



Western Sydney Cemetery Demand Assessment

Cemetery Demand Assessment

Prepared for Catholic Metropolitan Cemeteries Trust

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Executive Summary

STUDY BACKGROUND

- The Catholic Metropolitan Cemeteries Trust (CMCT) is currently planning for the future burial needs of Western Sydney and the wider Sydney region.
- The purpose of this study is to investigate the need for cemetery space in Sydney, and within Western Sydney specifically, comprising the Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool and Penrith LGAs - this is the catchment area that has been defined for a new cemetery.

CATCHMENT AREA DEMOGRAPHIC PROFILE

- The catchment area is expected to grow by around 587,800 people from 2014 to 2034, with annual growth over the period forecast to range from between 28,500 and 30,700 people. From 2011, migration and natural increases are both expected to be key drivers of population growth in the catchment area.
- The number of deaths each year is expected to be higher than historic levels and this will result in a higher level of demand for cemetery space than historically experienced.
- The 65+ year age group population in the catchment area is expected to grow by some 156,200 people from 2014 to 2034, at an average annual growth rate of between 2.8% and 5.4% (7,200 to 8,200 persons per annum).
- The number of households in the catchment area is projected to grow by around 11,100 each year from 2014 to 2034. The number of households comprising people aged 65 years and over is expected to grow by around 5,600 to 6,300 households per annum from 2014. From 2029 to 2034, 65+ year households will account for around 49% of total growth in households.
- The catchment area population is predominately of Anglo Saxon descent, in particular Australian (21%), English (18%), Irish (5%) and Scottish (4%). The largest other ethnic groups in the catchment area are Italians (4%), Indians (4%) and Chinese (4%).
- As at 2011, 66% of the population in the catchment area identified themselves as Christian, of which 34% identified as Catholic, 15% identified as Anglican and 17% identified as 'other' Christian denominations such as Church of Christ, Baptist and Presbyterian. Residents identifying themselves as having another religion (such as Islam, Hinduism and Buddhism) equated for 17%, while residents having no religion accounted for 10%.

CEMETERY MARKET REVIEW & NEED ASSESSMENT

- Cemeteries in Sydney fall within one of three categories – public, private or church & family cemeteries. They are located on either Crown land, local government owned land, or private land.
- In 2008 the NSW Department of Lands estimated that some 680,000 grave sites were available in the Sydney Greater Metropolitan Area (GMA). At that time, Sydney's Crown cemeteries reported a shortage of burial space and all are expected to be full by 2035.
- Taking into account the estimated number of deaths that have occurred in Sydney since 2008 and the estimated proportion that are buried, the number of burial plots estimated to be available in Sydney as at December 2014 is in the order of 597,000.
- There are 16 existing cemeteries located within the Western Sydney catchment area, of which nine are local government operated, three of are run by the Catholic Cemeteries Trust and four are privately operated.
- Combined, the 16 cemeteries in the catchment area have an estimated 64,700 unused burial plots. This represents approximately 10% of all available burial plots in the Sydney GMA.

- It should be noted that the current supply estimates are based on the NSW Department of Lands estimates from 2008, consultation with the Cemetery Reform Group, cemetery operators and Urbis analysis. Overall, relatively little is known about the supply of burial space within Sydney with the Cemetery Reform Group currently undertaking an audit of NSW cemeteries. The recent passing of the NSW Cemeteries and Crematoria Act in November 2013 will also have an impact on the future capacity of cemeteries (due to the introduction of renewable tenure for burials), though the potential impact is not yet fully understood.
- There are currently four approved applications for cemeteries in Western Sydney (three in Liverpool LGA and one in the Penrith LGA) with another being considered in the Liverpool LGA. The four projects are located within the catchment area and have a total of approximately 306,000 burial spaces.
- Based on the projected number of deaths in the Sydney Greater Metropolitan Area (GMA) from 2014, and assuming that the proportion of burials remains constant, approximately 292,000 burial sites will be required from 2014 to 2039. This represents almost 50% of all available burial plots estimated to be available in the Sydney GMA currently. This represents the number of plots which might actually be used by 2039. In addition, people will reserve plots intended to be used in the long term, beyond this timeframe which will further impact availability.
- If no additional plots are made available, there would be around 314,000 plots remaining in 2039. If demand for burial plots remained on the same trajectory beyond 2039, the current stock of burial plots in Sydney GMA would be fully absorbed in approximately 45 years from now in 2059. Given the long lead time required to source and gain approvals for suitable cemetery sites, this could be considered a critical shortage given the historic operation period of other major cemeteries in capital cities (over 150 years). Cemeteries can have relevance to multiple generations from a single family group and therefore need to have capacity to accommodate this longitudinal demand over multiple generations (as has been the case in cemeteries such as Rookwood). The current situation will see supply only last for approximately two generational cycles, which is significantly shorter than has historically been experienced in the Sydney GMA.
- Within the catchment area, there is projected to be some 214,000 deaths over the period 2014 to 2039. Again, assuming that the proportion of burials remains constant, and if people are buried close to their place of residence, around 56,500 burial sites will be required in the catchment area over the period. If no additional plots were made available (excluding cemetery proposals in planning processes) it is estimated all plots would be fully absorbed by around 2042 if the death rate remained on the same trajectory. If all proposed cemetery sites are included in the supply, these burial plots would last until the beginning of next century (less than 100 years) which represents approximately three generational cycles.
- We note that this is considered to be a relatively conservative estimate as there is also likely to be some additional demand from residents outside of the catchment area, particularly from the inner suburbs of Sydney where additional burial space is not likely to be developed given competing land use demands and high land values. Even with the additional proposed supply in Western Sydney, the total demand for burial plots will exceed supply by approximately 2074.

1 Study Background

1.1 STUDY PURPOSE & OBJECTIVES

The Catholic Metropolitan Cemeteries Trust (CMCT) is currently planning for the future burial needs of Western Sydney and the wider Sydney region. The objective of the study is to assess the existing and projected supply and demand of burial sites within Sydney to determine the need for additional supply in the future.

The study was initially undertaken in August 2014 with this report representing an update based on updated demographic and demand data.

1.2 CEMETERY CATCHMENT AREA DEFINITION

The Western Sydney catchment has been defined as comprising the seven LGAs of Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool and Penrith. The catchment has been defined as such as it comprises the South West Growth Area of Sydney and the surrounding LGAs. The catchment and local cemeteries are shown on Map 3.1 in Section 3.

Cemetery planning is a Sydney Metropolitan issue rather than a local issue due to the limited availability of land in more inner city areas. The Sydney Greater Metropolitan Area (GMA) has been defined as comprising the Sydney Statistical Division, Lower Hunter region and Wollongong region. This definition of Sydney has been adopted for the study as it forms the basis of the supply assessment conducted by the Department of Lands in 2008.

1.3 LEGISLATION

The NSW Parliament passed the Cemeteries and Crematoria Act in November 2013, which reformed the operation of cemeteries and crematoriums in NSW. The Act formally introduces renewable tenure for graves in public cemeteries, giving the option for plots to be opened up and reused after 25 years. Renewable tenure has already been operating in two Sydney cemeteries, Waverley Cemetery and the Sydney Natural Burial Park. Renewable tenure will not apply retrospectively or to religious consecrated cemeteries that require perpetual interment.

The passing of the Cemeteries and Crematoria Act is likely to increase the capacity (and lifespan) of cemeteries in Sydney to accommodate future burials as there will be an ability to reuse some grave sites. Due to the recent passing of the new Legislation, there has been limited work done on the extent of the potential impact. However, as the minimum tenure is 25 years, available burial sites in a lot of existing cemeteries will be exhausted in the interim and it is likely that many burial sites will be utilised for longer than 25 years.

2 Catchment Area Demographic Profile

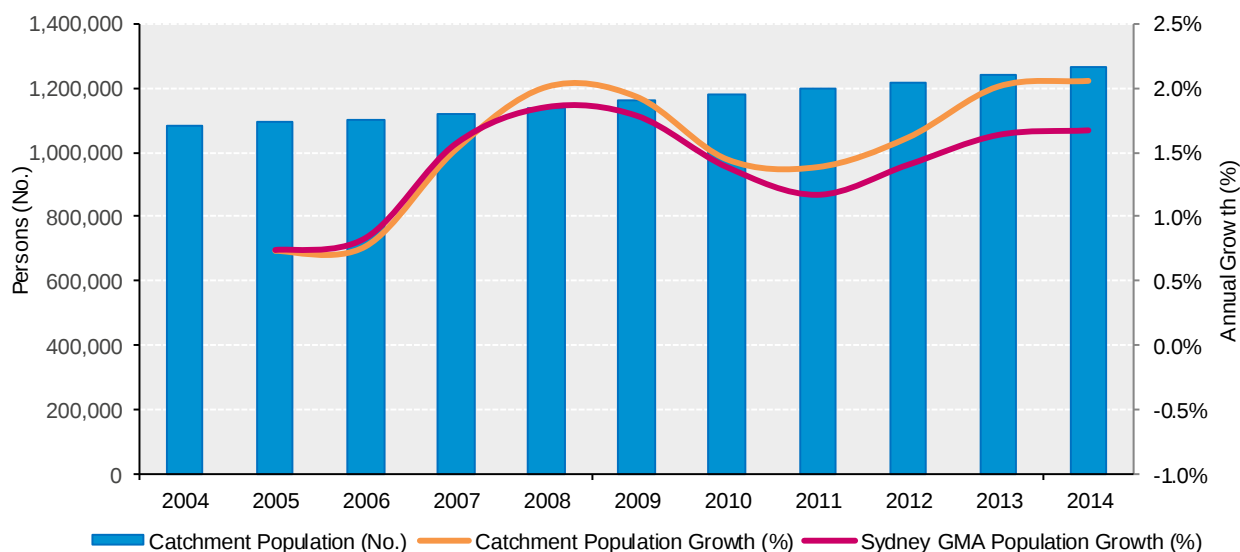
2.1 POPULATION GROWTH

Chart 2.1 outlines population growth in the Catchment Area and Sydney GMA over the last ten years. Over the last decade, the catchment area population has recorded growth of over 150,000 residents at an average of 1.5% per annum. The catchment area recorded annual growth in line with the wider Sydney GMA between 2005 and 2010, however during the last three years the catchment area has boasted higher growth.

Population Growth

CATCHMENT AREA AND SYDNEY GMA

CHART 2.1



Source: ABS

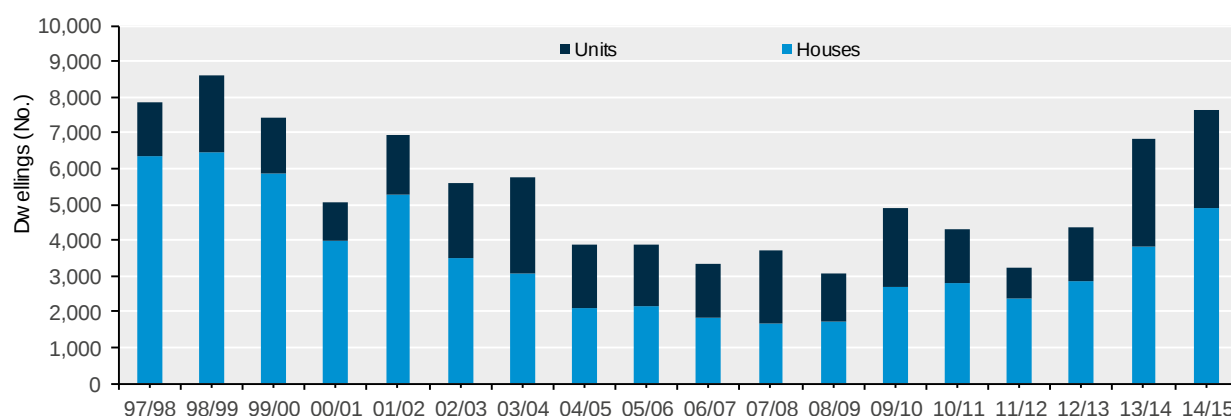
2.2 DWELLING APPROVALS

Chart 2.2 outlines the number of new residential dwelling approvals in the catchment area since 1997-98. The number of approvals declined until 2004-05 before remaining relatively stable at around 4,000 new approvals per year until 2012-13. The number of approvals has increased slightly in the last year with over 7,700 to the end of June 2015. This likely reflects the increased activity in the residential market due to the strong price growth throughout Sydney. In addition to the acceleration of the South West Growth Centre with the introduction of addition development fronts such as Oran Park and the growth in unit development in centres such as Liverpool.

New Dwelling Approvals

CATCHMENT AREA

CHART 2.2



Source : ABS

2.3 POPULATION FORECASTS

Table 2.1 and Chart 2.3 present population forecasts for the catchment area, benchmarked against the total Sydney GMA. The forecasts are based on the latest official NSW Planning and Environment (NSWPE) population forecasts, released in May 2014, but have been rebased to account for ABS population figures that were recently released. In other words, the 2014 population counts presented in Table are 'actual' figures (rather than a forecast) obtained from the *2014 ABS Estimated Resident Population*, and figures for 2015 onwards were derived by applying the NSWPE projected growth rates to the 2014 figures.

As noted, the catchment area is expected to grow by around 587,800 people from 2014 to 2034, with annual growth over the period forecast to range from between 28,500 and 30,700 people (1.7% to 2.1% per annum). This represents a higher growth rate than what is forecast for the whole Sydney GMA (1.3% to 1.5% per annum) and is largely tied to the significant population growth expected to occur within the South West Growth Centre which falls within the catchment area.

Catchment Area Population Forecasts

CATCHMENT AREA AND SYDNEY GMA

TABLE 2.1

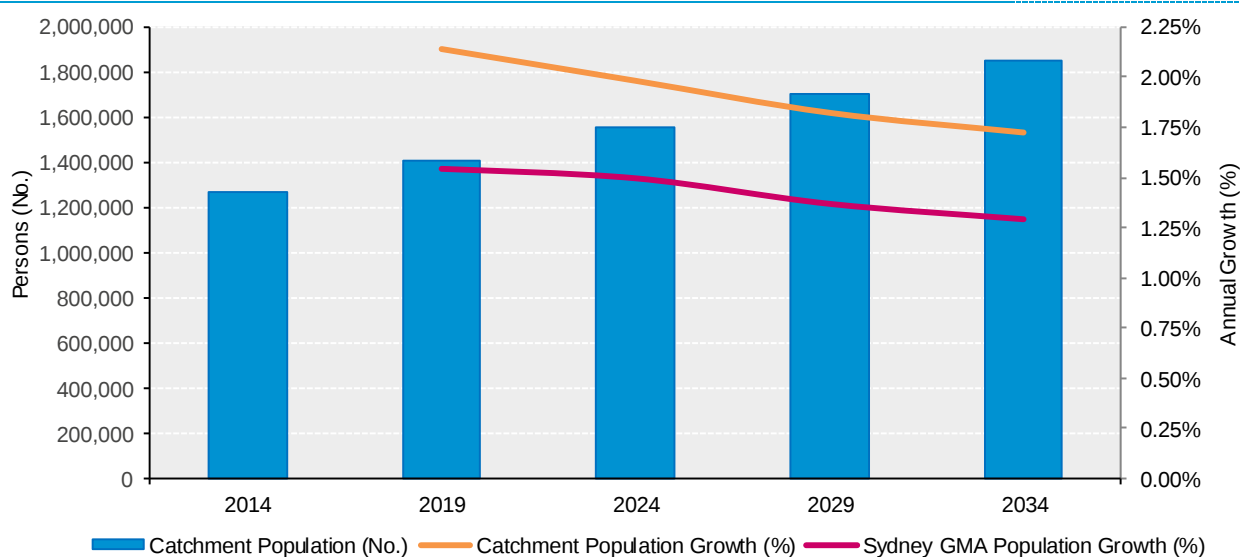
	Estimated Resident Population				
	2014	2019	2024	2029	2034
Total Catchment	1,286,800	1,429,100	1,574,200	1,720,900	1,874,600
Sydney GMA	5,700,100	6,153,900	6,627,900	7,093,800	7,563,600
	Average Annual Growth (No.)				
	2014-2019	2019-2024	2024-2029	2029-2034	
Total Catchment	28,460	29,020	29,340	30,740	
Sydney GMA	90,760	94,800	93,180	93,960	
	Average Annual Growth (%)				
	2014-2019	2019-2024	2024-2029	2029-2034	
Total Catchment	2.1%	2.0%	1.8%	1.7%	
Sydney GMA	1.5%	1.5%	1.4%	1.3%	

Source: ABS, NSWPE, Urbis

Catchment Area Population Forecasts

CATCHMENT AREA AND SYDNEY GMA

CHART 2.3



Source: ABS, NSWPE, Urbis

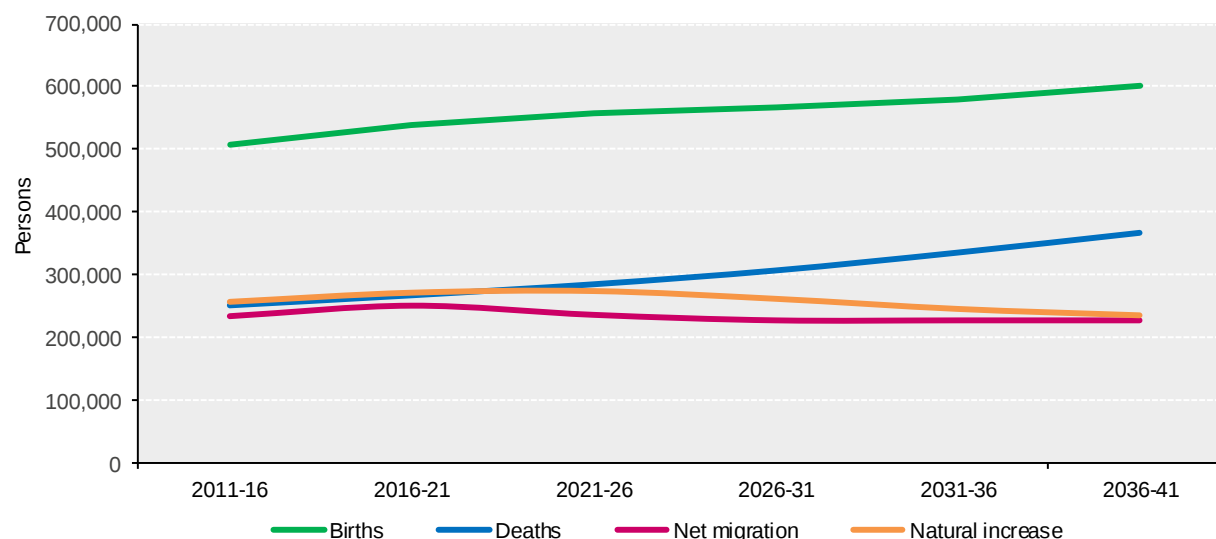
From 2011, migration and natural increases are expected to have a similar impact on population growth in NSW. Net migration is forecast to remain relatively steady at about 225,000 to 250,000 per annum.

The number of deaths each year is forecast to increase significantly, and this will result in a higher level of demand for cemetery space than historic levels. These drivers of population change are illustrated in Chart 2.4 overleaf. The forecast birth rate is forecast to decline over the next 30 years relative to the growth in the death rate, which results in a declining natural growth rate.

Drivers of Population Growth

NSW (2011-2041)

CHART 2.4



Source: NSWPE

Table 2.2 shows the projected growth in the 65+ year age group population in the catchment area. This age group is expected to grow by some 156,200 people from 2014 to 2034, at an average annual growth rate of between 2.8% and 5.4% (7,200 to 8,200 persons per annum).

Given an average age of death in Australia of 82 years, projected growth in the population aged 80 years and over is of particular relevance in considering the potential for a cemetery on the subject site. The number of people aged 80 years and over in the catchment area is expected to grow significantly, such that by 2029-2034 this age group will grow by more than 3,200 people per annum, compared to 1,780 people per annum from 2014-2019.

Catchment Area Population Forecasts – 65+ Age Group

CATCHMENT AREA

TABLE 2.2

Estimated Resident Population					
Age Group	2014	2019	2024	2029	2034
65-69	48,400	59,300	67,200	74,200	79,900
70-74	35,000	46,100	56,500	64,300	72,300
75-79	24,900	32,400	42,700	52,300	58,800
80-84	17,400	21,400	28,100	37,100	45,900
85+	15,500	20,400	26,000	33,300	40,500
Total	141,200	179,600	220,500	261,200	297,400

Average Annual Growth (No.)				
Age Group	2014-2019	2019-2024	2024-2029	2029-2034
65-69	2,180	1,580	1,400	1,140
70-74	2,220	2,080	1,560	1,600
75-79	1,500	2,060	1,920	1,300
80-84	800	1,340	1,800	1,760
85+	980	1,120	1,460	1,440
Total	7,680	8,180	8,140	7,240

Average Annual Growth (%)				
Age Group	2014-2019	2019-2024	2024-2029	2029-2034
65-69	4.5%	2.7%	2.1%	1.5%
70-74	6.3%	4.5%	2.8%	2.5%
75-79	6.0%	6.4%	4.5%	2.5%
80-84	4.6%	6.3%	6.4%	4.7%
85+	6.3%	5.5%	5.6%	4.3%
Total	5.4%	4.6%	3.7%	2.8%

Source: ABS, NSWPE, Urbis

2.4 NEW HOUSEHOLD FORMATIONS

The following table presents household formation forecasts, which have been based on NSWPE projections and derived through assessment of population forecasts and trends in household sizes. As illustrated, growth in the number of households in the catchment area is projected to average around 11,100 from 2014 to 2034. Over the entire period from 2014 to 2034, there is projected to be demand for some 222,100 new households. According to the Growth Centre Commission (GCC) projections, the SWGC has capacity to accommodate 110,000 new dwellings.

The number of households comprising people aged 65 years and over is expected to grow by around 5,600 to 6,300 households per annum from 2014. Over the next 20 years, 65+ year households are expected to account for over half of total growth in households.

Household Formations (2014-2034)

CATCHMENT AREA

TABLE 2.3

	2014	2019	2024	2029	2034
Total Households					
Total households	423,200	478,500	533,600	588,500	645,300
Additional households per annum		11,060	11,020	10,980	11,360
Additional households, cumulative		55,300	110,400	165,300	222,100
65+ Age Group Households					
Total households	108,700	138,200	169,600	201,000	228,800
Additional households per annum		5,900	6,280	6,280	5,560
Additional households, cumulative		29,500	60,900	92,300	120,100

Source: ABS, NSWPE, Urbis

2.5 PROJECTED DEATHS

Table 2.4 below shows the rate of deaths in Australia by age group in 2013. Chart 2.5 presents the forecast number of deaths in the Catchment Area over the next 20 years.

Average Death Rates by Age Group

AUSTRALIA (2013)

TABLE 2.4

Age Group	Deaths per 1,000 people
0	3.6
1-4	0.2
5-9	0.1
10-14	0.1
15-19	0.3
20-24	0.4
25-29	0.5
30-34	0.6
35-39	0.8
40-44	1.2
45-49	1.8
50-54	2.6
55-59	3.9
60-64	6.0
65-69	9.4
70-74	15.2
75-79	26.7
80-84	51.8
85 and over	125.4

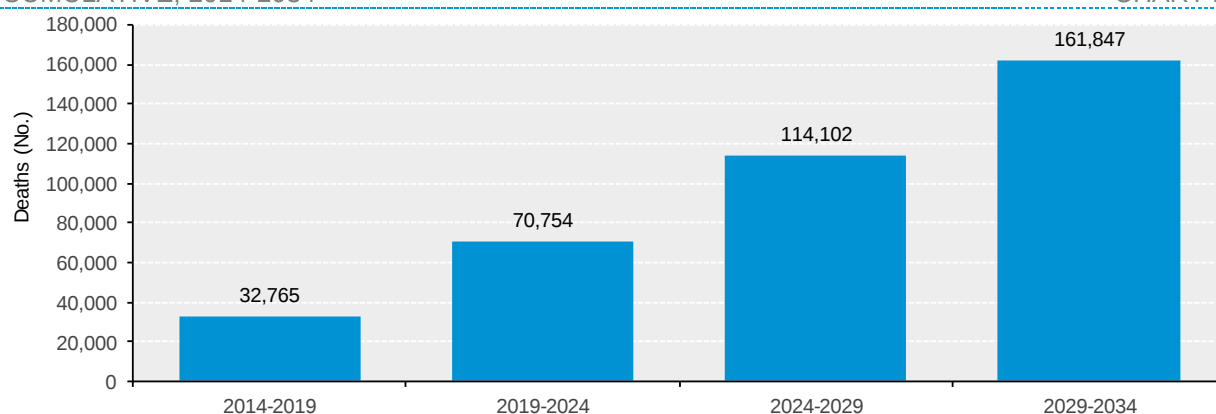
Source: ABS

As noted, from 2014 to 2034 there is expected to be almost 162,000 deaths in the catchment area. By 2034, the annual rate of deaths is expected to be almost double the current rate. Again, this will drive higher levels of demand for cemetery space than historic levels. This is discussed further in Section 4.

Projected Deaths in Catchment Area

CUMULATIVE, 2014-2034

CHART 2.5



Source: ABS, NSWPE, Urbis

2.6 ANCESTRY

The catchment area population is predominately of Anglo Saxon descent, in particular Australian (21%), English (18%), Irish (5%) and Scottish (4%). The largest other ethnic groups in the catchment area are Chinese (4%), Indians (4%) and Italian (4%).

Ancestry of Catchment Area Residents

2011

TABLE 2.5

Country of Ancestry	% of Catchment Population
Australian	21%
English	18%
Irish	5%
Chinese	4%
Indian	4%
Italian	4%
Scottish	4%
Filipino	3%
Vietnamese	3%
Lebanese	3%
Maltese	2%
German	2%
Greek	1%
Croatian	1%
Serbian	1%
Other	23%

Source : ABS

2.7 RELIGIOUS AFFILIATION

As at 2011, 66% of the population in the catchment area identified themselves as Christian, of which 34% identified as Catholic, 15% identified as Anglican and 17% identified as 'other' Christian denominations such as Church of Christ, Baptist and Presbyterian. In addition, a further 10% of the population stated they had no religion. This data shows that there is a very large pool of people (i.e. the range of Christian denominations as well as non-Christian people) that might choose to locate within a Catholic cemetery in Western Sydney.

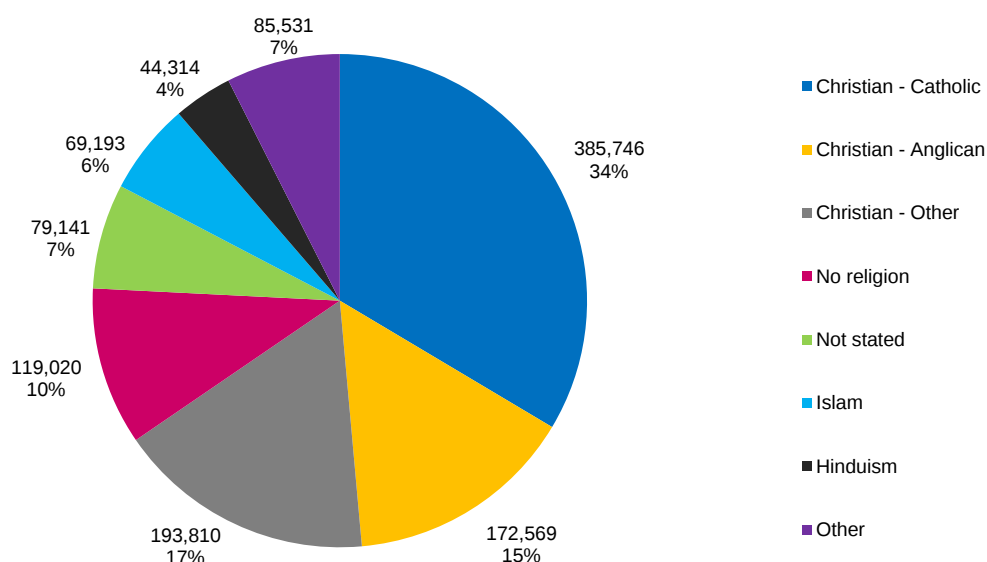
At 34%, the proportion of Catholics in the catchment area is higher than the Sydney Statistical Division at 28%. Residents identifying themselves as having another religion (such as Islam, Hinduism and Buddhism) equated for 17%, while residents having no religion accounted for 10%.

Religions have different customs and requirements relating to burial and cremation. Islam and Judaism generally dictate that people are buried after death, while it is customary in Catholicism for burial. However, cremation is increasing in popularity among Judaism and Catholicism.

Religious Affiliations of Catchment Area Residents

2011

CHART 2.6



Source : ABS

3 Cemetery Market Review & Need Assessment

3.1 OVERVIEW OF CEMETERIES IN NSW

Cemeteries in NSW broadly fall into three categories:

- **Public cemeteries:** are either Crown cemeteries managed by Crown reserve trusts; or local government cemeteries either on Crown land or land owned by local government councils. There are 12 active Crown cemeteries and around 100 local government cemeteries within the Greater Metropolitan Area (GMA), comprising Sydney, Wollongong, Newcastle and Central Coast. The NSW Department of Lands estimated there were approximately 300,000 public burial spaces available in the GMA in 2008¹.
- **Private cemeteries:** are primarily located on freehold land (with the exception of the private operated Rookwood Crematorium which is on Crown Land). There are eight private cemeteries in the GMA with NSW Department of Lands estimating approximately 380,000 unused burial spaces in 2008; and ten private crematoria.
- **Church and family cemeteries:** are associated with places of worship or family owned private land. Church cemeteries are normally the responsibility of the relevant diocese, parish councils or equivalent authorities. The number of burial sites of this type remaining is not known but is not believed to be significant.

Cemeteries in Sydney are listed in Appendix A. There are a total of around 100 local government cemeteries in Sydney, however the Table only contains the active local government cemeteries. The Table also excludes the church cemeteries which are generally small and no-longer active.

3.2 AVAILABLE BURIAL SPACE

As the population of NSW has grown and the GMA has expanded, priority has been placed on utilising available land for purposes such as housing, infrastructure, open space for recreation and essential public facilities such as schools and hospitals. In addition, rising land values have increased the cost of acquiring large sites for cemeteries. As a result, land available for new burial sites is limited, particularly in the metropolitan area.

The Department of Lands estimated that some 680,000 grave sites were available in the GMA as at 2008² distributed as follows:

- 380,000 sites within private cemeteries
- 215,000 public sites within Crown land cemeteries
- 85,000 public sites within local government cemeteries.

Taking into account the estimated number of deaths that have occurred since 2008 and assuming that the proportion of burials to deaths was around 36%, in line with the historic average in recent years, the number of burial plots estimated to be available in Sydney currently is around 597,000. It is noted that Cemeteries NSW is currently completing an updated supply audit that is due to be released in late 2015.

In 2008, all major Crown cemeteries reported a shortage of burial space and all expected to be full by 2035. Rookwood Necropolis is the largest cemetery in Australia and receives approximately one quarter of all burials in the Sydney region. Waverley is the only local government cemetery in the central Sydney area still selling gravesites but is under considerable pressure.

¹ Sustainable burials in the Sydney Greater Metropolitan Area: Discussion Paper, Department of Lands, 2008

² Ibid

Estimating the supply of available burial sites is difficult due to uncertainty relating to different assumptions such as:

- **Interment Ratio:** The number of available burial sites is dependent on the number of burials that can occur per grave site (interment ratio). Some cemeteries allow for two burials per grave site (one above the other) that increases the capacity of cemeteries and available burial sites. However, some religions and cultures require only single burials per grave. It should also be noted that some cemeteries are investigating the viability of deeper gravesites supporting three burials.
- **Renewable Tenure:** The Cemeteries and Crematoria 2013 Act formally introduced renewable tenure for graves in public cemeteries, giving the option for plots to be opened up and reused after 25 years. This would allow cemeteries to accommodate additional burials and extend the burial life of the cemetery.
- **Staged Release:** Cemeteries often stage the release of cemetery land for burials. As such, there is often uncertainty relating to capacity of new land to accommodate burials as comprehensive investigations on uses, ecology, drainage and other considerations have not been completed.

3.3 CEMETERIES IN THE CATCHMENT AREA

There are 16 existing cemeteries located within the catchment area. These are summarised in Table 3.1, and illustrated in Map 3.1 overleaf. Of the cemeteries that are located within the catchment area, nine are local government operated, three are run by the Catholic Cemeteries Trust and four are privately operated.

Based on information obtained by the Catholic Cemeteries Trust and consultation with the Cemetery Reform Group and cemetery operators, all existing burial sites (except Penrith General Cemetery and Greendale Cemetery) within the catchment area are expected to be absorbed within the next 30 years. Based on data from the Catholic Cemeteries Trust and estimated lifespans for the other cemeteries, we estimate that there are around 64,700 unused burial plots currently available at the 16 cemeteries within the catchment area as at 2014.

It is noted that the following estimates do not account for the potential impacts of the recently passed Cemeteries and Crematoria Act. The Act is likely to increase the capacity (and lifespan) of cemeteries to accommodate future burials as there will be an ability to reuse some grave sites. However, the impact may not be significant as it does not apply to existing internments and the minimum tenure is 25 years, with available burial sites in a lot of existing cemeteries expected to be exhausted in the interim. Anecdotal evidence from Europe (where renewable burials are more established) indicates that average burial tenure is around 50 years, equating to around two generations. It will also take time for the expectations and preference of Australians to change towards renewable burials as permanent burials have been the only option in the past.

Cemeteries in Catchment Area

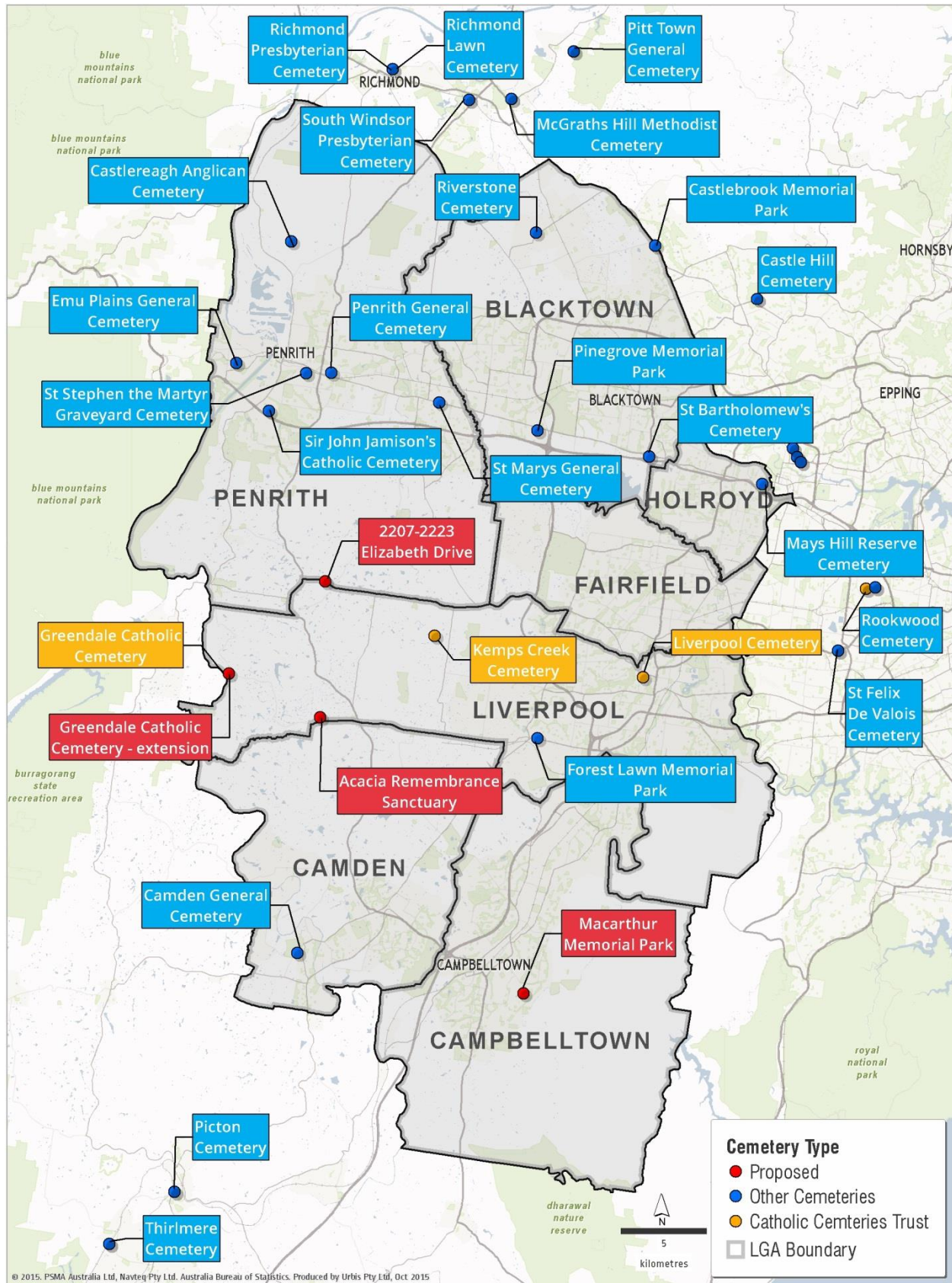
2014

TABLE 3.1

CEMETERY	LGA	OVERVIEW	EXPECTED LIFESPAN	UNUSED BURIAL SITES
Castlebrook Memorial Park	Blacktown	Privately owned by InvoCare Australia	N/a	N/a
Pine Grove Memorial Park	Blacktown	Privately owned by InvoCare Australia	Circa 25 Yrs	N/a
Riverstone Cemetery	Blacktown	Local government cemetery	Circa 15 Yrs	N/a
St. Bartholomew's Cemetery	Blacktown	Local government cemetery	No New Reservations	N/a
Camden General Cemetery	Camden	Local government cemetery	Circa 5 Yrs	N/a
Forrest Lawn Cemetery	Camden	Privately owned by InvoCare Australia	Circa 20 Yrs	N/a
Mays Hill Reserve Cemetery	Holroyd	Local government cemetery	No New Reservations	N/a
Kemps Creek Catholic Cemetery	Liverpool	Managed by the Catholic Cemeteries Trust. Potential extension onto adjoining land would extend the life span of the cemetery.	Circa 30 Yrs	2,073
Liverpool Cemetery	Liverpool	A non-sectarian cemetery managed by Catholic Cemeteries Trust. A cemetery renewal program is in place.	Circa 20 Yrs	9,072
Emu Plains General Cemetery	Penrith	Local government cemetery	Circa 4 Yrs	N/a
Penrith General Cemetery	Penrith	Local government cemetery	Circa 50 Yrs	N/a
St Mary's General Cemetery	Penrith	Local government cemetery	No New Reservations	N/a
Greendale Cemetery	Penrith	Managed by the Catholic Cemeteries Trust	85 Yrs	1,153
Castlereagh Anglican Cemetery	Penrith	Local government cemetery	No New Reservations	N/a
St Stephen the Martyr Graveyard Cemetery	Penrith	Local government cemetery	No New Reservations	N/a
Sir John Jamison's Catholic Cemetery	Penrith	Operated by St Nicholas of Myra Catholic Church	No New Reservations	N/a

Note: * Estimate based on consultation with cemetery operators.

Source: Catholic Cemeteries Trust, Local Councils



3.4 PROPOSED CEMETERIES

As at October 2015 there were five new cemeteries planned for the Western Sydney catchment area. This included four cemeteries that have been approved with a total of 169,727 burial spaces. Additional proposed cemeteries include Macarthur Memorial Park that has been proposed by the Catholic Cemeteries Trust with a total of 136,000 burial plots

Based on available information of proposed cemeteries, it is estimated that there is approximately 306,000 future burial spaces within the five proposed cemeteries in the Western Sydney catchment.

Proposed Future Cemeteries

CATCHMENT AREA

TABLE 3.2

CEMETERY	LGA	BURIAL PLOTS	STATUS
Acacia Remembrance Sanctuary	Liverpool	19,212	Approved
2207-2223 Elizabeth Drive Luddenham	Penrith	65,025	Approved
321 Greendale Road, Bringelly	Liverpool	71,000	Approved
Macarthur Memorial Park	Campbelltown	136,000	Proposed
41 Greendale Road, Bringelly	Liverpool	14,490	Approved
TOTAL		305,727	

Source: Urbis

There is limited additional burial space proposed within other areas of Sydney. Consultation with the Woronora General Cemetery manager identified the potential to expand into adjacent land though no formal discussions of planning has been undertaken relating to the expansion.

3.5 FUTURE NEED FOR CEMETERY SPACE

In considering the future need for burial space, it must be identified that cemeteries are an intergenerational investment in infrastructure. Rookwood Necropolis (NSW), Woronora General Cemetery (NSW), Springvale Botanical Cemetery (VIC) and Fawkner Crematorium and Memorial Park (VIC), established 1868, 1895, 1901 and 1905 respectively, are examples of cemeteries still in operation, demonstrating the importance of the significant future planning required for the development of cemeteries.

Data from the Cemetery Reform Group indicated that approximately 73% of burials occurred in unused burial sites. The remainder occurred in existing burial sites such as family members being buried together.

Based on the projected number of deaths in the Sydney GMA from 2014 onwards, and assuming that the proportion of burials remains constant, approximately 292,000 new burial sites will be required over the next 25 years from 2014 to 2039. This represents around 53% of all available burial plots estimated to be available in Sydney GMA currently.

If no additional plots are made available, there would be around 314,000 plots remaining in 2038. If demand for burial plots remained on the same trajectory beyond 2038, the current stock of burial plots in Sydney GMA would be fully absorbed in approximately 45 years from now (approximately 2059).

Within the catchment area, it is projected that there will be some 214,000 deaths over the period 2014 to 2039. Again, assuming that the proportion of burials remains constant, and if people are buried close to their place of residence, around 56,500 new burial sites will be required in the catchment area over the period. If no additional plots were made available all plots would be fully absorbed by around 2042 if the death rate remained on the same trajectory. We note that there is also likely to be some additional demand from beyond the primary catchment area, particularly from residents in the inner suburbs of Sydney, since burial space in these regions are becoming depleted and it is unlikely that any major new cemeteries will be developed due to competing demands and high land values.

Need for Burial Space

SYDNEY GMA AND CATCHMENT AREA

TABLE 3.3

	2014-2019	2019-2024	2024-2029	2029-2034	2034-2039
Sydney GMA					
Projected deaths (cumulative)	190,812	397,103	620,244	857,138	1,107,610
No. of burials in unused sites (cumulative)	50,352	104,787	163,670	226,182	292,276
Remaining burial sites (at end of period)	556,205	501,769	442,887	380,375	314,280
Catchment Area					
Projected deaths (cumulative)	32,765	70,754	114,102	161,847	214,003
No. of burials in unused sites (cumulative)	8,646	18,671	30,109	42,708	56,471
Remaining burial sites (at end of period)	57,652	47,627	36,189	23,590	9,827

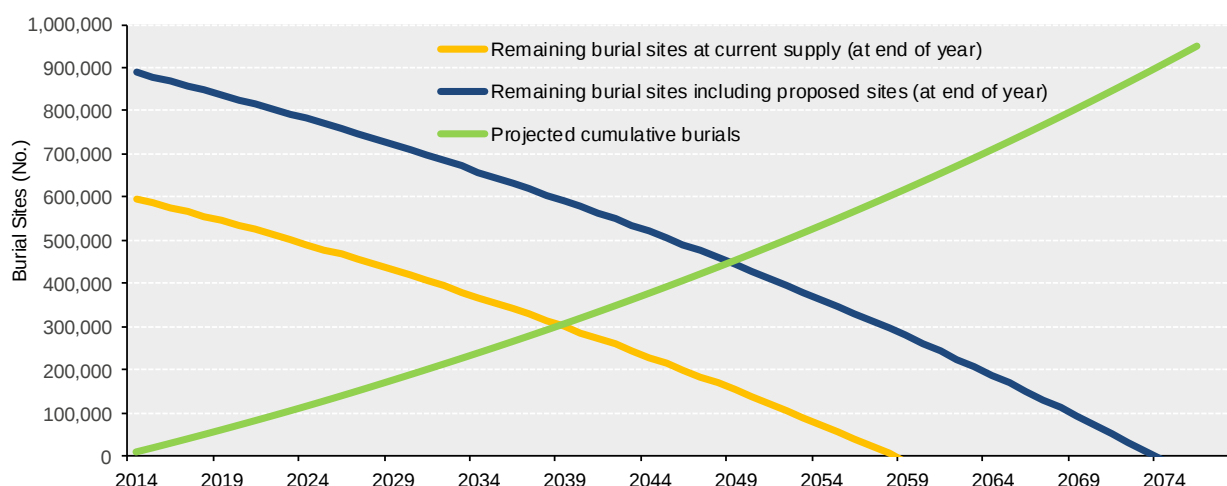
Source: Urbis

By projecting the remaining unused burial sites in the Sydney Metropolitan Area beyond 2039, it is estimated that if no further burial sites become available, and capacity will be reached at 2059. With the addition of the Macarthur Memorial Park's 136,000 spaces, capacity would occur at approximately 2066 and should the other three approved cemeteries in Western Sydney eventuate (offering 155,000 burial sites), capacity would be stretched to approximately 2075. Therefore, despite the current development proposals in the Sydney Metropolitan Area, planning for cemeteries must continue well into the future to ensure sufficient capacity for future generations.

Projected Remaining Unused Burial Sites in the Sydney GMA

SYDNEY GMA

CHART 3.1



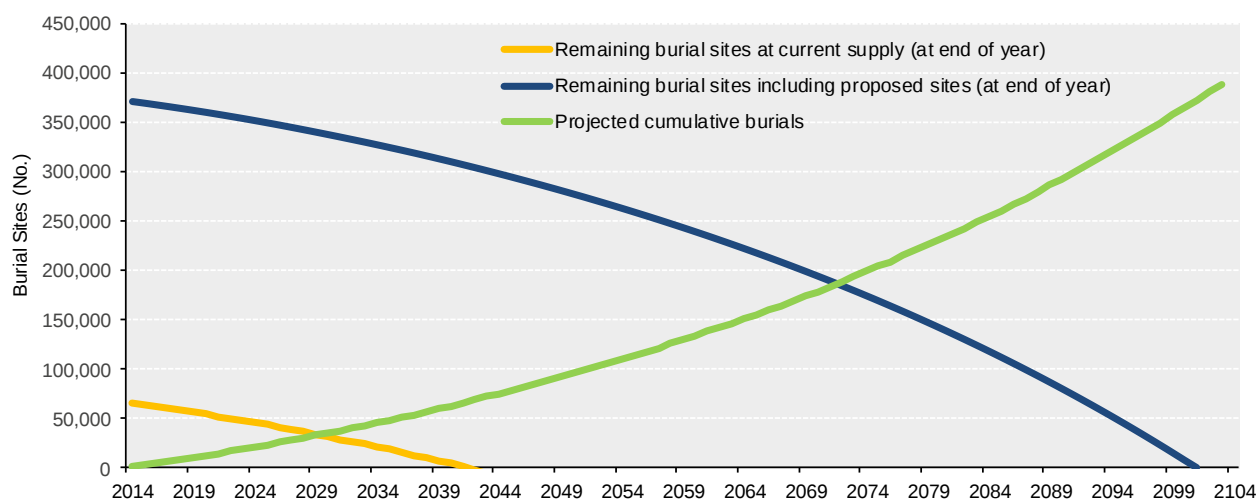
Source: Urbis

It is estimated that if no further burial sites become available in the Western Sydney catchment, exhaustion of unused burial sites will occur at 2042. With the addition of the Macarthur Memorial Park's 136,000 spaces, capacity would extend to around 2075 and should the four approved cemeteries in the catchment eventuate (offering 170,000 burial sites), capacity would be stretched to around 2100 (excluding any demand from beyond the Western Sydney Catchment).

Projected Remaining Unused Burial Sites in the Catchment Area

WESTERN SYDNEY CATCHMENT

CHART 3.2



Source: Urbis

4 Summary & Recommendations

The preceding assessment indicates that there will be a requirement for additional cemeteries in Sydney in the long term. The key findings to note which support this position are summarised as follows:

- From 2014 to 2039 there is expected to be more than 214,000 deaths in the catchment area. By 2039, the number of deaths each year is expected to be more than 37% higher than the current rate.
- It is estimated that some 292,000 burial sites will be required across Sydney GMA from 2014 to 2039. This represents almost 53% of all available burial plots in Sydney GMA currently. If no additional plots are made available the current stock would be fully absorbed in approximately 45 years from now (approximately 2059). This is considered to be a relative short timeframe in the planning and operation of cemeteries. The proposed development of four major cemeteries in Western Sydney would extend this out to approximately 2075 with no other burial spaced being added, however this only represents approximately two generational periods.
- Within the catchment area, there is projected to be a need for some 58,000 burial sites based on projected death rates. All existing burial sites within the catchment area are expected to be absorbed within the next 30 years in the absence of new supply. If all proposed cemetery sites are included in the supply, these burial plots would last until the beginning of next century (less than 100 years) which represents approximately three generational cycles.

We recommend that serious consideration be given to planning for future cemetery capacity that will provide for future long term supply well in excess of current levels (e.g. 100 to 150 year time span).

Appendix A

Sydney Cemeteries

Name	LGA
Crown Land Cemeteries	
Rookwood Cemetery	Auburn
Liverpool Cemetery	Liverpool
Kemps Creek Catholic Cemetery	Liverpool
Eastern Suburbs Cemetery / Botany Cemetery	Randwick
Field of Mars Cemetery	Ryde
Macquarie Park Cemetery	Ryde
Woronora Cemetery	Sutherland
North Rocks Catholic Cemetery	The Hills Shire
Frenchs Forest Bushland Cemetery	Warringah
Gore Hill Memorial Cemetery	Willoughby
Greendale Cemetery	Penrith
Sandgate	Newcastle

Local Government Cemeteries within Sydney SD

Riverstone Cemetery	Blacktown
St. Bartholomew's Cemetery	Blacktown
Blackheath Cemetery	Blue Mountains
Katoomba Cemetery	Blue Mountains
Lawson Cemetery	Blue Mountains
Mount Irvine Cemetery	Blue Mountains
Wentworth Falls Cemetery	Blue Mountains
Camden General Cemetery	Camden
Point Clare Cemetery	Gosford
Lower Portland Cemetery	Hawkesbury
Pitt Town General Cemetery	Hawkesbury
Wilberforce General Cemetery	Hawkesbury
Richmond Lawn Cemetery	Hawkesbury
St Alban's New General Cemetery	Hawkesbury
Brooklyn Cemetery	Hornsby
Manly Cemetery	Manly
Emu Plains General Cemetery	Penrith
Penrith General Cemetery	Penrith
St Mary's General Cemetery	Penrith
Mona Vale Cemetery	Pittwater
Castle Hill Cemetery	The Hills Shire
Sackville Cemetery	The Hills Shire
Waverley Cemetery	Waverley
Bargo Cemetery	Wollondilly
Picton Cemetery	Wollondilly
Thirlmere Cemetery	Wollondilly
Bankstown General Cemetery	Bankstown
Springwood General Cemetery	Blue Mountains
Megalong General Cemetery	Blue Mountains
Mt Victoria General Cemetery	Blue Mountains
Sir Henry Parkes Grave & General Cemetery	Blue Mountains
Wamberal Public Cemetery	Gosford
Bradys Gully General Cemetery	Gosford
St Johns General Cemetery	Hawkesbury
Newtown General Cemetery	Hawkesbury
Wisemans Ferry Cemetery	Hawkesbury
Manly General Cemetery	Manly
St Marys General Cemetery	Penrith
Penrith General Cemetery	Penrith
Emu Plains General Cemetery	Penrith

Local Government Cemeteries within Sydney SD - Continued

Botany General Cemetery	Randwick
Randwick General Cemetery	Randwick
Rouse Hill General Cemetery	The Hills
Sackville Ferry General Cemetery	The Hills
Castle Hill General Cemetery	The Hills
Mona Vale General Cemetery	Warringah
Wyong General Cemetery	Wyong
Noraville General Cemetery	Wyong

Local Government Cemeteries beyond Sydney SD

Aberdare	Cessnock
Aberdare Lawn	Cessnock
Branxton	Cessnock
Cessnock	Cessnock
Ellalong	Cessnock
Greta	Cessnock
Kurri Kurri	Cessnock
Kurri Kurri Lawn	Cessnock
Millfield	Cessnock
Rothbury	Cessnock
Wollombi	Cessnock
Belmont Cemetery	Lake Macquarie
Catherine Hill Bay Cemetery	Lake Macquarie
Johnson Family Cemetery	Lake Macquarie
Martinsville Cemetery	Lake Macquarie
Morissey Cemetery	Lake Macquarie
Toronto Cemetery	Lake Macquarie
West Wallsend Cemetery	Lake Macquarie
Whitebridge Cemetery	Lake Macquarie
Wyee Cemetery	Lake Macquarie
East Maitland	Maitland
Morpeth	Maitland
Rutherford	Maitland
Anna Bay Lawn Cemetery	Port Stephens
Karuah Cemetery	Port Stephens
Raymond Terrace Cemetery	Port Stephens
Seaham Cemetery	Port Stephens
Jamberoo	Kiama
Kiama	Kiama
Helensburgh	Wollongong
Scarborough/Wombarra	Wollongong
Wollongong Lawn Cemetery	Wollongong

Other

Richmond War Cemetery	Hawkesbury
Pine Gove Memorial Park	Blacktown
Forrest Lawn Cemetery	Camden
Castlebrook Memorial Park	The Hills Shire

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