

GROWTH IN DEMAND FOR AQUATIC FACILITIES

INDUSTRY REPORT

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DID YOU KNOW?



Additional aquatic facilities and swim schools are required in areas of high population growth



Australia's ten fastest-growing regions will add enough housing for 550,000 new residents by february 2019



Filling this new housing will cause population growth in these areas to jump from 1.7% to 4.4% per year



Among the new residents in these areas will be 150,000 children, who will need access to aquatic facilities and swimming and water safety education



Meeting this increased demand will require the construction of at least 23 new aquatic facilities to provide access for new residents



In addition, at least 24 new swim schools will be required to provide swimming and water safety education to children moving into these areas. At current rates of growth these numbers will rise to 149 facilities and 151 swim schools by 2025



The areas which are projected to gain the most residents under the age of 18 are currently socio-economically disadvantaged and likely to face challenges in accessing aquatic facilities even among existing residents



Immediate action is required to prevent barriers to accessing aquatic facilities and swimming and water safety education growing worse in the next few years

PREDICTING AND PREPARING FOR RAPID REGIONAL POPULATION GROWTH

As Australia’s population continues to grow, governments must ensure that expanding populations are provided with sufficient access to aquatic facilities, giving residents reasonable opportunities for swimming and water safety education and safer aquatic recreation.

Royal Life Saving Society - Australia (RLSSA) has identified the ten fastest-growing areas in Australia based on new-dwelling approval data provided by the Australian Bureau of Statistics (ABS) over the 21 months leading up to the August 2016 census^{1, 2}, through to the most recent available data from May 2017¹. Since the average new apartment takes approximately 21 months from approval to completion^{3, 4}, this period captures the additional residential accommodation not likely to have been occupied at the time of the census. This allows us to estimate future population growth in these regions by multiplying additional dwellings by the average number of persons per household in that area.

Our analysis shows that these ten regions will undergo significantly faster population growth over the next two years than in the years leading up to the census, with average annual population growth in those areas jumping from 1.72% to 4.41%. Figure 1 sets out the expected changes in population growth across the ten high-growth regions examined.

The largest increase in growth is projected in Brisbane’s inner city, with growth set to jump from 1.23% to 7.40% based on residential dwelling approvals, an increase of 6.18 percentage points. Inner Melbourne and Sydney’s South West also experience high projected growth, of 3.36 and 3.29 percentage points, respectively.

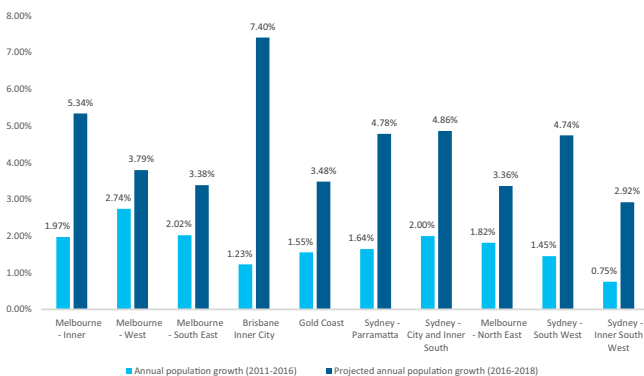


Figure 1: Changes in annual population growth

PROJECTING GROWTH IN CHILD POPULATIONS

When considering growth in demand for public aquatic facilities, and particularly swimming and water safety education, population growth among children can be more important than population growth overall.

Increases in the population of children can be calculated by multiplying ABS estimates of the number of children per household by the projected number of additional households, though this may be conservative in that it assumes that population growth will not bring with it increases in average family size.

Figure 2 sets out the projected number of additional children in each area by February 2019, by which time the last of the approved dwellings captured in our data are likely to be occupied and shows that the high-growth inner city areas will add fewer children than suburban areas, with Melbourne’s West and South East projected to add the largest number of children, while Parramatta and Sydney’s South West also add a large number of new child residents.

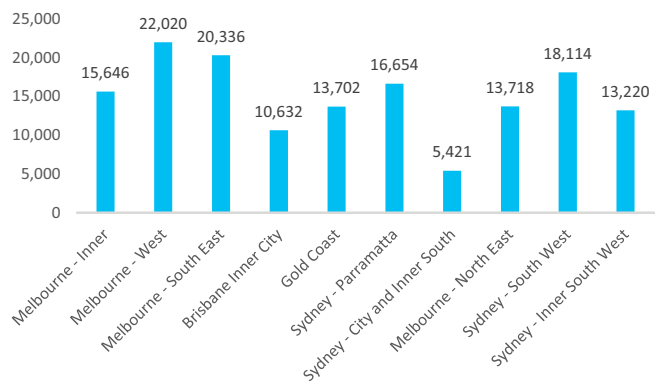


Figure 2: Additional child residents by February 2019

HOW POPULATION GROWTH WILL IMPACT ON DEMAND FOR AQUATIC FACILITIES

We can roughly approximate the additional demand for aquatic facilities generated by these new residents based on RLSSA's estimate of 4.4 public aquatic facility visits per person per year.⁵

Since this assumes an equal number of visits regardless of age, this approach will tend to overestimate aquatic facility visits in areas with fewer children, such as inner city areas, and underestimate the additional demand in suburban areas.

Figure 3 sets out the number of additional aquatic facility visits likely to be demanded by each area's new residents. This shows an additional 2.4 million public annual aquatic facility visits by February 2019, with these visits concentrated in the three Melbourne regions with the highest population growth.

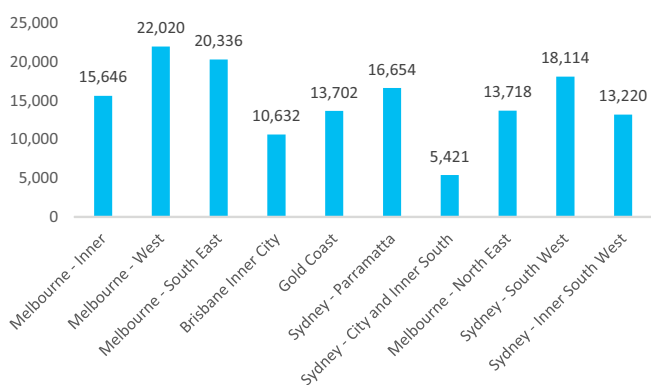


Figure 3: Projected additional aquatic facility visits, by area

We can calculate the number of new aquatic facilities necessary to meet the additional demand in these areas, based on RLSSA research showing that the average Public Aquatic Facility experiences around 103,000 visits each year.⁵ This approach probably understates the additional aquatic facility construction necessary in these areas, since it assumes that the level of provision was adequate as of the August 2016 census, whereas many of these areas were likely already experiencing a deficit of aquatic facilities at that time. As a result, more than the calculated number of additional aquatic facilities may be necessary to remove barriers to access in these areas.

Figure 4 shows the calculated number of additional aquatic facilities required to meet the needs of new residents only in each of the areas examined. As with Figure 3, these numbers assume constant usage rates regardless of age, so likely understate demand in suburban areas with a higher proportion of children.

Each of the high-growth areas examined requires at least two additional public aquatic facilities in order to keep pace with increases in population, in addition to any facilities required to rectify existing barriers to access in these areas.

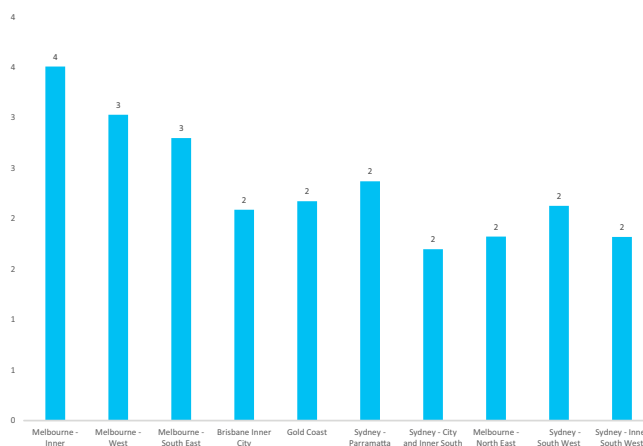


Figure 4: Additional aquatic facilities required by February 2019

POPULATION GROWTH AND DEMAND FOR SWIMMING AND WATER SAFETY EDUCATION

In addition to expanding aquatic facilities in high-growth areas, the children of new residents will need to be provided with access to swimming and water safety education by approved swim schools. We can estimate the number of swim schools required to meet additional demand (ignoring any existing shortfall of schools in these areas) by projecting the potential enrolment of new swim schools based on enrolment data from a cross-section of Australian swim schools.

Based on Royal Life Saving Society - Australia data, the average enrolment across a sample of swim schools located mostly in Victoria is 1,247. The same data set shows that the average swimming school student receives around two years of swimming and water safety education between the ages of 5 and 15, not including any instruction offered outside that age range.

Adjusting for estimated years of pre-school instruction (assumed to average one additional year per pupil on average), each swimming school can potentially complete the swimming and water safety education of up to 6,235 children during the course of a given cohort's childhood (by age 15), allowing us to calculate the number of swim schools necessary to cater to the projected increase in child population in each area.

This approach assumes that each new school is continuously fully utilised and that there is no existing shortfall in provision in these areas.

This approach produces an estimate for the number of new swim schools required to meet the increase in demand in high growth areas, as shown in Figure 5, below. If these new schools are also required to serve a portion of the adult population or to make up for an existing shortfall in provision then these estimates will be too low.

Figure 5 shows that, even adopting low-end estimates, which assume that new schools will be fully utilised, each of the high growth areas at least one additional swimming school to service its projected increase in child population, with as many as four new schools being needed in Melbourne's West and South East in order to service growing child populations.

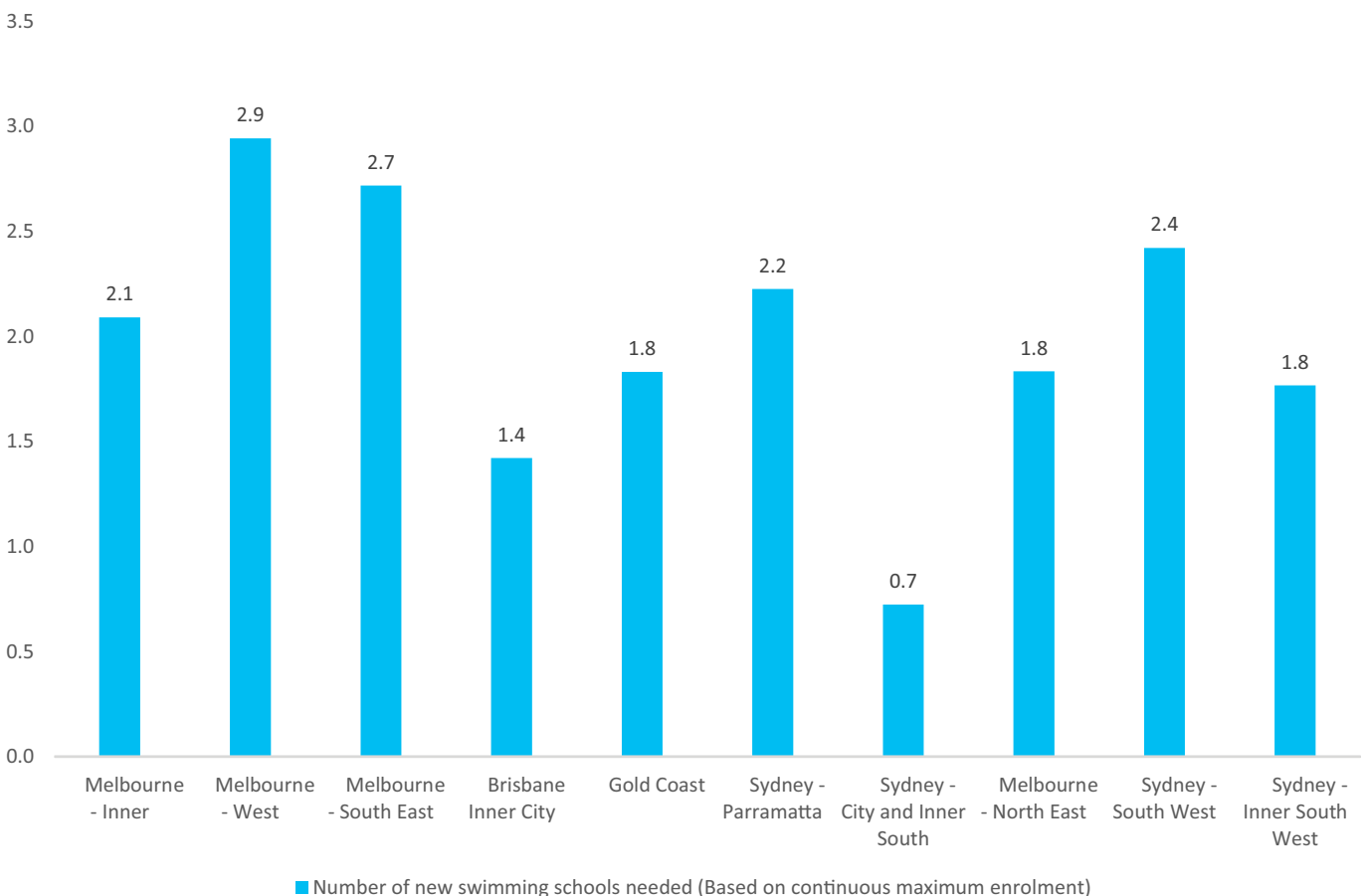


Figure 5: Additional swim schools required by area, assuming full utilisation

CHILD POPULATIONS ARE INCREASING IN AREAS OF SOCIO-ECONOMIC DISADVANTAGE

Many of the areas slated to receive the largest numbers of new child residents are currently areas of socio-economic disadvantage, as measured by ABS' Index of relative socio-economic advantage and disadvantage (IRSAD).⁶

While half of the ten high growth areas examined have IRSAD scores which imply that they are relatively advantaged (the three inner city areas, the Gold Coast and North East Melbourne), the areas where growth in child population is higher have IRSAD scores showing that they currently face socio-economic disadvantage. The median child moving into one of these ten high growth areas will enter a region which is socio-economically disadvantaged. This strongly implies that these areas are already likely to lack sufficient access to aquatic facilities and swim schools, a gap which will only worsen as population growth increases. It also suggests that the excess demand for aquatic recreation and swimming and water safety education is unlikely to be met purely by market demand mechanisms, since existing and new residents will tend to have below-average disposable incomes.

DETAILED GROWTH PROJECTIONS

Table 1 shows detailed population and demand data for the areas projected to experience the most growth between August 2016 and February 2018, based on residential dwellings already approved for construction. Estimates for 2025 demand are based on projecting current growth rates of approved dwellings.

Statistical area	Pop Growth Aug 2016 – Feb 2018			New Pool Infrastructure (2018)		New Pool Infrastructure (2025)	
	Residents	Children	Increase in growth rate	Facilities	Swim schools	Facilities	Swim schools
Melbourne – Inner	82,142	15,646	171%	3.5	2.5	22.8	16.3
Melbourne – West	70,954	22,020	38%	3.0	3.5	18.9	22.0
Melbourne – South East	65,528	20,336	67%	2.8	3.3	17.3	20.1
Brisbane Inner City	48,907	10,632	503%	2.1	1.7	14.3	11.7
Gold Coast	50,892	13,702	124%	2.2	2.2	13.4	13.6
Sydney – Parramatta	55,512	16,654	191%	2.4	2.7	15.2	17.1
Sydney – City & Inner South	39,752	5,421	143%	1.7	0.9	10.9	5.6
Melbourne – North East	42,678	13,718	85%	1.8	2.2	11.2	13.6
Sydney – South West	49,814	18,114	226%	2.1	2.9	13.6	18.6
Sydney – Inner South West	42,598	13,220	287%	1.8	2.1	11.1	12.9
Total	548,777	149,463	134%	23	24	149	151

Table 1: Projections For High Growth Statistical Areas

INTERVENTION IS NEEDED TO PROVIDE AQUATIC FACILITIES FOR NEW RESIDENTS

As new houses are built and new residents enter these areas, infrastructure must be in place to meet them, and to ease the growing pains likely to emerge as neighbourhoods start to expand at twice the rate they are used to.

These infrastructure needs include transport, parking, access to fresh food and government services, and, though it is often forgotten, access to aquatic facilities and swimming and water safety education. Areas without enough aquatic infrastructure to serve their population suffer lose out on swimming and water safety education, physical exercise, enjoyment and, ultimately, a key aspect of the Australian lifestyle. Governments need to be ready to fill these gaps before they become entrenched.

NEXT STEPS

All levels of government in Australia's growth corridors needs to work together to ensure the funding and provision of appropriate aquatic infrastructure to meet the demand of new residents.

This process starts with a scoping study, building on the work presented here, to identify all areas facing aquatic infrastructure shortages and to determine future best practice in aquatic facility funding, construction and operation. Based on the study's findings, governments should move forward by expanding the size and scope of existing infrastructure funds, to allow rapid scaling-up of existing best practice models leading to universal, affordable access.

Alongside infrastructure funding, a government response to looming aquatic infrastructure shortages needs to identify workable approaches to operating and maintaining pools and schools once they are complete. We suggest partnerships with existing community organisations with proven expertise in the sector, potentially including Build, Own, Operate and Transfer agreements like those already in place in parts of North Western Sydney. Funding for swim schools can similarly be channelled through existing providers, including smaller non-profit organisations who might struggle with funding appropriate facilities from scratch, but who could benefit from flexible arrangements for the use of existing public land in growth corridors.




By February 2018, the residents of Australia's fastest-growing areas will be facing a shortfall of at least 23 pools and 24 swim schools. If current growth rates are maintained, the total number of pools and schools required will balloon to 300 by the beginning of 2025. Aquatic infrastructure takes time to build and plan, and the time to act is now.



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