Improving land supply take-up estimates to better inform projections

Geoff Anstey, Land Supply Insight, 21 April 2022

Abstract

The Queensland Government population and dwelling projections have a major role informing expectations of growth and consequent land supply and supporting infrastructure needs, at the local and regional level.

Local government planning assumptions as prepared for Local Government Infrastructure Plans inform the sub-regional distribution of growth for the projections, including within the large Greater Brisbane Capital City Statistical Area.

A case study of Ipswich shows that inappropriate use of local government planning assumptions can result in overestimation of growth in an area up to the projection horizon, misinforming the projected distribution of growth.

Future projections should be informed by more realistic estimates of the rate of take-up of dwelling capacity in an area. Such estimates are being progressively improved through work for the South East Queensland Land Supply and Development Monitoring reports.

Introduction

Planning assumptions as prepared for Local Government Infrastructure Plans (LGIPs) currently have a key role informing the Queensland Government's population and dwelling projections.

The significance of the state's projections in informing expectations for growth and consequent infrastructure needs thus gives the LGIP planning assumptions a major role informing regional land use and infrastructure policy, as well as local infrastructure planning and funding.

This paper investigates Ipswich as a case study of how inappropriate use of LGIP planning assumptions may misinform the state's projections. It considers ways to better inform the state's projections and thus regional and local level land use and infrastructure planning and funding.

Projection methods

The Queensland Government's population projections use a cohort-component model to generate projections for the Greater Brisbane Greater Capital City Statistical Area (GCCSA), comprising nine Statistical Area Level 4 (SA4) areas covering the metropolitan and some adjoining rural areas, and each of the other SA4s in the state. The projections at the Greater Brisbane GCCSA and SA4 level apply regionally-specific assumptions - for births, deaths and overseas, interstate and intrastate migration - to population age cohorts. Below those metropolitan and regional geographic levels, in areas classified as 'urban' the distribution of the regional growth is based on generally suburban-scale Statistical Area Level 2 (SA2) projections developed using a housing-unit model. (QGSO 2018, 2019)

For recent editions of projections the housing-unit model has relied significantly on the dwelling supply information provided by the planning assumptions prepared for LGIPs (QGSO 2019). The impact of this is perpetuated by the fact that, pursuant to the Minister's Guidelines and Rules (MGR), the state's projections current at any time are expected to inform the rate of take-up identified in preparing each new round of LGIP planning assumptions (QG 2020).

Key role of LGIP planning assumptions

LGIP planning assumptions thus have a key role informing the projected distribution of growth, particularly within the large Greater Brisbane GCCSA which comprises the local government areas

(LGAs) of Brisbane, Ipswich, Logan, Moreton Bay, Redland and Somerset, as well as the eastern parts of Lockyer Valley and the western parts of Scenic Rim (ABS 2016).

In other parts of South East Queensland (SEQ), including the Gold Coast, Sunshine Coast and Toowoomba SA4s, the equivalent LGA planning assumptions largely determine the relationship between the projected regional-level growth of the cohort-component model and its distribution using the housing-unit model.[1]

Ipswich case study

Ipswich is a major greenfield/expansion growth area for SEQ. In *ShapingSEQ*, Ipswich has the highest expansion 2041 dwelling supply benchmark of all LGAs (DILGP 2017a). In the 2018 edition Queensland Government projections, the overall 2016-2041 dwelling growth projected for Ipswich is a close third behind Brisbane and Gold Coast (QG 2019).

Table 1 provides projected dwelling growth numbers for Ipswich in comparison to other major SEQ LGAs for the 2016-2041 and component five-year periods.

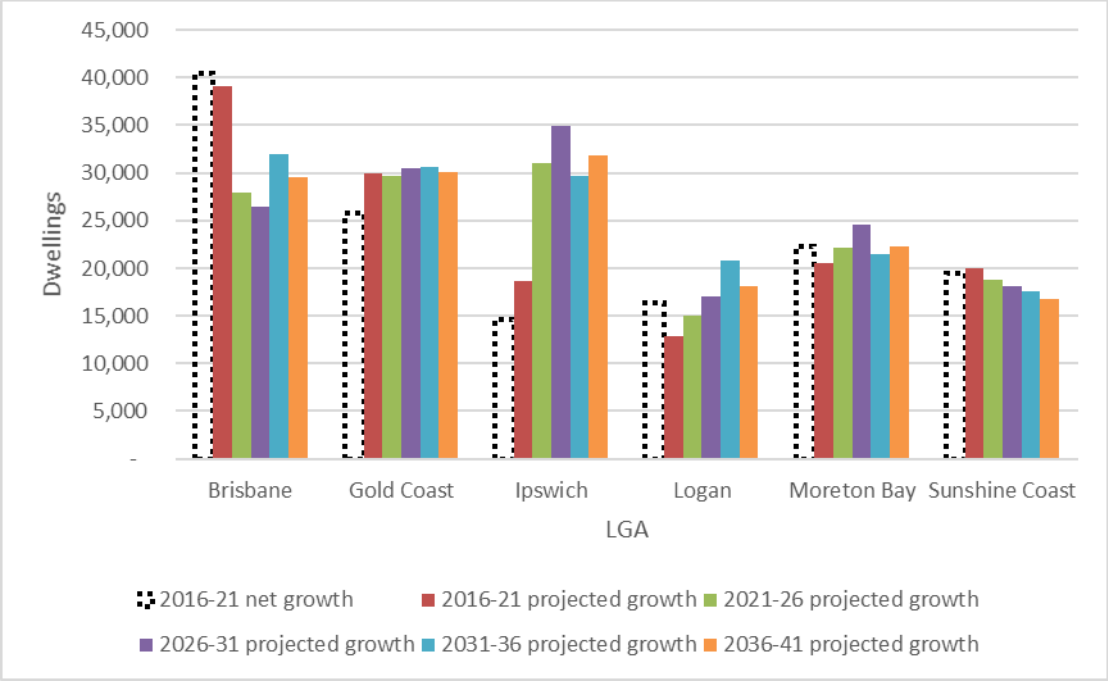
Table 1: Projected dwelling growth for major SEQ LGAs, 2016-2041

LGA	2016-21	2021-26	2026-31	2031-36	2036-41	2016-2041
Brisbane	39,108	27,945	26,496	32,007	29,596	155,152
Gold Coast	29,916	29,705	30,526	30,663	30,109	150,919
Ipswich	**18,632**	**31,037**	**34,873**	**29,628**	**31,842**	**146,012**
Logan	12,852	15,018	17,056	20,768	18,068	83,763
Moreton Bay	20,464	22,175	24,605	21,494	22,255	110,993
Sunshine Coast	19,984	18,723	18,136	17,558	16,817	91,218

Source: QG 2019

Figure 1 compares the respective five-year growth rates for Ipswich and the other LGAs with an approximation of the net dwelling growth (building approvals minus demolition approvals) for the 2016-21 period.

[1] At this stage, the land supply information has not been applied as an overarching constraint on the cohort-component model projection of SA4-level growth (QGSO 2018, 2019). However, that should be considered in the future, particularly on the Gold Coast, given its diminishing greenfield/expansion supply, especially for houses (DSDILGP 2021).



Source: derived from ABS 2021, 2022 and QG 2019

Considering growth projected for the future five-year periods as well as 2016-21, the 2016-21 net growth figure for Ipswich appears the most different, lagging well behind the projected rates of growth compared to the situation for the other major SEQ LGAs shown in Figure 1. The 2016-21 net growth was 78 per cent of the projected growth for that period, the lowest of all the LGAs[2], but it is consistently less than half of the projected five-yearly growth for Ipswich from 2021 onwards.

Factors that informed the 2018 edition Queensland Government projections help to explain this. The planning assumptions underpinning the current Ipswich LGIP were in place at the time of the projections' preparation and are understood to have informed the 2018 edition projections (DSDILGP 2021; ICC 2018). The following are relevant aspects of how those planning assumptions have informed the 2018 edition projections:

1. Projections assume a high rate of take-up of growth potential

   Almost all (94 per cent) of the 2016-Ultimate dwelling growth potential identified by the Ipswich LGIP planning assumptions (156,083) is assumed to be taken up during the 2016-2041 period (ICC 2018; QG 2019).

2. High proportion of attached dwellings in growth potential

   Fifty-six per cent (87,743) of the identified dwelling growth potential is attached dwellings, even though the historical rate of take up of attached dwellings in Ipswich is low. For example, 13 per cent of dwelling building approvals 2016-2021 in Ipswich were for dwellings other than houses (ABS 2022).

   The high proportion of attached dwellings includes the major greenfield/expansion growth areas of Ripley Valley and Springfield, as follows:

   - Of total dwelling growth 2016-Ultimate estimated by the LGIP planning assumptions for the Ripley Valley Priority Development Area (PDA) Projection Area - 47,896 dwellings - 28,678 (60 per cent) are identified as attached dwellings

[2] The equivalent percentages for the other LGAs are Brisbane - 104 per cent, Gold Coast - 86 per cent, Logan - 127 per cent, Moreton Bay - 109 per cent and Sunshine Coast - 98 per cent.

- Of total dwelling growth 2016-Ultimate estimated for the Springfield Projection Area - 31,805 dwellings - 23,292 (73 per cent) are identified as attached dwellings. (ICC 2018)

In combination these factors appear to have contributed to significant overestimation, by the Queensland Government 2018 edition projections, of the dwelling growth in Ipswich up to 2041. The take-up of nearly all of the substantial attached dwelling capacity by 2041 would appear unrealistic given the historical rate of take-up of such dwellings and the expected lag in the availability of supporting higher level community, business and public transport infrastructure in areas such as Ripley Valley.

As a context for this, with the exception of parts of the smaller growth areas of Walloon, Thagoona and Chuwar, Ipswich urban growth areas have generally been within the Current Intent to Service area, as identified by SEQ Land Supply and Development Monitoring (LSDM) reports, since 2019 (DSDILGP 2019, 2020, 2021; ICC 2020a, 2020b). In the absence of more detailed local information, there is thus no evidence that the ability to provide basic physical urban services such as water supply and sewerage has limited development and take-up over the 2016-21 period.

It is notable that Logan had the proportionally highest rate of net growth, i.e. compared to that projected for 2016-21. It would appear significant that a much lower proportion of the Logan growth potential (22 per cent) is attached dwellings, facilitating earlier take-up compared to Ipswich.[3]

Consideration of more realistic rates of take-up

ShapingSEQ sought to factor in more realistic rates of take-up in expansion growth areas such as Ripley Valley (DILGP 2017b). As a consequence the *ShapingSEQ* 2041 dwelling supply benchmarks for Ipswich are significantly less than the 2018 edition projections. The total 2016-2041 dwelling growth expected by *ShapingSEQ* for Ipswich, comprising 88,300 expansion and 27,900 consolidation, is 111,700 dwellings, compared to the 146,012 dwellings growth of the projections.

Improvements to estimation of the realistic availability of planned dwelling supply up to the 2021 LSDM Report suggest the realistically available expansion supply (2016-2041) in Ipswich is currently about 75,900 dwellings[4], less than the expansion dwelling supply benchmark (88,300). Of course, it should be recognised that the realistically available supply can be increased over time up to 2041, e.g. through an increased area with the ability to service in places such as Walloon, Thagoona and Chuwar. (DSDILGP 2021)

The 2021 LSDM Report also foreshadows future estimation of the realistically available supply in consolidation areas, through application of the Financial Feasibility Model (FFM) and consideration of other factors not addressed by the current conceptualisation of the FFM (DSDILGP 2021).

Application of such more realistic rates of take-up should be considered to better inform future Queensland Government projections, to avoid the overestimation of take-up that appears to have occurred in the case of Ipswich.

Findings

LGIP planning assumptions currently have a key role informing the distribution of growth over time for the Queensland Government's population and dwelling projections, particularly within the large

[3] For Logan, 58,392 (22 per cent) of the total potential dwelling growth 2016-Ultimate (260,944 dwellings excluding other dwellings) are attached dwellings (LCC 2022).

[4] Calculated by adding the realistic availability (2021 onwards) of the planned dwelling supply to the 2016-21 constructed dwellings estimate, for the Ipswich expansion area, from the 2021 LSDM Report (DSDILGP 2021).

Greater Brisbane GCCSA. They thus also have a significant role informing expectations for growth and consequent land supply and infrastructure needs at the regional level.

A review of the LGIP planning assumptions and projections for Ipswich suggests that the 2018 edition Queensland Government projections significantly overestimated growth for Ipswich, through assuming an unrealistically high rate of take-up of attached dwelling capacity up to 2041.

Future projections, and consequent local and regional land use and infrastructure planning decision-making, would be better informed by more realistic estimates of the take-up of available dwelling capacity. Such estimates were initially prepared for *ShapingSEQ* and are being progressively improved through work for the SEQ LSDM reports.

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