339 Tarean Road, Karuah

Residential Land Needs Assessment

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Prepared for:

Oracle Investment

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Executive Summary

This land needs assessment presents an independent assessment of the need and demand for residential land in Karuah. The report demonstrates that less than 15 years supply exists in Karuah and supports the Planning Proposal at the subject land. Our research focus is on understanding the level of supply, type of product mix and the spatial distribution. Our findings support a comparative assessment of the identified supply conditions within the context of the key demand drivers for residential land.

Karuah has been prolific in terms of population growth. The town has become a more attractive place to live since the construction of the highway bypass, there has been considerable recent investment in community infrastructure (i.e. community facilities, parks and open space), the business community is beginning to rebound after a dramatic reduction in highway trade, and there is likely to be new land developments which will offer greater housing choice than previously.

The current planning proposal seeks to rezone the subject land from RU2 (Rural Landscape) to R2 (Low Density Residential), B2 (Local Centre) and E2 (Environmental Conservation) to permit new housing, greatly enhanced open space and recreational areas, and tailored facilities for a range of new businesses. A Planning Proposal for Zone R2 is likely to be accompanied by a minimum lot size (MLS) of 500 m^2, which potentially results in 252 lots.

This additional capacity will allow Karuah to continue to contribute to the future growth in regional economy and employment of Port Stephens and the Hunter region generally.

A summary of the key study outcomes is outlined below:

- Between 2011 and 2016, Karuah has led the recent population growth of the SA2 area and the wider LGA (i.e. Port Stephens), which grew by an average growth rate of 3.7% per annum. There has been prominent growth in the 20-29 age cohort as well as the 30-39 age cohort indicating that there has been an inflow of young couples and families in the suburb (i.e. potential first home buyers). We also note that there is a considerable proportion of elderly population.

- It appears that there has been a solid inflow of residents and migrants in Karuah. However, Karuah saw no growth in the share of detached houses. Our analysis points to the lack of release of additional land for residential development, and also indicate that most of the population growth in Karuah has been absorbed through higher utilisation of existing housing stock (i.e. rental properties).

- The current NSW DPE & TPA population projections for Karuah are consistent with current Council planning structure for housing development and outdated dwelling demand projections. It seems likely that these current Government projections are based on what Karuah and Port Stephens can achieve based on current zoning and outdated growth projections (Karuah Growth Strategy 2011), rather than what it should seek to deliver for the community.

- The current population projections are not consistent with what is reported in the 2016 Census of Population and Housing. Karuah has led the recent population growth of Port Stephens, which grew by an average growth rate of 3.7% per annum. Our strong view is that Council should aim for a rate of expansion in the number of young families, rather than accepting that a decline is inevitable based on the outdated projections from Karuah Growth Strategy 2011.

- MacroPlan envisage that 70-80% of the identified potential lots may eventuate by 2036, equivalent to between 350 and 400 lots. Taking a conservative approach based on the considerable environmental and other constraints (i.e. personal reasons – Landowners) in the area, potential exists for around 360 lots[1].

- The total number of land sales in Karuah increased significantly from Calendar Year 2015 (i.e. 5 lots per annum). Aggregate lot sales in Karuah increased to 11 lots in 2016, 22 lots in 2017 and 26 lots in 2018. Our expectation is that if a greater number of smaller lots were available, then the sales rate would have been greater.

- Our expectation is that first home buyers should account for a rising share of demand for new housing over the next five to ten years. As the Greater Newcastle and Hunter regional economic growth gathers pace, Karuah will become a much more prominent place of residence. Port Stephens Local Government Area (LGA) contains a mix of rural land, towns, villages and coastal areas that are a major recreational, tourist and retirement destination. The regionally significant Newcastle Airport provides capacity to support growth in defence and aerospace-related industries. The Port Stephens LGA by itself is figured to generate 5,665 jobs by 2036[2]. More young adults will move to this region to be closer to their place of work, and this is likely to generate higher demand from first home buyers.

- MacroPlan anticipate that there is less than 15 years of supply existing in Karuah. Under the base case (Section 6), the Karuah population is expected to grow by 65 people. At this rate, there is 12.4 years of supply existing in Karuah which would not be sufficient to satisfy the increasing demand to 2036.

Our professional view is that Council should be aiming for solid growth in its workforce-aged population. Karuah should be aiming to have a healthy rate of expansion in the number of young families, rather than becoming a place that is failing to provide for residential needs. Such a pattern in demographic structure in our view is likely to support sustainable growth in the future. Therefore, a change of zoning at key sites would be imperative in avoiding a lack of access to appropriate and affordable housing in Karuah.

[1] Our research and findings are discussed further in section 2

[2] Hunter Regional Plan 2036 (DPE, Oct 2016)

Although land is identified in a land-use strategy (e.g. Karuah Growth Strategy) or is zoned for development by planning controls (e.g. Port Stephens Local Environment Plan 2013), however, it does not necessarily mean that all identified land will be fully developed and directly translated to constructed houses as planned and promptly. This is reflected in recent building approval and lot construction trends. This illustrates that not all building approvals are being turned into dwellings and that dwellings are being constructed on existing vacant lots - there is typically a significant 'lag time' between approval and construction[3].

The process that leads to the identification of land is not a robust one, that is, detailed analysis has not been provided to land-use suitability and/or feasibility. Further to this, once identified, the landowner may be unwilling to sell to a developer due to personal reasons, such as nostalgia.

Therefore, it is a common approach by land-use planners to provide an adequate supply of residential land to ensure that houses are constructed and delivered on time, to accommodate anticipated population and employment growth. A numerical 'over-supply' increases the likelihood that houses are achieved in an existing town centre, which is a more desirable outcome (i.e. if this planning proposal is approved) than proposals being received to rezone 'out of centre' land. Moreover, a numerical 'over-supply' of residential land also increases competition, which places downward pressure on price.

The planning proposal also seeks to rezone part of subject land to permit some commercial and retail uses. It provides for a range of business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area. This provides for an optimal employment and housing outcome that is sustainable in the long-term.

Importantly, the planning proposal provides opportunity for synergistic relationships to be formed between these surrounding land uses, allowing for the development of a strong economic cluster that will deepen Karuah's service offer and core business credentials. The subject land's ongoing commercial and retail uses would help to 'fill a void' and would complement other existing nearby businesses without compromising the primary retail/business role of the Karuah town centre. Moreover, the proposed development will consolidate the significance of the Karuah town centre and provide an important western 'entry' to the town centre.

[3] Our research and findings are discussed further in section 2

Section 1: Introduction

MacroPlan have been engaged by the Oracle Investment to undertake a residential land supply and needs review to support a Planning Proposal at 339 Tarean Road, Karuah. This report identifies the supply and demand for residential land and demonstrates that less than 15 years of supply exists in Karuah.

This report includes:

- An audit of existing and potential land for residential development. This includes a review of Karuah Growth Strategy report, and an assessment of residential zoned land in Karuah reporting on the availability with an assessment of development potential.

- A review to identify the level of residential development activity. This includes identification of current sales and market activity and updating the existing database on land sales and building activity.

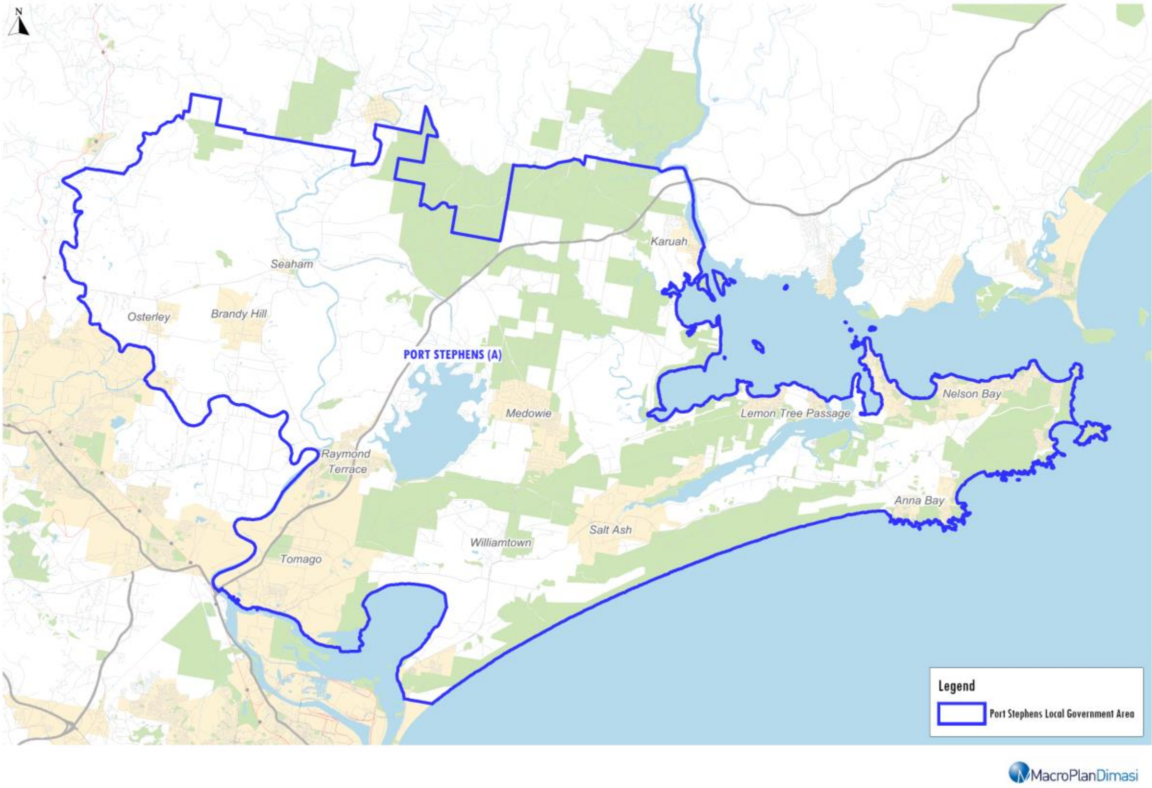
- Develop demand projections for the next 15 to 20 years including review of economic trends and forecasts, analysis of population growth rates and development trends.

- Provide a direct comparison of the reviewed land supply and relative dwelling yield the observed/forecast demand conditions

For the purpose of our study, we define the study areas of the subject land as below:

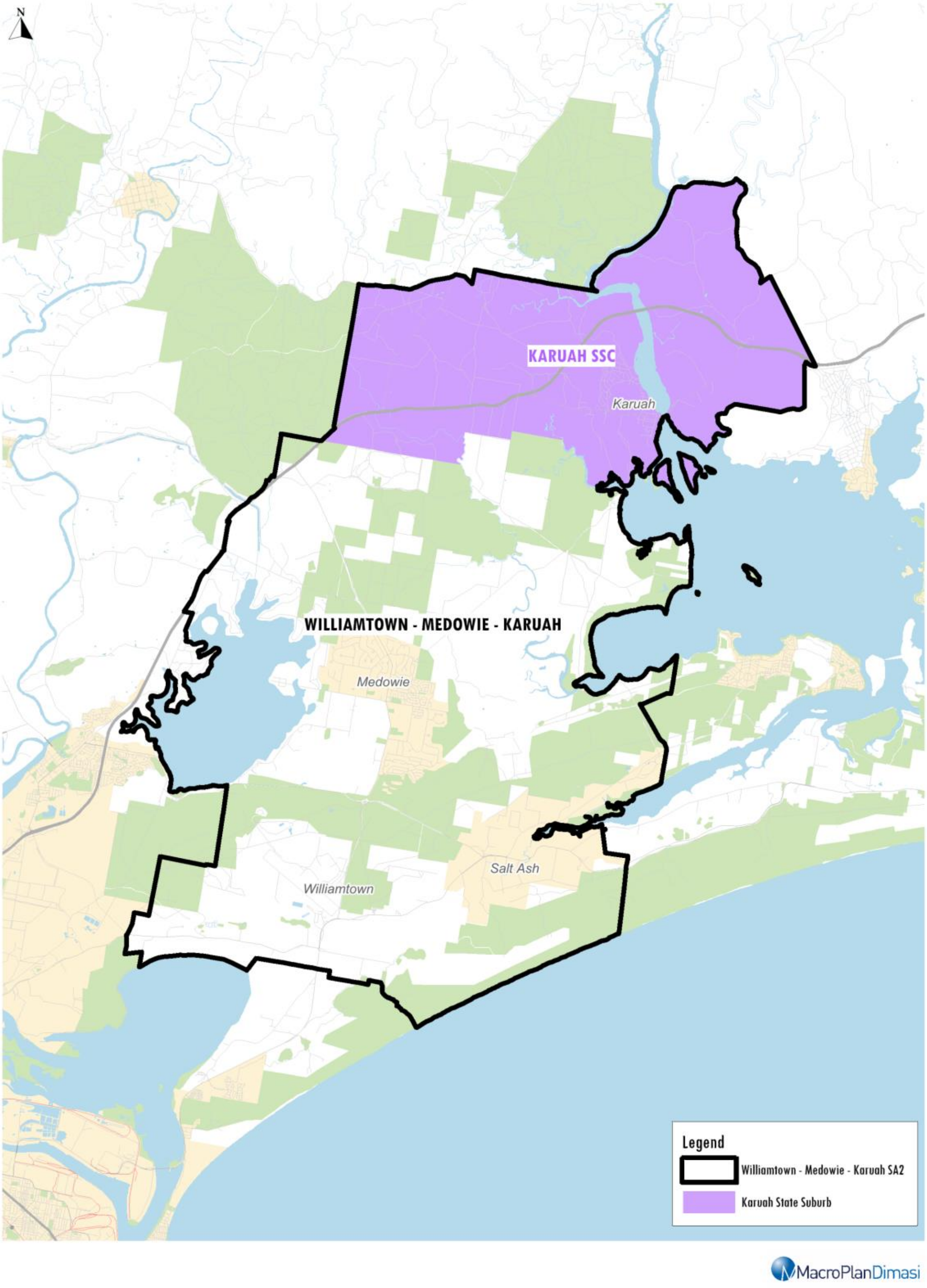
- Study area 1: Karuah SSC (Suburb)
- Study area 2: Williamtown-Medowie-Karuah SA2
- Study area 3: Port Stephens LGA

Figure 1: Port Stephens LGA



Source: MacroPlan (2019)

Figure 2: Karuah SSC & Williamtown-Medowie-Karuah SA2



Source: MacroPlan (2019)

Section 2: Residential Land Supply Review

This section assesses residential property market trends at both a regional and local level looking at existing and changes in property supply as well as product distribution (i.e. lot size).

2.1 Product Type Assessment

Karuah village had a population of 1,558 in the 2016 census, an increase of 248 people or 19% since the 2011 census. Most of this increase seems to be due to the number of occupied private dwellings increasing from 546 dwellings in 2011 to 637 dwellings in 2016 (excluding caravans, cabins or houseboats).

There were 637 occupied dwellings in Karuah in 2016, 81% of dwellings were separate houses, with 16% being other dwellings (i.e. semi-detached, flat or apartment). 45.4% of dwellings are fully owned relative to 38.6% for Port Stephens, with another 26.7% in the process of being purchased (i.e. with a mortgage), relative to 31.3% for Port Stephens. 25.9% of dwellings are rented, relative to 26.2% for Port Stephens.

Table 1: Dwelling Mix (2016), Karuah & Port Stephens

%	Karuah (suburb)	Port Stephens (LGA)
Separate House	79.0%	74.1%
Semi-detached, row or terrace house, townhouse	0.6%	15.5%
Flat or apartment	4.0%	7.6%
Other[4]	16.4%	2.7%

Source: ABS Census (2016), MacroPlan (2019)

Table 2: Housing Tenure (2016), Selected Study Areas

%	Karuah (suburb)	Williamtown-Medowie-Karuah (SA2)	Port Stephens (LGA)
Owned outright	45.4%	33.0%	38.6%
Owned with a mortgage	26.7%	42.2%	31.3%
Rented	25.9%	21.4%	26.2%
Other tenure type	1.2%	0.7%	0.9%
Tenure type not stated	0.8%	2.7%	3.1%

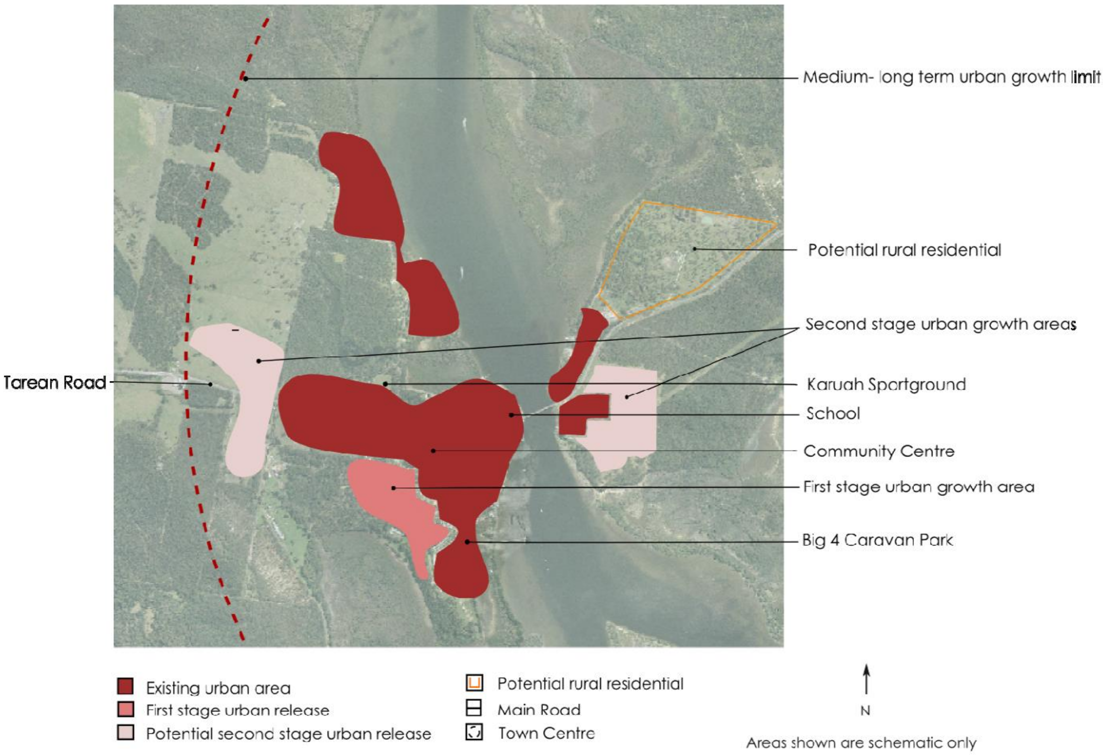
Source: ABS Census (2016), MacroPlan (2019)

[4] Including unoccupied dwellings for example caravan

2.2 Product Distribution Assessment

Karuah Growth Strategy 2011 indicated the suggested staging of the release of new urban land in Karuah. The staging plan was based on initially releasing land adjacent to the existing urban area (shown red) and progressively moving outwards. Environmentally significant land is avoided, and a biodiversity corridor will define the medium-term western limit of the village (the red dashed line). These areas are shown in Figure 3.

Figure 3: Strategic Directions – Staging of Land Release



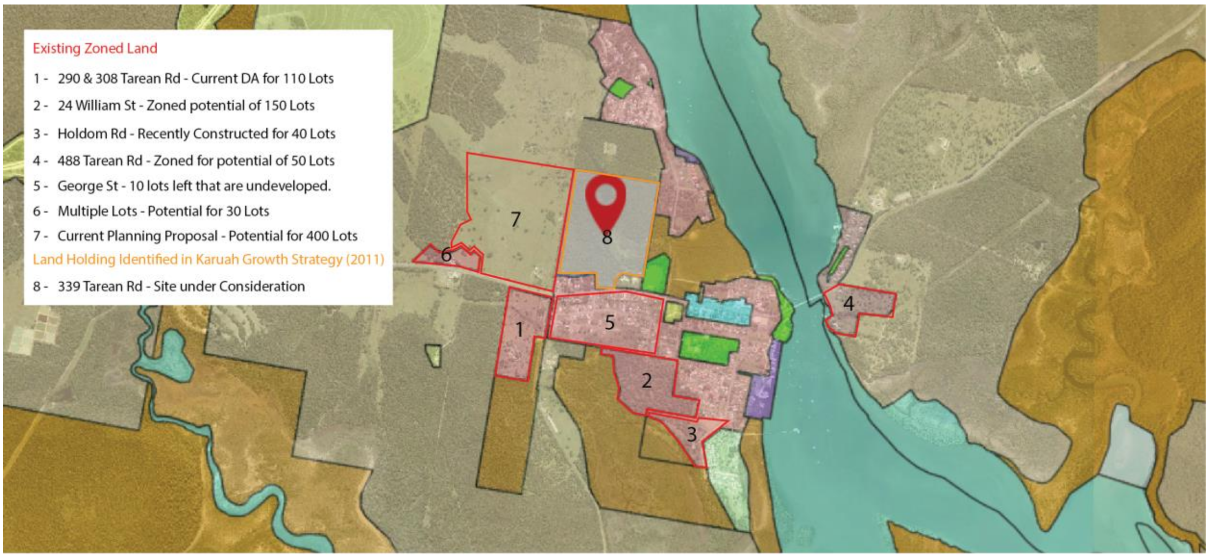
Source: KGS (2011)

An audit was conducted using aerial photographs based on overlays and cadastral information. An analysis was undertaken with follow up site inspections identifying vacant residential lots. There does not appear to be any development or residential subdivision of the areas 1, 2, 4, and 6. Perception Planning has advised us that Area 3 has been recently constructed for 40 lots.

Since 2011, there appears to be 105 new residential lots produced within the Area 5 (outlined in map below) in comparison to the map provided in the Karuah Growth Strategy plan (i.e. Figure 3). According to the Planning Portal NSW (DPE), most of those lots currently have some form of development, but 10 of them are currently undeveloped/vacant.

Of these newly released lots at Area 5, 85% of them are 650m^2 or larger. Our view is that housing affordability is compromised by the planning controls (e.g. minimum lot size) and lack of diversity of available lot sizes in Karuah. This can be addressed through easing planning standards, planning bonuses or concessions on development standards for designated affordable housing and fast track approvals.

Figure 4: Existing and Potential Land Yield. Karuah



Source: Perception Planning (2019)

Figure 5: Wattle and Holdom (Area 5)

Source: KGS (2011), MacroPlan (2019), Nearmaps (2019)

2.3 Assessment of Classification and Inclusions

The following lot yields were derived by Perception Planning based on the existing planning framework, an examination of existing and proposed projects listed on the Port Stephens Council application tracker and Cordell Connect (CoreLogic), and subject to local conditions being met such as site-specific issues.

- **Area 1** (290 & 308 Tarean Road) – current DA for 110 lots
- **Area 2** (24 William Street) – zoned for 100 lots
- **Area 3** (Holdom Road) – recently constructed for 40 lots
- **Area 4** (488 Tarean Road) – zoned for 50 lots
- **Area 5** (Wattle and Holdom) – 10 lots undeveloped
- **Area 6** (The River Road) – potential for 30 lots

The Council has also indicated that there is a planning proposal for 400 lots on the adjoining western site (i.e. **Area 7**). Our view is that about 60% of the proposed rezoning on the adjoining site sits outside of the area identified in the Strategy (Karuah Growth Strategy 2011). Hence, MacroPlan have included 40% of the Area 7 (i.e. 160 lots) in our land supply/demand assessment.

In total, our land audit has identified a current potential of about 500 lots in Karuah[5].

Although land is identified in a land-use strategy (e.g. Karuah Growth Strategy) or is zoned for development by planning controls (e.g. Port Stephens Local Environment Plan 2013), however, it does not necessarily mean that all identified land will be fully developed and directly translated to constructed houses as planned and promptly. This is reflected in recent building approval and lot construction trends. For a reference, we have reviewed previous residential land supply assessments done by Spatial Economics Pty Ltd, specifically monitored the residential land supply for the G21 region which includes the geographical areas of the City of Greater Geelong, Colac-Otway Shire, Surf Coast Shire, Borough of Queenscliffe and the southern section of Golden Plains Shire. Particularly, as measured from July 2006 to July 2015, the study undertaken for the municipal areas of Surf Coast found that average lot construction and residential building approval activity has been 318 and 400 per annum (equivalent to the approximate ratio of 4:5), respectively. This illustrates that not all building approvals are being turned into dwellings and that dwellings are being constructed on existing vacant lots - there is typically a significant 'lag time' between approval and construction.

The process that leads to the identification of land is not a robust one, that is, detailed analysis has not been provided to land-use suitability and/or feasibility. Further to this, once identified, the landowner may be unwilling to sell to a developer due to personal reasons, such as nostalgia.

[5] MacroPlan - Area 8 is excluded in our land supply/demand assessment as it contains the subject site under consideration.

For these reasons, MacroPlan envisage that 70-80% of the identified potential lots may eventuate by 2036, equivalent to between 350 and 400 lots. Taking a conservative approach based on the considerable environmental and other constraints (i.e. personal reasons) in the area, potential exists for around 360 lots.

Our view is that a sufficient pipeline of new detached houses is essential to meet the higher quality housing that successful young families and local workers tend to choose. It is a common approach by land-use planners to provide an adequate supply of residential land to ensure that houses are constructed. A numerical 'over-supply' of residential land also increases competition, which places downward pressure on price.

The proposal is seeking to zone additional land that has frontage to the main road in Karuah (Tarean Road) and are in closer proximity to the town centre when compared to other land identified in the Strategy. A numerical over-supply increases the likelihood that houses are achieved in an existing town centre, which is a more desirable outcome (i.e. if this planning proposal is approved) than proposals being received to rezone 'out of centre' land.

Section 3: Demand Assessment: Forecast Population Growth Review

This section addresses the rationale for the current zoning conditions and boundaries for residential development. Our analysis indicates that if the existing Karuah Growth Strategy (KGS) is maintained, then widespread economic problems will gradually become evident, due to structural decline in the local workforce. This problem is complex but can be addressed in several ways – and this Planning Proposal is one method of advancing the supply and competitiveness of new housing, by allowing for suitable additions to the sites zoned for low density housing, which can encourage growth in the number of young families.

3.1 Karuah Growth Strategy 2011 (KGS)

The 'Karuah Growth Strategy' (KGS) report provides strategic level guidance for the future development of Karuah - a spatial and land use plan for the growth of the town. It identifies and considers several growth scenarios, infrastructure constraints and land for new residential development.

It was undertaken by the Port Stephen Council (Strategic Planning Unit, SPU). The Study was intended to further underpin local business and employment creation through residential growth and assist the Council to make decisions on accommodating these growths and meeting future demands for housing.

- The KGS report notes that Karuah is still recovering from the economic shock of the bypass, but local businesses have repositioned themselves and are reporting improved trade. The town is growing by about 11 dwellings per year.

- It also found that additional greenfield developments would not be necessary until at least 2035.

Our research shows that SPU's findings are not accurate on either count. This research is also now almost 8 years out of date and does not take into account the unprecedented new demand placed on Karuah and its surrounds for housing and employment.

3.2 Key Arguments of the KGS 2011

The population projections produced by 'Informed Decisions' (.id, 2006) and the 'Community Settlement and Infrastructure Strategy' (CSIS, 2007) are central to the current policy approach adopted by the KGS. The above projections find that there is 'sufficient capacity under current controls' for Karuah to meet its housing needs until 2035. The following key projections from the KGS are reported below (table 3).

Table 3: Future Population Projections for the Karuah – Swan Bay – Twelve Mile Creek Planning District

	2006	2011	2016	2021	2026	2031	Change (2006-31)	CAGR*
CSIS	1,530	1,810	-	2,860	-	3,680	-	-
id. 2009	1,456	1,609	1,738	1,872	2,001	2,102	646	1.5%

Source: Informed Decisions (2009), CSIS (2007)

According to the KGS report, it stated that the actual population growth rate is likely to be between the CSIS estimates (36 dwellings per annum) and the 2009 Informed Decisions' estimates (11 dwellings per annum). The SPU has indicated that it is unlikely that Karuah's growth rate will decrease below the Informed Decisions' dwelling projection.

However, the report also stated that the projected growth rate of the CSIS appeared quite optimistic. Assuming reasonable success of efforts to promote growth in Karuah[6], there could be demand for some 20 dwellings per year (i.e. double the observed trends by .id) or between 48 and 54 additional residents[7] per year between 2006 and 2031.

The report then concludes that there is sufficient capacity under current controls to satisfy forecasted demand for Karuah until at least 2025. By applying Informed Decision's projection of 11 additional dwellings per year, it will take approximately 54 years for demand to take up the 600 identified potential lots around Karuah[8].

The KGS report also noted that it is unlikely that Karuah's growth rate will decrease below an average of 11 dwellings per annum, and it is more likely that a higher growth rate will be achieved. The Council Indicated that Karuah will become a more attractive place to live since the construction of the highway bypass, there has been considerable recent investment in community infrastructure, the business community is beginning to rebound after a dramatic reduction in highway trade, and there is likely to be new land developments which will offer greater housing choice than previously.

Macroplan agree with this view, and our research and findings discussed further in later sections (i.e. sections 4 & 5) strongly support that Karuah is becoming an attractive area for people to live thus increasing the population.

3.3 NSW DPE Population Projections

The current NSW DPE & TPA population projections for Karuah are consistent with current Council planning structure for housing development and outdated dwelling demand projections. It seems likely that these current Government projections are based on what Karuah and Port Stephens can achieve based on current zoning and outdated growth projections (Karuah Growth Strategy 2011), rather than what it should seek to deliver for the community. Summary numbers are reproduced in the table below (Table 4).

[6] KGS 2011

[7] Based on 2.4 and 2.7 persons/dwelling respectively for and the CSIS (KGS 2011)

[8] KGS 2011 - this was based on the existing planning framework and subject to local conditions being met such as development feasibility, and site-specific issues.

Based on the population projections (summarised in table 4 below), the retiree age population is projected to surge. These DPE & TPA projections show a pessimistic outcome for growth in the workforce age population, which will present challenges for ageing in place by retirees. In 2011 the ratio of workforce-aged persons to retiree-aged-persons was 2.5:1, but this ratio is projected to drop to just 1.2:1 by 2036.

Table 4: NSW DPE & TPA Population Projections by age cohort (2016 edition), Karuah

Age Cohorts	2011	2016	2021	2026	2031	2036	2016-36 change p.a.
0-19	302	321	337	356	365	368	+46
20-64	709	790	825	855	872	882	+92
65+	364	474	565	663	734	782	+307
Total	**1,375**	**1,586**	**1,726**	**1,874**	**1,970**	**2,031**	**445**
Dependency ratio	**1.9:1**	**1.7:1**	**1.5:1**	**1.3:1**	**1.2:1**	**1.1:1**	

Source: TPA (2019), DPE NSW (2016)

Based on the latest NSW DPE projections, the outlook for Karuah residents is bleak. An increasingly aged population will present increasing challenges for business, and a more difficult environment for the less wealthy retirees. Our view is that this demographic structure is not one that most local households would wish for and a change can only occur through appropriate land uses for housing and local employment.

The NSW DPE projections are consistent with Council planning structure for housing development, allowing for supply up to 2036. It seems likely that these current Government projections are based on what the Port Stephens LGA can achieve based on current zoning and outdated dwelling demand projections (Karuah Growth Strategy 2011), rather than what it should seek to deliver for the community. Thus, a change of zoning at key sites would be imperative in avoiding a lack of access to appropriate and affordable housing in Karuah.

Our professional view is that Council should be aiming for solid growth in its workforce-aged population. Karuah should also be aiming to have a healthy rate of expansion in the number of young families, rather than becoming a place that is failing to provide for residential needs. Such a pattern in demographic structure in our view is likely to support sustainable growth in the future.

Our strong view is that Council should aim for a rate of expansion in the number of young families, rather than accepting that a decline is inevitable based on the outdated projections from Karuah Growth Strategy 2011. The means to achieve a balanced outcome for community development lie with Council, through its housing strategy. To keep and attract young families, the ample provision of new housing – and specifically new detached houses, which are the choice of the more successful and higher income households – must become a priority. There needs to be a greater rate of housing supply permitted at an aggregate level. There needs to be several development fronts being marketed at any given time, so that there is a competitive environment that limits developer pricing power. This will also result in a great increase in the workforce-aged population and improve employment and the economic growth of Karuah and the Port Stephens LGA.

This section of this report considers relevant economic and socio-demographic data, drawing a link between recent trends and the future demand for land and houses in Karuah.

4.1 Age Profile Forecasts and Assessment

As of 2016, the Port Stephens LGA entailed 69,557 people. The population grew by 4,759 people between 2011 and 2016, equating to average growth rate of 1.4% per annum. This annual rate of growth surpassed that were observed in the Rest of NSW[9] (i.e. 1.0% per annum).

Table 5: Historical Population Growth by Age, Port Stephens LGA

Age Cohort	2011	2016	Change (2011-16)	CAGR*
0-19	16,843	16,625	-218	-0.3%
20-29	6,391	6,828	437	1.3%
30-39	7,109	6,931	-178	-0.5%
40-49	8,735	8,676	-59	-0.1%
50-64	13,203	14,532	1,329	1.9%
65+	12,517	15,965	3,448	5.0%
Total	**64,798**	**69,557**	**4,759**	**1.4%**

Source: ABS Census (2011 & 2016), MacroPlan (2019)

Between 2011 and 2016, the 'Williamtown-Medowie-Karuah' SA2 population increased at a higher average rate of 1.7% per annum. Particularly, Karuah (i.e. the suburb) has led the recent population growth of the SA2 area, which grew by an average growth rate of 3.7% per annum.

Table 6: Historical Population Growth by Age, William-Medowie-Karuah SA2 & Karuah

	Williamtown-Medowie-Karuah (SA2)				Karuah (Suburb)			
Age Cohort	**2011**	**2016**	**Change (2011-16)**	**CAGR***	**2011**	**2016**	**Change (2011-16)**	**CAGR***
0-19	3,637	3,744	107	0.6%	286	310	24	1.6%
20-29	1,457	1,500	43	0.6%	101	147	46	7.8%
30-39	1,665	1,698	33	0.4%	103	132	29	5.1%
40-49	1,848	1,972	124	1.3%	176	169	-7	-0.9%
50-64	2,362	2,654	292	2.4%	295	380	85	5.2%
65+	1,594	2,098	504	5.6%	349	434	85	4.4%
Total	**12,563**	**13,666**	**1,103**	**1.7%**	**1,310**	1572	**262**	**3.7%**

Source: ABS Census (2011 & 2016), MacroPlan (2019)

[9] The area not defined as being part of the greater capital city is represented by a Rest of State region (ABS 2011)

Our demographic analysis points to strong growth in Karuah. There has been prominent growth in the 20-29 age cohort as well as the 30-39 age cohort indicating that there has been an inflow of young couples and families in the suburb (i.e. potential first home buyers). This interpretation is supported by first home buyer data, which is shown further into this section (Section 5).

More detailed analysis of population by age indicates that the Karuah demographic profile is somewhat older than that of the 'William-Medowie-Karuah' SA2 and Port Stephens LGA. More than half of the suburb population comprised of people aged 50 or older. However, the socio-demographic profile of the catchment has shifted over the past inter-census period, in a manner that is different to general shifts in the regional NSW. Young adults are tending to move into Karuah – the rate of growth in the young adult and family cohorts surpassed that observed in the 'William-Medowie-Karuah' SA2 and Port Stephens LGA.

We also note that there is a considerable proportion of elderly population, as seen across Australia. The rate of expansion in Karuah has exceeded the profile associated with ageing in place – it is evident that retiree age households are moving into the suburb. In many cases, this inward movement will be through the purchase of an established house. However, purchase of smaller lot housing (or retirement living housing) is likely to be relevant.

Demand from older families/upgraders is consistent with the aspirations for larger lots. However, it appears that there is also a solid inflow of upgraders in the 'William-Medowie-Karuah' SA2 and Port Stephens LGA, but no growth or declines compared to younger & older age cohorts in Karuah. Our analysis points to a further shift towards smaller lot housing in Karuah.

The observed age profile suggests that dwellings to suit both young families and downsizer / retirees (new and existing) will be in demand.

4.2 Housing Typology Assessment and Preferences

Our analysis indicates the planned subdivision of the subject land is expected to accommodate both young families and downsizer /retiree households through the provision of a range of lot sizes, particularly smaller residential lots.

4.2.1 Household Composition

Couple families with no children was the most dominant household type in Karuah accounting for 35.5% of total households (about 4% higher than the Port Stephens LGA) followed by lone person households, which made up 30.6% of total households (about 6% higher than the Port Stephens LGA). This is reflective of the age profile identified earlier which showed a large proportion of persons aged 50+ whom are likely to form couple only households due to their children having grown up and moved out, as well as the high proportion of persons aged 20-29 and 30-39, which are likely to form young couple households.

Table 7: Household Composition (2016), Selected Study Areas

	Karuah (suburb)	Williamtown-Medowie-Karuah (SA2)	Port Stephens (LGA)
Family Household Only	%	%	%
Couple family with no children	35.5%	30.5%	31.8%
Couple family with children	20.1%	37.8%	28.3%
One parent family	10.1%	10.7%	11.6%
Other family	0.6%	0.9%	0.8%
Lone person household	30.6%	17.9%	25.0%
Group household	3.1%	2.3%	2.5%
Total	**100.0%**	**100.0%**	**100.0%**

Source: ABS Census (2016), MacroPlan (2019)

4.2.2 Household Size

In 2016, the average household size in Karuah was 2.2, smaller relative to the Port Stephens LGA's average of 2.5, a reflection of the number of couple family with no children & lone person households. When compared to the immediate locality, Karuah had a higher proportion of 1 & 2 person households (i.e. 70%) when compared to 'Williamtown-Medowie-Karuah' SA2 (i.e. 53%). This indicates the need for housing beyond detached dwellings with an existing market segment likely to be more attracted to smaller lot dwellings. This is particularly true for older couples looking to downsize.

Table 8: Household Size (2016), Selected Study Areas

%	Karuah (suburb)	Williamtown-Medowie-Karuah (SA2)	Port Stephens (LGA)
One person	29.9%	17.9%	25.0%
Two people	40.7%	35.3%	38.4%
Three people	12.1%	16.7%	14.0%
Four people	8.8%	17.9%	13.5%
Five or more people	8.5%	12.2%	9.1%
Average Household Size	**2.2**	**2.8**	**2.5**

Source: ABS Census (2016), MacroPlan (2019)

4.2.3 Housing Tenure

Karuah has a very high proportion of households who own their home outright. However, the proportion of homeowners with a mortgage is well aligned to the Port Stephens LGA. Karuah's economic shock since the construction of the highway bypass is reflected in the data, the town only grew by around 11 dwellings per annum. This can also be partly attributed to the households and homes that have existed in the region for many years, even before the region was identified as a growth area. The low proportion of renters is common in outer & regional areas (i.e. compared to the metropolitan area) with most people moving from inner and middle ring areas for the sole purpose of purchasing a property.

Table 9: Housing Tenure (2016), Selected Study Areas

%	Karuah (suburb)	Williamtown-Medowie-Karuah (SA2)	Port Stephens (LGA)
Owned outright	45.4%	33.0%	38.6%
Owned with a mortgage	26.7%	42.2%	31.3%
Rented	25.9%	21.4%	26.2%
Other tenure type	1.2%	0.7%	0.9%
Tenure type not stated	0.8%	2.7%	3.1%

Source: ABS Census (2016), MacroPlan (2019)

4.2.4 Historic Migration Patterns

Table 10 highlights the Top 15 places of origin of residents who were living in 'Williamtown-Medowie-Karuah' SA2[10] in 2016. The table highlights resident movement between 2015 and 2016 (Place of Residence 1 Year Ago) as well as 2011 and 2016 (Place of Residence 5 years ago). Historic migration patterns can be used to help determine where the likely buyers of property will come from and therefore the types of buyers they might be.

Both migration between 2011 & 2016 and 2015 & 2016 show a trend of outward migration with most SA2s located in Australia with the top places of origin in both time periods being 'Raymond Terrace' and 'Lemon Tree Passage - Tanilba Bay' SA2s. Outward migration is common amongst people looking to buy a home with a general trend toward housing being more affordable on the fringe[11]. Interestingly, in both periods 'overseas' was ranked highly as the most common region of origin for migrants, a representation of the strong migration that was and continues to take place across NSW.

The Port Stephen LGA shares similar socio-demographic characteristics to 'Williamtown-Medowie-Karuah' SA2 with couple family with no children and lone person households the most common household type and supporting young populations. This reinforces the need for affordable and diverse housing at Karuah to support first home buyers as well as young families.

[10] SA2 is the smallest geographical unit the ABS have released for this dataset (i.e. 2016 Census - Internal Migration).

[11] for example, the median house prices for January 2019 were $365,000 in Karuah and $500,000 in Lemon Tree Passage (RP Data, 2019)

Table 10: Historical Migration to 'William-Medowie-Karuah' SA2, 2011-2016

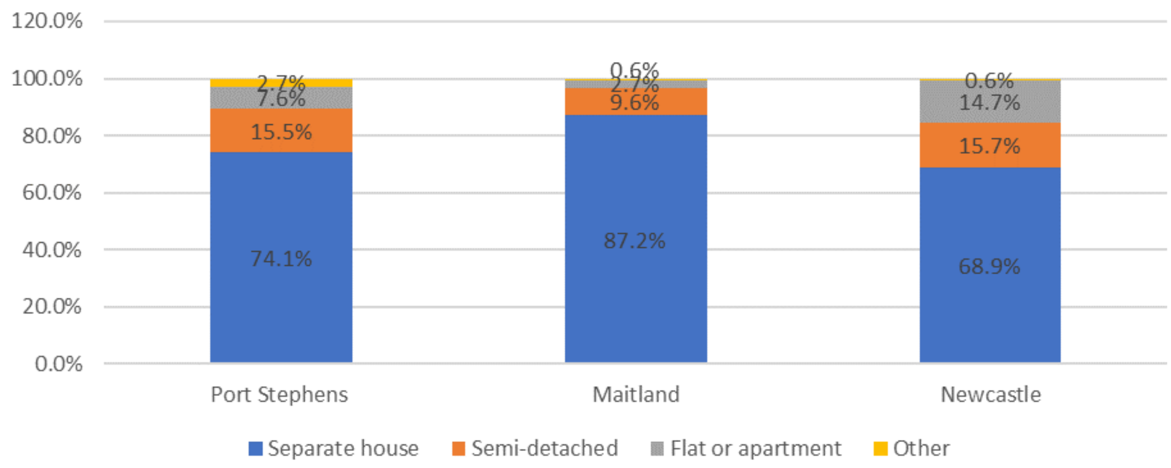
	Place of Residence 1 year ago		Place of Residence 5 years ago	
Rank	**Location (SA2)**	**No. of Migrants**	**Location (SA2)**	**No. of Migrants**
1	Williamtown - Medowie - Karuah	11,019	Williamtown - Medowie - Karuah	8,155
2	Raymond Terrace	132	Raymond Terrace	294
3	Lemon Tree Passage - Tanilba Bay	75	Lemon Tree Passage - Tanilba Bay	151
4	Nelson Bay Peninsula	48	Overseas	135
5	Stockton - Fullerton Cove	36	Nelson Bay Peninsula	115
6	Overseas	36	Bulahdelah - Stroud	62
7	Anna Bay	35	Anna Bay	57
8	Bulahdelah - Stroud	26	Mayfield - Warabrook	57
9	Katherine	25	Tea Gardens - Hawks Nest	52
10	Mayfield - Warabrook	24	Stockton - Fullerton Cove	50
11	Maitland - West	21	Katherine	50
12	Lambton - New Lambton	21	Thornton - Millers Forest	43
13	Tea Gardens - Hawks Nest	18	Maryland - Fletcher - Minmi	42
14	Hamilton - Broadmeadow	18	Richmond - Clarendon	42
15	Wagga Wagga - South	18	Edgeworth - Cameron Park	38

Source: ABS Census (2011 & 2016), MacroPlan (2019)

4.2.5 Housing Typology

In 2016, the Hunter Region of New South Wales had a very limited dwelling mix with almost all dwellings in Maitland separate houses, whilst 74% and 69% of dwelling stock in Port Stephens and Newcastle (respectively) were separate houses.

Figure 6: Dwelling Mix (2016), Selected LGAs



Source: ABS (2016), MacroPlan (2019)

In line with Port Stephens LGA, Karuah's dwelling mix was skewed with 79.0% of stock separate houses. Over the five years to 2016, the share of flat or apartment increased in Karuah – rising from 1.6% to 4.0%. This increase has been achieved at the expense of 'Caravan', which decreased from 19.2% to 16.4%.

Table 11: Dwelling Mix (2016), Karuah & Port Stephens

%	Karuah (suburb)	Port Stephens (LGA)
Separate House	79.0%	74.1%
Semi-detached, row or terrace house, townhouse	0.6%	15.5%
Flat or apartment	4.0%	7.6%
Other[12]	16.4%	2.7%

Source: ABS Census (2016), MacroPlan (2019)

Table 12: Dwelling Mix (2011), Karuah & Port Stephens

%	Karuah (suburb)	Port Stephens (LGA)
Separate House	78.8%	76.0%
Semi-detached, row or terrace house, townhouse	0.5%	12.3%
Flat or apartment	1.6%	9.3%
Other[13]	19.2%	2.4%

Source: ABS Census (2016), MacroPlan (2019)

According to our demographic assessment, between 2011 and 2016, it appears that there has been a solid inflow of residents and migrants in Karuah. However, Karuah saw no growth in the share of detached houses. Our analysis points to the lack of release of additional land for residential development.

Our analysis suggests that new dwelling additions have been limited for young families and senior residents seeking more affordable housing and amenities, and also indicate that most of this population growth in Karuah has been absorbed through higher utilisation of existing housing stock (i.e. rental properties).

The median rent for all dwellings increased by 4.8% per annum over the five years to 2016. This annual rate of growth surpassed that were observed in the Port Stephens LGA (i.e. 4.1% per annum). Given that 26% of households living in Karuah are renters, this rate of rental escalation is expected to have a pronounced impact on household finances and test the ability of some households to remain within the locality. Furthermore, due to the strong rental prices in Karuah and its surrounds, young families would be more encouraged to purchase rather than rent (but still price sensitive) at Karuah.

[12] Including unoccupied dwellings for example caravan
[13] Including unoccupied dwellings for example caravan

Table 13: Median Weekly Rents, Selected study areas

Year	2011	2016	CAGR (%)[14], 5 years to 2016
Karuah (suburb)	$190	$240	4.8%
Williamtown-Medowie-Karuah (SA2)	$247	$320	5.3%
Port Stephens (LGA)	$250	$305	4.1%

Source: ABS Census (2011 & 2016), MacroPlan (2019)

[14] Compound Annual Growth Rate

This section assesses residential property market trends at both a regional and local level looking at lot sales trends. A key product of our analysis is the economic justification of recommended housing formats and lot size composition for the subject site.

5.1 Historical Assessment of Consumption and Market Characteristics

Tables 14 & 15 show the lot sales composition by size cohort in Karuah between the 2008 and 2018 calendar years (CYs). The publishing of lot sales on CoreLogic is available, however, usually at a lag. This is due to slow registration processes and complexity in data definitions for house & land packages. As a result of the 2008 and 2018 calendar years are analysed as opposed to CY2019 with data likely to be more accurate.

Please note that our sales analysis only includes the transactions of newly released land for detached houses, excluding super lots, non-residential lots, and englobo sales.

Table 14: Sales composition by lot size, Karuah (Calendar Years)

Lot Size Cohort	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<300	0	0	0	0	0	0	0	0	0	0	0
300-349	0	0	0	0	0	0	0	0	0	0	0
350-399	0	0	0	0	0	0	0	0	0	0	0
400-449	0	0	0	0	0	0	0	0	0	1	1
450-499	0	0	0	0	0	0	0	0	2	0	0
500-549	0	0	0	0	0	0	0	0	0	0	0
550-599	0	0	1	0	0	0	0	1	0	1	0
600-649	0	0	0	0	0	0	0	0	1	1	13
650-999	2	1	0	2	3	4	4	1	4	17	12
1000+	0	1	0	1	0	0	0	3	4	2	0
Total	**2**	**2**	**1**	**3**	**3**	**4**	**4**	**5**	**11**	**22**	**26**

Source: Corelogic RP Data (2019), MacroPlan (2019)

As the above tables indicate, there has been a shift towards smaller lot sizes across the whole town. Prior to CY2017, 86% of lots sold were above 650m². This figure dropped significantly to represent 46% of sales during CY2018. By size cohort, lots sized between 650-999m² represented the majority of sales prior to CY 2017, however, in CY2018 lots sized below 650m² composed the majority of sales.

Table 15: Median lot size (sold), Karuah (Calendar Years)

Lot Size Cohort	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Median lot size (m^2)	831	1,265	566	912	706	849	849	1,584	737	684	634

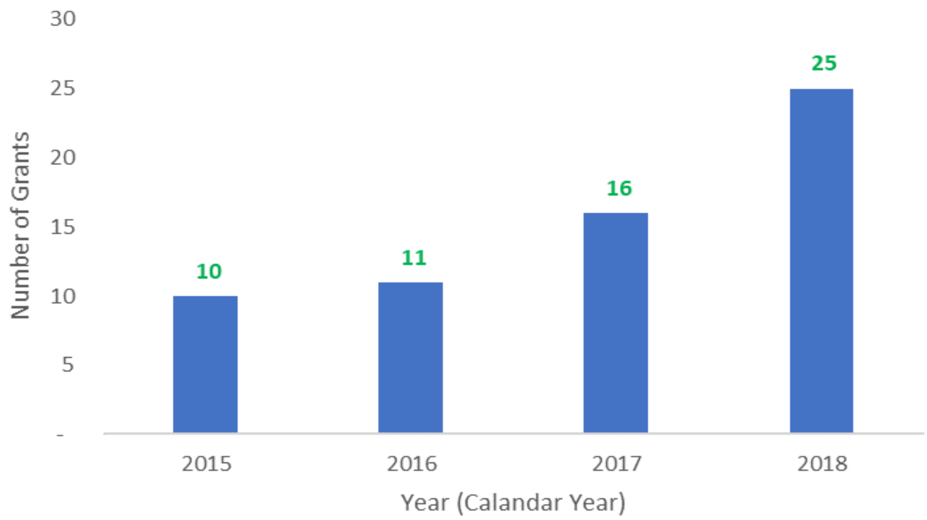
Source: Corelogic RP Data (2019), MacroPlan (2019)

The total number of land sales in Karuah increased significantly from CY2015 (i.e. 5 lots). Aggregate lot sales in Karuah increased to 11 lots in 2016, 22 lots in 2017 and 26 lots in 2018. Our expectation is that if a greater number of smaller lots were available, then the sales rate would have been greater.

Despite the slowing of the housing market in Sydney & NSW, demand for new houses has held up far stronger than we anticipated. The current level of demand should be expected to be sustained even though prices are likely to flatten out over the next few years.

Our expectation is that first home buyers should account for a rising share of demand for new housing over the next five to ten years. As the Greater Newcastle and Hunter regional economic growth gathers pace, Karuah will become a much more prominent place of residence. Port Stephens LGA contains a mix of rural land, towns, villages and coastal areas that are a major recreational, tourist and retirement destination. The regionally significant Newcastle Airport provides capacity to support growth in defence and aerospace-related industries. The Port Stephens LGA by itself is figured to generate 5,665 jobs by 2036[15]. More young adults will move to this region to be closer to their place of work, and this is likely to generate higher demand from first home buyers.

Figure 7: First Home Owner Grant, Postcode 2324 (Karuah)



Source: NSW Treasury OSR (2019)

[15] Hunter Regional Plan 2036 (DPE, Oct 2016)

5.2 Future Implications for Planned Development

The Karuah market (and its surrounds) has been characterised by larger lots. However, the new land market has gravitated to smaller lots, primarily driven by the high cost of land/housing, with new entrants accepting smaller lots as a means of affording to get into the market. In addition, young families & down-sizing retirees have been a source of demand for smaller lots in markets. While demand in Karuah will still retain a bias towards relatively larger lots (vs other markets), but it cannot escape the market shift towards smaller lots. That is, for the subject land at Karuah (i.e. 339 Tarean Road, Karuah), while there will be some continuing demand for lots sized above 600 m^2, it is going to need to include a mix of smaller lots (i.e. 450-550 m^2) if it is to meet market preferences.

The means to achieve a balanced outcome for community development lie with Council, through its housing strategy. To keep and attract young families, the ample provision of new housing – and specifically new detached houses, which are the choice of the young professional households – must become a priority. There needs to be a greater rate of housing supply permitted at an aggregate level. There needs to be several development fronts being marketed at any given time, so that there is a competitive environment that limits developer pricing power. This will also result in a great increase in the workforce-aged population and improve employment and the economic growth of Karuah and the surrounding regions.

Lastly, while retirees are moving into this region, they are not tending to undertake typical 'downsizer' purchases of a smaller villa, unit or apartment. There will be a degree of demand growth for residential aged care facility (RACF) rooms, however, most of the movement involves purchase of a detached house (smaller lots) in Karuah, as these retirees are attracted to the peaceful local environment rather than smaller-format housing.

Section 6: Comparative Review

Based on the analysis undertaken for this report, the supply of residential land in Karuah is limited. Moreover, current zoning patterns of land for residential development are not sufficient to sustain economic growth in Karuah and Port Stephens.

6.1 Supply and Demand Comparison

The following table (Table 16) summarises our scenario assessment by each scenario listed below. Our assessment confirms that Karuah is continuing its growth phase, which will remain in the coming years, there is less than 15 years of supply existing in Karuah.

- **Base Case** – Based on the observed population growth rate of 3.7% per annum (i.e. Section 4.1), the Karuah population is expected to grow by 65 people. By applying the household size of 2.2 (Census 2016), this is equivalent to a take-up rate of 29 lots per annum.
- **Low Scenario** – Based on the recent sales rate of 26 lots per annum (2018), the Karuah population is expected to grow by 57 people under this scenario (by applying the household size of 2.2).
- **High Scenario** – Under this high scenario, MacroPlan assumed that the Karuah population is expected to grow at a higher pace compared to the base case, 70 people per annum. This is equivalent to a take up rate of 32 lots per annum (by applying the household size of 2.2).

Table 16: Years of Supply Base Case, Low and High Scenarios

	Low	Base	High
Assumption	A take up rate of 26 lots per annum[16]	Assuming that Karuah will grow by 65 people per annum[17]	Assuming that Karuah will grow by 70 people per annum[18]
Average Annual population growth	57 people[19]	65 people	70 people
Average Household Size[20]	2.2 people per household	2.2 people per household	2.2 people per household
Annual lot take-ups	26.0 lots per annum	29.5 lots per annum	31.8 lots per annum
Population 2016[21]	1,572 people	1,572 people	1,572 people
Population 2019 (Indicative)	**1,744** people	**1,767** people	**1,782** people
Available Lots[22]	360 lots	360 lots	360 lots
Years of Supply	**13.9 years**	**12.2 years**	**11.3 years**

Source: MacroPlan (2019)

[16] CoreLogic RP Data (2019) & MacroPlan (2019)
[17] ABS Census (2011 & 2016) & MacroPlan (2019)
[18] MacroPlan (2019)
[19] 26 lots x 2.2 = 57,2
[20] ABS Census (2016)
[21] ABS Census (2016)
[22] Perception Planning (2019) & MacroPlan (2019)

6.2 Sensitivity Assessment

MacroPlan also conducted sensitivity analysis of our scenario assessment – future supply and demand of residential land in Karuah.

Our reconnaissance considers the following notion – ***what would be the future gap if higher population growth is anticipated over the next 20 years?*** The rationale is that Karuah represents as one of the fastest-growing suburbs in Port Stephens and the Hunter Region generally, with population growing rapidly over the last 5 years (i.e. grew by 3.7% per annum between 2011 and 2016).

For our sensitivity assessment, we have escalated and adjusted the annual population growth rates for every 5-year period, which effectively increase the indicative take-up rates under each scenario.

Table 17 below sets out the indicative population growth changes for applying higher growth rates every 5-year period. Consequently, our sensitivity analysis reveals that it returned a worsened shortage of residential land in Karuah.

Table 17: Sensitivity Assessment – adjusted population growth rate

	Low	Base	High
Assumption	Average annual population growth rate of 3.3%[23]	Average annual population growth rate of 3.7%[24]	Average annual population growth rate of 3.9%[25]
Average Annual population growth (***adjusted***)	67 people	78 people	85 people
Average Household Size[26]	2.2 people per household	2.2 people per household	2.2 people per household
Annual lot take-ups	30.4 lots per annum	35.6 lots per annum	38.5 lots per annum
Population 2016[27]	1,572 people	1,572 people	1,572 people
Population 2019 (Indicative)	**1,744** people	**1,767** people	**1,782** people
Available Lots[28]	360 lots	360 lots	360 lots
Years of Supply	**11.9 years**	**10.1 years**	**9.4 years**

Source: MacroPlan (2019)

[23] MacroPlan (2019)
[24] ABS Census (2011 & 2016) & MacroPlan (2019)
[25] MacroPlan (2019)
[26] ABS Census (2016)
[27] ABS Census (2016)
[28] Perception Planning (2019) & MacroPlan (2019)

Section 7: Conclusion

A sufficient pipeline of new detached houses is essential to meet the higher quality housing that successful young families tend to choose. Our analysis indicates that the higher rate of provision for new detached houses should be considered, as a foundation for ensuring enduring growth in Karuah's local population and workforce. In this event, the identified potential lots in Karuah, are not sufficient to meet the suburb's needs (i.e. 360 lots). This Planning Proposal will provide a vital source of much-needed new housing, at a point in time when regional demands ensuring that there is competition across a number of project locations in Karuah and the Port Stephens LGA.

Land that is identified in a land-use strategy (e.g. Karuah Growth Strategy) or is zoned for development by planning controls (e.g. Port Stephens Local Environmental Plan 2013) does not directly translate to constructed houses as planned and promptly – there is typically a significant 'lag time' between approval and construction. The process leads to the identification of land is not a robust one, that is, detailed analysis has not been provided to land-use suitability and/or feasibility. Further to this, once identified, the landowner may be unwilling to sell to a developer due to personal reasons, such as nostalgia.

Therefore, it is a common approach by land-use planners to provide an adequate supply of residential land to ensure that houses are constructed and delivered on time, to accommodate anticipated population and employment growth. A numerical 'over-supply' of residential land increases the likelihood that houses are achieved in an existing town centre, and also increase competition, which places downward pressure on price

The proposed project will fit this niche, by providing a comparable mix of lot sizes and character of properties. Consequently, it will have a sympathetic edging along the established set of Karuah residences. The planning proposal will meet the local housing demand of families looking to move in and thereby commit to living and working in the Hunter region. The proposal also seeks to rezone part of subject land to permit some commercial and retail uses. It provides for a range of business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area. This provides for an optimal employment and housing outcome that is sustainable in the long-term.

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