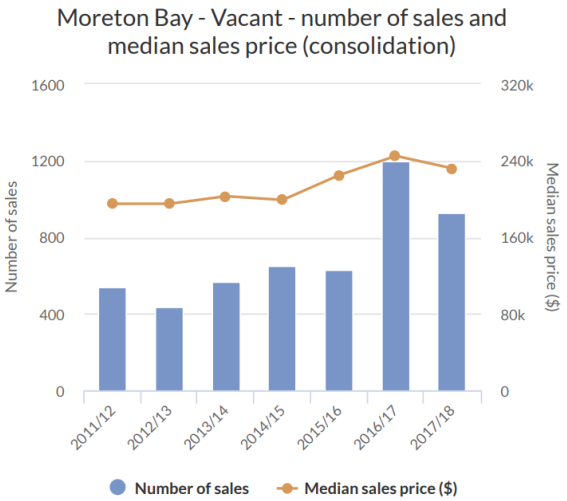
This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.

Sales and price – Moreton Bay

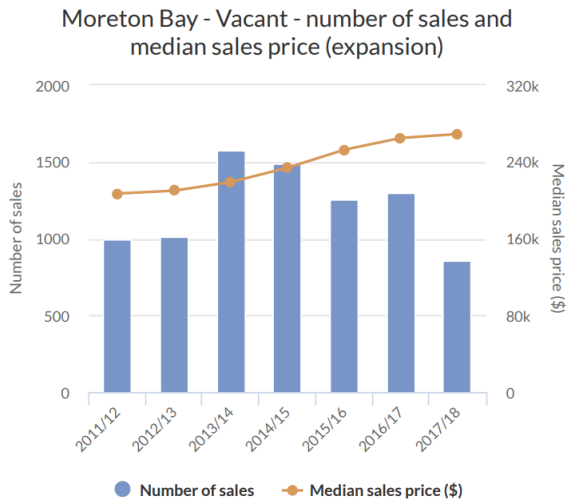
The median sales price for each category (vacant lots, houses and attached dwellings) in the consolidation area is lower in Moreton Bay than for South East Queensland (SEQ). Conversely, in the expansion area, the median sales price for vacant lots is higher in Moreton Bay than for SEQ, and for houses the prices are similar. Attached dwellings in the expansion area currently have a lower median sales price compared to SEQ.

Over the 2011/12 to 2017/18 period, vacant land in the expansion area had the highest rate of median sales price growth (30 per cent), followed by houses in the consolidation area (about 22 per cent). For each category, both the rate of price growth and actual prices are generally higher in the expansion area than in the consolidation area in Moreton Bay (the only exception is the rate of price growth for houses). This is contrary to the outcome for SEQ.

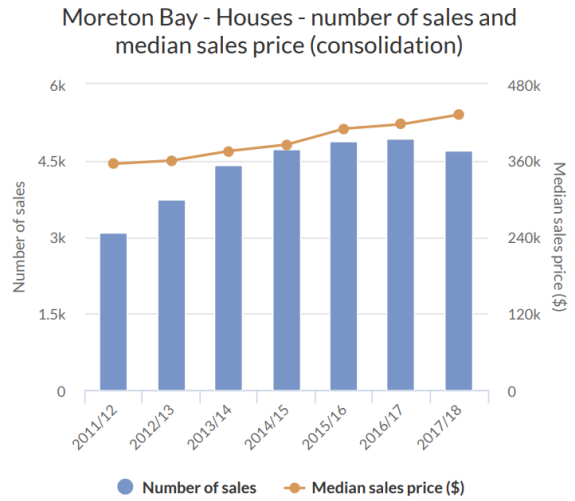
For more detail about the median sales price and number of sales, see the Technical notes.



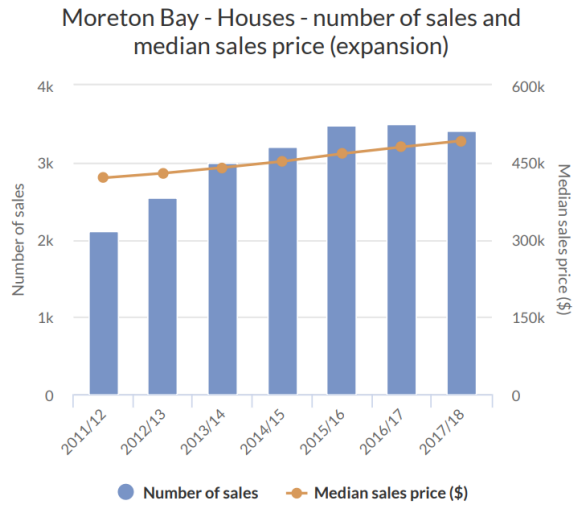
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



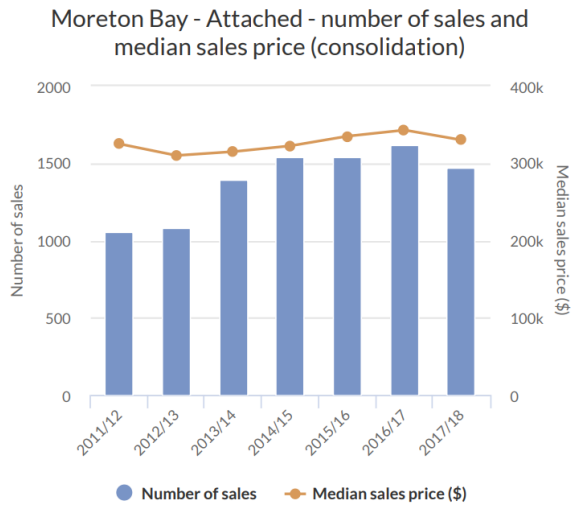
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



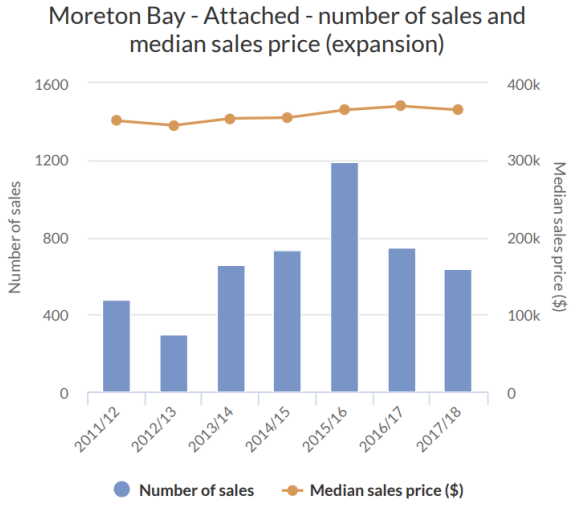
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



This graph shows the number of sales and median sales price for attached dwellings 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 2017 in Moreton Bay was about 69 hectares. The take-up occurred on land intended for low, medium and high impact industry.

There were about 648 hectares of planned industrial land in Moreton Bay as at 2017, including about 95 hectares at Brendale, 134 hectares at Morayfield and 243 hectares at Elimbah East. This planned industrial land mostly comprised land intended for low, medium and high impact industry.

For more detail about planned industrial land and take-up, see the Technical notes.

This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 69 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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, while 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned industrial employment supply in Moreton Bay is about 12,600 employees. The realistic availability of this supply is also about 12,600 employees. These figures represent 37 years of supply and are markedly above the 2041 industrial employment planning baseline of about 9400 employees.

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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Noosa

Summary

The population of Noosa is expected to grow by about 9000 people between 2016 and 2041, requiring approximately 6400 additional dwellings.

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

Dwelling approvals in the Noosa consolidation area were below the consolidation average annual benchmark in 2017/18, while dwelling approvals in the Noosa expansion area have exceeded the average annual benchmark in recent years. Increased dwelling growth in the consolidation area may be supported over time by the changes expected to be made for the proposed new planning scheme.

Recent dwelling approvals indicate a decrease in housing diversity in Noosa, contrary to the *ShapingSEQ 2017* preferred future, while dwelling density has increased slightly, consistent with the *ShapingSEQ 2017* preferred future.

There are two years of supply of reconfiguring a lot approvals in Noosa, which is below the minimum four years of supply sought by *ShapingSEQ 2017*. There are currently 21.9 years of material change of use approvals in the Noosa consolidation area.

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*.

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*.

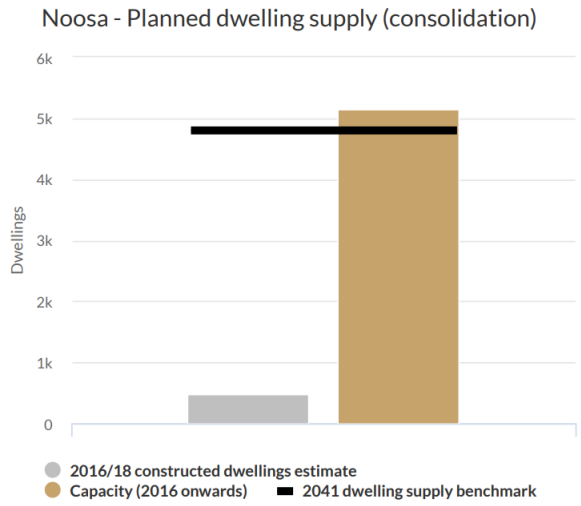
The capacity figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

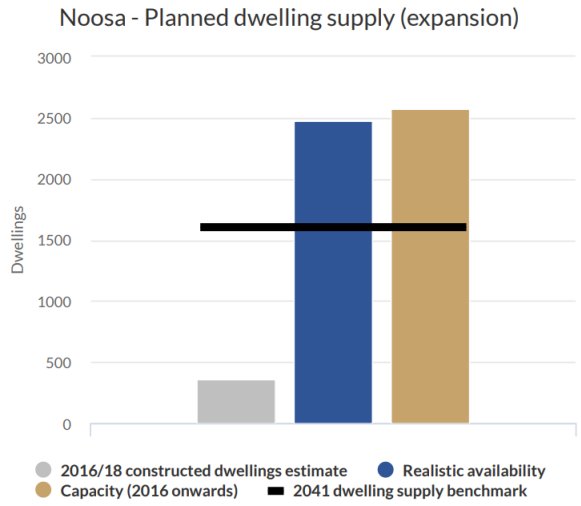
In the Noosa consolidation area, the capacity of planned dwelling supply is about 5140 dwellings and marginally above the consolidation 2041 dwelling supply benchmark of 4800 dwellings. In comparison, in the expansion area, the realistic availability of planned dwelling supply is only slightly less than the capacity of planned dwelling supply, and they are about 900 dwellings more than the expansion 2041 dwelling supply benchmark of 1600 dwellings.

Noosa Shire Council is currently preparing a new planning scheme which could increase planned dwelling supply in the consolidation area.

For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning scheme amendments in process for Noosa, 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 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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land

Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

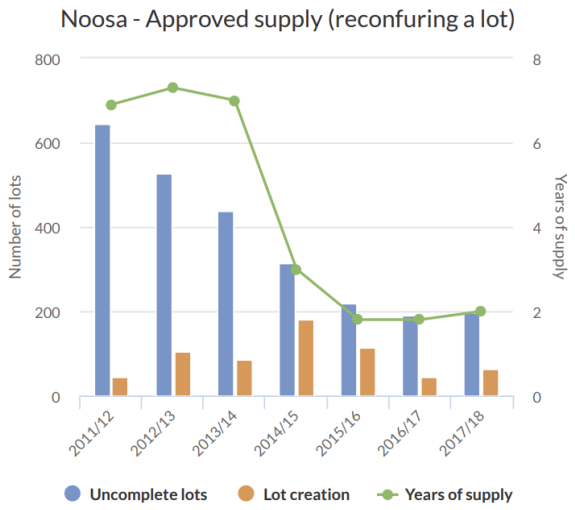
Approved supply – Noosa

Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings across Noosa.

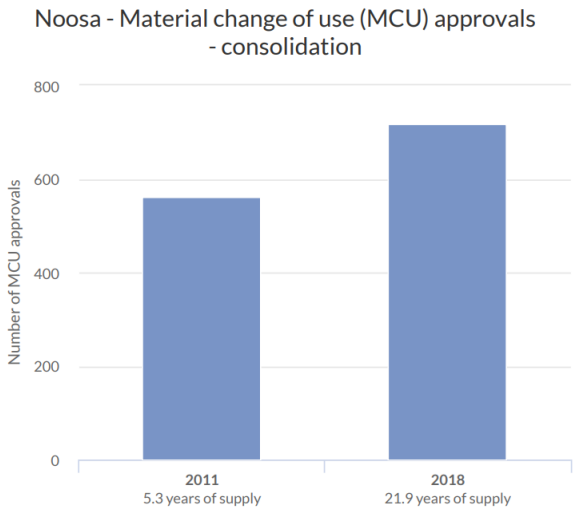
There are two years of supply of reconfiguring a lot approvals in the Noosa consolidation and expansion areas overall, less than the minimum four years of supply sought by *ShapingSEQ 2017*. The total number of current reconfiguring a lot approvals has also been declining since 2011/12, and lot creation has significantly declined over the past four years. 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.

In contrast, Noosa has 21.9 years of supply of material change of use approvals for multiple dwellings in the consolidation area. This is well above the minimum four years of supply sought by *ShapingSEQ 2017*, although the actual number of approved multiple dwellings is about 150 more than in June 2011, when there was 5.3 years of supply.

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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

Dwelling growth – Noosa

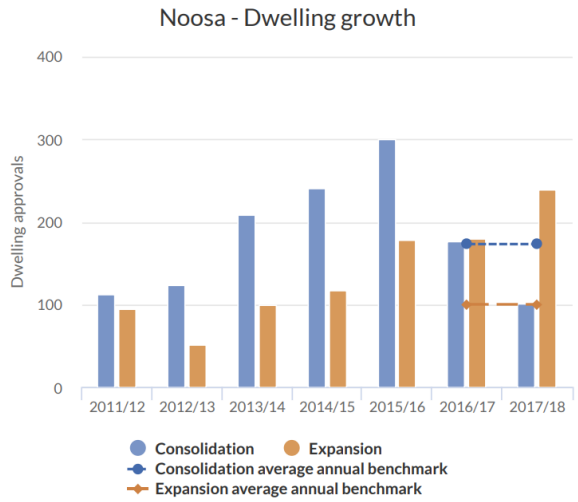
In 2017/18, dwelling approvals (used to measure dwelling growth) in the Noosa consolidation area were below the consolidation average annual benchmark, but for the previous four years they matched or exceeded the benchmark. In recent years, dwelling approvals in the Noosa expansion area have exceeded the expansion average annual benchmark.

In 2017/18, there were 239 dwelling approvals in Noosa's expansion area, which was about 140 dwellings more than the expansion average annual benchmark of 100 additional dwellings. There were 102 dwelling approvals in Noosa's consolidation area in 2017/18, which was about 70 dwellings less than the consolidation average annual benchmark of 173 additional dwellings.

Approximately 60 per cent of dwelling approvals for 2016/18 were in Noosa's expansion area, which is more than the expected share of 37 per cent. Forty per cent of dwelling approvals were in Noosa's consolidation area over the same period, which is less than its expected share of 63 per cent.

Increased dwelling growth in the consolidation area may be supported over time by the changes expected to be made for the proposed new planning scheme, i.e. increased planned dwelling supply in the consolidation area.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – Noosa

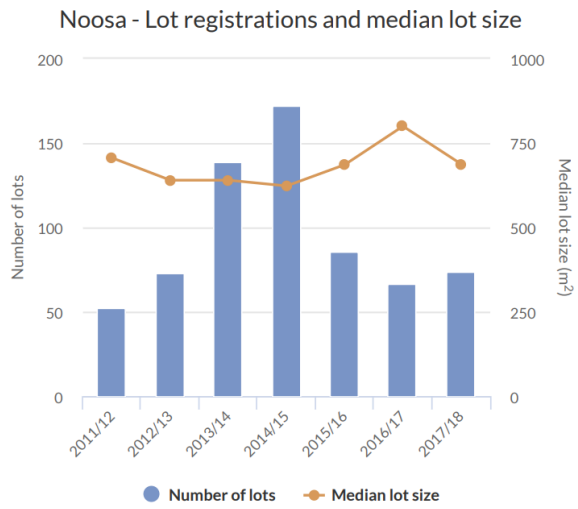
Dwelling density (measured through median lot size and mean population-weighted density) has remained stable in Noosa in recent years.

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*.

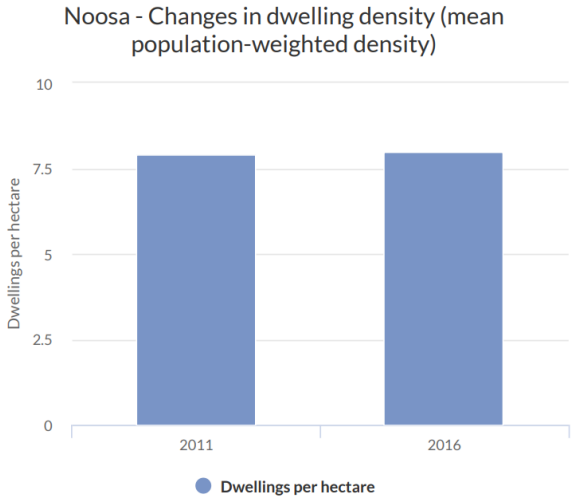
Median lot size in Noosa remained stable at around 700m^2 from 2011/12 to 2017/18. Lot sizes peaked at 800m^2 in 2016/17. The number of lot registrations fluctuated over the same period and is mostly small, contributing to the variability in the median lot size from year to year.

The proposed new planning scheme for Noosa provides the opportunity to support higher dwelling densities in the future, which may contribute to the *ShapingSEQ* Measures that Matter 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 lot size, see the Technical notes.



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



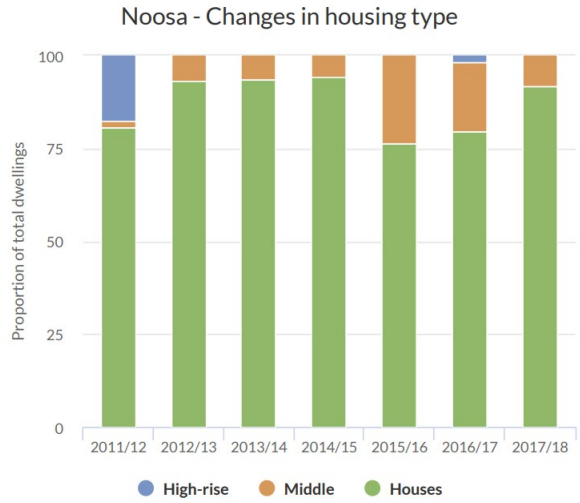
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Noosa

The recent proportion of dwelling approvals for houses was higher and for middle was lower than existing dwelling stock as at the 2016 Census, contrary to the *ShapingSEQ 2017* Measures that Matter preferred future for increased housing diversity.

Eighty-six per cent (597 dwellings) of all new dwelling approvals in Noosa for 2016/18 were for houses, which was greater than for the existing dwelling stock (77 per cent as at the 2016 Census). Dwelling approvals for middle (14 per cent or 95 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 (one per cent or six dwellings) did not change relative to their share of existing dwelling stock as at the 2016 Census (one per cent), but this is a very small number of dwellings.

For more detail about dwelling approvals, see the Technical notes.



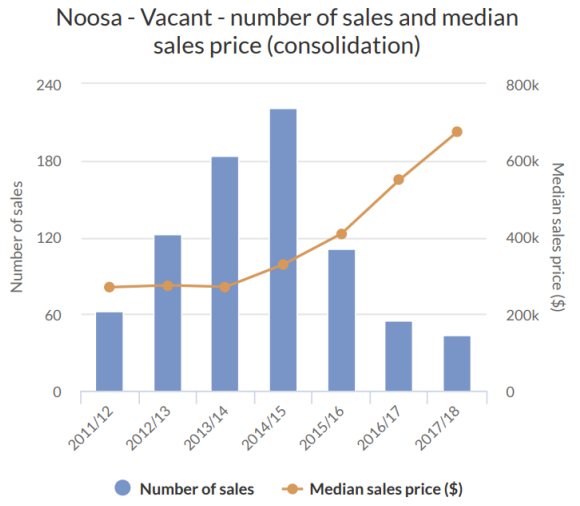
This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.

Sales and price – Noosa

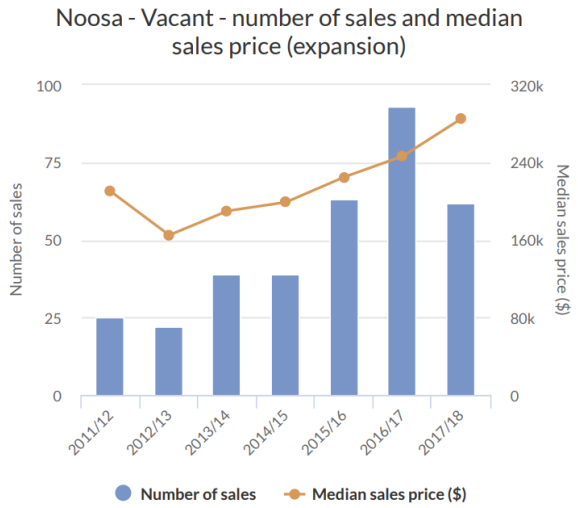
The median sales price for each category (vacant lots, houses and attached dwellings), in consolidation and expansion areas, is higher in Noosa than for South East Queensland (SEQ). The rate of price growth was also higher in Noosa than for SEQ for vacant lots and houses. The rate of price growth for attached dwellings in the expansion area was lower in Noosa than for SEQ, but that was based on a small number of sales.

From 2011/12 to 2017/18, the greatest growth in median sales price in Noosa was for vacant lots in the consolidation area (150 per cent), which may be associated with the low and declining number of sales over the period. The median sales price for houses in the consolidation area grew by about 57 per cent over the same period. For each category, the rate of price growth and actual prices are consistently higher in the consolidation area than in the expansion area within Noosa. This is consistent with the outcome for all of SEQ.

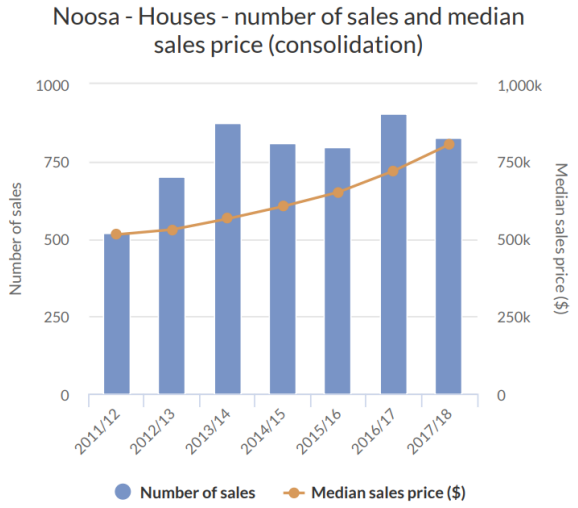
For more detail about the median sales price and number of sales, see the Technical notes.



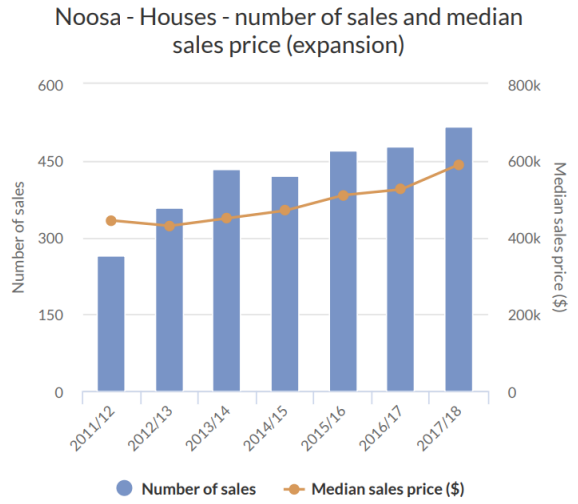
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



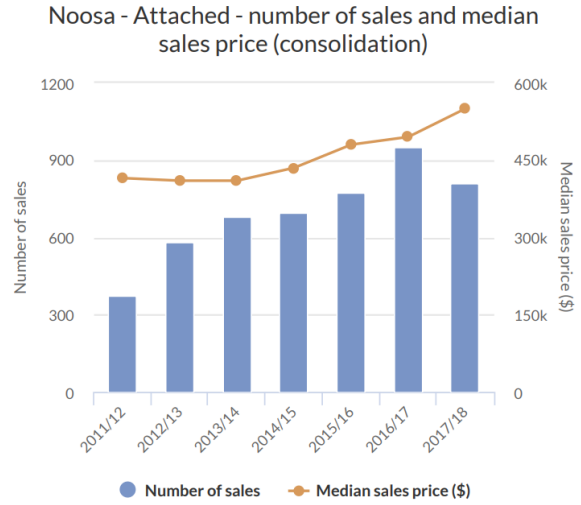
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



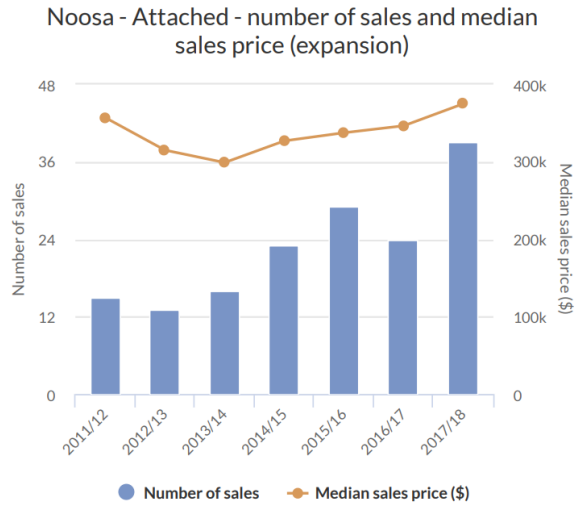
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

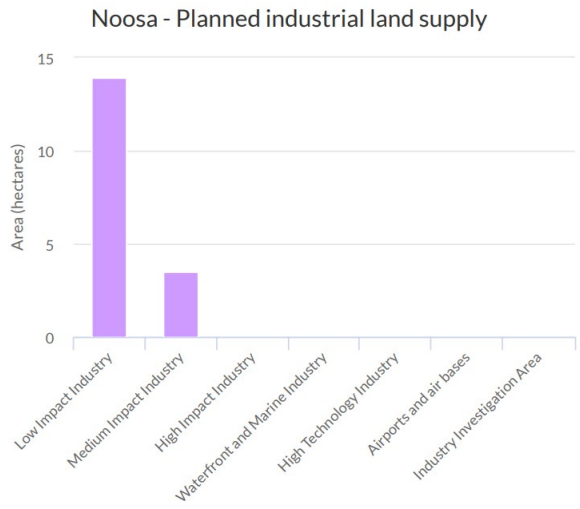
Industrial – Noosa

Planned industrial land supply/take-up – Noosa

About 2.6 hectares of developed industrial land was taken-up in Noosa between 2011 and 2017. The take-up occurred on land intended for low and medium impact industry.

There were about 17 hectares of planned industrial land in Noosa as at 2017. This planned industrial land mostly comprised land intended for low and medium impact industry.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 2.6 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

Planned industrial employment supply – Noosa

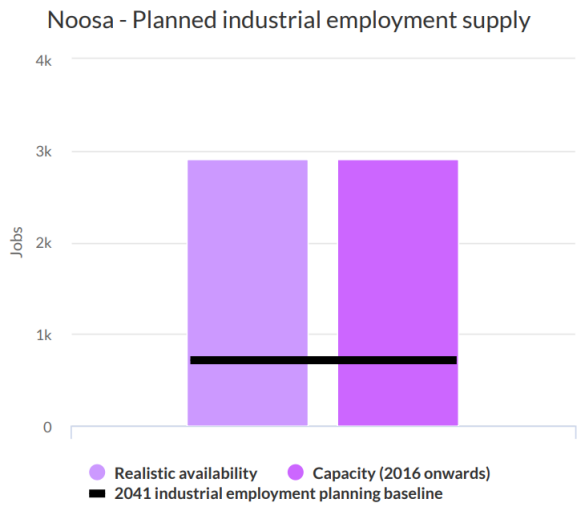
The capacity and realistic availability of planned industrial employment supply in Noosa provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

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, while 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 is based on a method which provides an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned industrial employment supply in Noosa is about 2900 employees, representing 103 years of supply. The realistic availability of this supply is also 2,900 employees. These are well above the 2041 industrial employment planning baseline of about 700 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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Redland

Summary

The population of Redland is expected to increase by approximately 36,000 people between 2016 and 2041, requiring an additional 17,200 dwellings.

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*.

Dwelling approvals in the Redland expansion and consolidation areas have exceeded the expansion and consolidation average annual benchmarks in recent years.

Recent dwelling approvals indicate that housing in Redland has become more diverse and dwelling density has also increased, in accordance with the *ShapingSEQ 2017* preferred future.

There are currently 2.9 years of supply of reconfiguring a lot approvals in Redland, which is slightly below the minimum four years of supply sought by *ShapingSEQ 2017*. The years of supply of reconfiguring a lot approvals has been trending downwards since a peak in the rate of lot creation in 2013/14. In contrast, there are 4.6 years of supply of material change of use approvals for multiple dwellings in the Redland consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*.

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 required to investigate 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.

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 figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land supply scenario that considers whether some of the capacity is not realistically available by 2041.

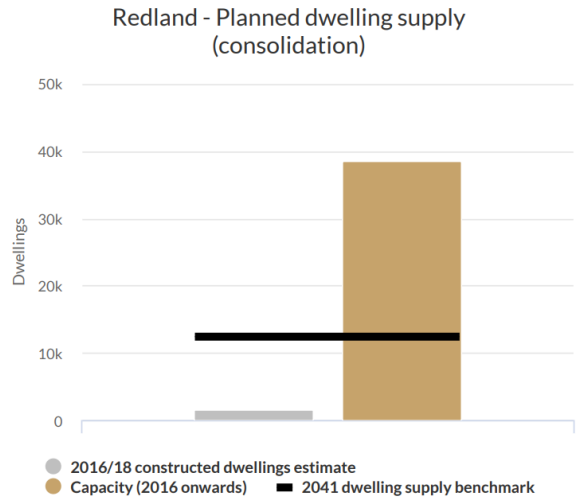
The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

In the Redland consolidation area, the capacity of planned dwelling supply is about 38,500 dwellings, which is significantly above the consolidation 2041 dwelling supply benchmark of 12,500 dwellings.

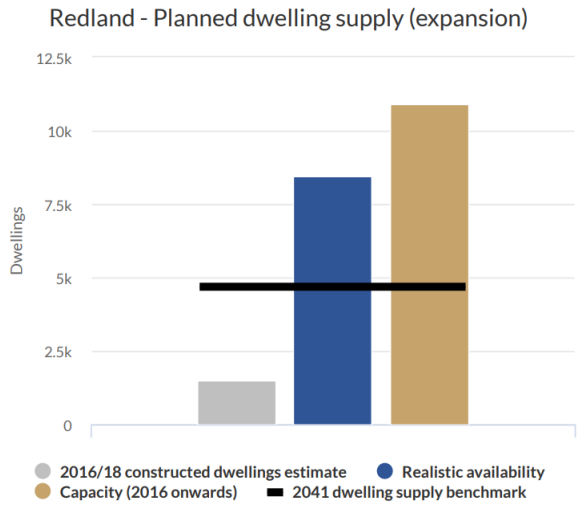
In the Redland expansion area, the capacity of planned dwelling supply is about 10,900, while the realistic availability of this supply is about 8450. These are greater than the expansion 2041 dwelling supply benchmark of 4700 dwellings.

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 extension of the Eastern Busway to Capalaba. It could also be supported by high 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 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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

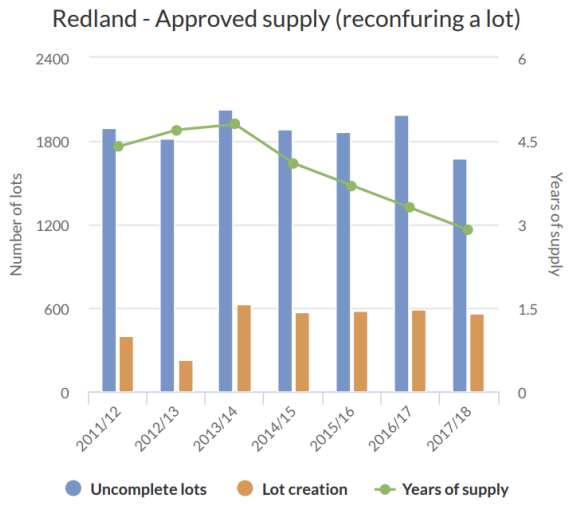
Approved supply – Redland

Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings cross Redland.

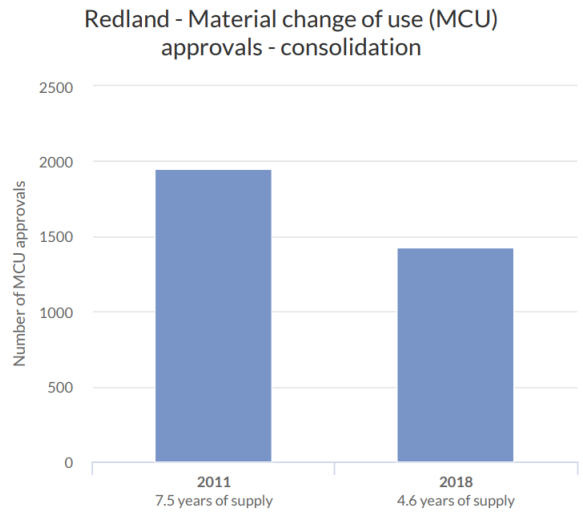
There are 2.9 years of supply of reconfiguring a lot approvals in the Redland consolidation and expansion areas overall, which is below the minimum four years of supply sought by *ShapingSEQ 2017*. The high rate of lot creation over the past four years has contributed to the lower years of supply figure than identified for previous years. The years of supply have been trending downwards since a peak in the rate of lot creation in 2013/14.

In contrast, Redlands has 4.6 years of supply of material change of use approvals for multiple dwellings in the consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*. The total number of material change of use approvals for multiple dwellings current in June 2018 in Redlands is moderately lower than the number reported as at June 2011.

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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

Dwelling growth – Redland

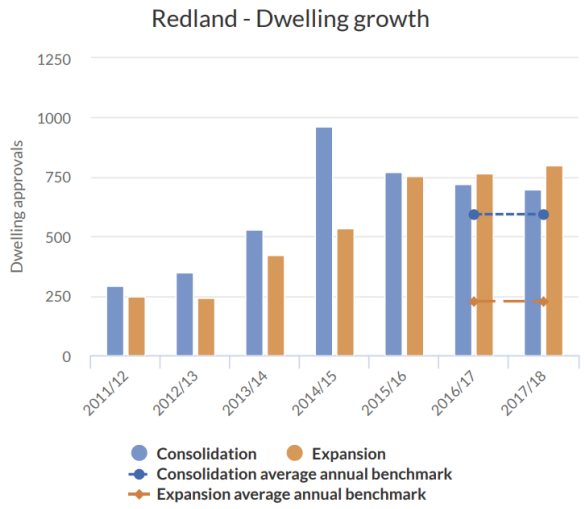
In recent years, dwelling approvals (used to measure dwelling growth) in Redland have exceeded the average annual benchmarks, particularly for the expansion area.

In 2017/18, there were 697 dwelling approvals in the Redland consolidation area, which was 104 dwellings more than the consolidation average annual benchmark of 593 additional dwellings. There were 797 dwelling approvals in the Redland expansion area in 2017/18, which was approximately 570 dwellings more than the expansion average annual benchmark of 227 additional dwellings.

Approximately 52 per cent of dwelling approvals for 2016/18 were in Redland's expansion area, which is more than the expected share of 28 per cent. Forty-eight per cent of dwelling approvals were in the Redland consolidation area over the same period, which was less than the expected consolidation share of 72 per cent.

As the actual number of approvals in the consolidation and expansion areas are above the average annual benchmarks, Redland 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 Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – Redland

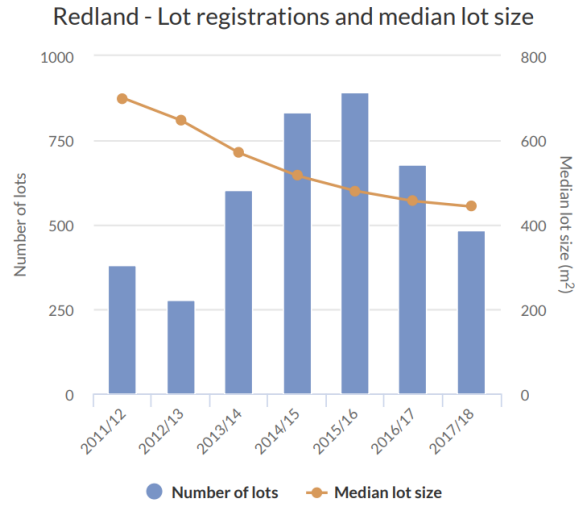
Dwelling density (measured through median lot size and mean population-weighted density) is increasing in Redland in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

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*.

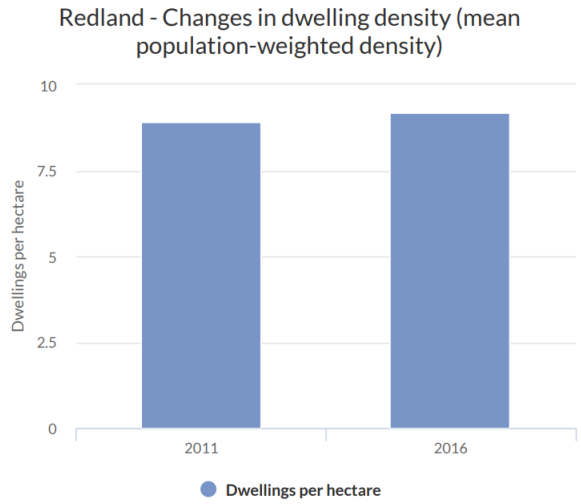
Median lot size in Redland significantly decreased from 700m^2 to approximately 440m^2 from 2011/12 to 2017/18. This was associated with a significant upward trend in the volume of lot registrations to 2015/16.

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 lot size, see the Technical notes.



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



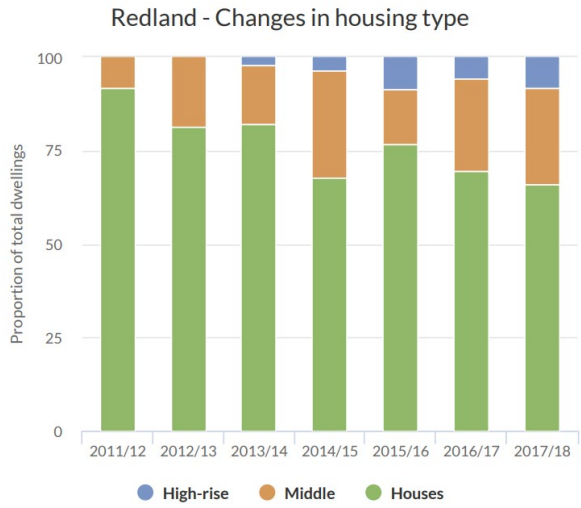
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Redland

Recent dwelling approvals in Redland indicate an increase in housing diversity consistent with the *ShapingSEQ 2017* Measures that Matter preferred future.

Sixty-eight per cent (2016 dwellings) of all new dwelling approvals in Redland for 2016/18 were for houses, which was less than for the existing dwelling stock (85 per cent as at the 2016 Census). Dwelling approvals for middle (25 per cent or 751 dwellings) and high-rise (seven per cent or 210 dwellings) over the same period were higher than their share of the dwelling stock (middle 14 per cent, high-rise one per cent) as at the 2016 Census.

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.

Sales and price – Redland

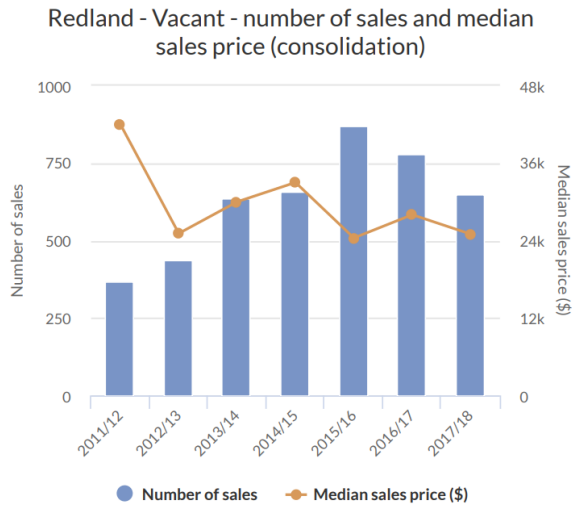
The median sales price for each category (vacant lots, houses and attached dwellings) in the expansion area is higher in Redland than for South East Queensland (SEQ). Conversely, the median sales price for each category in the consolidation area is lower in Redland than for SEQ.

The rate of median sales price growth is lower than or the same as for SEQ across each category in the consolidation and expansion areas, except for attached dwellings in the consolidation area and houses in the expansion area which have a higher rate of growth in Redland.

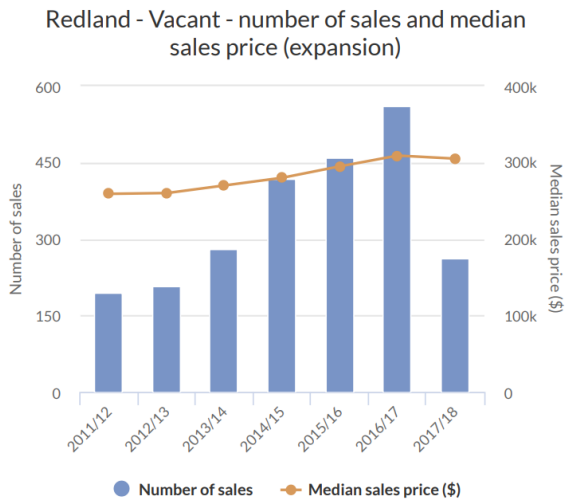
Over the 2011/12 to 2017/18 period, the greatest growth in median sales price in Redland was for houses in the consolidation area (about 24 per cent), followed by houses in the expansion area (about 23 per cent). The rate of price growth was higher in the consolidation area than the expansion area for houses and attached dwellings, which was consistent with the outcome for all of SEQ. However, the median sales price for houses in the expansion area of Redland is 14 per cent higher than for those in the consolidation area.

Median sales price for vacant lots in the Redland consolidation area declined 41 per cent from 2011/12 to 2017/18, which was contrary to the outcome for all of SEQ. The relatively low median sales price for vacant lots in the consolidation area ($25,000) is due to the substantial supply of vacant lots on the Southern Moreton Bay islands.

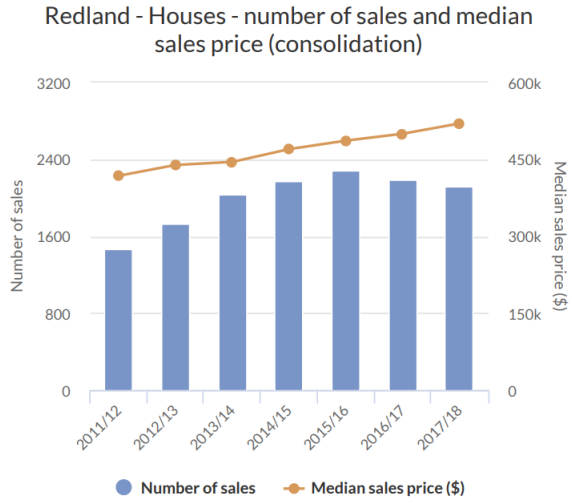
For more detail about the median sales price and number of sales, see the Technical notes.



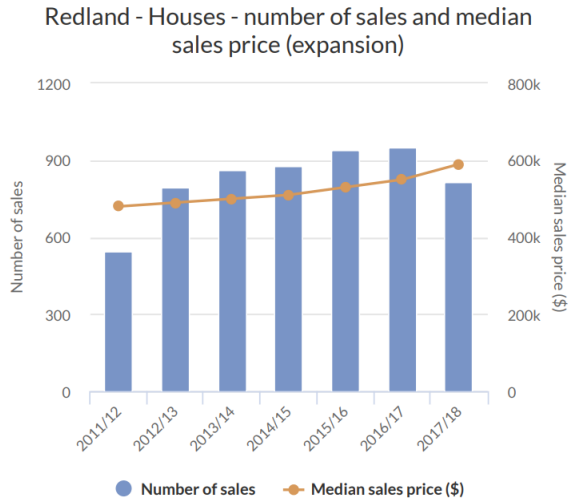
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



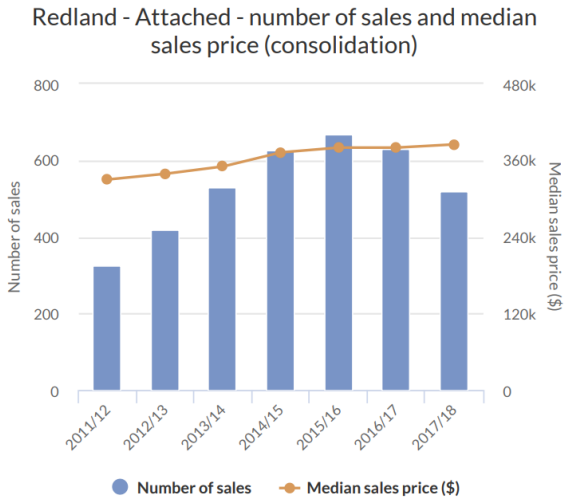
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



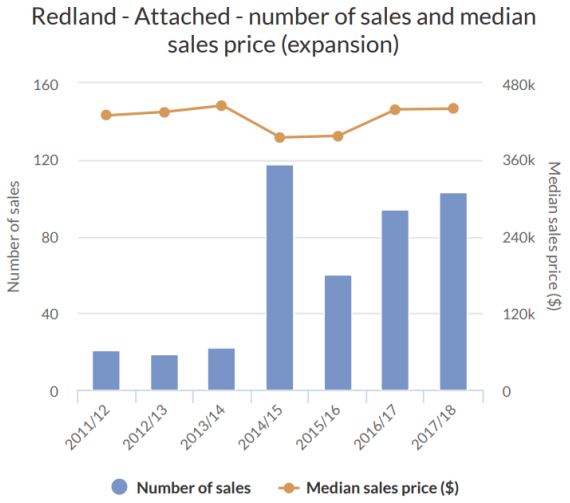
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

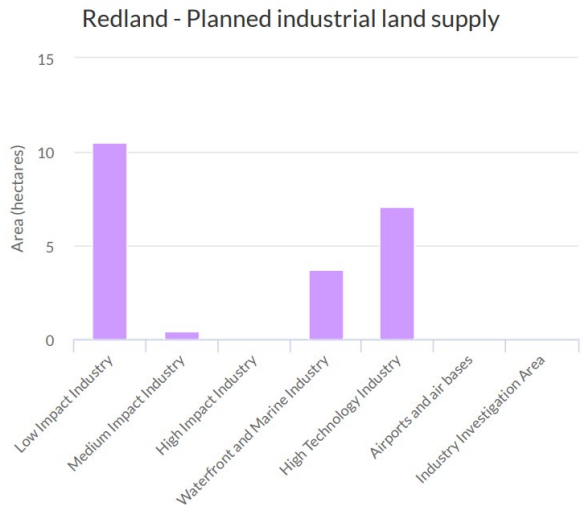
Industrial – Redland

Planned industrial land supply/take-up – Redland

No developed industrial land is estimated to have been taken-up between 2011 and 2017 in Redland.

There were about 22 hectares of planned industrial land in Redland as at 2017. This planned industrial land mostly comprised land intended for low impact, waterfront and marine and high technology industry.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

Zero hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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, while the realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

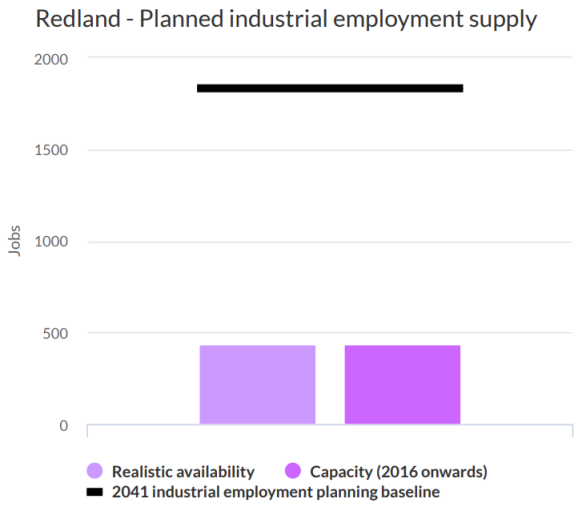
The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of development and lower than assumed employment densities. The realistic availability scenario is based on a method which provides an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

Both the capacity and realistic availability of planned industrial employment supply is about 440 employees. These figures are about 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 required to investigate this area in the short-term, including its potential as a future employment area. The investigations must determine its appropriate use, with the intent of the area

defined, and appropriately reflected in the planning scheme, by the end of 2019. Any planning scheme changes could help to address the shortfall in the planned industrial employment supply.

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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Scenic Rim

Summary

The Scenic Rim's population is expected to grow by about 21,000 people between 2016 and 2041, requiring approximately 10,000 additional dwellings.

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

In recent years, 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).

Housing in the Scenic Rim is becoming more diverse in accordance with *ShapingSEQ 2017*'s preferred future, however dwelling density is decreasing contrary to the *ShapingSEQ 2017* preferred future.

There are currently 12.3 years of supply of reconfiguring a lot approvals in the Scenic Rim, which exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

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

Residential – Scenic Rim

Planned dwelling supply – Scenic Rim

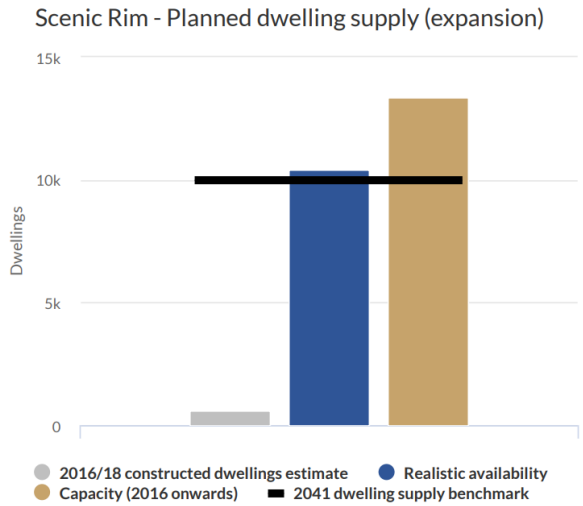
The capacity and realistic availability of planned dwelling supply in Scenic Rim, which is wholly within the expansion area, provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land 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 development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity of planned dwelling supply in Scenic Rim is about 13,350 dwellings, which is 3350 dwellings more than the expansion 2041 dwelling supply benchmark of 10,000 dwellings. The realistic availability of this supply is about 10,440 dwellings, and slightly above the benchmark. This realistic availability figure represents about 23 years of supply.

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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

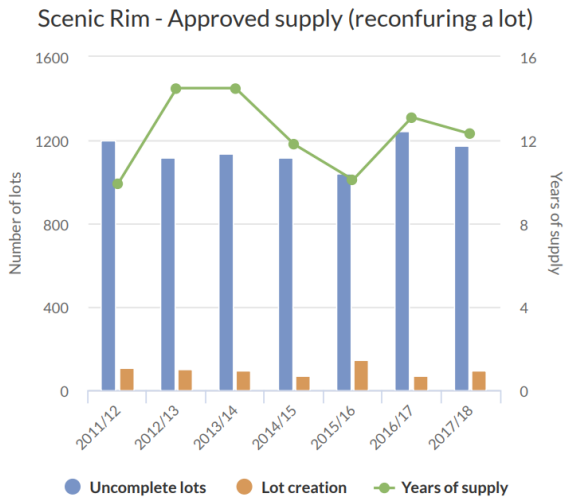
Approved supply – Scenic Rim

Approved supply is measured by analysing reconfiguring a lot approvals across Scenic Rim.

Scenic Rim has 12.3 years of supply of reconfiguring a lot approvals. This is well above the minimum four years of supply sought by *ShapingSEQ 2017*. The total number of reconfiguring a lot approvals and the rate of lot creation have remained relatively stable from 2011/12.

There are no material change of use approvals for multiple dwellings 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, 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.

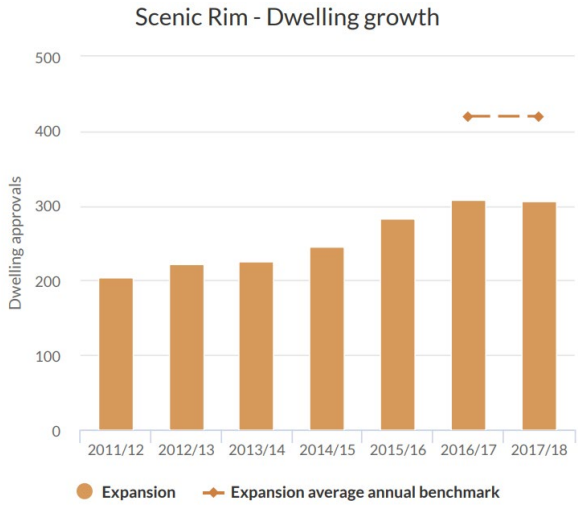
Dwelling growth – Scenic Rim

The expansion area applies to the whole of the Scenic Rim, and this report indicates that there is sufficient planned dwelling supply to accommodate the 2041 dwelling supply benchmark.

In recent years, dwelling approvals (used to measure dwelling growth) in Scenic Rim have been consistently below the expansion average annual benchmarks. There were 306 dwelling approvals in the Scenic Rim expansion area in 2017/18, which was approximately 110 dwellings less than the expansion average annual benchmark of 420 additional dwellings.

Given the relatively high overall rate of dwelling growth experienced recently across most of south-east Queensland, dwelling growth in the Scenic Rim may increase proportionate to the availability of local employment opportunities, e.g. at the Bromelton State Development Area, and the availability of services.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

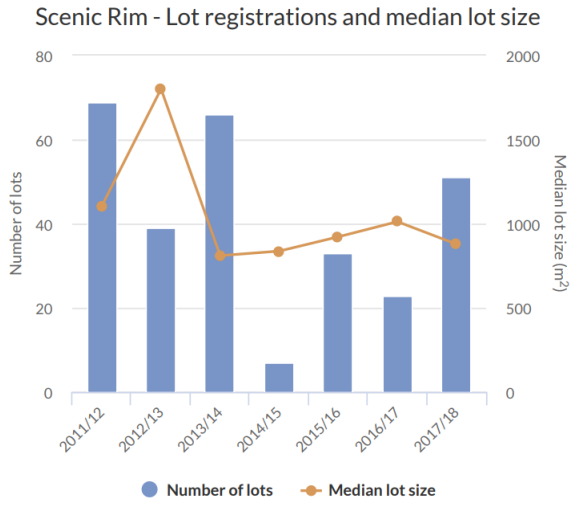
Changes in dwelling density – Scenic Rim

Dwelling density (measured through median lot size and mean population-weighted density) has changed very little in Scenic Rim in recent years and has not contributed to the *ShapingSEQ 2017* Measures that Matter preferred future for increased dwelling densities and smaller lot sizes.

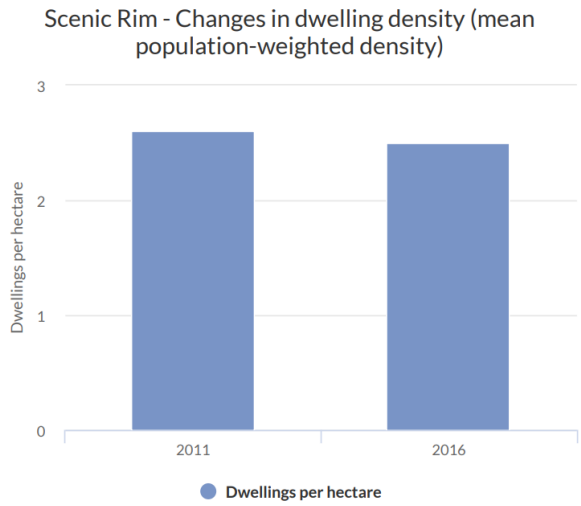
There was a minor decrease in mean population-weighted dwelling density in the Scenic Rim between 2011 and 2016, from 2.6 to 2.5 dwellings per hectare. This represents the average dwelling density at which the population of Scenic Rim lives and is comparable to the net residential density as used by *ShapingSEQ 2017*.

Consistent with other rural local governments, there have been significant fluctuations in median lot size in the Scenic Rim, particularly from 2011/12 to 2013/14. Median lot size stabilised in recent years. This may be related to the small number of lot registrations in the Scenic Rim over that period.

For more detail about the calculation of mean population-weighted dwelling density and median lot size, see the Technical notes.



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



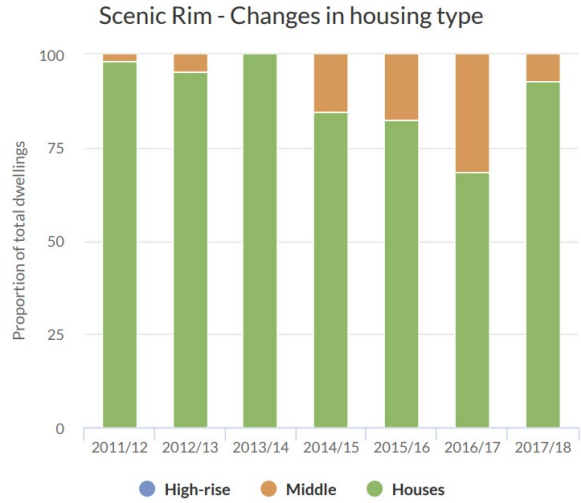
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Scenic Rim

Recent dwelling approvals indicate an increase in housing diversity in Scenic Rim, consistent with the *ShapingSEQ 2017* Measures that Matter preferred future.

Eighty-one per cent (496 dwellings) of all new dwelling approvals in the Scenic Rim for 2016/18 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 (19 per cent or 119 dwellings) also exceeded existing dwelling stock as at the 2016 Census (six per cent). There were no approvals for high-rise dwellings for 2016/18.

For more detail about dwelling approvals, see the Technical notes.



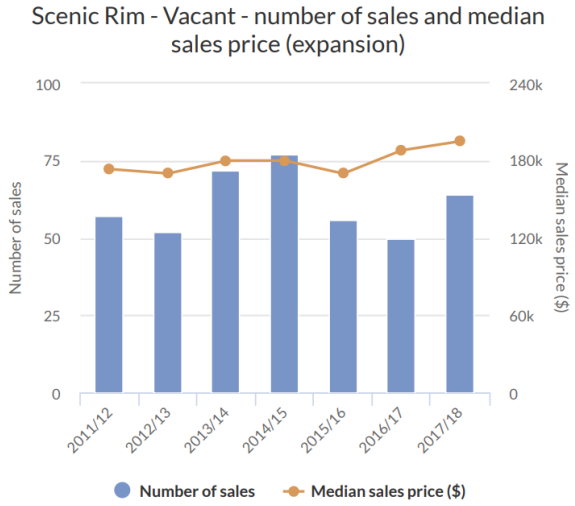
This graph shows the proportion of dwelling approvals that are for houses, middle (attached dwellings up to three storeys) and high-rise (attached dwellings four storeys or more) annually.

Sales and price – Scenic Rim

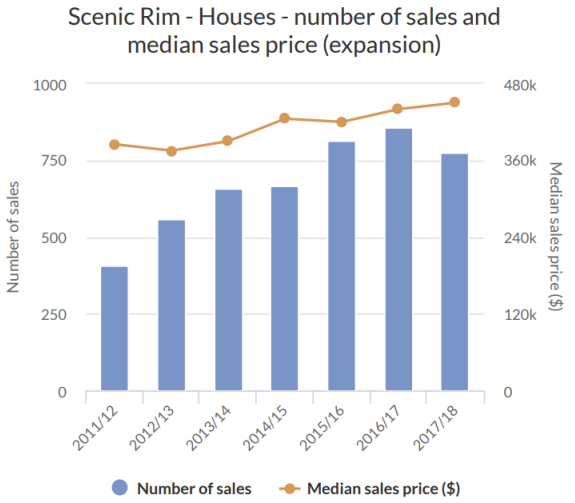
The median sales price for each category (vacant lots, houses and attached dwellings) is lower in the Scenic Rim than South East Queensland (SEQ). The rate of growth in median sales price from 2011/12 to 2017/18 in the Scenic Rim is also lower than in SEQ as a whole, except for attached dwellings, which have a 14 per cent lower median sales price than SEQ but experienced a high rate of price growth (also about 14 per cent).

The number of sales for the Scenic Rim is low, particularly for vacant lots and attached dwellings. This is typical for rural local government areas in SEQ and contributes to fluctuations in price from year to year.

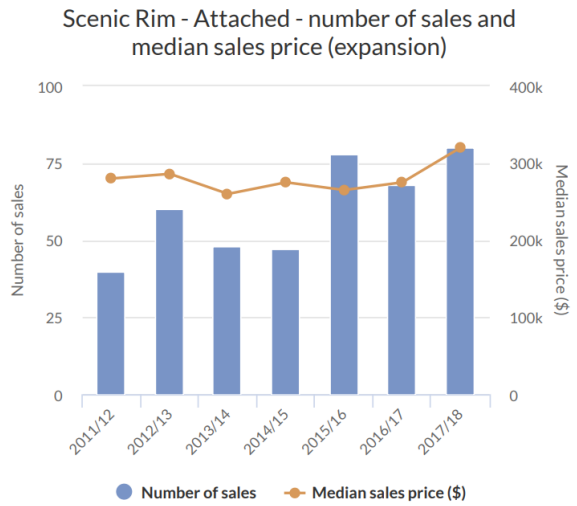
For more detail about the median sales price and number of sales, see the Technical notes.



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



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



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

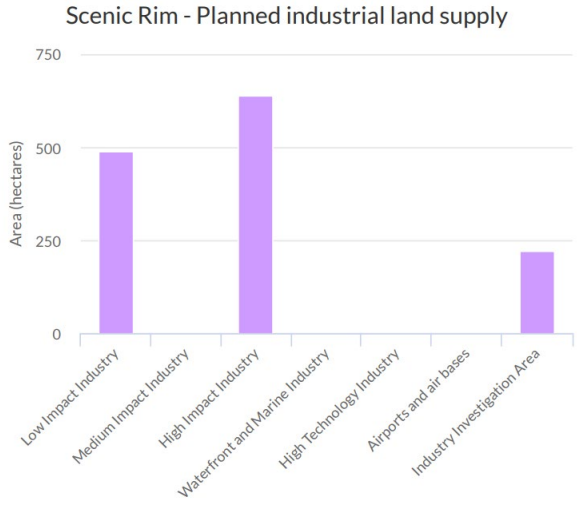
Industrial – Scenic Rim

Planned industrial land supply/take-up – Scenic Rim

About 157 hectares of developed industrial land in Scenic Rim was taken up between 2011 and 2017. The take-up occurred on land intended for high impact and low impact industry.

There were about 1359 hectares of planned industrial land in Scenic Rim as at 2017, including about 1176 hectares in the Bromelton State Development Area. This planned industrial land mostly comprised land intended for low and high impact industry and industry investigation area.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 157 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

Planned industrial employment supply – Scenic Rim

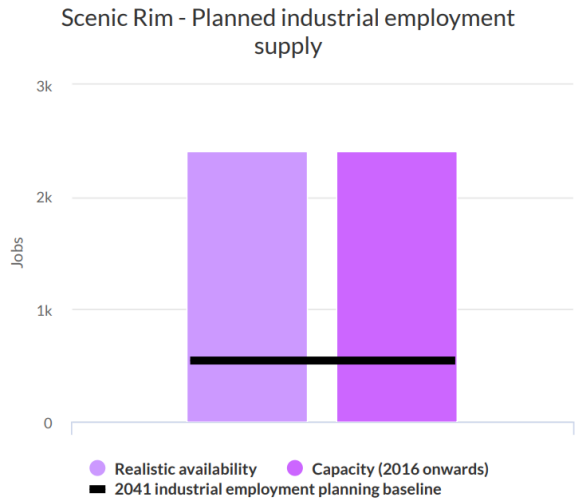
The capacity and realistic availability of planned industrial employment supply in Scenic Rim provide the minimum 15 years of supply sought by *ShapingSEQ 2017*.

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, while 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

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 was recognised by the best practice research, which is explained in more detail in Moving forward.

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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Somerset

Summary

The population of Somerset is expected to increase by approximately 12,800 people between 2016 and 2041, requiring an additional 6200 dwellings.

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*.

In recent years, dwelling approvals in Somerset have consistently been below the expansion average annual benchmark (there is no consolidation area in Somerset).

Housing diversity in Somerset has not changed, contrary to the *ShapingSEQ 2017* preferred future, however dwelling density is increasing in accordance with the *ShapingSEQ 2017*'s preferred future.

There are currently 150 years of supply of reconfiguring a lot approvals in Somerset, which far exceeds the minimum four years of supply sought by *ShapingSEQ 2017*.

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

Residential – Somerset

Planned dwelling supply – Somerset

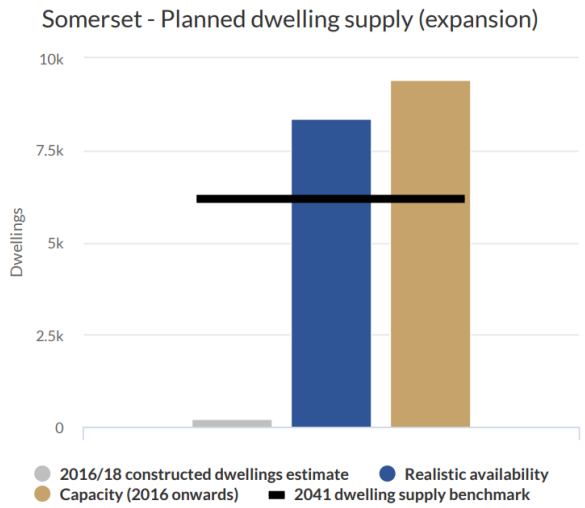
The capacity and realistic availability of planned dwelling supply in Somerset, which is wholly within the expansion area, provides more than the 15 years of supply minimum sought by *ShapingSEQ 2017*.

The capacity figure represents the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land 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 development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

The capacity and realistic availability of planned dwelling supply in Somerset exceed the expansion 2041 dwelling supply benchmark of 6200 dwellings. The capacity is about 9400 dwellings while the realistic availability is about 8360 dwellings.

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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

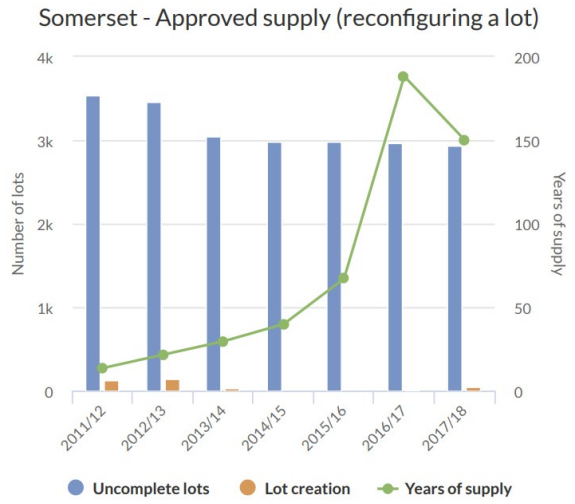
Approved supply – Somerset

Approved supply is measured by analysing reconfiguring a lot approvals across Somerset.

Somerset has 150.3 years of supply of reconfiguring a lot approvals, which far exceeds the minimum four years of supply sought by *ShapingSEQ 2017*. However, the total number of reconfiguring a lot approvals actually declined slightly from 2011/12 to 2017/18. The very high years of supply figure is entirely due to the very low rate of lot creation in recent years.

There are no material change of use approvals for multiple dwellings 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, 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.

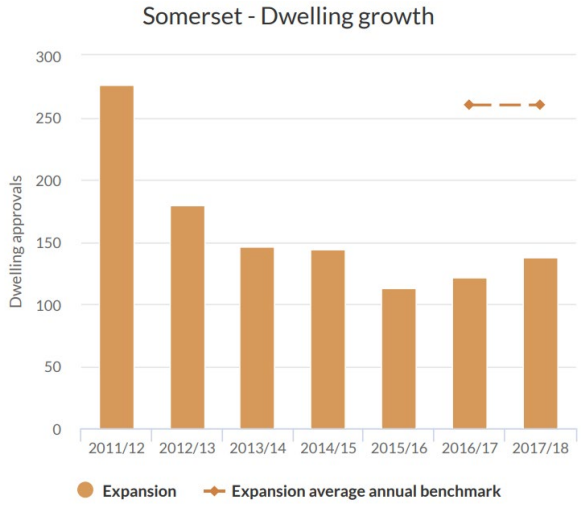
Dwelling growth – Somerset

The expansion area applies to the whole of Somerset, and this report indicates that there is sufficient planned dwelling supply to accommodate the 2041 dwelling supply benchmark.

In recent years, dwelling approvals (used to measure dwelling growth) in Somerset have been consistently below the expansion average annual benchmarks. There were 138 dwelling approvals in Somerset's expansion area in 2017/18, which was about 120 dwellings less than the expansion average annual benchmark of 260 additional dwellings.

Given the relatively high overall rate of dwelling growth experienced recently across most of south-east Queensland, dwelling growth in Somerset may increase proportionate to the availability of local employment opportunities and services.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

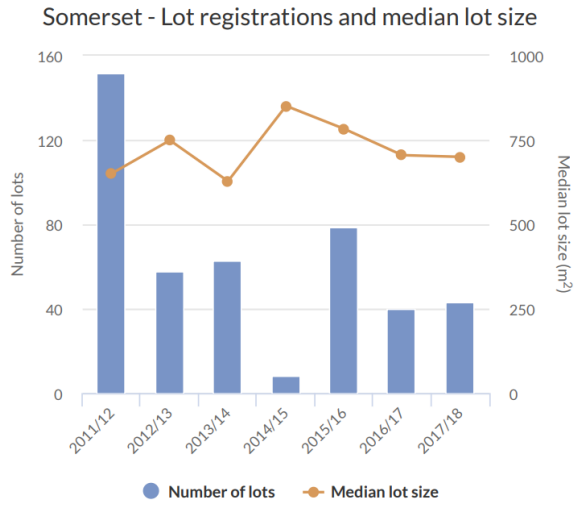
Changes in dwelling density – Somerset

Dwelling density (measured through median lot size and mean population-weighted density) is increasing in Somerset in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

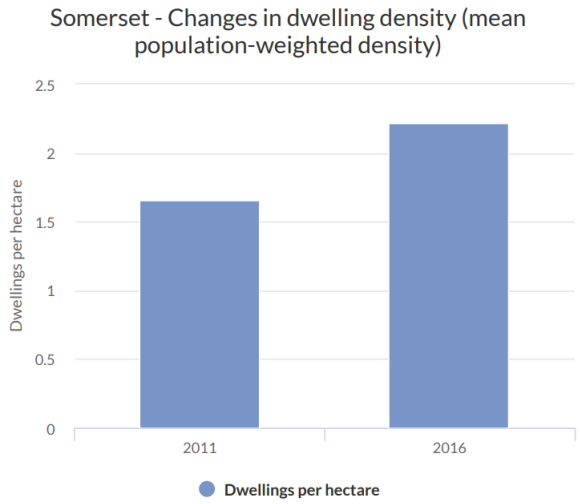
Mean population-weighted dwelling density in Somerset increased between 2011 and 2016, from 1.7 to 2.2 dwellings per hectare. This represents the average dwelling density at which the population of Somerset lives and is comparable to the net residential density as used by *ShapingSEQ 2017*.

Consistent with other rural local governments, there have been significant fluctuations in median lot size in Somerset between 2011/12 and 2017/18, but similar sizes at the beginning and end of the period. 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 lot size, see the Technical notes.



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



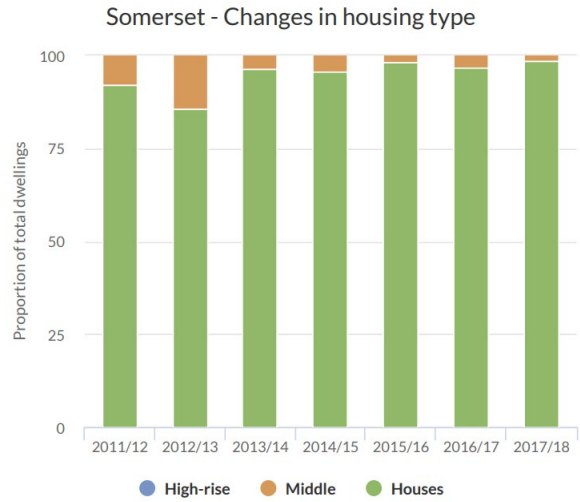
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – 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 254 dwellings) and middle (two per cent or six dwellings) for 2016/18 was the same as for the existing dwelling stock as at the 2016 Census (houses 98 per cent, middle two per cent). There were no approvals for high-rise dwellings in Somerset between 2016-18.

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.

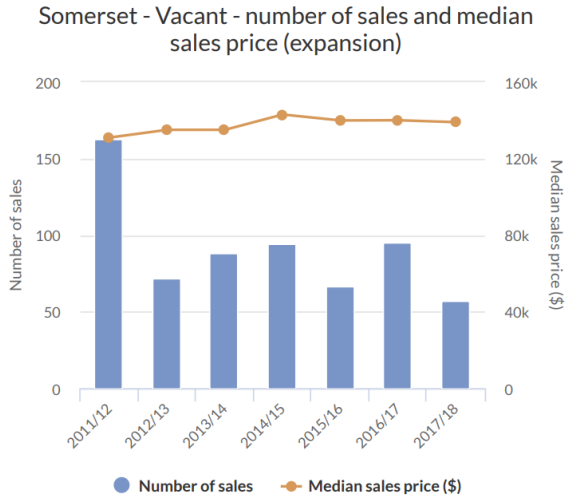
Sales and price – Somerset

The median sales price for each category (vacant lots, houses and attached dwellings) is lower in Somerset than for South East Queensland (SEQ). The rate of growth in median sales price in each

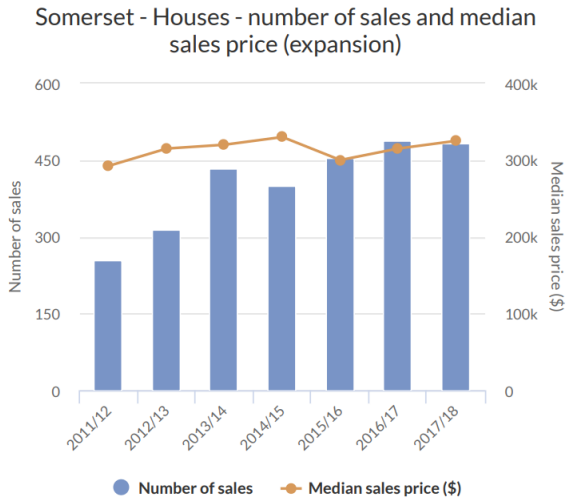
category from 2011/12 to 2017/18 is also lower than for SEQ, with the median sales price for attached dwellings declining.

The number of sales in Somerset is low, particularly for attached dwellings, with 2011/12 and 2016/17 having fewer than the 10 sales required to report a median sales price. This contributes to price fluctuations from year to year.

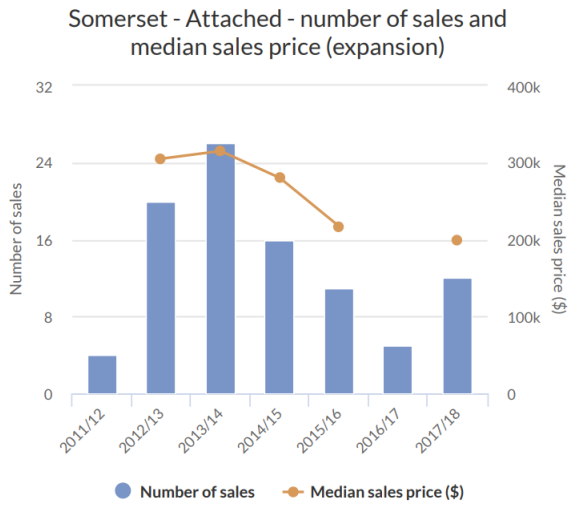
For more detail about the median sales price and number of sales, see the Technical notes.



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



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



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

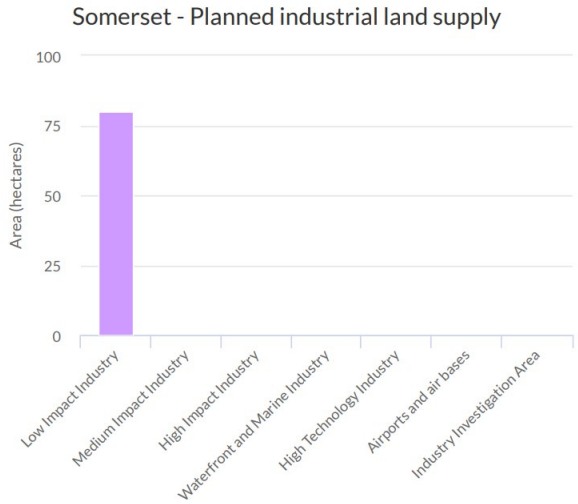
Industrial – Somerset

Planned industrial land supply/take-up – Somerset

The estimated take-up of developed industrial land between 2011 and 2017 in Somerset was about 0.4 hectares. The take-up occurred on land intended for low impact industry.

There were about 82 hectares of planned industrial land in Somerset as at 2017. This planned industrial land was intended for low impact industry.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 0.4 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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, while 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

Both the capacity and realistic availability of planned industrial employment supply is about 940 employees. These figures are distinctly 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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Sunshine Coast

Summary

The population of the Sunshine Coast is expected to grow by more than 190,000 people between 2016 and 2041, requiring approximately 87,000 additional dwellings.

The capacity and realistic availability of planned dwelling supply in the Sunshine Coast expansion area 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 around critical high-frequency public transport like the proposed Maroochydore to Caloundra light rail.

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, in accordance with *ShapingSEQ 2017*'s preferred future. Dwelling density on the Sunshine Coast is also increasing in accordance with *ShapingSEQ 2017*'s preferred future.

There are currently 2.7 years of supply of reconfiguring a lot approvals, which is below the minimum four years of supply sought by *ShapingSEQ 2017*. There are currently 6.3 years of material change of use approvals in the Sunshine Coast consolidation area.

The capacity and realistic availability of planned industrial employment supply on the Sunshine Coast provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

Residential – Sunshine Coast

Planned dwelling supply – Sunshine Coast

The planned dwelling supply on the Sunshine Coast, for the consolidation and expansion areas, provides the minimum 15 years of supply sought by *ShapingSEQ 2017*.

The capacity figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land 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 development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

In the Sunshine Coast consolidation area, the capacity of planned dwelling supply is about 39,400 dwellings, about 14,000 less than the consolidation 2041 dwelling supply benchmark of 53,700.

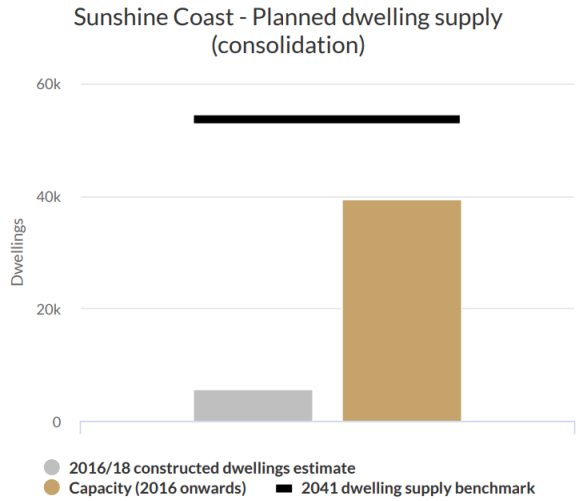
In contrast, in the Sunshine Coast expansion area, the capacity and realistic availability of planned dwelling supply in the Sunshine Coast expansion area are about 45,400 and 42,200 dwellings, respectively. These figures are above the expansion 2041 dwelling supply benchmark.

A substantial proportion of the expansion planned dwelling supply is provided by the Caloundra South Priority Development Area and the Palmview structure plan area. The Beerwah East Major Development Area may form a part of the Sunshine Coast's planned dwelling supply in the future. Realisation of the planned dwelling supply in the Caloundra South Priority Development Area is expected to be supported over time by infrastructure delivered under existing infrastructure agreements.

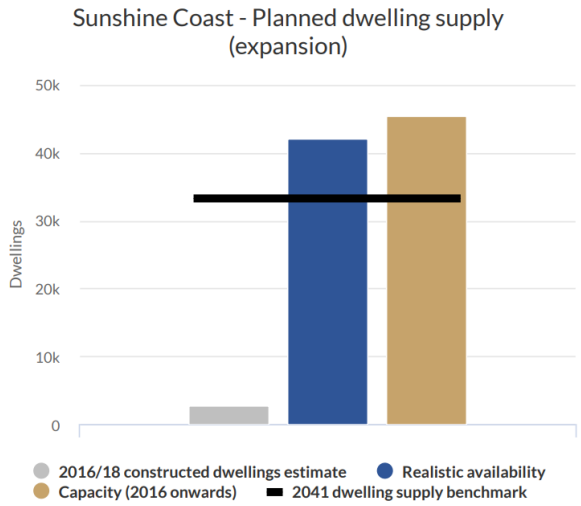
Sunshine Coast Regional Council's planning scheme identifies opportunities to increase the planned dwelling supply in the consolidation area. In particular, through potential densification of development in the Sunshine Coast Enterprise Corridor, including around critical high-frequency public transport like the proposed Maroochydore to Caloundra light rail. Such planning scheme changes would contribute to addressing the identified shortfall in planned dwelling supply compared to the 2041 dwelling supply benchmark, and a number of such changes are already in process, such as those associated with the Sunshine Coast Enterprise Corridor.

Also, there may be scope for additional consolidation planned dwelling supply under the current planning scheme, the scale of which was not able to be clearly determined from the available data. This may include additional yield that could be achieved in the Sunshine Coast Enterprise Corridor, even without proposed future increases in densities.

For more detail about the calculation of planned dwelling supply, including years of supply, and a list of planning and development scheme amendments 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.



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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

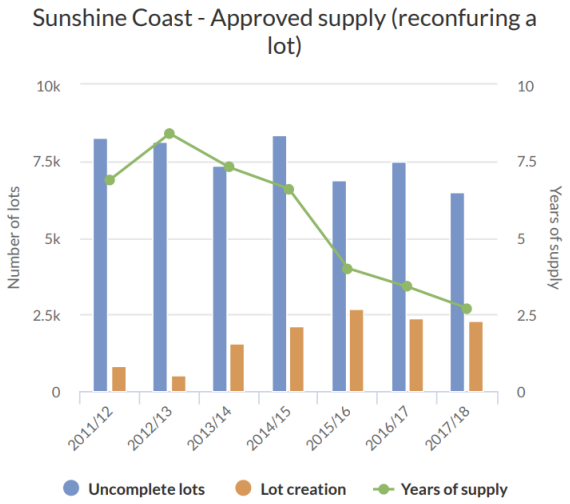
Approved supply – Sunshine Coast

Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings across Sunshine Coast.

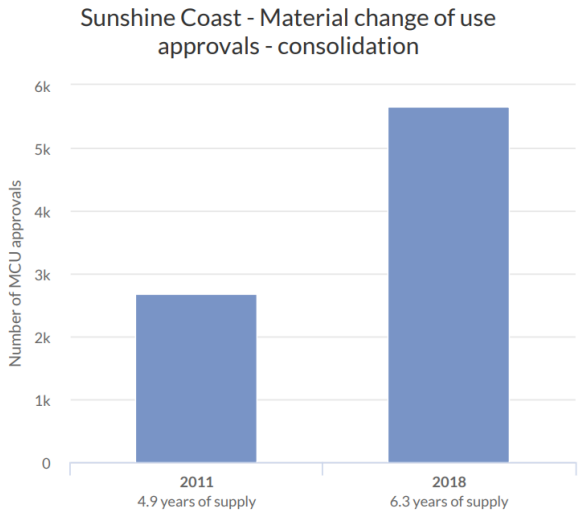
There are 2.7 years of supply of reconfiguring a lot approvals in the Sunshine Coast consolidation and expansion areas overall, less than the minimum four years of supply sought by *ShapingSEQ 2017*. From 2011/12 to 2017/18, the total number of reconfiguring a lot approvals shows a general downward trend but is about 80 per cent of the number at its peak. The high rate of lot creation over the past four years has contributed to the low years of supply figure.

In contrast, the Sunshine Coast has 6.3 years of supply of material change of use approvals for multiple dwellings in the consolidation area, which is above the minimum four years of supply sought by *ShapingSEQ 2017*. The June 2018 supply of material change of use approvals for multiple dwellings on the Sunshine Coast is over two times the number reported as at June 2011.

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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

Dwelling growth – Sunshine Coast

In recent years, dwelling approvals (used to measure dwelling growth) on the Sunshine Coast have exceeded the average annual benchmarks.

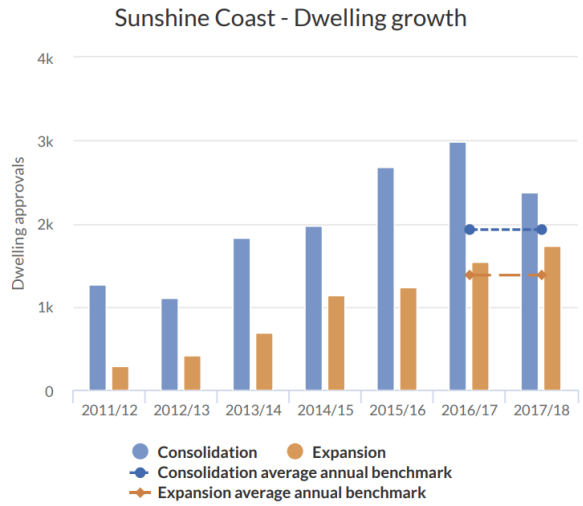
In 2017/18, there were 2373 dwelling approvals in the Sunshine Coast consolidation area, which was approximately 450 dwellings more than the consolidation average annual benchmark of 1927 additional dwellings. There were 1727 dwelling approvals in the Sunshine Coast's expansion area in 2017/18, which was approximately 350 dwellings more than the expansion average annual benchmark of 1380 additional dwellings.

Approximately 62 per cent of dwelling approvals for 2016/18 were in the Sunshine Coast's consolidation area, which is more than the expected share of 58 per cent. Approximately 38 per cent

of dwelling approvals were in the Sunshine Coast's expansion area over the same period, which is less than the expected share of 42 per cent.

The rate of expansion dwelling growth has increased significantly in recent years as major sources of expansion supply to 2041, i.e. the Caloundra South Priority Development Area and Palmview structure plan area, have resolved infrastructure issues and commenced development. As the momentum of development builds in these areas in coming years, there may be a higher proportion of expansion dwelling growth.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

Changes in dwelling density – Sunshine Coast

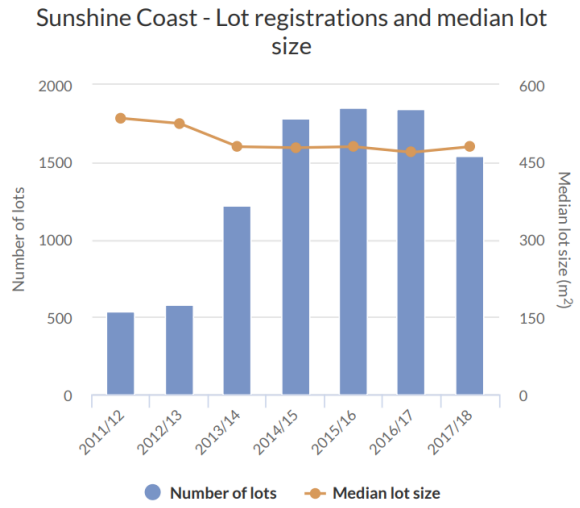
Dwelling density (measured through median lot size and mean population-weighted density) is increasing on the Sunshine Coast in accordance with the *ShapingSEQ 2017* Measures that Matter preferred future for higher dwelling densities and smaller lots.

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*.

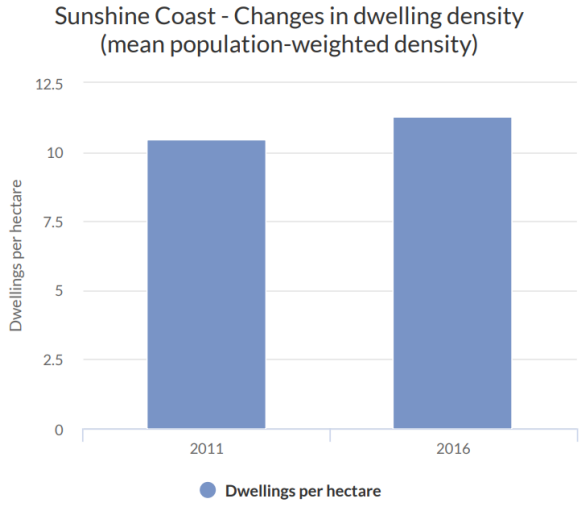
Median lot size on the Sunshine Coast decreased from approximately 540m^2 to 480m^2 from 2011/12 to 2017/18. This was associated with a larger number of new lot registrations in recent years. This measure is indicative of increased dwelling densities in new urban subdivisions on the Sunshine Coast.

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 lot size, see the Technical notes.



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



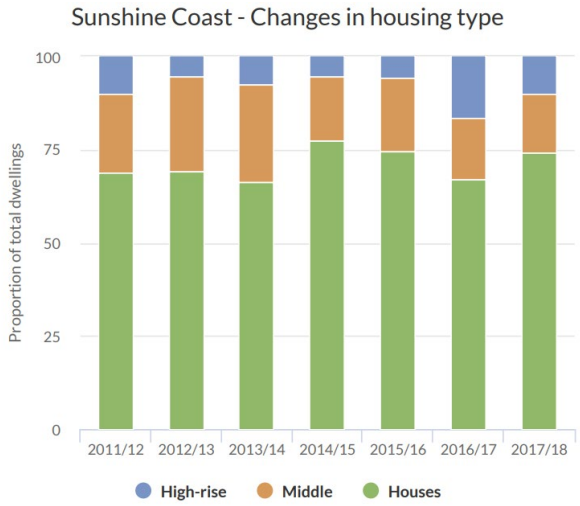
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Sunshine Coast

Recent dwelling approvals have indicated a slightly lower proportion of houses and a higher proportion of high-rise on the Sunshine Coast than at the 2016 Census. This is consistent with the *ShapingSEQ 2017* Measures that Matter preferred future.

Seventy-one per cent (6082 dwellings) of all new dwelling approvals on the Sunshine Coast for 2016/18 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 (14 per cent or 1166 dwellings) also exceeded existing dwelling stock as at the 2016 Census (seven per cent). However, dwelling approvals for middle (16 per cent or 1378) were proportionately less than the share of existing dwellings as at the 2016 Census (21 per cent).

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.

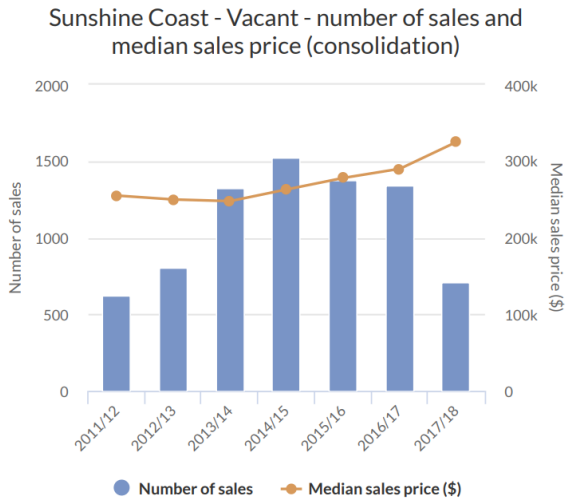
Sales and price – Sunshine Coast

The median sales price for each category (vacant lots, houses and attached dwellings), in the consolidation and expansion, is higher or similar on the Sunshine Coast compared to South East Queensland (SEQ). The rate of price growth for each category was also higher on the Sunshine Coast than SEQ.

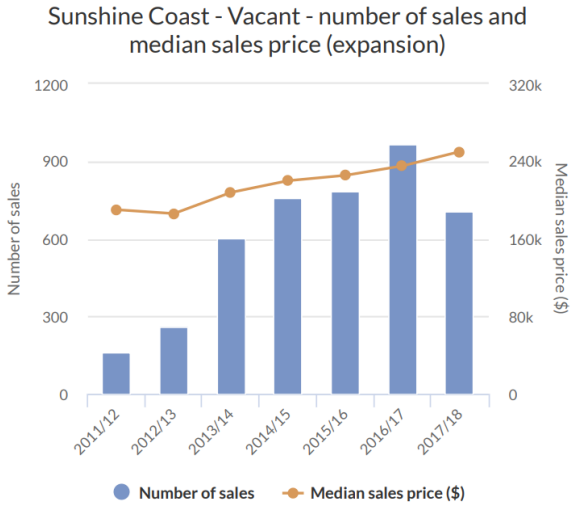
Over the 2011/12 to 2017/18 period, the greatest growth in median sales price on the Sunshine Coast was for houses in the consolidation area (about 40 per cent) followed by vacant lots in the expansion area (about 32 per cent). The rate of median sales price growth for houses (about 40 per cent) in the consolidation area was greater than for the expansion area, which is consistent with the outcome across SEQ.

The rate of median sales price growth for vacant lots (about 32 per cent) and attached dwellings (25 per cent) in the expansion area was greater than for vacant lots (about 28 per cent) and attached dwellings (about 24 per cent) in the consolidation area. However, the median sales price for vacant lots in the consolidation area is about 30 per cent higher than for vacant lots in the expansion area.

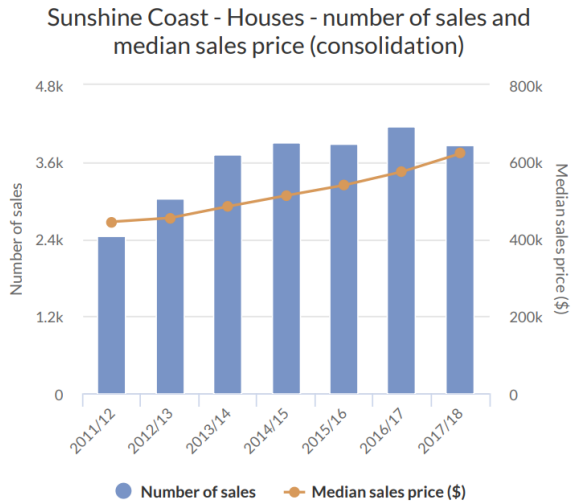
For more detail about the median sales price and number of sales, see the Technical notes.



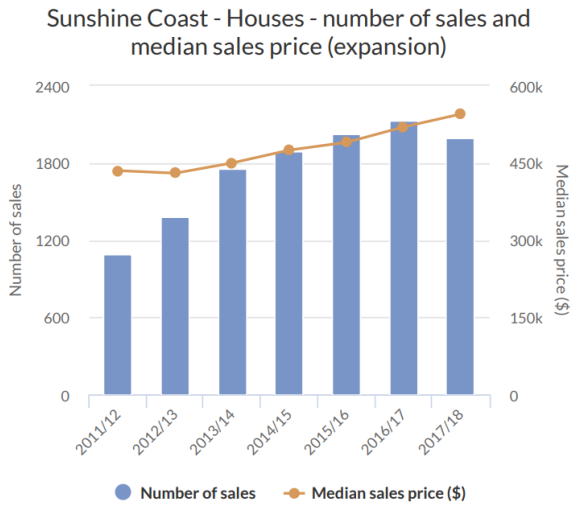
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



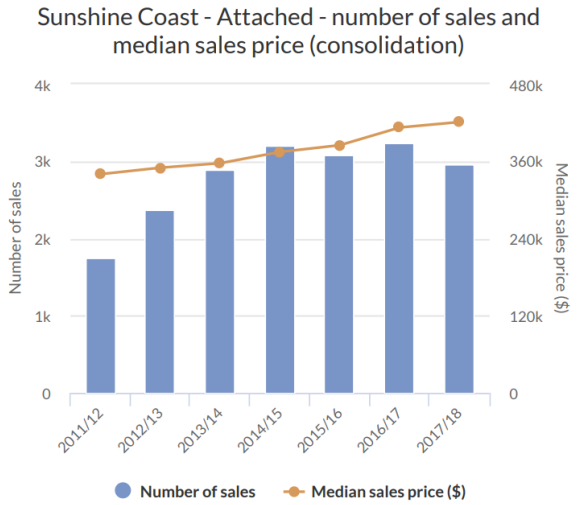
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



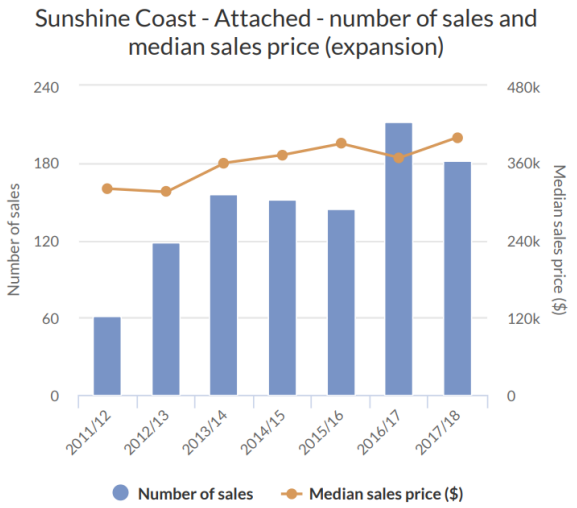
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

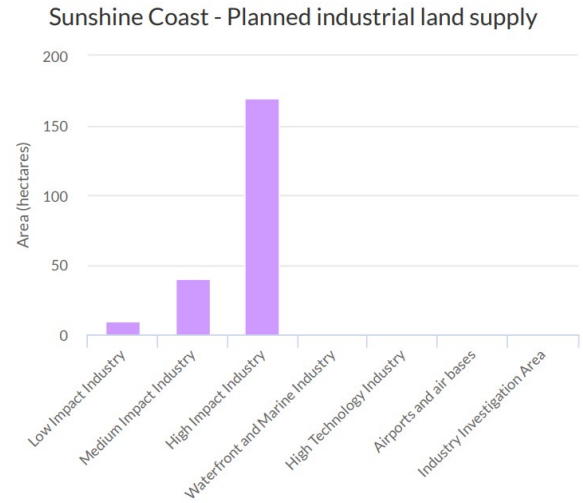
Industrial – Sunshine Coast

Planned industrial land supply/take-up – Sunshine Coast

The estimated take-up of developed industrial land between 2011 and 2017 on the Sunshine Coast was about 48 hectares. The take-up occurred on land intended for low, medium and high impact industry.

There were about 223 hectares of planned industrial land on the Sunshine Coast as at 2017. This planned industrial land comprised land intended for low, medium and high impact industry.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 223 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

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, while the realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically available by 2041.

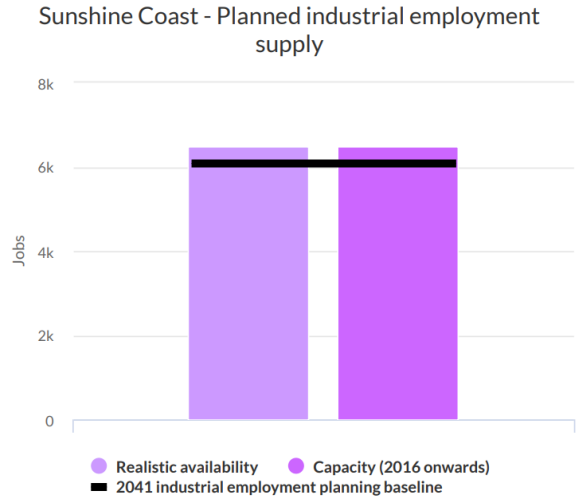
The realistic availability scenario considers factors that may constrain the availability of land for industrial development and employment. Such factors include constraints affecting the feasibility of

development and lower than assumed employment densities. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

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 27 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.

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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Toowoomba (urban extent)

Summary

The population of the Toowoomba urban extent is expected to grow by about 46,000 people between 2016 and 2041, requiring approximately 20,000 additional dwellings.

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

Dwelling approvals in the Toowoomba (urban extent) expansion and consolidation areas have exceeded the expansion and consolidation average annual benchmarks in recent years. Housing in the Toowoomba (urban extent) is becoming more diverse and dwelling density is increasing in accordance with *ShapingSEQ 2017*'s preferred future.

There are currently 5.1 years of supply of reconfiguring a lot approvals in the Toowoomba (urban extent) and four years of supply of material change of use approvals in the Toowoomba (urban extent) consolidation area, which provide the minimum four years of supply sought by *ShapingSEQ 2017*.

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*.

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 provides more than the minimum 15 years of supply sought by *ShapingSEQ 2017*.

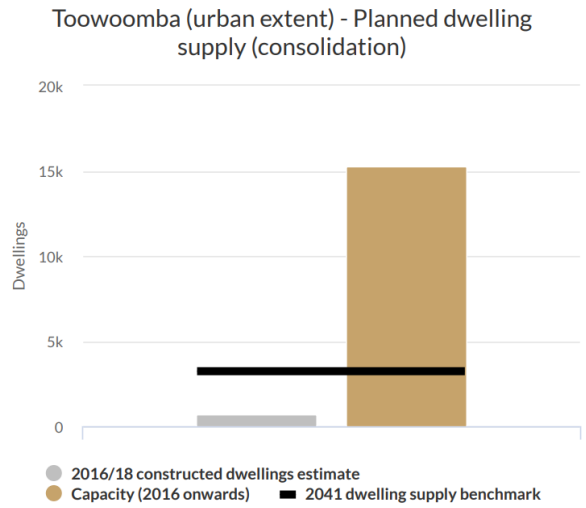
The capacity figures represent the number of dwellings that have been or could be approved, based on current planning intent, while the realistic availability figure provides a land supply scenario that considers whether some of the capacity is not realistically available by 2041.

The realistic availability scenario considers factors that may constrain the availability of land for development. Such factors include land ownership fragmentation, landowner intent, practical staging of and capability for development, and the age of existing development. The realistic availability scenario is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, including providing a realistic availability scenario for the consolidation area, see Moving forward.

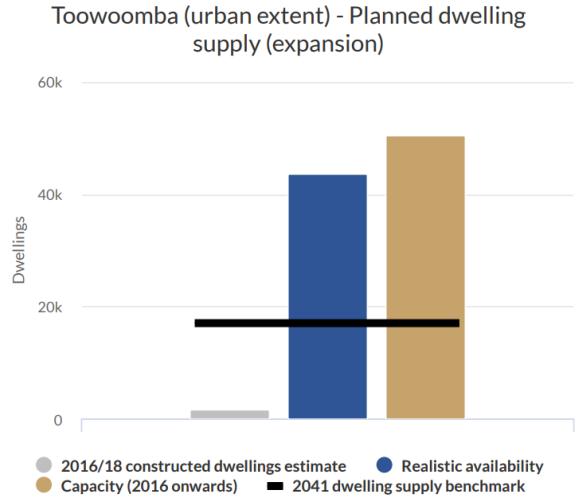
In the Toowoomba (urban extent) consolidation area, the capacity of planned dwelling supply is about 15,300, which is significantly above the consolidation 2041 dwelling supply benchmark of 3200 dwellings.

Similarly, in the Toowoomba (urban extent) expansion area, the capacity and realistic availability of planned dwelling supply are greatly above the expansion 2041 dwelling supply benchmark of 17,100 dwellings.

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 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.

Note: The planned dwelling supply measures are as calculated by the Department of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) and be reflected in future publications of the Land Supply and Development Monitoring Report. This is expected to include measurement of supply that is able to be serviced, as sought by *ShapingSEQ 2017*.

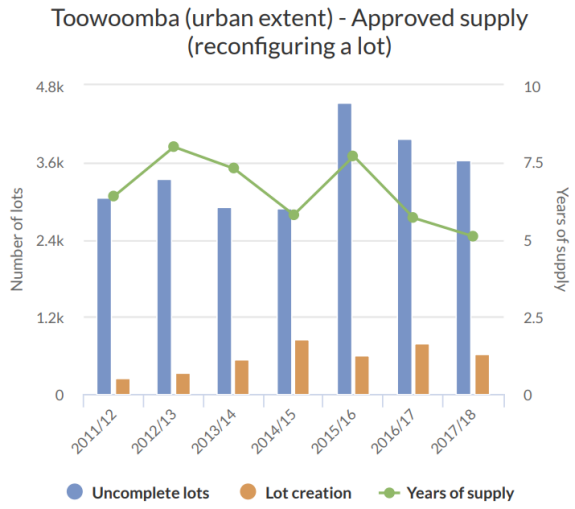
Approved supply – Toowoomba (urban extent)

Approved supply is measured by analysing reconfiguring a lot approvals and material change of use approvals for multiple dwellings across Toowoomba (urban extent).

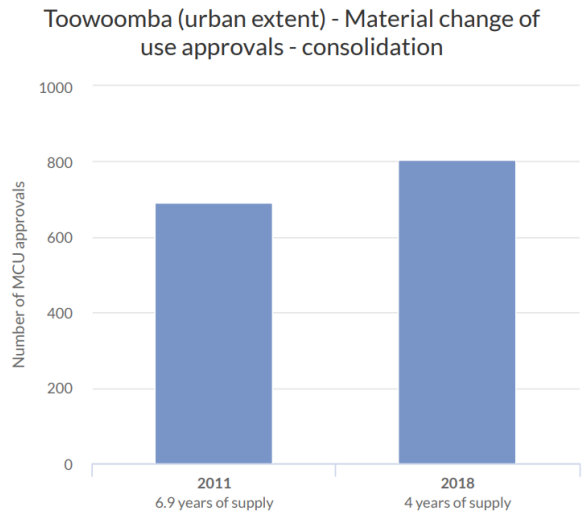
There are 5.1 years of supply of reconfiguring a lot approvals in the Toowoomba consolidation and expansion areas overall, which is more than the minimum four years of supply sought by *ShapingSEQ 2017*. The number of reconfiguring a lot approvals and total years of supply have fluctuated in accordance with the rate of lot creation, which is currently just below the long-term high for Toowoomba (urban extent).

Toowoomba (urban extent) currently has four years of supply of material change of use approvals for multiple dwellings in the consolidation area, which equals the minimum sought by *ShapingSEQ 2017*. The total number of material change of use approvals for multiple dwellings current in June 2018 is about 16 per cent greater than the number reported as at June 2011.

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 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 multiple dwellings that have a development permit but have not yet been constructed as at 30 June 2011 and 30 June 2018.

Dwelling growth – Toowoomba (urban extent)

In recent years, dwelling approvals (used to measure dwelling growth) in Toowoomba (urban extent) have exceeded the average annual benchmarks.

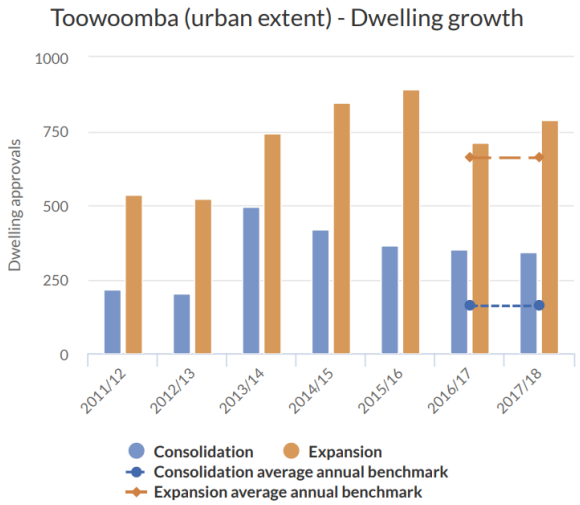
In 2017/18, there were 341 dwelling approvals in Toowoomba's consolidation area, which was approximately 180 dwellings more than the consolidation average annual benchmark of 160 additional dwellings. There were 788 dwelling approvals in Toowoomba's expansion area in 2017/18, which was approximately 130 dwellings more than the expansion average annual benchmark of 660 additional dwellings.

Approximately 32 per cent of dwelling approvals for 2016/18 combined were in Toowoomba's consolidation area, which exceeds the expected share of 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 of additional dwellings.

The actual numbers of dwelling approvals are above the average annual benchmarks, so Toowoomba is on track to be able to accommodate the 2041 dwelling supply benchmarks.

For more information about improvements to the measurement of net growth over time, see Moving forward. For more detail about dwelling approvals, see the Technical notes.



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

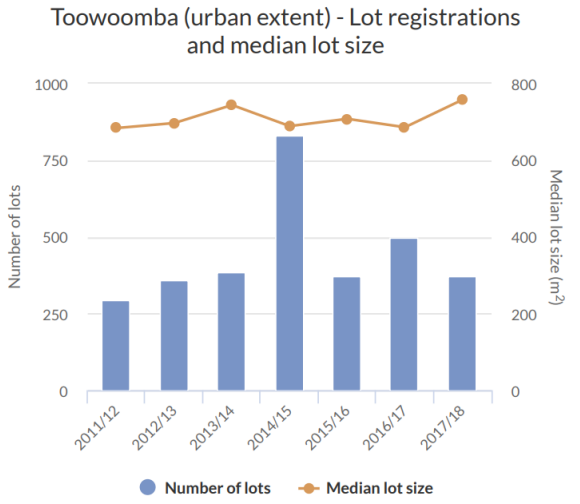
Changes in dwelling density – Toowoomba (urban extent)

Dwelling density (measured through mean population-weighted density) has increased in Toowoomba (urban extent) in recent years, consistent with the *ShapingSEQ 2017* Measures that Matter preferred future, even though the median lot size in new urban subdivisions has increased somewhat, contrary to the preferred future for smaller lot sizes.

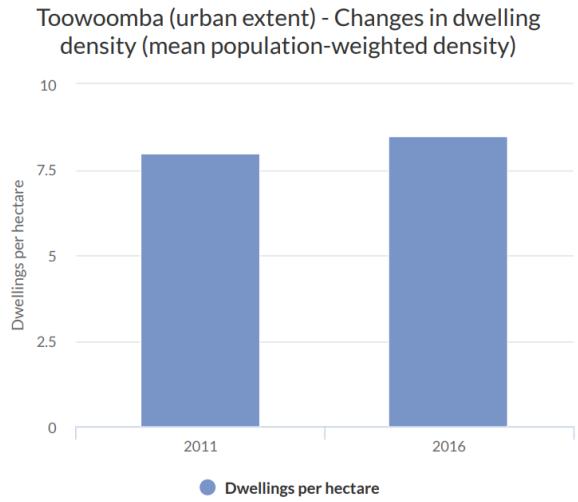
Mean population-weighted dwelling density in Toowoomba (urban extent) increased between 2011 and 2016, from eight to 8.5 dwellings per hectare.

Median lot size in Toowoomba (urban extent) increased from approximately 680m^2 to 760m^2 from 2011/12 to 2017/18. Although this is contrary to the preferred future, such lot sizes may 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 lot size, see the Technical notes.



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



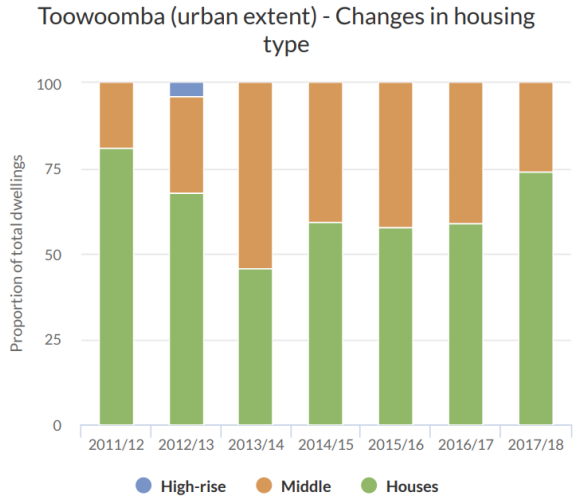
This graph shows the dwelling density (mean population-weighted dwelling density) at which people were living in 2011 and 2016.

Changes in housing type – Toowoomba (urban extent)

Recent dwelling approvals in Toowoomba (urban extent) indicate an increase in housing diversity, consistent with the *ShapingSEQ 2017* Measures that Matter preferred future.

Sixty-seven per cent (1462 dwellings) of all new dwelling approvals in Toowoomba (urban extent) for 2016/18 were for houses, which was less than for existing dwelling stock (80 per cent as at the 2016 Census). Dwelling approvals for middle (33 per cent or 731 dwellings) over the same period were higher than their share of the dwelling stock (20 per cent). Approvals for high-rise dwellings for 2016/18 were zero per cent, which aligned with existing dwelling stock as at the 2016 Census.

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.

Sales and price – Toowoomba (urban extent)

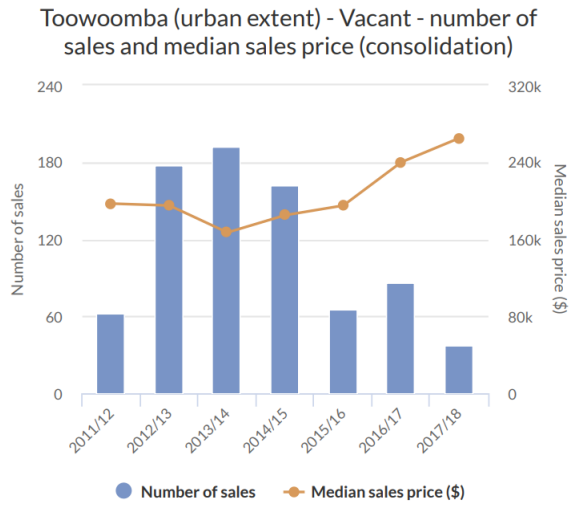
The median sales price for each category (vacant lots, houses and attached dwellings), in the consolidation and expansion areas, are lower in Toowoomba (urban extent) than for South East

Queensland (SEQ). However, the rate of median sales price growth in Toowoomba (urban extent) was greater than for SEQ for vacant lots and attached dwellings in the expansion and consolidation areas. Houses had a lower rate of price growth compared to SEQ.

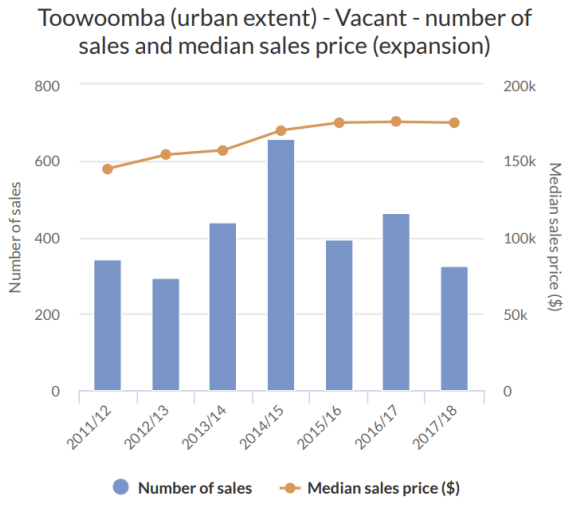
Between 2011/12 and 2017/18, the greatest growth in median sales price within Toowoomba (urban extent) was for vacant lots (about 35 per cent) followed by houses (about 30 per cent) in the consolidation area.

The rate of price growth and actual median sales price are mostly higher in the consolidation area than in the expansion area within Toowoomba (urban extent). The exception is houses, which have experienced greater median sales price growth in the consolidation area but remain about 9 per cent more expensive in the expansion area.

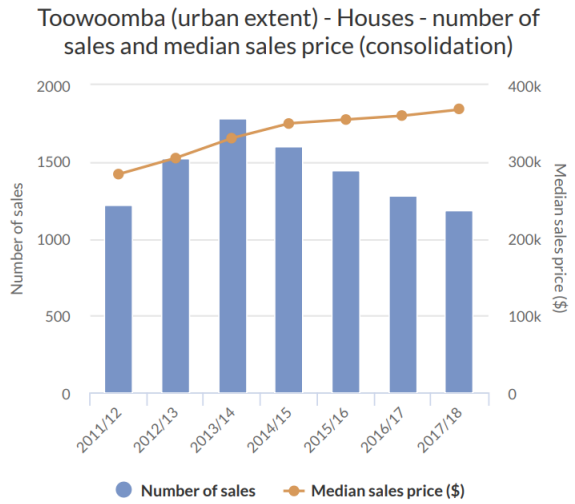
For more detail about the median sales price and number of sales, see the Technical notes.



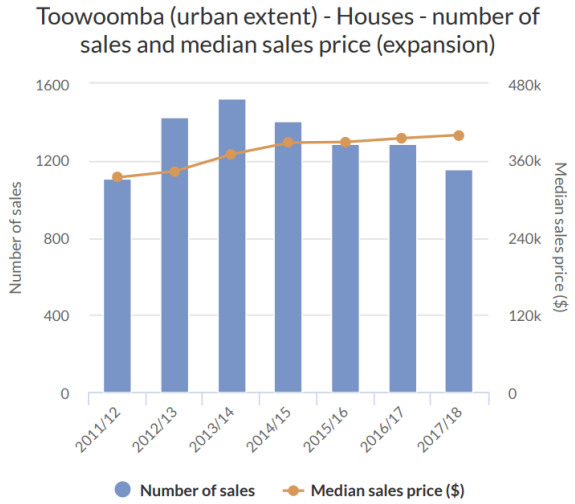
This graph shows the number of sales and median sales price for vacant lots in the consolidation area.



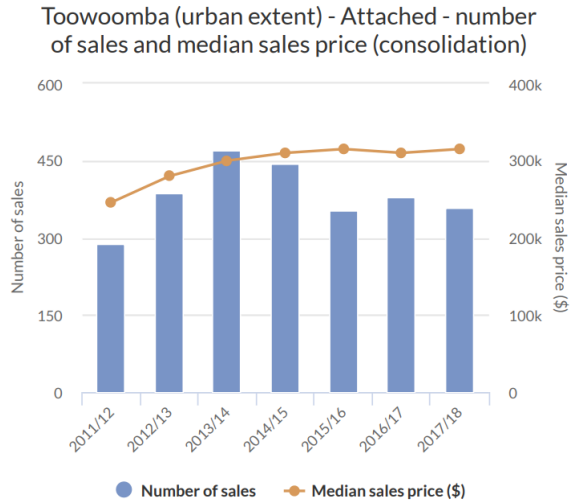
This graph shows the number of sales and median sales price for vacant lots in the expansion area.



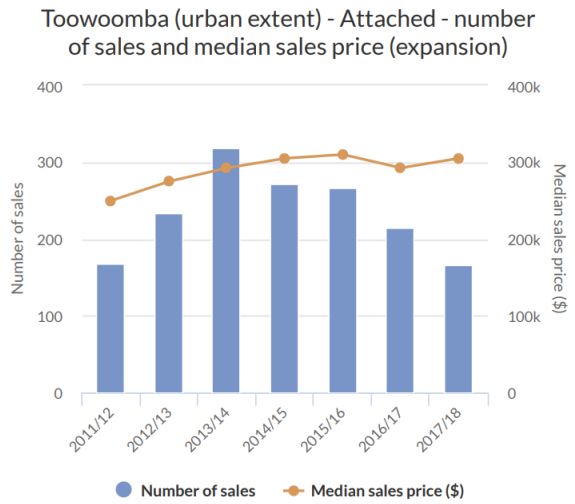
This graph shows the number of sales and median sales price for houses in the consolidation area.



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



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



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

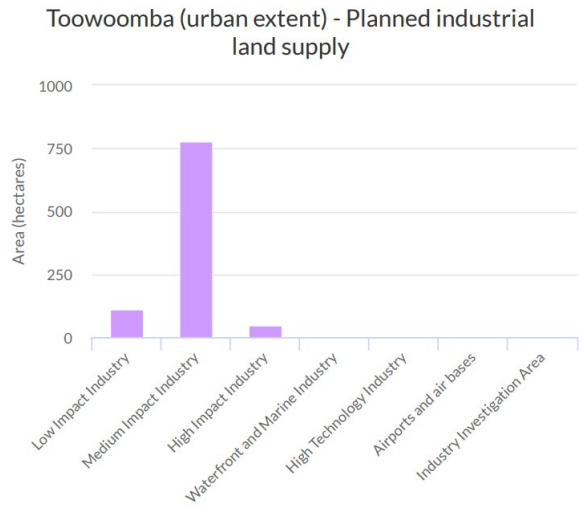
Industrial – Toowoomba (urban extent)

Planned industrial land supply/take-up – Toowoomba (urban extent)

The estimated take-up of developed industrial land in Toowoomba (urban extent) between 2011 and 2017 was about 467 hectares, most of which occurred through the development of the Wellcamp Airport and associated business park.

There were about 942 hectares of planned industrial land in Toowoomba (urban extent) as at 2017, including about 818 hectares at the Toowoomba Enterprise Hub (Charlton-Wellcamp), intended for low, medium and high impact industry.

For more detail about planned industrial land and take-up, see the Technical notes.



This graph shows the number of hectares of planned industrial land as at 2017 by industrial land category.

About 467 hectares of developed industrial land was taken up between 2011 and 2017.

Note: The planned industrial land measure identifies land 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 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. Also, planned industrial land is a gross area which does not include any allowance for roads, infrastructure corridors, open space and the like.

Planned industrial employment supply – 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*.

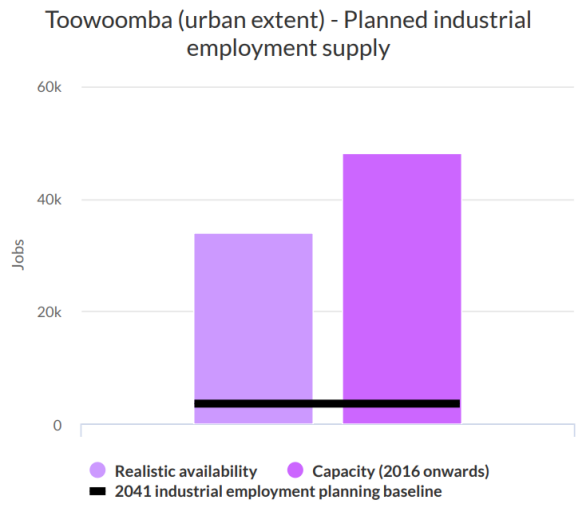
The capacity figure represents the number of employees that could be supported by industrial developments that have been or could be approved, based on current planning intent, while the realistic availability figure provides a supply scenario that considers whether some of the capacity is not realistically 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 is based on methods which provide an initial approach for improvement in future years of reporting. For more information about these improvements, see Moving forward.

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 34,000 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 was recognised by the best practice research, which is explained in more detail in Moving forward.

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.

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 of State Development, Infrastructure, Local Government and Planning using information provided by local governments and utilities 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 Moving forward) 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.

Moving forward

Introduction

The Department of State Development, Infrastructure, Local Government and Planning (DSDILGP), through the Growth Monitoring Program (GMP), is seeking to accurately monitor development activity and land supply for South East Queensland (SEQ). In recognition of the scale and local complexities of this task, DSDILGP is committed to working with local governments, utility providers and the development industry to build upon the work these key stakeholders and the Queensland Government Statistician's Office (QGSO) are already doing in this field.

The GMP is a long-term program of government, that will capitalise 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 will involve using, improving and reporting from existing local government and utility land supply databases, rather than creating new and varied land supply estimates. Moving towards a shared understanding of land supply is seen as moving towards a 'single point of truth' for development activity and land supply in SEQ. This shared understanding of land supply will inform evidence-based decision making by the state and local governments, the development industry and infrastructure providers and inform future reviews of the regional plan.

In 2019, DSDILGP will develop work programs for the GMP's three core deliverables – the Land Supply and Development Monitoring (LSDM) Report (this report), the Measures that Matter and the Housing Supply Expert Panel (HSEP).

DSDILGP will develop a GMP road map to illustrate the progressive improvement of the monitoring program and relevant elements of the work programs. The road map will be developed in consultation with the HSEP and stakeholders through the GMP's collaborative governance framework. It will consider opportunities for innovation and ongoing improvement. DSDILGP will release the road map in the first half of 2019.

The following sections provide an overview of GMP initiatives in this foundational year and high-level priorities for next year and beyond, which will inform future work programs and the road map.

Best practice research in 2018

As a foundational task, Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) commissioned independent experts to identify 'best practice' methods for calculating land supply, after considering SEQ, Australian and international examples. In summary, this best practice research focused on:

- identifying land available for development after considering constraints like flooding, slope and vegetation – 'land suitability'
- considering the availability of land for development over time – 'realistic availability and take up'
- likely land use types and densities – 'use and density'

- identifying areas which are more likely to be able to be serviced by infrastructure – 'ability to service'.

Research findings were provided to DSDILGP, local governments, and utility providers as part of the Growth Monitoring Program's (GMP) governance framework and included several recommendations. More detail about the best practice research, its recommendations and how it has informed the GMP's Land Supply and Development Monitoring work program for 2019 and beyond is provided in Best practice research.

Collaboration

In 2018, Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) established a governance framework for collaboration with local governments, utility providers, the development industry and peak organisations to inform the Growth Monitoring Program (GMP). This governance framework consisted of a Reference Group (RG), a Data and Modelling Working Group (DMWG), a State Agency Working Group (SAWG), the newly formed Housing Supply Expert Panel (HSEP) 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 DSDILGP and numerous state agencies including Queensland Treasury, Department of Education, Department of Transport and Main Roads, Department of Environment and Science, 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 made up 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 RPC is chaired by the Minister for Planning, with membership of all SEQ Mayors (or equivalent) who advise the Queensland Government, through the Minister, on the development and implementation of *ShapingSEQ 2017*.

Governance framework

The 2018 meeting schedule for the various groups was as follows:

- Data Modelling Working Group – five meetings
- Reference Group – three meetings
- State Agency Working Group – three meetings
- Housing Supply Expert Panel – two meetings
- Regional Planning Committee – two meetings.

By continuing this collaboration, Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) intends to build upon the 2018 foundational year of the Growth Monitoring Program (GMP) to move towards a shared understanding of land supply and development activity before publication of the next Land Supply and Development Monitoring (LSDM) Report in late 2019.

A schedule of future meetings will be developed as part of the future LSDM work program.

LSDM priorities for 2019

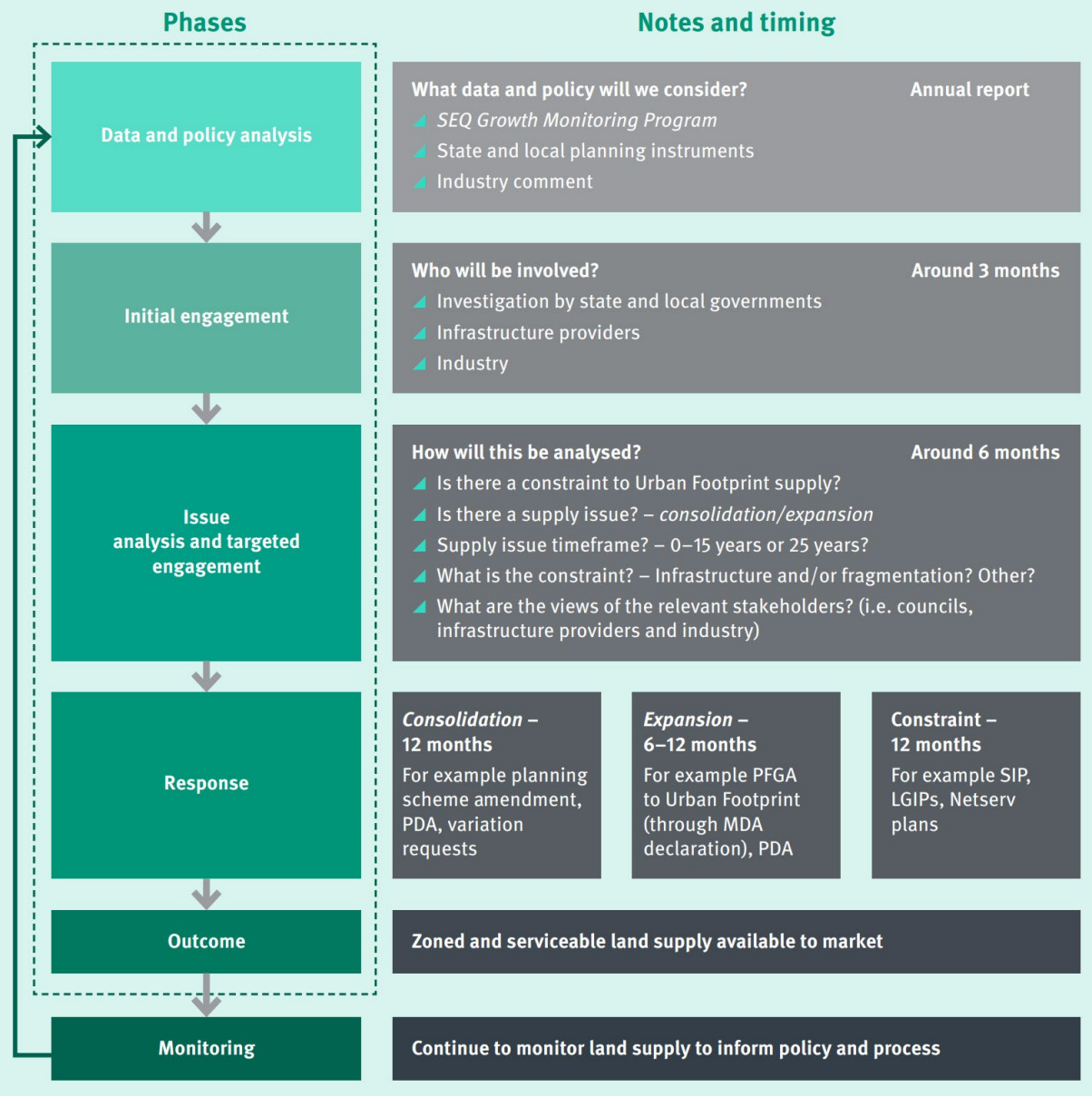
Building on the best practice research undertaken to date, and stakeholder feedback, Land Supply and Development Monitoring (LSDM) priorities for 2019 are to:

- Explore and facilitate greater data sharing between the state government, local governments and utility providers.
- Research how to more accurately measure growth and development activity.
- Investigate creating a single-mapped dataset of developable land, considering constraints like flood, slope and vegetation.
- Research standardised land supply types for use when measuring land supply and development.
- Explore guidance documentation about the findings of this research and collaboration for use by stakeholders.

The development of amended or new indicators and areas for reporting will also be investigated as part of the next LSDM Report. For example, Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) will seek to incorporate a market overview, in consultation with the development industry, with data and commentary regarding market conditions affecting residential and industrial approvals and development activity.

Policy responses

The benefits of the Growth Monitoring Program (GMP) will be felt long-term. The data and trends reported as part of the GMP will serve to inform evidence-based decision making in accordance with the land supply framework identified in *ShapingSEQ 2017* (see figure opposite). The Land Supply and Development Monitoring Report will not seek to pre-empt this process or responses and outcomes that it may lead to.



Source: The South East Queensland Regional Plan 2017, *ShapingSEQ* 2017 (Figure 11 on p.47).

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 2018 Land Supply and Development Monitoring (LSDM) Report confirms SEQ has more than 15 years of planned dwelling supply that is appropriately zoned. Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) has also completed best practice research into methods of mapping an areas' ability to be serviced, as detailed in Best practice research.

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.

Housing Supply Expert Panel (HSEP)

As part of the GMP, DSDILGP has established a Housing Supply Expert Panel (HSEP). This panel will provide transparent, independent advice to the state government about how to measure, report on and address land supply, development and housing affordability issues in SEQ. For more information about the ongoing role of the HSEP, click here.

Department of Housing and Public Works

In addition to the role played by DSDILGP, the Minister for Housing and Public Works (HPW), Minister for Digital Technology and Minister for Sport has reconvened the Ministerial Housing Council (MHC) to advise the government on the unique challenges faced in developing and delivering quality housing outcomes for the people and communities of Queensland.

HPW has also established the Housing and Homelessness Research Alliance (HHRA). The HHRA is considering a definition of ‘affordable housing' which can be applied to different population centres to obtain a more nuanced understanding of the issues affecting affordability in a particular region.

Impact of new constraints on land supply

Role of the Growth Monitoring Program (GMP)

As changes are proposed and made to state and local regulations, policies and base constraint information, the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) will assess the impact of those changes on land supply through land supply and development monitoring.

The GMP will use the best available region-wide information at the time of its annual reporting period. For the 2018 Land Supply and Development Monitoring (LSDM) Report a preliminary analysis has been undertaken of the potential impact of recent actual changes to state-level constraints.

Preliminary analysis of impacts

The preliminary analysis considers the impact of recent changes (as at July 2018) to the vegetation mapping under the Vegetation Management Act 1999 and to matters of state environmental significance (MSES) mapping under the State Planning Policy.

To provide a more consistent region-wide basis for comparison and analysis, the new vegetation and MSES mapping layers were analysed against developable areas identified for:

- the 2013 broadhectare study updated to remove subdivision to June 2018
- new growth areas not captured by the 2013 broadhectare study
- industrial land, based on a compilation and update of a number of existing databases, including the State Government's former Industrial Land Monitoring Program and individual local government databases (refer to Technical notes).

Data limitations mean the findings of the 2018 analysis are likely to be a significant overstatement of the actual impact on developable areas and dwelling yields. In particular, although detailed information about lot and multiple dwelling development permits was available from the Queensland Government Statistician's Office, DSDILGP 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 significant scope for provision of offsets to minimise loss of developable area.

The preliminary analysis (subject to update) identified:

- a potential impact of up to 6.8 per cent of the dwelling capacity in the expansion area of *ShapingSEQ 2017*
- a potential impact of up to 19.0 per cent of planned industrial land as determined by the update to existing databases.

In considering the potential impact on dwelling capacity, as well as the fact these percentages 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 LSDM Report indicates:

- expansion areas in all local government areas except Noosa have more than 25 years of supply for planned dwelling supply, with SEQ as a whole having over 30 years of supply
- there are 20 or more years of supply for planned industrial employment supply in all local government areas except Redland, with SEQ as a whole having over 60 years of supply.

The supply reported for dwellings and 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, DSDILGP has not considered other matters that may affect the developable area and land supply adequacy.

Future approach to assessing impact of new constraints

One of the initial priorities for implementation of the best practice research findings is to create a state government-led, SEQ-wide developable area mapping layer, covering all parcels and land uses. This would be developed and updated regularly in consultation with local governments and shared with local governments and infrastructure agencies for their planning purposes.

In the future this will support integrated, up-to-date consideration of all state and local constraints as a basis for assessing the impact of any proposed new constraints. Associated improvements over time in the capture of property-level development approval information and structure plans and existing land use would also support more accurate assessments of impacts on developable areas.

Limitations

Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) acknowledges its unique position in accessing and using existing data prepared by local governments, the Queensland Government Statisticians Office (QGSO) and the Australian Bureau of Statistics. Without this data, DSDILGP could not have released the first Land Supply and development Monitoring (LSDM) Report. However, DSDILGP also recognises that in moving towards the long-term vision for a shared understanding of development activity and land supply, there are limitations and areas for improvement. DSDILGP notes the limitations of the available data and the methods it has applied in its first year of the Growth Monitoring Program (GMP). There is now an opportunity for improvement through continued research and collaboration.

Realistic availability and take up

DSDILGP recognises it is difficult to accurately calculate and compare the realistic availability of planned supply, and that local governments and utility providers already consider realistic availability to varying extents in their land supply databases. DSDILGP, in collaboration with stakeholders, will use the initial recommendations of the best practice research to continue exploring improved methods for estimating the realistic availability of planned supply. In doing this, DSDILGP will remain mindful of the intended purposes of the data it is accessing, including, for example, supporting preparation of Local Government Infrastructure Plans in accordance with the Minister's Guidelines and Rules.

Measuring development activity

DSDILGP acknowledges that building approvals are only an approximate measure of dwelling growth and changing dwelling type. In recognition of this limitation and stakeholder feedback, and recommendations from the best practice research, the GMP has prioritised researching improved methods for measuring net growth and development activity in 2019 and beyond, as detailed in Best practice research.

Years of supply

DSDILGP 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 demand figure

is used. In recognition of this limitation, DSDILGP has tailored its estimation of demand to the growth expectations of *ShapingSEQ 2017* and the available information.

For example, demand for planned dwelling supply is based on *ShapingSEQ 2017*'s dwelling supply benchmarks, which use the QGSO's growth projections. Similarly, demand for approved supply is based on recent trends in building approvals or lot certifications, which are used as an approximate measure of short-term demand. DSDILGP will continue to work with stakeholders to improve the years of supply measure where appropriate.

Industrial land and employment supply

DSDILGP recognises the difficulties of estimating planned industrial land, its take up over time, and the employees that it may support. DSDILGP, in partnership with stakeholders, will continue to explore improved methods for measuring planned industrial land and employment supply to enable improved reporting in future years.

Land suitability and developable area

DSDILGP will further research and refine methods for identifying the area of land that is developable after considering constraints like flood, slope and vegetation as detailed in Best practice research.

Best practice research

Research purpose

During 2018, the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) commissioned research to identify best practice methods for calculating land supply, focusing on inputs into South East Queensland (SEQ) local government and utilities land supply databases. The following research was undertaken:

- realistic land availability and take-up, undertaken by Spatial Economics
- use and density, undertaken by Spatial Economics
- land suitability, undertaken by RPS
- ability to service, undertaken by GHD.

DSDILGP, in collaboration with stakeholders, intends to continue best practice research in 2019 to identify and document methods to inform future updates to local government and utility provider databases. This guidance material may sit as a supporting element to the Minister's Guidelines and Rules (MGR) and would recognise and build upon the existing work done by local governments in preparing Local Government Infrastructure Plans (LGIPs).

Realistic land availability and take-up

Historically, land supply has been calculated based on the long-term capacity of zoned land to accommodate growth. This research element focused on how best to recognise the effect of factors that may delay the availability of that land to accommodate growth. Two factors are particularly important in SEQ:

- the practical staging of large growth areas
- fragmentation of land ownership.

Other relevant factors include:

- infrastructure availability
- localities where the planned uses are not in sufficient demand up to the planning horizon
- existing versus planned density (or land value in the existing versus planned uses)
- the age of existing development
- accessibility
- constraints affecting the economic feasibility of development.

The research recognised the potential impact of these factors on the timing of development, as well as other factors such as the financial and other capacity of builders and developers that undertake minor redevelopment projects. The specific recommendations from the research were:

- separately recording and reporting of supply where:
    - supporting infrastructure has not been resolved
    - the timing of development is uncertain e.g. fragmented areas.

- scenario testing of a valid range of demand and supply assumptions
- identifying land supply types (e.g. new communities, broadhectare lands, major and minor redevelopment) and undertaking a 10-year audit and subsequent annual updates of residential development activity to inform take-up assumptions
- taking a top-down approach to distributing overall forecast demand
- being informed by developers for short-medium term take-up rates for broadhectare and major redevelopment
- using precinct-wide assumptions for take-up rates for minor redevelopment.

As a first step in recognising the factors identified above, and the initial recommendations of the research, the 2018 Land Supply and Development Monitoring (LSDM) Report applies a realistic availability of supply scenario compared to the reporting of capacity. The issues of infrastructure availability, land supply types and an audit of residential development activity are addressed as part of suggested next steps for implementing research findings. The next steps also consider the need for further research into realistic land availability.

Use and density

Assumptions about likely land uses (e.g. residential or industrial) and the density (e.g. height and scale) at which those land uses will develop, are fundamental to calculating land supply. This research element focused on how to best make assumptions about land uses and densities when calculating land supply.

The research recommended the state government compile a record of the previous 10-years of residential development activity across SEQ and update it yearly. This record would provide a basis for density assumptions by land use type and location. The research recommended the following information, in order of preference (where available), as a basis for making density assumptions in land supply databases:

- the estimated yield from approved structure plans, development plans or development approvals
- stated developer intentions
- a default assumption derived from analysis of comparable local development examples
- permitted density provisions from the planning scheme.

The related best practice research for land suitability identified the importance of aligning density assumptions to the assessment of developable areas. It recommended using net residential densities together with net developable areas, i.e. excluding associated non-residential use areas. A different density would apply if the developable areas accommodate associated non-residential uses.

To inform the preparation of guidance material, further work is required to reconcile the following conflicting objectives about density assumptions:

- For land supply planning, where there is any doubt about yields, the research recommended making underestimates rather than overestimates.

- For infrastructure demand measurement, the research acknowledged the preference that infrastructure demand should not be underestimated, particularly for pipework which may be expensive to augment in the future.

To resolve these points, further consideration will be given to the concepts of ultimate development and planned densities as defined for the MGR for LGIPs.

Land suitability

This research element compared land supply database assumptions about the developable area of land parcels, based on physical, environmental and policy constraints, against actual development outcomes. This comparison was used to recommend ways to estimate the developable area of land in land supply databases. The research considered all relevant state and locally-determined constraints.

The strategic level of mapping available for some constraints may not accurately represent those constraints at the individual site level. It is also acknowledged that some constraints can be at least partly addressed through appropriate planning and design, e.g. as part of a development approval or structure/master planning process for individual sites.

The research recommended using the following, in order of preference (where available) to improve the accuracy and consistency of assessing the developable area of land:

- vacant subdivided lots
- development permits
- preliminary approvals
- master plans
- structure plans
- a strategic assessment (of the overall effect of environmental constraints)
- integrated strategic level constraints assessments applied to zoned land.

The research recommended increasing the extent to which more accurate processes are used. This includes progressively undertaking more structure planning and strategic assessments to clarify development and conservation expectations and provide better data for developable area calculations.

The research, informed by 10 case studies and experience about the effect of constraints, recommended differentiating between ‘hard’ and ‘soft’ constraints. Hard constraints cannot generally be overcome, and thus databases should assume that no development will occur where they apply. Soft constraints can be partially overcome through design, and thus only a portion (25, 50 or 75 per cent) of these areas should be assumed to be developable. The percentages applied vary by constraint and land supply type, e.g. new communities, broadhectare, major and minor redevelopment and industrial.

The research recommended hard constraints include flood (Q100), slope > 25 per cent, infrastructure corridors and sites, extractive resources, heritage and high value environment. Soft

constraints include overland flow, slope 15-25 per cent, extractive resource buffers, environment, waterways/wetland and coastal hazards.

The research also recommended:

- the potential need for local variation of the default percentages for soft constraints
- determining the treatment of location-specific constraints on a case-by-case basis
- periodic review of the default percentages for soft constraints, to address improvements in mapping accuracy
- thorough documentation of the method and assumptions used to identify developable areas
- that state agencies and local governments assess the impact of proposed regulatory changes on developable areas and land supply to inform decision making.

Ability to service

ShapingSEQ 2017 indicates planning schemes should have at least 15 years of supply that is appropriately zoned and able to be serviced. This research element sought to identify practically available indicators of land's ability to be serviced, to support measurement of land supply adequacy.

The research considered a range of boundary, approval, proximity, available land and capacity indicators covering transport, water, sewerage, community facilities, public parks, stormwater, power and telecommunications infrastructure networks.

The research then shortlisted indicators for identifying the ability to service. The indicators included:

- boundary indicators such as the Priority Infrastructure Area, infrastructure agreements, future water supply and sewerage connection areas and structure plans (with a servicing strategy or infrastructure agreement)
- development and connection approvals
- proximity, available land and capacity indicators for road and public transport, water and sewerage networks.

The research identified the difficulties of applying the proximity, available land and capacity indicators and recommended further research to identify proximity and available land criteria and assess the practicality of using those indicators. Boundary and approval indicators are the simplest to apply, however in some cases the data is incomplete.

To enable early measurement of the ability to service, the research recommends using all shortlisted indicators for which up-to-date data is available, even if that data does not cover all of SEQ or a whole local government area. Progressive efforts to increase the number of indicators used, including infrastructure capacity indicators to the extent practical, will improve accuracy over time.

Future research and actions

Measuring development

The Growth Monitoring Program (GMP) intends to monitor growth annually using the LSDM Report (this report) to track how actual development activity compares to the consolidation and expansion dwelling supply benchmarks and employment planning baselines of *ShapingSEQ 2017*.

There is no consistent region-wide dataset for measuring and reporting on development activity (land uses and net growth) on an annual basis. Building approvals provide the best measure for dwelling growth, but do not account for approvals not constructed, or demolitions. They are also only readily available at the Statistical Area Level 2 (SA2) level, which is not useful for measuring property-level land use.

Some SEQ local governments prepare estimates of existing dwellings and non-residential floor space at various time intervals or directly measure change over time. Existing methods include:

- Brisbane City Council generates property-level land use information from a combination of the cadastre, rates land use types, development approvals, fire service levy codes, aerial images and commercial property databases.
- Ipswich City Council uses waste bin service data to identify the occupation of new dwellings at the individual lot level, providing quarterly dwelling growth data.
- Logan City Council reports twice yearly on the completion of development approvals based on lot-level linkage to plan certifications and plumbing and drainage certifications.

Methods in other states include:

- Housing Development Data captures lot-level changes in dwellings for metropolitan Melbourne annually based on aerial photography and other databases.
- Net dwelling completions for the Greater Sydney Region are based on data from Australian Bureau of Statistics, regional water entities and local governments.

The best practice research recommended a property-level audit of residential development activity over the past 10 years, and subsequent annual updates, to inform take-up and density assumptions.

Regular and consistent measurement of land use and net changes across SEQ needs to be informed by existing methods and consider appropriate categories to measure dwellings and non-residential land use. As a priority, further research is recommended into SEQ data sources and systems, in consultation with stakeholders, to identify how best to measure existing land use and net changes over time.

Development approval data compilation

Each best practice research element emphasised the importance of having data about the number of dwellings and the amount of non-residential floor space that has development approval, at the individual property level. The research identified this information because it is:

- a key input to yield and timing assumptions for land supply databases
- more accurate than constraints assessment for identifying developable areas

- a key indicator of the ability to service an area with infrastructure
- a useful measure of land supply that is ready to proceed to development in the short-term.

Currently, the Queensland Government Statistician's Office processes and reports on development permits for reconfiguring a lot and operational works, and together with DSDILGP is reactivating reporting for material changes of use for multiple dwellings. At the same time, various local governments and utility agencies separately process development approvals information as inputs to property-level planning assumptions databases and to record development activity. Processing this information is a time-consuming task.

The research identified a need to make better use of available information and minimise duplication of effort in compiling development application (DA) data. This could be supported by ongoing arrangements for data sharing and greater coordination of efforts to update the data.

Over time it is desirable to expand the capture of DA data, at the property level, to preliminary approvals for residential development and development permits and preliminary approvals for non-residential uses. The research also recommended progressive improvements to the timeliness and efficiency of DA data compilation, as soon after the decision and as close to the source as possible.

For example, subject to further consultation on what is practical over time, there may be changes to DA forms and procedures for recording DA data.

Priorities for implementing best practice findings

Consultation with stakeholders suggests the following implementation priorities:

1. Refine and agree on land supply types and provide guidance for their implementation into land supply and development databases.
    - Together with regular measurement of net changes in land use and improved development assessment data, this will better inform assumptions about land availability and take-up, developable areas and ability to service over time.
2. Arrange ongoing land supply and development data sharing between the state, local governments and infrastructure agencies.
    - This will best use available information, minimise duplication in compiling land supply and development assessment data, and maximise efficient outcomes.
3. Conduct research on data sources and systems in consultation with local governments, infrastructure agencies and the development industry to recommend an approach to measure existing land use and net changes over time.
    - While ultimately it would be desirable to measure the number of dwellings and non-residential floor space by type at the property level, this may require staged implementation. It would provide base-year data and inform land availability, take-up and density assumptions for land supply databases, while also measuring net growth.
4. Consult with SEQ data custodians to refine the recommendations from the land suitability best practice research to guide developable area assumptions and create and regularly update a SEQ-wide developable area layer for all parcels.

- The SEQ-wide developable area layer would be best supported by regularly updated property-level information for land supply types, existing land use, development approvals and expansion area structure plan yields. This may take a number of years to fully implement.
- As well as providing a key input to assessment of residential capacity, this can provide a direct and current assessment of planned industrial land to inform planning and investment decision making.

5. Document and publish guidance for various aspects of best practice for land supply and development measurement and assumptions based on refinement of the research recommendations.
   - Guidance could address land supply types, land suitability and developable area assumptions, the preferred bases for density and take-up assumptions, interpretation of key terms and concepts, and employment to floor space conversion rates and land use concordances. If appropriate, consideration will be given to consequential amendments to the MGR for LGIPs.

Other best practice actions for implementation

Other actions to be considered for progressive implementation are outlined below.

1. The Department of Transport and Main Roads is developing a model or methods to inform assumptions about transport accessibility and related development propensities.
   - This will occur in collaboration with the DSDILGP, local governments and infrastructure agencies.
2. Further studies have been recommended to identify proximity and available land metrics and assess the practicality of using proximity, area and capacity indicators for the ability to service.
3. Property-level information on development approvals, including number of dwellings and non-residential floor space by type, is required to better support assumptions about use and density, the timing of development, developable area and the ability to service.
   - Expanding the up-to-date capture of approvals will be supported by data sharing arrangements. Efficiency improvements for DA data compilation could be supported by a program for progressive implementation of changes such as improvements to DA forms and databases and procedures for recording DA outcomes.
4. Identifying land supply with the ability to service.
   - This will be supported by progressive efforts to provide up-to-date data for more indicators of the ability to service, including development approvals, servicing strategies/infrastructure agreements, water supply/sewerage connection approvals and capacity assessments.
5. Addressing gaps, including further research to inform assumptions about:
   - realistic land availability over the long-term
   - use, density and land availability for non-residential uses.

6. Land supply databases would desirably enable differentiation between supply:
    - zoned in a planning scheme
    - resulting from a currently proposed change
    - dependent on potential future changes to the scheme.

    The practicality of this could be supported by related measures to:

        - adopt database platforms that facilitate consultation of stakeholders regarding assumptions and the generation of different scenarios
        - support smaller councils through collaboration with utility agencies or the state government.

7. Improving the accuracy of developable area assessments through:
    - increased structure planning, and strategic assessment of biodiversity constraints
    - informing the treatment of soft constraints through more comprehensive analysis of development outcomes compared to mapped constraints.

8. The practicality of reporting on indicators of emerging supply issues, e.g. wholesale prices of development sites, could be investigated.

Definitions

Term	Definition
2016–18 constructed dwellings estimate	An estimate of the dwellings constructed in an area from 1 July 2016 to 30 June 2018 based on building approvals for new dwellings in that area from 1 July 2015 to 30 June 2017 (assuming a 12-month lag from approval to completion of construction).
2041 dwelling supply benchmark	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, *ShapingSEQ* 2017 (see Figure 7).
2041 industrial employment planning baseline	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, *ShapingSEQ* 2017.
Approved supply	Is either: • the number of lots that have a development permit but have not yet been certified as at the relevant date; or • the number of multiple dwellings that have a development permit but have not yet been constructed as at the relevant date. For the purpose of this report, multiple dwellings includes 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.
Attached dwellings	For: • 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 Natural Resources, Mines and Energy's 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 *ShapingSEQ 2017*.

Average annual benchmark	The average annual dwelling growth from 2016 to 2031 expected in an area by *ShapingSEQ 2017*.
Capacity of planned dwelling supply	Estimates the number of dwellings that could be developed in an area when fully developed in compliance with the planning instruments that currently apply in that area, given the expected nature of dwelling demand and densities over time.
Capacity of planned industrial employment supply	Estimates the number of industrial employees that could be accommodated by industrial development in an area when fully developed in compliance with the planning instruments that currently apply in that area, given the expected nature of industrial employment demand and densities over time.
Consolidation	Development on land inside the existing urban area boundary (as defined by *ShapingSEQ 2017* 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.
Dwelling approvals	The number of dwellings that have obtained building approval in a given area in 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 *ShapingSEQ 2017* 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 *ShapingSEQ 2017*.
High-rise	Attached dwellings (as defined for housing type) of four or more storeys.
Houses	For: • 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 Natural Resources, Mines and Energy's 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	Is the number of lots registered in a given area for a given period.
Material change of use (MCU) approvals	The number of multiple dwellings that have a development permit but have not yet been constructed as at the relevant date, as identified for approved supply.
Mean population-weighted dwelling density	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	Median size of new urban lots 60 to < 2,500 m^2 registered in a given area for a given period.
Mesh blocks	Mesh blocks are 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.
Median sales price	Median sales price ($) for reported sales of vacant lots, houses or attached dwellings, in a given area for a given period.
Middle	Attached dwellings (as defined for housing type) of one to three storeys.
Number of sales	The number of reported sales, at the date of data extraction, for vacant lots, houses or attached dwellings, in a given area for a given period.
Planned dwelling supply	Is 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. For this report, the identification of constraints was based on combined constraints and developable area datasets available for most local government areas from the relevant council or Unitywater. 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.
Realistic availability of planned industrial employment supply	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: • 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.
Realistic availability of planned dwelling supply	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: • 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.
ShapingSEQ 2017	South East Queensland Regional Plan, August 2017
Single point of truth	Reliable data generated efficiently using a regionally-consistent best practice approach applied to practically available local information.

Take-up	Take-up of developed industrial land means the hectares of land that were developed for use from being vacant, in a given time-period, e.g. 2011 to 2017.
Ultimate development	The Minister's Guidelines and Rules defines ultimate development for a Local Government Infrastructure Plan, for an area or premises, as the likely extent of development that is anticipated in the area, or on the premises, if the area or premises are fully developed.
Urban extent	In relation to Toowoomba, means that part of the Toowoomba Regional Council's 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 *ShapingSEQ 2017*.
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, this is derived from the employment planning baselines of *ShapingSEQ 2017*.

Technical notes

Introduction

These technical notes provide information on data collected and compiled and calculations reported on for the 2018 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 will annually monitor land supply and development activity for both residential and non-residential land uses in SEQ and report 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 2018 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 (Moving forward).

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) will review and produce 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 in preparing the LSDM Report, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied or contained within.

Further information on selected terms used through this document are listed in definitions section.

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 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*.

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, e.g. 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 2018 for approvals July 2011 to June 2018
- Department of State Development, Infrastructure, Local Government and Planning (DSDILGP), *ShapingSEQ 2017*, Existing Urban Area (EUA), August 2017
- DSDILGP, *ShapingSEQ 2017*, Dwelling Supply Benchmarks, August 2017
- DSDILGP, local government area boundaries, 2017
- DSDILGP, SEQ regional plan boundary, 2017

Source data geography

ABS, Statistical Area Level 2 (SA2)

Method

Download SuperTABLE data file from the ABS website and extract total new dwelling building approvals 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

- flats, units or apartments – in a four or more-storey block.

Align SA2 information to the relevant local government area and 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 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*.

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, urban lot registrations and overall dwelling density being delivered, are analysed to measure the changes to dwelling density both across the SEQ region and for each local government area.

The individual aspects that contribute towards the overall analysis and measurement for the changes in dwelling density for SEQ include:

- median lot size
- 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 extracted in August 2018.

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 (m^2) by financial year.

Notes

Median lot size information relates to new standard urban lots of 60m^2 to < 2500m^2.

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 extracted in August 2018.

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 urban lot registrations by financial year.

Notes

Lot registration information relates to standard urban lots of 60m^2 to < 2500m^2.

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 and each local government area.

This measure is more meaningful than a gross density averaged across the whole of an area, as all parts of the region comprise large areas without urban settlement.

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, and 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

- Australian Bureau of Statistics (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
- Department of State Development, Infrastructure and Planning (DSDILGP), local government area boundaries, 2017
- DSDILGP, SEQ regional plan boundary, 2017

Source data geography

ABS, Mesh blocks (SEQ)

Method

- Extract relevant years' ABS mesh blocks for the region and each local government area.
- Calculate mean population-weighted dwelling density for the region and each local government area 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.

Data update

Five yearly, to align with the release of ABS Census data.

Reporting units

Dwellings/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.

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

- Australian Bureau of Statistics (ABS), Building approvals, catalogue 8731.0, extracted October 2018 for approvals July 2011 to June 2018
- ABS, Census 2016, Dwelling structure data (dwellings by type), 2016
- Department of State Development, Infrastructure, Local Government and Planning (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:
    - semi-detached
    - row or terrace houses
    - townhouses (one, two or more storeys)
    - flats, units or apartments (in a one, two or three storey block)
- 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.

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 being investigated.

Sales and price

Description

Sales and price measures the number of sales and median sales price information for residential development including vacant lots, houses and attached dwellings, within consolidation and expansion areas.

Rationale

To show trends in the number of sales and median sales price for developed lots and dwellings from 2011/12 to 2017/18, for the region and each local government area.

Limitations

Median sales price cannot represent the full range of sales prices in an area.

There is a potential lag in the reporting of sales information.

Data source/custodian

Queensland Treasury, Queensland Government Statisticians Office (QGSO), as extracted from Queensland Regional Statistical Information System (QRSIS) November 2018.

Source data geography

SEQ region and local government area.

Method

Extract number of sales and median sales price information from QRSIS on vacant lots, houses and attached dwellings for the period July 2011 to June 2018, within consolidation and expansion areas.

Data update

Annually.

Reporting units

Total number of sales and median sales price ($) to the year ending 30 June of each reporting year.

Notes

N/A.

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 2018 base).

For the purposes of the 2018 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 (Moving forward) and previous studies.

Rationale

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 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*. At the South East Queensland (SEQ) level, that rate of growth is consistent with the Queensland Government's 2015 edition medium series projections. A new round of projections is expected to be released in 2018-19 and the new projected rate of growth in SEQ from 2016-2031 will inform measurement of years of supply in future reporting, i.e. a higher rate of growth than in the 2015 edition projections would proportionately reduce years of supply and a lower rate of growth would proportionately increase years of supply.

There is some source data inconsistency across local government areas, including timing, outputs and assumptions about densities and developable areas.

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.

Over time, it is intended to progressively apply 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 (Moving forward).

For this first LSDM Report it has not been practical to apply a consistent approach to allow for visitor or tourist dwellings in calculating the planned dwelling supply from source data. As most visitor dwellings are effectively not counted as part of the *ShapingSEQ 2017* dwelling supply benchmarks, which are a reponse 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 2016-18 constructed dwellings estimate and material change of use (MCU) approvals as a base for applying proportions to the balance of the consolidation capacity to calculate realistic availability. There may be some overlap between the 2016-18 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 found only a slight difference in values. It was therefore considered appropriate to use the parcel-level EDUs for this analysis.

Data source/custodian

- Department of State Development, Infrastructure, Local Government and Planning (DSDILGP), *ShapingSEQ 2017*, Existing Urban Area (EUA), August 2017
- DSDILGP, *ShapingSEQ 2017* growth areas, August 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
- Department of Natural Resources, Mines and Energy, Digital Cadastral Database (DCDB), July 2018
- SGS Economics and Planning, Greenfield Land Take-up Review, Peer Review and Update, August 2016 (SGS study - see extracts at Appendix C)
- DSDILGP, Priority Development Areas (PDA), 2018
- Queensland Treasury, QGSO, MCU approvals for multiple dwellings (unconstructed), as provided 30 October 2018. 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 v10.00/2018
    - Gold Coast – N/A see individual local government method
    - Ipswich – Ipswich Planning Scheme, 2 July 2018
    - Lockyer Valley – Laidley and Gatton Planning schemes v2, 27 June 2018 and Grantham development scheme
    - Logan – Planning Scheme v5.1, 2018
    - Moreton Bay – Planning Scheme v3, 2018
    - Noosa – Noosa Plan, June 2018
    - Redland - N/A see individual local government method
    - Scenic Rim – Beaudesert, Boonah and Ipswich Planning Schemes, June 2018
    - Somerset – Planning Scheme, 2018
    - Sunshine Coast – Planning Scheme v15, 2018

    - 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) as supplied by council in June 2018 (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).
- Local governments and EDQ also provided advice about anticipated future amendments to their planning schemes and development schemes that may increase planned dwelling supply in the future.

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, a range was identified 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 (2016-18 constructed dwellings estimate plus MCU approvals)] multiplied by (0.75 or 0.5) plus 2016-18 constructed dwellings estimate plus MCU approvals.

For the purposes of this report, the 2016-18 constructed dwellings estimate includes the two years of dwelling building approvals from July 2015 to June 2017 (assumed constructed from July 2016 to June 2018) and MCU approvals includes the unconstructed MCU approvals (multiple dwellings) as at June 2018.

No estimate of realistic availability has been made for consolidation for each local government. In future LSDM reports a more considered estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

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 and assumed unavailable 'fragmented area' dwellings. The assumed unavailable dwellings are estimated, respectively, as follows:

The dwellings assumed unavailable to 2041 in identified growth areas are based on the take-up figures to 2041 identified by the SGS Economics and Planning Greenfield Land Take-Up Review, Peer Review and Update, August 2016 (SGS study - see extracts at Appendix C).

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. For Gold Coast, Redland and Toowoomba, where suitable parcel-level information was not available to apply the BHS approach, the difference between 'Viable yield' and 'Supply to 2041' as estimated by the SGS study for 'Other' areas (see extracts at Appendix C) was used as an allowance for this measure.

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, 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. In future LSDM reports an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

  Expansion

  Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 within identified growth or fragmented areas from the total local government expansion area's capacity using:

  - 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 2500m^2 (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)

- 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 multiplied by the capacity for those areas.

▪ Calculate the assumed unavailable fragmented area dwellings as: capacity minus realistic availability.

- Calculate overall expansion realistic availability

  [Total expansion area capacity minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following list provides planning and development scheme amendments in process that may affect planned dwelling supply in Brisbane:

  - Bowen Hills PDA (draft amendment prepared, and public notification planned for the end of 2018)
  - Northshore Hamilton PDA (draft amendment being prepared, and public notification planned early-2019)
  - Oxley PDA (development scheme being prepared)
  - Yeronga PDA (development scheme being prepared).
  - council is preparing several amendments, including:

- neighbourhood plans for Banyo-Northgate, Coorparoo and Districts, Kangaroo Point and The Gap
- Protecting Brisbane's Backyards amendments.

Gold Coast

- 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 concorded 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. In future LSDM reports an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

  Expansion

  As parcel-level information was not available for this analysis, realistic availability was calculated by using the findings of the SGS Greenfield Land Take-up Review 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 C2), i.e. as Coomera Town Centre's 'Viable yield' minus its 'Supply to 2041'.

  - For fragmented areas:

    Dwellings were identified as assumed unavailable for development to 2041 using the information in the SGS report (Appendix C, Table C2), i.e. the 'Viable yield' minus 'Supply to 2041' of areas identified as 'Other'. 'Other' areas are expansion areas outside identified growth areas.

  - Calculate overall expansion realistic availability

    Calculate realistic availability for expansion areas as: Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable fragmented area dwellings.

- 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 2016-18 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following list provides planning scheme amendments in process that may affect planned dwelling supply on the Gold Coast:

  - council has prepared a draft planning scheme update for Biggera Waters, Labrador and Southport (undergoing first state interest review).

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. In future LSDM reports an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

  Expansion

  Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 within identified growth or fragmented areas from the total local government expansion area's capacity using:

  - For growth areas:

    For the Ripley Valley PDA, capacity was first determined by selecting all parcels within the growth area, within the Urban Footprint. This capacity is the total dwelling growth from 2016 to ultimate dwellings for the growth area.

    Calculate dwellings assumed unavailable for development to 2041 by:

[Total growth area capacity minus the growth area's take-up 2016 to 2041 (Appendix C, Table C1)].

- 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 2500m^2 (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 growth 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)
    - 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 multiplied by the capacity for those areas.
  - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.

- Calculate overall expansion realistic availability

  [Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following list provides planning scheme amendments in process that may affect planned dwelling supply in Ipswich:

  - Council is currently preparing a new 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 within identified growth or fragmented areas from the total local government expansion area's capacity using:

  - 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 2500m^2 (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 these areas using the identified proportions multiplied by the capacity for those areas.
        - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.
    - Calculate overall expansion realistic availability

      [Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following list provides planning scheme amendments in process that may affect planned dwelling supply in Lockyer Valley:

    - Council is currently preparing a new planning scheme.

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. In future LSDM reports an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

  Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 within identified growth or fragmented areas from the total local government expansion area's capacity using:

- For growth areas:

  For Greater Flagstone and Yarrabilba PDAs and Flinders, capacity was first determined by selecting all parcels within the growth areas, within the Urban Footprint.This capacity is the total dwelling growth from 2016 to ultimate dwellings for the growth areas.

  Calculate dwellings assumed unavailable for development to 2041 by:

  [Total growth areas capacity minus the growth areas' take-up 2016 to 2041 (Appendix C, Table C1)].

- 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 2500m^2 (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 Yarrabilab 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)
    - 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 multiplied by the capacity for those areas.
  - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.

- Calculate overall expansion realistic availability

  [Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwelling estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following list provides planning scheme amendments in process that may affect planned dwelling supply in Logan:

  - council is currently preparing a number of amendments for areas including Park Ridge, Chambers Flat, Springwood and Meadowbrook.

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. In future LSDM reports an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

  Expansion

  Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 within identified growth or fragmented areas from the total local government expansion area's capacity using:

  - For growth areas:

    For Caboolture West and North East Business Park, capacity was first determined by selecting all parcels within the growth area, within the Urban Footprint. This capacity is the total dwelling growth from 2016 to ultimate dwellings for the growth areas.

    Calculate dwellings assumed unavailable for development to 2041 by:

- For Caboolture West, using capacity minus take-up to 2041 (see Table C1 in Appendix C).
- For North-East Business Park, using 'Viable yield' minus 'Supply to 2041' (See Table C2 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 2500m^2 (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)
    - 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 multiplied by capacity for those areas.
  - Calculate the unavailable fragmented dwellings as: capacity minus realistic availability.

- Calculate overall expansion realistic availability

  [Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  Amendments to the Moreton Bay planning scheme are currently under review.

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. In future LSDM reports an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

  Expansion

  Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 within identified growth or fragmented areas from the total local government expansion area's capacity using:

  - 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 2500m^2 (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)

- 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 multiplied by the capacity for those areas.
- Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.

- Calculate overall expansion realistic availability

  [Total expansion area capacity minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following list provides planning scheme amendments in process that may affect planned dwelling supply:

  - Council is currently preparing a new planning scheme and estimates that this may increase their total planned dwelling supply capacity in consolidation areas by about 5000 dwellings and by about 1300 dwellings in expansion areas, compared to those values reported in the 2018 LSDM Report.

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 'Viable yield' in Table C2 in Appendix C).
- Determine realistic availability

  Consolidation

  No estimate of the consolidation realistic availability has been made. In future LSDM reports an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

  Expansion

  As parcel-level information was not available for this analysis, realistic availability was calculated by using the findings of the SGS Greenfield Land Take-up Review 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 C2), i.e. as Shoreline's 'Viable yield' minus its 'Supply to 2041'.

  - For fragmented areas:

    Dwellings were identified as assumed unavailable for development to 2041 using the information in the SGS report (Appendix C, Table C2), i.e. the 'Viable yield' minus 'Supply to 2041' of areas identified as 'Other'. 'Other' areas are expansion areas outside of identified growth areas.

  - Calculate overall expansion realistic availability

    [Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following provides a list of planning and development scheme amendments in process that may affect planned dwelling supply in Redland:

  - A new planning scheme commenced for Redland City on 8 October 2018
  - 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 2018 LSDM Report.

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 within identified growth or fragmented areas from the local government expansion area's capacity using:

  - 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 2500m^2 (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 multiplied by the capacity for those areas.
  - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.

- Calculate overall expansion realistic availability

  [Total expansion area capacity minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following list provides planning scheme amendments in process that may affect planned dwelling supply in Scenic Rim:

- council is currently preparing a new planning scheme.

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 within identified growth or fragmented areas from the total local government expansion area's capacity using:

  - 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 2500m^2 (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 utlimate 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 multiplied by the capacity for those areas.
    - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.

  - Calculate overall expansion realistic availability

[Total expansion area capacity minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identified planning scheme amendments in process

  No information available at the time of the reporting.

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 expected future dwelling density increases associated with the proposed light rail 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 proposed light rail 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 light rail corridor.

  Effectively, for this analysis any additional dwellings assumed for the proposed light rail corridor beyond 2031 are not reported.

  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. In future LSDM reports an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

Expansion

Realistic availability is calculated by removing any dwellings assumed unavailable for development to 2041 within identified growth or fragmented areas from the total local government expansion area's capacity using:

- For growth areas:

  For Caloundra South PDA, capacity was first determined by selecting all parcels within the growth area, within the Urban Footprint. This capacity is the total dwelling growth from 2016 to ultimate dwellings for the growth area.

  Calculate dwellings assumed unavailable for development to 2041 by:

  [Total growth area capacity minus the growth area's expected take-up 2016 to 2041 (Appendix C, Table C1)].

- 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 2500m^2 (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 growth 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)
    - 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 multiplied by the capacity for those areas.
  - Calculate the assumed unavailable fragmented dwellings as: capacity minus realistic availability.

- Calculate overall expansion realistic availability

  [Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable fragmented area dwellings].

- 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 2016-18 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

  The following list provides planning and development scheme amendments in process that may affect the planned dwelling supply in Sunshine Coast:

  - Maroochydore Town Centre PDA (public notification planned for the end of 2018)
  - Proposed amendments to the Kawana Waters Development Control Plan 1
  - Preliminary structure planning for the Beerwah East Major Development Area
  - Amendments to incorporate the Caloundra Centre Masterplan
  - A review of Sunshine Coast Enterprise Corridor development opportunities
  - Various local amendments consistent with additions to the Urban Footprint for *ShapingSEQ 2017*.

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 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. In future LSDM an estimate of realistic availability will be made as informed by further work to progress and implement best practice research (Moving forward).

Expansion

As parcel-level information was not available for this analysis, realistic availability was calculated by using the findings of the SGS Greenfield Land Take-up Review as follows:

- For growth areas:

  For Westbrook and Meringandan West-Kleinton, dwellings were identified as assumed unavailable for development to 2041 using the information in the SGS report, (Appendix C, Table C2), i.e. as each of Westbrook and Meringandan-West Klienton's 'Viable yield' minus their 'Supply to 2041'.

- For fragmented areas:

  Dwellings were identified as assumed unavailable for development to 2041 using the information in the SGS report (Appendix C, Table C2), i.e. the 'Viable yield' minus 'Supply to 2041' of areas identified as 'Other'. 'Other' areas are expansion areas outside of identified growth areas.

- Calculate overall expansion realistic availability

  Calculate realistic availability for expansion areas as: Total expansion area capacity minus assumed unavailable growth area dwellings minus assumed unavailable fragmented area dwellings.

- 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 2016-18 constructed dwellings estimate from the identified capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion area capacity and divide this by *ShapingSEQ 2017*'s 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 2016-18 constructed dwellings estimate from the identified expansion realistic availability and divide this by *ShapingSEQ 2017*'s average annual benchmark.

- Identify planning scheme amendments in process

The following list provides planning and development scheme amendments in process that may affect Toowoomba's planned dwelling supply:

- Proposed amendment No. 16 – Medium Density Review
- Proposed amendment No. 17 – Flood Risk Mapping.

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*.

Approved supply

Description

Approved supply measures either the number of lots that have a development permit but have not yet been certified or the number of multiple dwellings that have a development permit but have not yet been constructed, as at the relevant date.

This measure also reports years of supply 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 is dependent on the complete reporting of associated parent lots in the relevant development permit decision notice.

The multiple dwellings material change of use (MCU) approvals data for June 2011 only includes 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 and 2018 MCU approvals data.

The 2011 data includes social housing approvals, but the 2018 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 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 October 2018 for approvals July 2008 to June 2018.
- Queensland Treasury, Queensland Government Statisticians Office (QGSO), unsealed (uncompleted) reconfiguring a lot approvals (RaL), as extracted in November 2018.
- Queensland Treasury, QGSO, lot certifications, as extracted in November 2018.
- 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.

Source data geography

SEQ region and local government area.

Method

Reconfiguring a lot approvals

- Extract total uncompleted residential lots as at 30 June for each year (2011/12 to 2017/18) 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.

Material change of use approvals (multiple dwellings)

- Extract total number of MCU approvals as at June 2011 and June 2018 for each local government area and the region within consolidation areas.
- Determine years of supply by dividing the total number of MCUs 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.

Data update

Annually.

Reporting units

Number of lots 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 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).

Industrial land take-up

Description

Industrial land take-up within the region estimates the take-up of developed industrial land from 2011-2017, recognising that a suite of other land uses could occur on industrial zoned land that are not industrial in nature, e.g. commercial, 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 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 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.

Data source/custodian

- CDM Smith, Industrial Land Supply report (CDM Smith report—see extracts at Appendix D), October 2018, which utilised:
    - Department of State Development, Infrastructure, Local Government and Planning (DSDILGP), *ShapingSEQ 2017* Major Economic and Industrial Areas (MEIA), August 2017
    - Aerial photography, 2011 (dates vary) and 2017 (dates vary from 29 May to 18 August)
    - local government planning schemes zoning and precinct data, as extracted 2018
    - local government and Unitywater parcel-level land supply databases and combined constraints and developable area data
    - State Government land ownership and constraints datasets
    - local government planning scheme overlays
    - land use and master plans for Brisbane Airport, Archerfield Airport and Port of Brisbane
    - Queensland Treasury, Queensland Government Statisticians Office (QGSO), Industrial Land Monitoring Program (ILMP) data, December 2011.

Source data geography

SEQ region and local government area.

Method

CDM Smith were engaged to build-off existing studies to investigate and report on the SEQ region's industrial land, including take-up from 2011 to 2017.

Values for developed industrial land take-up 2011-2017, by industrial type, were extracted from the CDM Smith report.

Data update

Annually, subject to further work to progress and implement best practice research (Moving forward).

Reporting units

Area (hectares) of developed industrial land take-up (2011-2017), 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 Appendix E.

Planned industrial land supply

Description

Industrial land supply estimates the planned industrial land, by industrial land type, as at mid-2017, 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 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 Areas may vary across the region.

Strategic-level constraints mapping may reduce developable area on constructed vacant lots.

Data source/custodian

- CDM Smith, Industrial Land Supply report (CDM Smith report—see extracts at Appendix D), October 2018, which utilised:
    - Department of State Development, Infrastructure, Local Government and Planning (DSDILGP), *ShapingSEQ 2017* Major Economic and Industrial Areas (MEIA), August 2017
    - Aerial photography, 2011 (dates vary) and 2017 (dates vary from 29 May to 18 August 2017)
    - local government planning schemes zoning and precinct data, as extracted 2018
    - local government and Unitywater parcel-level land supply databases and combined constraints and developable area data
    - State Government land ownership and constraints datasets
    - local government planning scheme overlays
    - land use and master plans for Brisbane Airport, Archerfield Airport and Port of Brisbane
    - Queensland Treasury, Queensland Government Statisticians Office (QGSO), Industrial Land Monitoring Program (ILMP) data, December 2011.

Source data geography

SEQ region and local government area.

Method

CDM Smith were engaged to build-off existing studies to investigate and report on the SEQ region's industrial land, including the amount of planned industrial land by type.

Extract planned industrial land areas from the CDM Smith report, by industrial land type, for SEQ and each local government area.

Data update

Annually, subject to further work to progress and implement best practice research (Moving forward).

Reporting units

Area (in hectares) of planned industrial land, by industrial land type, for SEQ and each 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 Appendix E.

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

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 planned industrial employment supply's capacity is based on information supplied by SEQ local governments (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 progressively apply a more consistent methodology across the region for calculating planned industrial employment supply. This will be informed by the findings of and further work to progress and implement best practice research (Moving forward).

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.

Strategic-level constraints mapping may inappropriately reduce the area assumed available on constructed vacant lots in some MEIAs (see Appendix D, Table D2) to accommodate industrial employment growth up to 2041.

Industrial employment growth potential identified for MEIAs by CDM Smith does not consider growth from more intensive use of existing developed but underutilised sites, e.g. sites that have potential for increased GFA.This may be offset by 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.

Data source/custodian

- CDM Smith, Industrial Land Supply report (CDM Smith report—see extracts at Appendix D), October 2018, which utilised:
    - DSDILGP, *ShapingSEQ 2017* Major Economic and Industrial Areas (MEIA), August 2017
    - Aerial photography, 2011 (dates vary) and 2017 (dates vary from 29 May to 18 August)
    - local government planning schemes zoning and precinct data, as extracted 2018
    - local government and Unitywater parcel-level land supply databases and combined constraints and developable area data
    - State Government land ownership and constraints datasets
    - local government planning scheme overlays
    - land use and master plans for Brisbane Airport, Archerfield Airport and Port of Brisbane
    - Queensland Treasury, QGSO, Industrial Land Monitoring Program (ILMP) data, December 2011.
    - 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 (draft for state interest review)
  - 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) as supplied by council in June 2018 (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.

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, Logan, Moreton Bay, Sunshine Coast and Toowoomba have significant growth MEIAs. For those selected MEIAs, the CDM Smith report identifies employment growth potential by likely availability timeframes, including the period 2017-2041 (Table D2 in Appendix D). 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 based on the application of a multi-criteria analysis to the planned industrial land identified by the CDM Smith report for those MEIAs. That multi-criteria analysis assumes that certain constraints make the subject land highly constrained and therefore not available for development that could accommodate industrial employment up to 2041.
    - The realistic availability scenarios for Brisbane, Gold Coast, Ipswich, Logan, Moreton Bay, Sunshine Coast and Toowoomba were determined as follows:
        - Each MEIA, use available datasets to calculate the industrial employment growth from 2017 to ultimate, the latter as used for calculating capacity, interpolating on a proportional basis between available figures to estimate employment growth from 2016 to 2017.
        - Where the 2017-2041 employment growth potential identified by the CDM Smith report for a selected MEIA is greater than 1000 and less than the 2017 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 it has been assumed that all of their industrial employment supply is realistically available up to 2041, as there are either:
        - no significant growth MEIAs in those areas (Noosa, Redland and Somerset)
        - no current industrial zoning in the core of the MEIA (Lockyer Valley – Gatton North MEIA)
        - a study identifying potential for significantly higher industrial employment growth in the MEIA than currently assumed by the LGIP (Scenic Rim – Bromelton State Development Area MEIA).
- 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 two years to align the information to 2018.

Data update

Annually.

Reporting units

Growth of industrial jobs and years of supply for the region and each local government area.

Notes

For Gold Coast and Toowoomba, there were no parcel-level datasets available to calculate the industrial employment capacity for the Yatala-Stapylton and Charlton/Wellcamp MEIAs. The available figures for the Ormeau-Yatala and Toowoomba-West SA2s, respectively, were therefore used as close approximations for those MEIAs.

For Moreton Bay and Sunshine Coast, none of the selected MEIAS had 2017-2041 employment growth potential estimated by the CDM Smith report which was less than the estimated employment growth from 2017 to ultimate. For those areas the realistic availability scenario was therefore the same as the capacity.

Impact of new 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 2018).

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, 2018
- Queensland Treasury, 2013 BHS, updated to take account of development (parcels < 2500m^2) up to June 2016
- Queensland Treasury, 2013 BHS, updated to take account of development (parcels < 2500m^2) up to June 2018
- Queensland Treasury, Material Change of Use approvals (multiple dwelling), June 2018
- Queensland Treasury, Reconfiguring a lot approvals, June 2018
- CDM Smith, Industrial Land Supply report (see extracts at Appendix D), October 2018, planned industrial land (as at 2017)

- Department of Natural Resources Mines and Energy (DNRME), Digital Cadastral Database (DCDB), June 2016.
- DNRME, DCDB, July 2018
- Department of Environment and Science (DES), Vegetation Management Act, Endangered Regional Ecosystems, 2018
- DES, All Matters of State Environmental Significant (MSES), as at July 2018
- DES, MSES, Threatened Species, as at July 2018
- DES, MSES, Fish Habitat Areas A and B, as at July 2018
- DES, Protected Area Estates, as at July 2018
- DES, Legally secured offsets, as at July 2018
- DES, Vegetation Management Act, Regulated vegetation, Category A, as at July 2018
- DES, High conservation value wetlands (e.g. high environmental value and high environmental significance), as at July 2018.

Source data geography

SEQ region

Method

Constraints used

The following new constraints layers were identified for this analysis:

- Matters of State Environmental Significance (MSES)
- Vegetation Management Act.

In accordance with the land suitability GMP best practice research, 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 2018 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:
        - Fish habitat areas A and B
        - Threatened species (Nature Conservation Act 1992)
    - High conservation value wetlands (Environment Protection Act 1994), including high environmental value and high environmental significance
    - Legally secured offsets
    - Protected Areas
    - Regulated vegetation, Category A
    - Endangered Regional Ecosystems.
- Soft constraints:

- All MSES areas not identified as a hard constraint (see above).

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 2018)
  - where not captured by the BHS, growth areas within the Urban Footprint as used to assess *ShapingSEQ 2017*'s overall land supply to 2041.
- Industrial
  - planned industrial land (as at 2017) as reported by CDM Smith, Industrial Land Supply report, October 2018.

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 development

The following areas were considered as approved for development and not affected by the new constraints.

- MCU (multiple dwellings) development permits as at June 2018.
- Reconfiguring a lot development permits, as at June 2018.

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), excluded areas and areas of approved development to each of the BHS and growth area developable areas.
- Calculate the area, in hectares, of land affected by new constraints.
- Determine the potential number of dwellings affected by:

- BHS
  - For hard constraints
    - Selecting areas impacted by hard constraints (not including excluded and approved development areas).
    - Multiply the area affected by the identified BHS dwelling density and multiple by 100 per cent (as all of these dwellings are not considered available for development).
  - For soft constraints
    - Selecting areas affected by soft constraints but not affected by hard constraints (not including excluded areas and approved development areas).
    - Multiply the area affected by the identified BHS dwelling density and multiply by 50 per cent (as half of these dwellings are not considered available for development).
  - Growth areas
    - For hard constraints
      - Selecting areas affected by hard constraints (not including excluded areas and approved development areas).
      - Multiply the area affected by the area's dwelling density and multiple by 100 per cent (as all of these dwellings are not considered available for development).
    - For soft constraints
      - Selecting areas affected by soft constraints but not affected by hard constraints (not including excluded areas and approved development areas).
      - Multiply the area affected by the area's dwelling density and multiply by 50 per cent (as half of these dwellings are not considered available for development).
- Determine total dwellings potentially affected
  - Add together the number of dwellings 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.

Industrial

- Determine the total area of planned industrial land.
- Union identified constraints (hard and soft), excluded areas and areas of approved development to the 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 affected by hard constraints (not including excluded areas and approved development areas).
        - Multiply the area affected by 100 per cent (as all of these areas are not considered available for development).
    - For soft constraints
        - Selecting areas affected by soft constraints but not affected by hard constraints (not including excluded areas and approved development areas).
        - Multiply the area impacted by 50 per cent (as half of these areas are not considered available for development).
- 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 planned industrial land potentially affected by the new constraints.

Notes

The preliminary 2018 analysis reports only 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.

Appendices

Appendix A: Growth areas (*ShapingSEQ 2017*)

Table A1: List of *ShapingSEQ 2017* growth areas used for analysis in the 2018 Land Supply and Development Monitoring (LSDM) Report.

Local government area (LGA)	**Growth Area**
Brisbane	N/A
Gold Coast	• Coomera Town Centre
Ipswich	• Ripley Valley
Lockyer Valley	N/A
Logan	• Greater Flagstone Priority Development Area (PDA) • Yarrabilba PDA • Flinders
Moreton Bay	• Caboolture West • North East Business Park
Noosa	N/A
Redland	• Southern Redland Bay
Scenic Rim	N/A
Somerset	N/A
Sunshine Coast	• Caloundra South PDA
Toowoomba	• Westbrook • Meringandan West - Klienton

Note: For the take-up to 2041 assumed for these growth areas by the SGS study see Appendix C.

Appendix B: Treatment of fragmented areas

Assessment of the realistic availability of fragmented areas was based on an approximation of the 2013 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 m^2 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 on the SGS study (see extracts in Appendix C), so they are not included in the tables 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%
Maroochydore	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 up to 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	• Emerging communities • Low density residential • Character residential • Rural residential
Ipswich	• Large lot residential • Residential low density • Future urban • Bundamba race stables area • Urban investigation • Township residential • Township character housing
Lockyer Valley	Gatton and Laidley Planning Schemes: • Existing rural residential • Homestead residential • Urban residential • Park residential • Residential expansion • Rural residential • Urban residential
Logan	• Emerging community • Low density residential • Rural residential
Moreton Bay	• Emerging community

	• General residential (suburban neighbourhood and coastal communities precincts) • Rural residential • Township residential precinct
Noosa	• Detached housing • Semi attached housing • Rural settlement
Scenic Rim	Beaudesert Planning Scheme: • Residential precinct • Park living precinct • Rural residential precinct • Emerging community precinct • Village residential precinct • Rural residential zone • Residential zone Boonah Planning Scheme: • Rural residential zone • Residential precinct • Village zone Ipswich Planning Scheme: • Large lot residential • Residential low density • Future urban • Bundamba race stables area • Urban investigation • Township residential • Township character housing
Somerset	• Emerging community • General residential • Rural residential
Sunshine Coast	• Low density residential • Rural residential • Limited development (landscape residential) • Emerging community

Appendix C: SGS study (greenfield areas)

The figures in tables C1 and C2 are drawn from the SGS Economics and Planning, Greenfield Land Take-up Review, Peer Review and Update, August 2016 (SGS study).

This information is used to assist in determining realistic availability for growth areas, and for fragmented areas where parcel-level information was unavailable, i.e. Gold Coast, Redland and Toowoomba.

Table C1: Assumed take-up rates (selected growth areas)

Growth area	Expected start date	SGS take-up rates			
		2016-21 (5 years)	2021-31 (10 years)	2031-41 (10 years)	Total 2016-2041
Coomera Town Centre	2011	310	410	200	7650
Ripley Valley	2014	8500	1300	1500	32,250
Yarrabilba	2012	700	750	190	12,900
Greater Flagstone	2014	840	1080	1090	25,900
Flinders	2031	0	0	300	3000
Caboolture West*	2019	310	710	960	17,320
Caloundra South	2016	550	750	650	16,750

*Note: For this report it is assumed that Caboolture West will start to develop in 2019 (the SGS study assumed it would commence in 2017).

Table C2: Assumed supply to 2041 (selected areas)

The following information was used to assist in determining realistic availability for growth areas, and for fragmented areas where parcel-level information was unavailable. It is important to further note that for this 2018 LSDM Report the capacity of expansion areas is based on council supplied planning assumptions, not the SGS report figures outlined in the table below.

LGA	Area	Expected start date	Viable yield	Supply to 2041
Gold Coast	Coomera Town Centre	2011	8095	8095
	Other		28,837	27,302
Moreton Bay	North East Business Park		1176	1000
Redland	Southern Redland Bay		3944	1490
	Other		4670	4670
Toowoomba	Meringandan West-Kleinton*		4397	1848
	Westbrook		3330	1200

	Other		21,366	17,173

* Note: For the 2018 LSDM Report the values from the SGS study were adjusted in the analyses to account for the reduced area included in the Urban Footprint for the adopted *ShapingSEQ 2017*, where a viable yield of 1300 dwellings and a take-up of 804 dwellings were used.

Appendix D: CDM Smith report (industrial)

The following are extracted from the CDM Smith, Industrial Land Supply, October 2018, that informed the LSDM reporting on industrial land supply and take-up and realistic availability scenarios.

Table D1: Planned industrial land by category, and total take-up 2011-2017

LGA	**Planned industrial land by industrial category (hectares)**								**Take-up 2011-2017 (hectares)**
	Low impact	Medium impact	High impact	Waterfront and marine industry	High technology	Airport and air bases	Industry investigation area	Total	
Brisbane	203.7	122.7	49.3	0	0	297.9	100.2	773.9	264.8
Gold Coast	140.8	85.6	60.5	17.1	0	0	0	304	120.5
Ipswich	1528.1	604.5	0	0	0	38.1	4807.4	6978.1	46
Lockyer Valley	309.8	0	326.7	0	0	0	0.1	636.5	3.3
Logan	172.3	109.3	0	0	0	0	175.3	456.9	54.1
Moreton Bay	261.6	371	15.2	0.3	0	0	0	648	69
Noosa	13.9	3.5	0	0	0	0	0	17.4	2.6
Redland	10.5	0.4	0	3.7	7.1	0	0	21.6	0
Scenic Rim	492.8	3.8	639.6	0	0	0	222.5	1358.6	156.7
Somerset	82	0	0	0	0	0	0	82	0.4
Sunshine Coast	12.6	41.6	168.4	0	0	0	0	222.5	47.9
Toowoomba (urban extent)	111.6	781.1	49.4	0	0	0	0	942.1	467.3

Table D2: Employment potential by likely availability timeframe, selected MEIAs (with total employment potential of more than 1,000 persons, 2017-2041)

LGA	MEIA	Employment Potential (persons)		
		0-5 years (2017-22)	5-23 years 2022-41)	23+ years (2041+)
Brisbane	Lytton (M4)	1225	252	0
	Murarrie/Colmslie (M5)	1210	696	143
	Pinkenba/Bulwer Island (M7)	6143	2171	0
	Archerfield (M9)	1362	409	0
	Richlands (M17)	826	752	0
	Wacol (M21)	1959	1473	0
Gold Coast	Yatala-Stapylton (M24)	2632	3543	45
Ipswich	Bundamba / Riverview (M11)	0	3097	302
	New Chum (M15)	0	8192	3273
	Redbank (M16)	0	1081	418
	Swanbank (M20)	0	30,386	10,730
	Wulkaraka/Karrabin (M28)	417	2440	279
	Ebenezer (M29)	0	90,657	12,137
Lockyer Valley	Gatton North (M34)	1827	2529	0
Logan	Crestmead/Berrinba (M33)	638	3558	0
	Park Ridge (M40)	0	2974	106
Moreton Bay	Brendale (M23)	225	2345	0
	Narangba (M25)	305	867	0
	Morayfield (M31)	2169	2281	0
	Elimbah East (M35)	5293	387	0
Scenic Rim	Bromelton SDA (M38)	4357	23,835	224
Sunshine Coast	Caloundra (M32)	0	2817	0
	Coolum (M36)	28	2532	235
Toowoomba	Toowoomba Enterprise Hub Charlton/Wellcamp (M26)	7464	12,284	0

Appendix E: Industrial land categories (local government precinct and zoning concordance)

The following is drawn from the CDM Smith Industrial Land Supply report, October 2018. It outlines the concordance of local government planning scheme precincts and zonings to industrial land categories used in the 2018 LSDM. It should be noted that due to spatial limitiations 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 E1: Industrial land zonings by category

LGA	Industrial reporting category	Local government precincts and zones
Brisbane	Low impact industry	• EC0 - Emerging communities • EI0 - Industry • II0 - Industry • IN1 - Industry • LII0 - Industry • RU0 - Rural • SC5 - Specialised centre • SP3 - Special purpose • SP4 - Special purpose • SP6 - Special purpose • PDA1 - Emerging communities.
	Medium impact industry	• IN2 – Industry • SP6 - Special purpose.
	High impact industry	• IN3 - Industry • SI0 – Industry
	Waterfront and Marine industry	• N/A
	High Technology Industry	• N/A
	Airports and air bases	• IN2 - Industry • SP4 - Special purpose • SP5 - Special purpose.
	Industry Investigation Area	• II0 - Industry • II0 - Special purpose • IN1 - Industry

		• PDA2 - Planning scheme • PDA2 - Industry
Gold Coast	Low impact industry	• No precinct - Low impact industry • Future low impact industry precinct - Low impact industry
	Medium impact industry	• No Precinct - Medium impact industry • Future medium impact industry precinct - Medium impact industry
	High impact industry	• No Precinct - High impact industry • Future high impact industry precinct - High impact industry
	Waterfront and Marine industry	• No Precinct - Waterfront and marine industry
	High Technology Industry	• N/A
	Airports and air bases	• N/A
	Industry Investigation Area	• N/A
Ipswich	Low impact industry	• BI - Business Incubator • BP - Business Park • CON - Conservation • LB02 - Local Business and Industry • LB03 - Local Business and Industry • LB06 - Local Business and Industry • LB07 - Local Business and Industry • LB08 - Local Business and Industry • LB09 - Local Business and Industry • LB11 - Local Business and Industry • LB12 - Local Business and Industry • LB13 - Local Business and Industry • LB15 - Local Business and Industry • LB16 - Local Business and Industry • LBB - Local Business and Industry Buffer • 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 Buffer • RBB01 - Regional Business and Industry Buffer • REC - Recreation • REC12 - Recreation • RL01 - Residential Low Density • SA09 - Special Opportunity • SA32 - Special Opportunity • SFTC - SF Town Centre • STS - Service Trade and Showgrounds • SU54 - Special Uses • SU69 - Special Uses • SU72 - Special Uses • TMU - Township Character Mixed Use • SA28 - Special Opportunity • SU02 - Special Uses.
	Medium impact industry	• 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	• N/A
	Waterfront and Marine industry	• N/A

	High Technology Industry	• N/A
	Airports and air bases	• AA02 - Amberley Air Base & Aviation.
	Industry Investigation Area	• LBB - Local Business and Industry Buffer • LBIA01 - Local Business and Industry Investigation • LBIA02 - Local Business and Industry Investigation • LBIA03 - Local Business and Industry Investigation • RBB - Regional Business and Industry Buffer • 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	• No Precinct - Industrial • Crescent Street Industrial (G3) - Industrial • Eastern Gateway Industrial (G4) - Industrial • Lawlers Road (H2) - Industrial • No Precinct - Industrial • North Side Industrial Precinct - Industrial • South-East Industrial (G2) - Industrial • South-West Industrial (G1) - Industrial
	Medium impact industry	• N/A
	High impact industry	• Helidon Explosives Magazine (I) - Industrial
	Waterfront and Marine industry	• N/A
	High Technology Industry	• N/A
	Airports and air bases	• N/A
	Industry Investigation Area	• No Precinct - Investigation Area
Logan	Low impact industry	• No Precinct - Emerging Community • No Precinct - Low Impact Industry • No Precinct - Mixed Use.

	Medium impact industry	• No Precinct - Medium Impact Industry • No Precinct - Mixed Use
	High impact industry	• N/A
	Waterfront and Marine industry	• N/A
	High Technology Industry	• N/A
	Airports and air bases	• N/A
	Industry Investigation Area	• No Precinct - Priority Development Area
Moreton Bay	Low impact industry	• Light industry - Industry • Mixed industry and business - Industry.
	Medium impact industry	• General industry - Industry.
	High impact industry	• Restricted industry - Industry
	Waterfront and Marine industry	• Marine industry - Industry
	High Technology Industry	• N/A
	Airports and air bases	• N/A
	Industry Investigation Area	• N/A
Noosa	Low impact industry	• No Precinct - Low Impact Industry • 3 - Venture Drive Enterprise Precinct - Low Impact Industry • 4 - Hofmann Drive Business & Industry Precinct - Low Impact Industry.
	Medium impact industry	• No Precinct - Medium Impact Industry • 2 - Lionel Donovan Drive Auto Precinct - Medium Impact Industry.
	High impact industry	• N/A
	Waterfront and Marine industry	• N/A
	High Technology Industry	• N/A
	Airports and air bases	• N/A

	Industry Investigation Area	• N/A
Redland	Low impact industry	• No Precinct - Commercial Industry • No Precinct - Island Industry • CM1 - Commercial Industry • IS1 - Island Industry.
	Medium impact industry	• GL2 - General Industry
	High impact industry	• N/A
	Waterfront and Marine industry	• IS1 - Island Industry
	High Technology Industry	• GL1 - General Industry
	Airports and air bases	• N/A
	Industry Investigation Area	• N/A
Scenic Rim	Low impact industry	• BCTYSD - IPA Industry • INDTY - IPA Industry • Precinct 3 Aratula Sub Valleys - LIGHT INDUSTRY • Precinct 3 Aratula Sub Valleys - MULTIPLE ZONINGS • Precinct 3 Upper Teviot Irrig Arable - GENERAL INDUSTRY • Precinct 4 Kalbar Uplands - LIGHT INDUSTRY • Precinct 4 Munbilla Uplands - LIGHT INDUSTRY • RLIND - IPA Industry • Precinct 4 Hoya Mt French Uplands - GENERAL INDUSTRY.
	Medium impact industry	• Precinct 3 Upper Teviot Irrig Arable - GENERAL INDUSTRY & R
	High impact industry	• No Precinct - IPAMajor Industry • MJIND - Bromelton Countryside • MJIND - IPAMajor Industry • RDIND - IPAMajor Industry • BCTSD - Bromelton Countryside • BCTSD - IPAMajor Industry • MJIND - IPA Rail Dependent Industry

		• RDIND - IPA Rail Dependent Industry • RLIND - IPA Industry
	Waterfront and Marine industry	• N/A
	High Technology Industry	• N/A
	Airports and air bases	• N/A
	Industry Investigation Area	• EMCOM - IPA Future Investigation
Somerset	Low impact industry	• No precinct - Industry.
	Medium impact industry	• N/A
	High impact industry	• N/A
	Waterfront and Marine industry	• N/A
	High Technology Industry	• N/A
	Airports and air bases	• N/A
	Industry Investigation Area	• N/A
Sunshine Coast	Low impact industry	• No Precinct - Low Impact Industry • 3 - Venture Drive Enterprise Precinct - Low Impact Industry
	Medium impact industry	• No Precinct - Medium Impact Industry.
	High impact industry	• No Precinct - High Impact Industry.
	Waterfront and Marine industry	• N/A
	High Technology Industry	• N/A
	Airports and air bases	• N/A
	Industry Investigation Area	• N/A
Toowoomba	Low impact industry	• 15 100 ha minimum - Rural • 21 Parkland Living - Mixed Use • 22 City South - Mixed Use • 23 West Creek - Mixed Use

		• 24 Railyards - Mixed Use • 46 Heinemann Road Transport – Rural • 47 Wellcamp Low Impact Industry - Low Impact Industry.
	Medium impact industry	• 0 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	• 0 No Precinct - High Impact Industry • 39 Heavy Industry - High Impact Industry • 44 Quarry - High Impact Industry
	Waterfront and Marine industry	• N/A
	High Technology Industry	• N/A
	Airports and air bases	• N/A
	Industry Investigation Area	• N/A

Fact sheets

Realistic availability concept

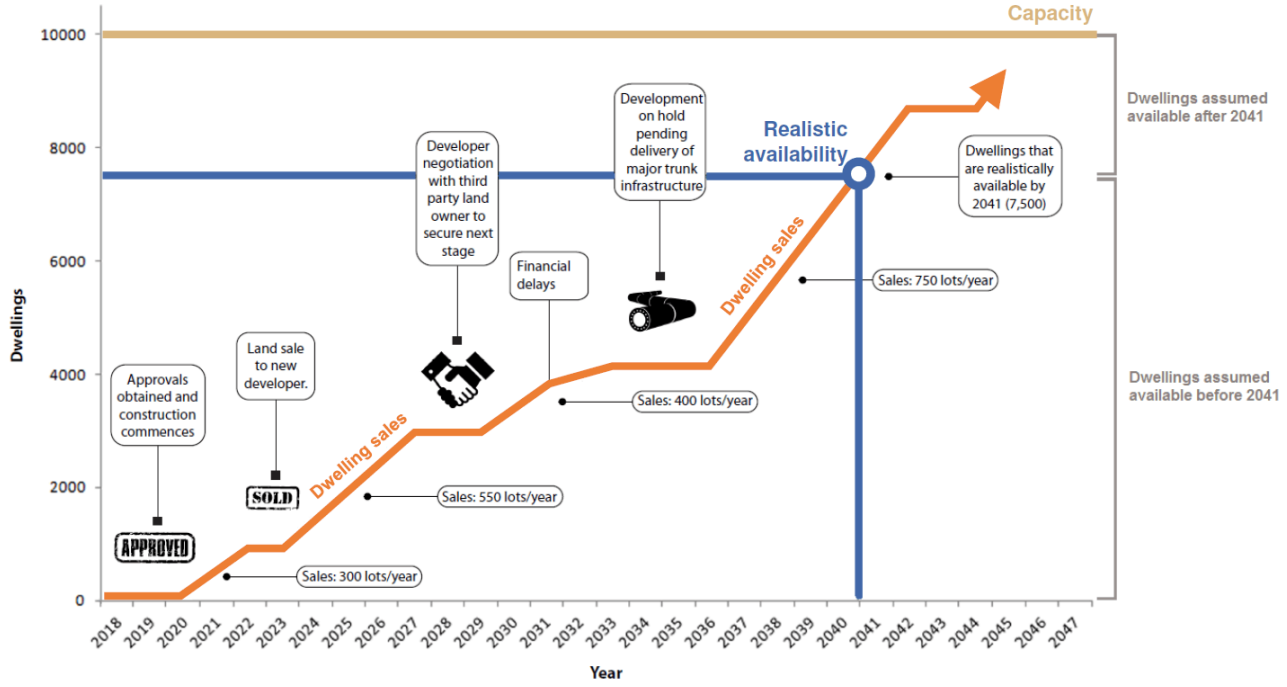
ShapingSEQ 2017 proposes that the Growth Monitoring Program monitor land supply in terms of its realistic availability, rather than its capacity. The 2018 Land Supply and Development Monitoring (LSDM) Report has applied scenarios which assume not all of the planned capacity will be realistically available 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.

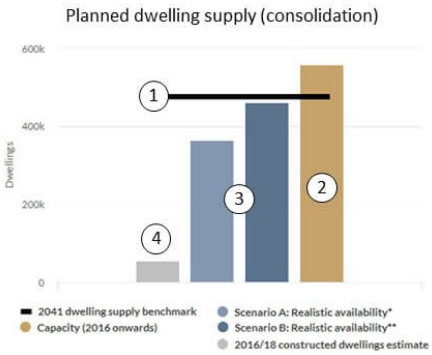
The realistic availability of planned dwelling supply (illustrated in blue) is an estimate of the portion of the capacity of planned dwelling supply (in terms of dwellings) that is expected to be available by 2041, after considering how the following may constrain/delay development:

- 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



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 of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) 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. Improvements are envisaged in future years, but for this first LSDM Report 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 **2016/18 constructed dwellings estimate** (grey bar) is an estimate of how many dwellings have been built between 2016 and 2018.

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.

Housing Supply Expert Panel

The Queensland Government has established the Housing Supply Expert Panel (HSEP). The panel will play a critical role in delivery of the Growth Monitoring Program by providing independent expert advice to the Queensland Government about how to appropriately manage land supply and development and associated issues in South East Queensland.

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 the Associate Director for Commercial Sales at Knight Frank.

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 the lead Chief Investigator on an Australian Research Council Linkage grant on the estimation of temporary populations in Australia. 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 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 social issues relating to housing 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.

Laurel Johnson, QLD: Ms Johnson is an urban, regional and social planner with extensive experience in the public, private and academic sectors. Currently an academic at the University of Queensland's School of Earth and Environmental Sciences in the urban and regional planning program, Ms 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.

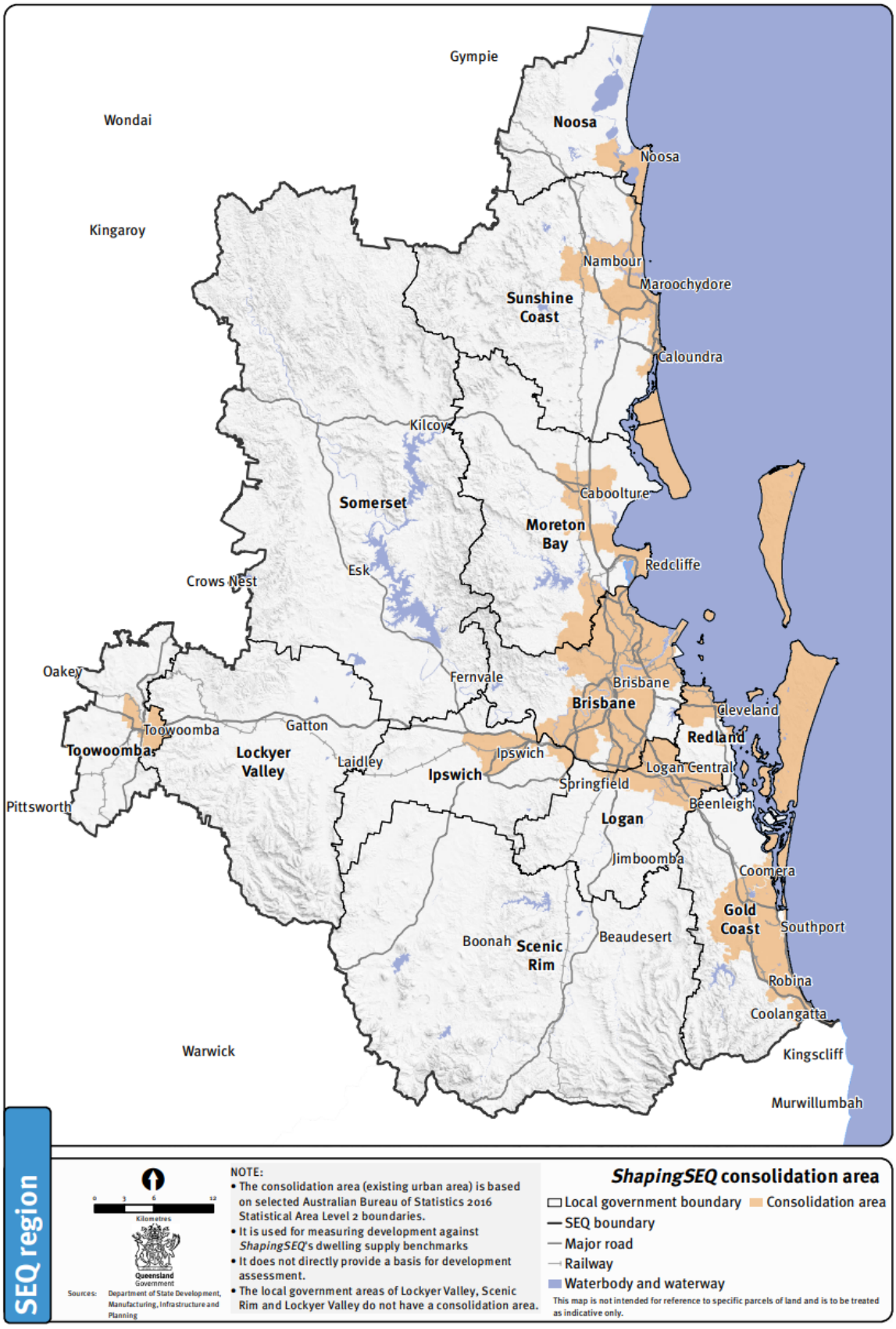
Warren Rowe, QLD: Mr Rowe has more than 35 years' experience across a range of areas including strategic and statutory planning, regional planning, policy development, development control, infrastructure planning and delivery, urban design and housing policy. He is currently the Planner in Residence at the University of Queensland and an Adjunct Professor in the Cities Program at Griffith University.

Ben Slack, QLD: Mr Slack is a leading urban planner with more than 25 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. Prior to this, Dr Spiller worked as a strategic planner in both state and local government.

Maps

ShapingSEQ 2017 consolidation area map



ShapingSEQ 2017 urban footprint map