



166-176 St Andrews Rd
Varroville

Cemetery Demand Assessment

Prepared for Catholic Metropolitan Cemeteries Trust
August 2013

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Executive Summary

STUDY BACKGROUND

- The Catholic Metropolitan Cemeteries Trust (CMCT) is currently seeking a rezoning of 166-176 St Andrews Road in Varroville, located in the Campbelltown Local Government Area (LGA), to obtain the necessary approvals to allow for the development of a cemetery on the site.
- The purpose of this study is to investigate the need for cemetery space in Sydney, and within the South West subregion specifically, comprising the Campbelltown, Liverpool and Camden LGAs - this is the catchment area that has been defined for the proposed cemetery.
- This assessment is intended to accompany the Planning Proposal prepared by Urbis on behalf of CMCT, to seek the site's rezoning.

CATCHMENT AREA DEMOGRAPHIC PROFILE

- The catchment area is expected to grow by around 410,400 people from 2011 to 2036, with annual growth over the period forecast to range from between 13,600 and 18,600 people.
- From 2011, migration is expected to be the key driver of population growth in the catchment area, with between 6,000 and 12,000 new residents moving to the catchment area each year.
- 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.
- The 65+ year age group population in the catchment area is expected to grow by some 97,300 people from 2011 to 2036, at an average annual growth rate of between 4.4% and 6.7% (2,500 to 4,900 persons per annum).
- The number of households in the catchment area is projected to grow by around 4,900 to 6,900 each year from 2011 to 2036. The number of households comprising people aged 65 years and over is expected to grow by around 1,900 to 3,700 households per annum from 2011. From 2026, 65+ year households will account for between 47% and 56% of total growth in households.
- The catchment area population is predominately of Anglo Saxon descent, in particular Australian (17%), English (14%), Irish (3%) and Scottish (3%). The largest ethnic groups in the catchment area are Italians (7%), Indians (5%) and Lebanese (5%).
- As at 2011, 66% of the population in the catchment area identified themselves as Christian, of which 32% identified as Catholic, 17% identified as Anglican and 17% identified as 'other' Christian denominations such as Church of Christ, Baptist and Presbyterian.

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 Department of Lands estimated that some 680,000 grave sites were available in the Greater Metropolitan Area (GMA). At that time Sydney's eight Crown cemeteries reported a shortage of burial space and all expected to be full by 2035.
- Taking into account the estimated number of deaths that have occurred in Sydney since 2008, the number of burial plots estimated to be available in Sydney as at 2011 is in the order 625,000.
- There are eight existing cemeteries located within the catchment area, of which two of are run by the Catholic Cemeteries Trust.

- Combined, the eight cemeteries in the catchment area have approximately 27,000 available burial plots. This represents less than 5% of all available burial plots in the GMA.
- There are currently two applications for cemeteries in Sydney being considered – one in Liverpool LGA (within the catchment area) and one in Penrith LGA which is proposed to have 35,000 plots.
- Based on the projected number of deaths in Sydney Statistical Division (SD) from 2011, and assuming that the proportion of burials continues to decline such that by 2036 they account for 25% of all deaths compared to one third currently, approximately 283,000 burial sites will be required from 2011 to 2036. This represents around 45% of all available burial plots estimated to be available in Sydney GMA currently. Note that this represents the number of plots which might actually be used by 2036. In addition, people will reserve plots intended to be used in the long term, beyond this timeframe.
- If no additional plots are made available, there would be around 340,000 plots remaining in 2036. If demand for burial plots remained on the same trajectory beyond 2036, the current stock of burial plots in Sydney GMA would be fully absorbed in approximately 45 years from now in 2058. Given the long lead time require 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 200 years).
- Assuming that Catholic people – who represent 28% of the Sydney GMA population – have a preference to be located in Catholic cemeteries, there would be a need for around 79,000 plots in Catholic cemeteries from 2011 to 2036. We note that this is a broad estimate, since the burial rate (as opposed to cremation) amongst Catholic people is likely to be higher than average (as it was historically customary), and not all Catholic people would necessarily have a preference for Catholic cemeteries. Moreover, people of other religions and people that identify as being of no religion might also choose a Catholic cemetery. In any case, it does provide some indication of demand.
- Within the catchment area, there is projected to be some 69,000 deaths over the period 2011 to 2036. Again, assuming that the proportion of burials continues to trend downwards such that by 2036 burials account for 25% of deaths, and if people are buried close to their place of residence, around 19,000 burial spaces will be required in the catchment area over the period. If no additional plots were made available there would be an estimated 8,200 plots remaining by 2036 and all plots would be fully absorbed by around 2041 if the death rate remained on the same trajectory.
- Note that this is considered to be a relatively conservative estimate as there is also likely to be some additional demand from residence 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.
- From 2011 to 2036 there would be a need for around 6,000 plots in Catholic cemeteries if the 32% of Catholic people in the catchment area had a preference to locate in a Catholic cemetery close to their home. Once again we note that this is a broad estimate, based on some broad assumptions about peoples' burial preferences.

1 Study Background

1.1 STUDY PURPOSE & OBJECTIVES

The Catholic Metropolitan Cemeteries Trust (CMCT) is currently seeking a rezoning of 166-176 St Andrews Road in Varroville, located in the Campbelltown Local Government Area (LGA).

CMCT has identified that the site could potentially accommodate a cemetery. CMCT is now in the process of obtaining the necessary approvals to rezone the site to allow for a cemetery.

To this end, the purpose of this study is to further investigate the potential for the site to accommodate the abovementioned use through consideration of the following:

- Demographic profile of the catchment area: population growth, age distribution, household incomes, ancestry, religious affiliations etc.;
- Location and capacity of existing cemeteries in the study area.

The study is intended to accompany the Planning Proposal prepared by Urbis on behalf of CMCT to seek site rezoning.

1.2 SITE LOCATION & CONTEXT

The site, shown in Map 1 overleaf, is located on St Andrews Road in Varroville, within the Campbelltown LGA. Covering an area of 113.37 hectares, the site is an irregular shaped parcel which consists of three individual lots described under four separate folio identifiers.

The site is a largely undeveloped rural parcel which has been predominately cleared. There are approximately nine small water bodies on site, with a densely treed ridge located on the northern portion of the property.

It is surrounded by rural residential landholdings to the north and low density residential development to the south, east and west.

Some key landmarks within close proximity to the site which have some relevance to the potential for a cemetery are:

- Camden Valley Way, a major north-south sub-arterial road that connects Camden with Liverpool (3.1 kilometres north west);
- Eagle Vale Marketplace (3.5 kilometres south east);
- Minto Mall (3.9 kilometres south east);
- Mount Annan Christian College (5 kilometres south east);
- St Gregory's College, a Catholic secondary and boarding school for boys (5.5 kilometres south west);
- Campbelltown CBD (7.4 kilometres south west);
- St Patrick's College, a Catholic secondary school for girls (9.6 kilometres south).

1.3 CEMETERY CATCHMENT AREA DEFINITION

A catchment area for a cemetery on the subject site was defined having regard to the location and capacity of existing cemeteries in the region. Given the trend for people to be buried close to their home and / or their families' homes, the catchment area for the cemetery is defined to comprise Campbelltown, Liverpool and Camden LGAs, which together make up the Sydney South West Subregion, as defined by the New South Wales Department of Planning & Infrastructure (DOP&I). Populations from beyond the South West subregion of Sydney are likely to primarily utilise alternative cemeteries closer to their residences – these are shown on Map 3 in Section 4.

MAP 1 – AERIAL VIEW OF SUBJECT SITE



2 Catchment Area Demographic Profile

2.1 POPULATION FORECASTS

Table 1 presents population forecasts for the catchment area, benchmarked against the total Sydney Statistical Division (SD). The forecasts are based on the latest official DOP&I population forecasts, released in 2010, but have been rebased to account for ABS population figures that were released subsequent to this. In other words, the 2011 population counts presented in Table are 'actual' figures (rather than a forecast) obtained from the *2011 ABS Census of Population & Housing*, and figures for 2016 onwards were derived by applying the DOP&I projected growth rates to the 2011 figures.

As noted, the catchment area is expected to grow by around 410,400 people from 2011 to 2036, with annual growth over the period forecast to range from between 13,600 and 18,600 people (2.4% to 3.4% per annum). This represents a much higher growth rate than what is forecast for the whole Sydney Statistical Division (SD) (1.0% to 1.2% 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.

From 2011, migration is expected to be the key driver of population growth in the catchment area, with between 6,000 and 12,000 new residents moving to the catchment area each year.

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 Figure 1 overleaf.

TABLE 1 – CATCHMENT AREA POPULATION FORECASTS

Population Forecasts (2011-2036)

CATCHMENT AREA & SYDNEY SD

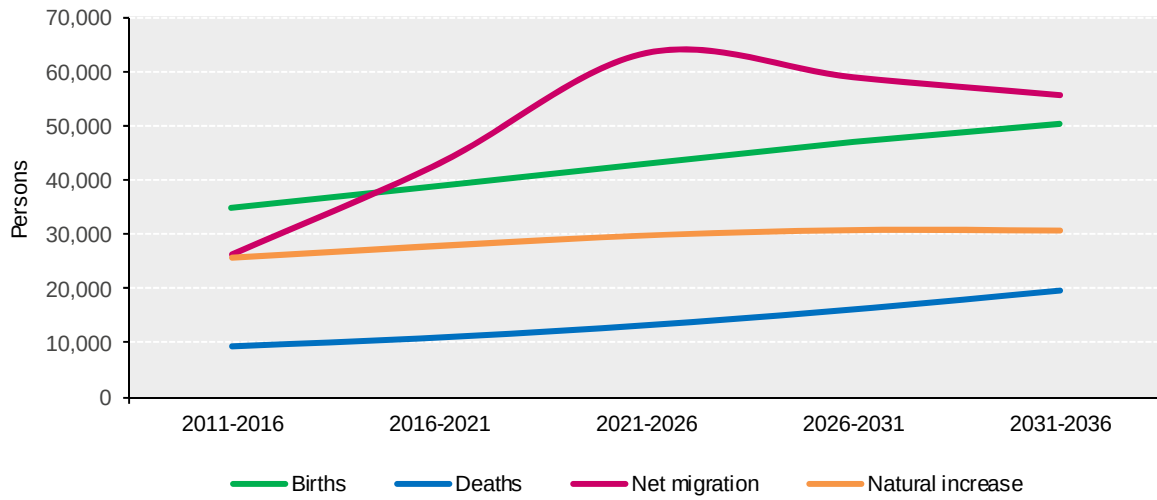
	Estimated Resident Population					
	2011	2016	2021	2026	2031	2036
Campbelltown	151,261	167,446	184,358	201,503	218,027	233,724
Liverpool	188,050	201,966	230,847	259,241	284,647	324,497
Camden	58,377	96,322	124,833	172,395	219,803	249,917
Total Catchment	397,688	465,734	540,038	633,139	722,477	808,138
<i>Sydney SD</i>	<i>4,550,300</i>	<i>4,822,000</i>	<i>5,104,100</i>	<i>5,394,500</i>	<i>5,688,600</i>	<i>5,982,100</i>
	Average Annual Growth (No.)					
	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036	
Campbelltown	3,237	3,382	3,429	3,305	3,140	
Liverpool	2,783	5,776	5,679	5,081	7,970	
Camden	7,589	5,702	9,512	9,482	6,023	
Total Catchment	13,609	14,861	18,620	17,867	17,132	
<i>Sydney SD</i>	<i>54,340</i>	<i>56,420</i>	<i>58,080</i>	<i>58,820</i>	<i>58,700</i>	
	Average Annual Growth (%)					
	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036	
Campbelltown	2.1%	2.0%	1.9%	1.6%	1.4%	
Liverpool	1.5%	2.9%	2.5%	2.0%	2.8%	
Camden	13.0%	5.9%	7.6%	5.5%	2.7%	
Total Catchment	3.4%	3.2%	3.4%	2.8%	2.4%	
<i>Sydney SD</i>	<i>1.2%</i>	<i>1.2%</i>	<i>1.1%</i>	<i>1.1%</i>	<i>1.0%</i>	

Source: ABS, NSW DoP, Urbis

FIGURE 1 – DRIVERS OF POPULATION CHANGE IN THE CATCHMENT AREA

Drivers of Population Change

CATCHMENT AREA (2011-2036)



Source: DoP&I

Table 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 97,300 people from 2011 to 2036, at an average annual growth rate of between 4.4% and 6.7% (2,500 to 4,900 persons per annum).

Given an average age of death in Australia of 81 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 2031-2036 this age group will grow by more than 2,100 people per annum, compared to 450 people per annum from 2011-2016.

TABLE 2 – CATCHMENT AREA POPULATION FORECASTS – 65+ AGE GROUP

65+ Age Group Population Forecasts (2011-2036)

CATCHMENT AREA

	Estimated Resident Population					
	2011	2016	2021	2026	2031	2036
65-69	12,860	18,069	21,213	26,219	31,200	35,350
70-74	9,129	12,169	17,863	21,668	26,652	31,529
75-79	6,371	8,328	11,717	17,669	21,415	26,233
80-84	4,687	5,502	7,411	10,894	16,342	19,822
85+	3,905	5,339	6,999	9,792	14,296	21,344
Total	36,952	49,405	65,203	86,242	109,905	134,279

	Average Annual Growth (No.)				
	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036
65-69	1,042	629	1,001	996	830
70-74	608	1,139	761	997	975
75-79	391	678	1,190	749	964
80-84	163	382	697	1,089	696
85+	287	332	559	901	1,410
Total	2,491	3,160	4,208	4,732	4,875

	Average Annual Growth (%)				
	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036
65-69	8.1%	3.5%	4.7%	3.8%	2.7%
70-74	6.7%	9.4%	4.3%	4.6%	3.7%
75-79	6.1%	8.1%	10.2%	4.2%	4.5%
80-84	3.5%	6.9%	9.4%	10.0%	4.3%
85+	7.3%	6.2%	8.0%	9.2%	9.9%
Total	6.7%	6.4%	6.5%	5.5%	4.4%

Source: ABS, NSWDoP, Urbis

2.2 NEW HOUSEHOLD FORMATIONS

The following table presents household formation forecasts, which have been 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 range from around 4,900 to 6,900 from 2011 to 2036, with growth expected to be particularly high in the period from 2026. Over the entire period from 2011 to 2036, there is projected to be demand for some 153,000 new dwellings. 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 1,900 to 3,700 households per annum from 2011. From 2026, 65+ year households are expected to account for between 47% and 56% of total growth in households.

TABLE 3 – CATCHMENT AREA PROJECTED HOUSEHOLD FORMATIONS

Household Formations (2011-2036)

CATCHMENT AREA

	2011	2016	2021	2026	2031	2036
Total Households						
Total households	131,538	156,077	182,685	217,195	251,374	284,640
Additional households per annum		4,908	5,322	6,902	6,836	6,653
Additional households, cumulative		24,538	51,147	85,656	119,836	153,101
65+ Age Group Households						
Total households	28,425	38,004	50,156	66,340	84,542	103,291
Additional households per annum		1,916	2,430	3,237	3,640	3,750
Additional households, cumulative		9,579	21,731	37,915	56,117	74,866

Source: ABS, NSW DoP, Urbis

2.3 PROJECTED DEATHS

Table 4 below shows the rate of deaths in Australia by age group in 2011. Figure 2 presents the forecast number of deaths in the Catchment Area. These were derived by Urbis by rebasing the DoP&I's projected death rates contained in its 2010 population forecasts to account for the most recent population figures released by the ABS (see Section 2.1).

As noted, from 2011 to 2036 there is expected to be more than 69,000 deaths in the catchment area. By 2036, the annual rate of deaths is expected to be more than 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.

TABLE 4 – AVERAGE DEATH RATES BY AGE GROUP

Average Death Rates by Age Group

AUSTRALIA (2011)

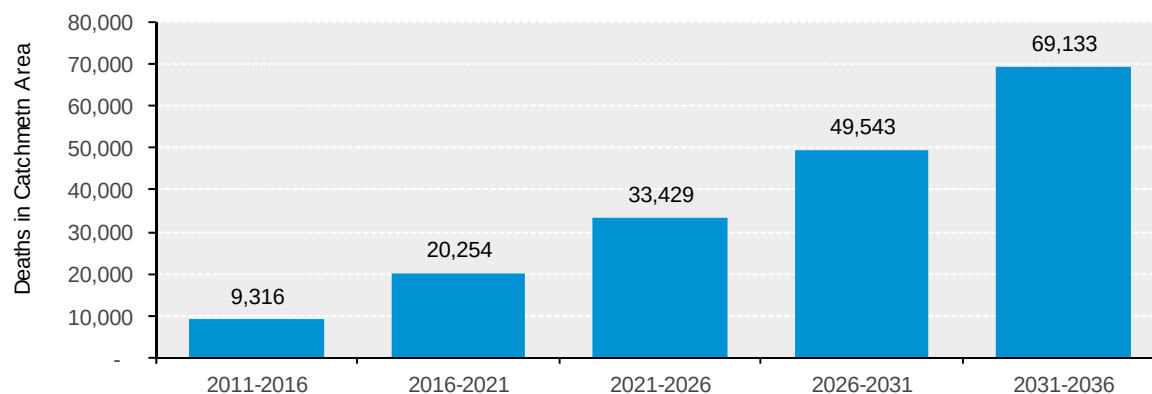
Age Group	Deaths per 1,000 people
0	4
1–4	0
5–9	0
10–14	0
15–19	0
20–24	0
25–29	1
30–34	1
35–39	1
40–44	1
45–49	2
50–54	3
55–59	4
60–64	6
65–69	10
70–74	17
75–79	30
80–84	55
85 and over	134

Source : ABS

FIGURE 2 – PROJECTED DEATHS IN THE CATCHMENT AREA

Deaths in Catchment Area

CUMULATIVE, 2011-2036



Source : NSW Department of Planning

2.4 ANCESTRY

The catchment area population is predominately of Anglo Saxon descent, in particular Australian (17%), English (14%), Irish (3%) and Scottish (3%). The largest ethnic groups in the catchment area are Italians (7%), Indians (5%) and Lebanese (5%).

TABLE 5 – ANCESTRY OF CATCHMENT AREA RESIDENTS

Ancestry

CATCHMENT AREA (2011)

Country of Ancestry	% of Catchment Population
Australian	17%
English	14%
Italian	7%
Indian	5%
Lebanese	5%
Chinese	4%
Vietnamese	4%
Irish	3%
Scottish	3%
Serbian	3%
Greek	2%
Maltese	2%
German	1%
Croatian	1%
Spanish	1%
Macedonian	1%
Other	25%

Source: ABS

2.5 RELIGIOUS AFFILIATION

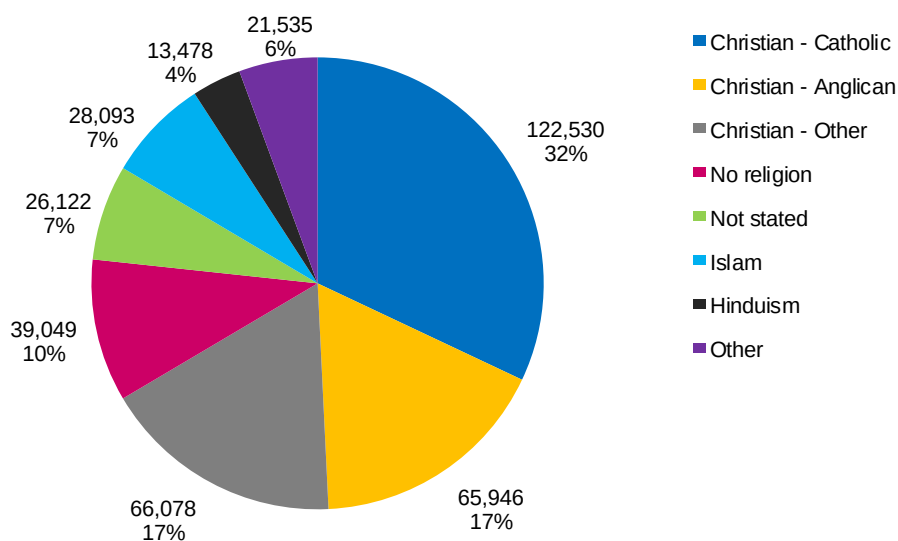
As at 2011, 66% of the population in the catchment area identified themselves as Christian, of which 32% identified as Catholic, 17% identified as Anglican and 17% identified as 'other' Christian denominations such as Church of Christ, Baptist and Presbyterian. In addition, a further 10% of the population 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 Campbelltown.

At 32%, the proportion of Catholics in the catchment area is higher than the Sydney Greater Capital City Statistical Area (GCCSA) at 28%.

FIGURE 3 – RELIGIOUS AFFILIATION OF CATCHMENT AREA RESIDENTS

Religion

CATCHMENT AREA (2011)



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 eight active Crown cemeteries and around 100 local government cemeteries within the Greater Metropolitan Area (GMA), comprising Sydney, Wollongong, Newcastle and Central Coast. There are approximately 300,000 public burial spaces available in the GMA.
- **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 providing approximately 380,000 unused burial spaces; 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 Table 6 overleaf. Note that there are a total of around 100 local government cemeteries in Sydney, however the Table only contains the 57 local government cemeteries which were identified by NSW Department of Lands to have had more than five years' supply of burial space as at 2008¹. Those cemeteries which are run by the Catholic Cemeteries Trust are highlighted in the Table in green. All cemeteries located in the Sydney metropolitan area are illustrated in Map 2.

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.

Based on data collected through a survey in 2002², the Department of Lands estimated that some 680,000 grave sites were available in the GMA as at 2008, 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 30%, in line with the historic average in recent years, the number of burial plots estimated to be available in Sydney currently is around 625,000.

In 2008, all eight 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. The Muslim Trust areas at Rookwood and Liverpool have no more burial spaces available for sale although presold plots will continue to be used. 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*

TABLE 6 – CEMETERIES IN SYDNEY

Cemeteries in Sydney

SYDNEY GMA

Crown Land Cemeteries	LGA
Eastern Suburbs Memorial Park, Botany	Randwick
Field of Mars	Ryde
Frenchs Forest Bushland Cemetery	Warringah
Liverpool General Cemetery	Liverpool
Macquarie Park Cemetery	Ryde
Woronora Cemetery	Sutherland
Rookwood Necropolis	Auburn
Sandgate	Newcastle
Local Government Cemeteries with >5 Years Space Available	
- Within Sydney Metropolitan Area	
The Waverley Cemetery	Waverley
Manly Cemetery	Manly
Mona Vale Cemetery	Pittwater
Brooklyn Cemetery	Hornsby
Camden General Cemetery	Camden
St. Bartholomew's Cemetery	Blacktown
Riverstone Cemetery	Blacktown
Penrith General Cemetery	Penrith
St Mary's General Cemetery	Penrith
Emu Plains General Cemetery	Penrith
Castle Hill Cemetery	Baulkham Hills
Sackville Cemetery	Baulkham Hills
Lawson Cemetery	Blue Mountains
Wentworth Falls Cemetery	Blue Mountains
Katoomba Cemetery	Blue Mountains
Blackheath Cemetery	Blue Mountains
Mount Irvine Cemetery	Blue Mountains
Richmond Lawn Cemetery	Hawkesbury
Pitt Town General Cemetery	Hawkesbury
Lower Portland Cemetery	Hawkesbury
St Alban's New General Cemetery	Hawkesbury
Picton Cemetery	Wollondilly
Thirlmere Cemetery	Wollondilly
Point Clare Cemetery	Gosford
- Beyond Sydney Metropolitan Area (continued)	
Aberdare	Cessnock
Branxton	Cessnock
Cessnock	Cessnock
Ellalong	Cessnock
Greta	Cessnock
Kurri Kurri	Cessnock
Millfield	Cessnock
Rothbury	Cessnock
Wollombi	Cessnock
Aberdare Lawn	Cessnock
Kurri Kurri Lawn	Cessnock
Belmont Cemetery	Lake Macquarie
Whitebridge Cemetery	Lake Macquarie
Toronto Cemetery	Lake Macquarie
West Wallsend Cemetery	Lake Macquarie
Johnson Family Cemetery	Lake Macquarie
Catherine Hill Bay Cemetery	Lake Macquarie

Cemeteries in Sydney

SYDNEY GMA

- Beyond Sydney Metropolitan Area (continued)

Morriset Cemetery	Lake Macquarie
Martinsville Cemetery	Lake Macquarie
Wyee Cemetery	Lake Macquarie
East Maitland	Maitland
Rutherford	Maitland
Morpeth	Maitland
Raymond Terrace Cemetery	Port Stephens
Seaham Cemetery	Port Stephens
Karuah Cemetery	Port Stephens
Anna Bay Lawn Cemetery	Port Stephens
Kiama	Kiama
Jamberoo	Kiama
Helensburgh	Wollongong
Scarborough/Wombarra	Wollongong
Wollongong Lawn Cemetery	Wollongong

Other Cemeteries

Forrest Lawn Cemetery	Camden
Pine Gove Memorial Park	Blacktown
Botany Cemetery	Botany
Richmond War Cemetery	Hawkesbury
North Rocks Catholic Cemetery	Baulkam Hills
Kemps Creek Catholic Cemetery	Liverpool

Source: NSW Department of Lands

14



3.3 CEMETERIES IN THE CATCHMENT AREA

Based on a review of the demographic profile of the catchment area, and taking into consideration the existing cemeteries in the region, we foresee that the proposed cemetery on the subject lands would draw from the Campbelltown, Liverpool and Camden LGA populations. This is the catchment area for the cemetery.

There are five existing cemeteries located within the catchment area. These are summarised in Table 7, and illustrated in Map 3 overleaf.

Of the cemeteries that are located within the catchment area, two are run by the Catholic Cemeteries Trust.

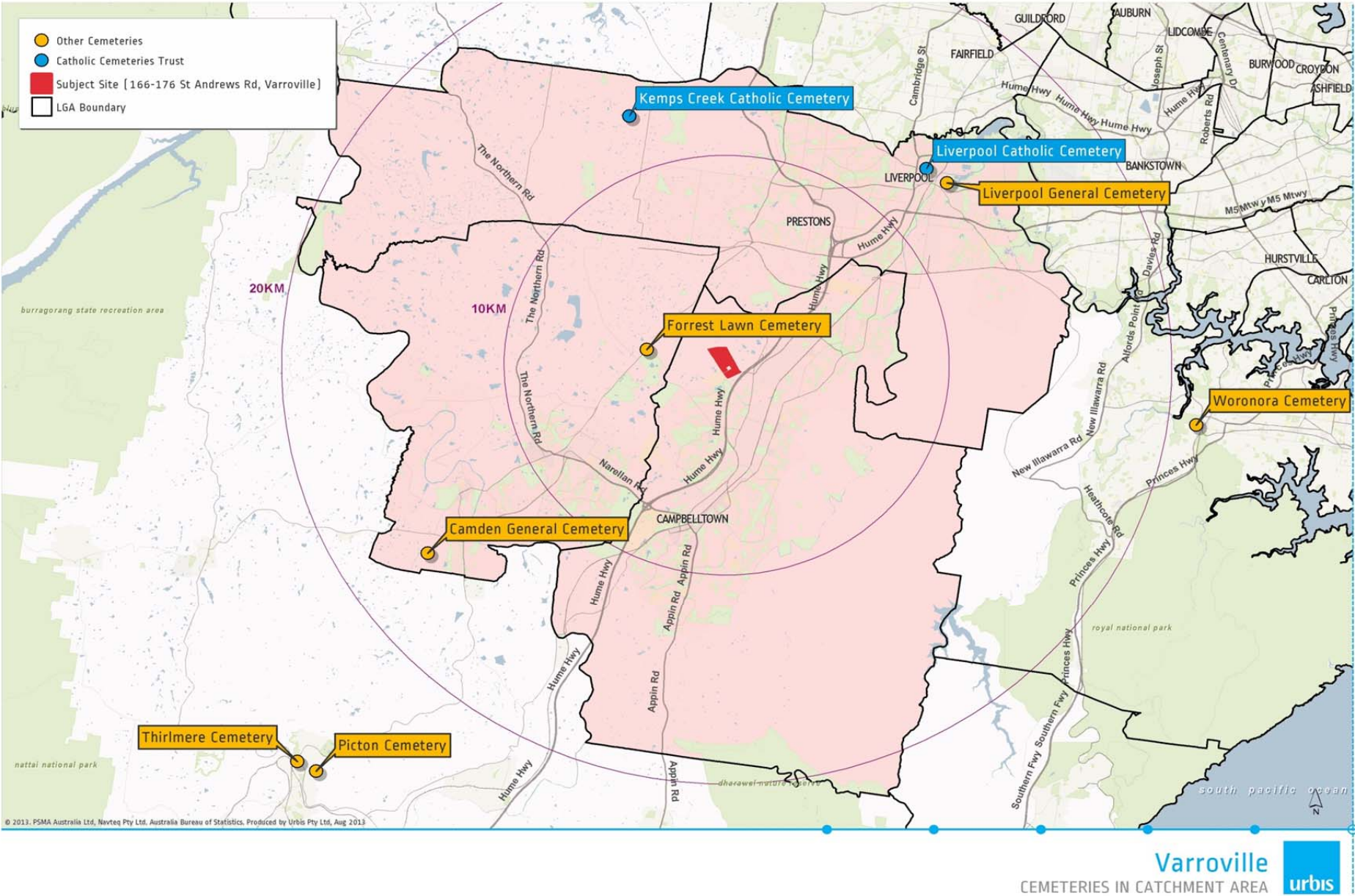
Based on information obtained by the Catholic Cemeteries Trust, all existing burial sites within the catchment area are expected to be absorbed within the next 30 years. On this basis, we estimate that there are around 27,000 burial plots currently available at the five cemeteries within the catchment area.

TABLE 7 – CEMETERIES IN CATCHMENT AREA

Cemeteries in Catchment Area

Cemetery	Location	Distance from Subject Site	Overview	Expected Lifespan
Forrest Lawn Cemetery	Camden	12.2km	Non-sectarian cemetery	Circa 30 years
Camden General Cemetery	Camden	20.8km	Local Government Cemetery operating since 1943. It has the following sections - Anglican, Baby, Catholic, Church of England, Columbarium Wall, Independent, Muslim, Non-Sectarian, Presbyterian and Uniting.	Circa 5 years
Kemps Creek Catholic Cemetery	Liverpool	18.2km	Managed by the Catholic Cemeteries Trust. Potential extension onto adjoining land would extend the life span of the cemetery.	Circa 30 years
Liverpool General Cemetery	Liverpool	18.1km	A non-sectarian cemetery managed by Catholic Cemeteries Trust. A cemetery renewal program is in place.	Circa 20 years

MAP 3 – CEMETERIES WITHIN THE CATCHMENT AREA



3.4 PROPOSED CEMETERIES

As at August 2013 there were two applications for cemeteries being considered – one in Liverpool LGA (within the catchment area) and one in Penrith LGA which would provide 35,000 burial plots. There has been very strong community opposition to this proposed cemetery in Penrith.

An application for a proposed cemetery on Greendale Road, Greendale was withdrawn in November 2012.

A Crown land reserve at Berkshire Park in Sydney's North West in the Penrith LGA has been set aside for a cemetery. Zoning and threatened species issues need to be addressed before burial is possible.

A proposal for a cemetery on Greendale Road in Bringelly was rejected by the Joint Regional Planning Panel (JRPP) in November 2011 on the following grounds:

- the size of the proposed land did not meet the minimum requirement of 15 hectares for burial plots that is specified in the Liverpool Development Control Plan 2008;
- the development application did not demonstrate that the Plan of Management would ensure satisfactory perpetual care of the site;
- proposed development did not provide toilet facilities or any office/administration services for the first stage of the development.

A new proposal for a cemetery on Greendale Road in Bringelly was recently lodged on July 24th, 2013. After consultation with the Liverpool City Council, it has been advised an assessor is still to be assigned, therefore no details on the development are currently available.

TABLE 8 – PROPOSED CEMETERIES

LOCATION	LGA	BURIAL PLOTS	STATUS
Greendale Road, Bringelly	Liverpool	Currently unknown	DA submitted – decision pending
Elizabeth Drive Luddenham	Penrith	35,000	DA submitted – decision deferred
Greendale Road, Greendale	Liverpool	70,000	DA withdrawn
Greendale Road, Bringelly	Liverpool	15,800	Proposal refused
Berkshire Park	Penrith	NA	Rezoning planned

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), The Springvale Botanical Cemetery (VIC) and Fawkner Crematorium and Memorial Park (VIC), established 1868, 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.

Based on the projected number of deaths in Sydney SD from 2011, and assuming that the proportion of burials continues to decline such that by 2036 they account for 25% of all deaths compared to one third currently, approximately 283,000 burial sites will be required from 2011 to 2036. This represents around 45% of all available burial plots estimated to be available in Sydney GMA currently.

If no additional plots are made available, there would be around 340,000 plots remaining in 2036. If demand for burial plots remained on the same trajectory beyond 2036, the current stock of burial plots in Sydney GMA would be fully absorbed in approximately 45 years from now (approximately 2058).

Assuming that Catholic people – who represent 28% of the Sydney GMA population – have a preference to be located in Catholic cemeteries, there would be a need for around 79,000 plots in Catholic cemeteries from 2011 to 2036. We note that this is a broad estimate, since the burial rate (as opposed to cremation) amongst Catholic people is likely to be higher than average (as it was historically customary), and not all Catholic people would necessarily have a preference for Catholic cemeteries. Moreover, people of other religions and people that identify as being of no religion might also choose a Catholic cemetery. In any case, it does provide some indication of demand.

Within the catchment area, it is projected that there will be some 69,000 deaths over the period 2011 to 2036. Again, assuming that the proportion of burials continues to trend downwards such that by 2036 burials account for 25% of deaths, and if people are buried close to their place of residence, around 19,000 burial spaces will be required in the catchment area over the period. If no additional plots were made available there would be an estimated 8,200 plots remaining by 2036 and all plots would be fully absorbed by around 2041 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.

From 2011 to 2036 there would be a need for around 6,000 plots in Catholic cemeteries if the 32% of Catholic people in the catchment area had a preference to locate in a Catholic cemetery close to their home. Once again we note that this is a broad estimate, based on some broad assumptions about peoples' burial preferences. Demand is also likely to come from non-Catholic people.

TABLE 9 – PROJECTED DEMAND FOR BURIAL SPACE

Need for Burial Space

SYDNEY GMA & CATCHMENT AREA

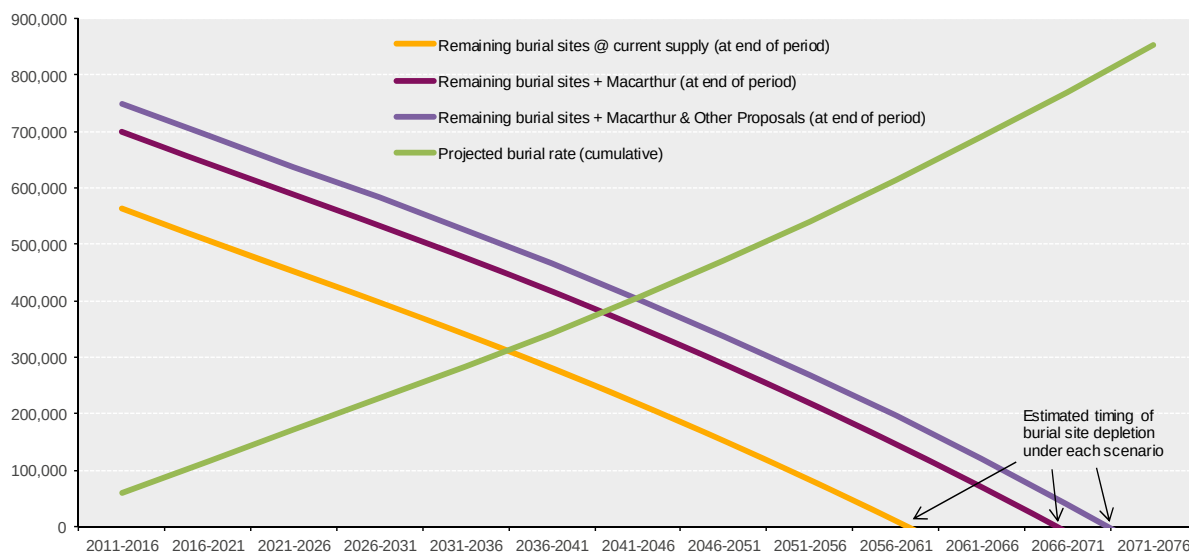
	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036
Sydney GMA					
Projected deaths (cumulative)	180,970	369,340	566,430	776,420	1,004,160
No. of burials (cumulative)	59,720	116,231	171,416	226,014	282,949
Remaining burial sites (at end of period)	563,507	506,996	451,811	397,213	340,278
Catchment Area					
Projected deaths (cumulative)	9,316	20,254	33,429	49,543	69,133
No. of burials (cumulative)	3,074	6,356	10,045	14,234	19,132
Remaining burial sites (at end of period)	24,266	20,984	17,296	13,106	8,208

By projecting the remaining burial sites in the Sydney Metropolitan Area beyond 2036, it is estimated that if no further burial sites become available, capacity will be reached at 2058. With the addition of the Macarthur Memorial Park's 136,000 spaces, capacity would occur at approximately 2069 and should the two proposed cemeteries in Liverpool eventuate (offering 50,000 burial sites), capacity would be stretched to approximately 2071. 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.

FIGURE 4 – PROJECTED REMAINING BURIAL SITES FOR THE SYDNEY GMA

Need for Burial Space

SYDNEY METROPOLITAN AREA



1 Other Proposals includes 50,000 burial spaces from proposed cemeteries in the Liverpool LGA that have yet to receive DA approval.

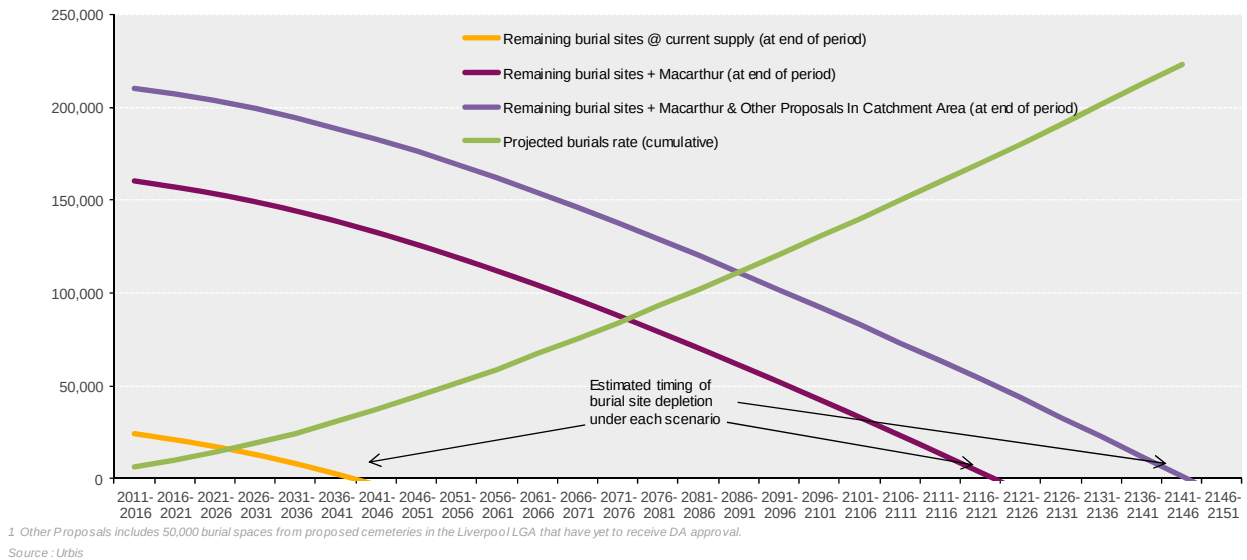
Source : Urbis

By projecting the remaining burial sites in the catchment area beyond 2036, is it estimated that if no further burial sites become available, capacity will be occur at 2041. With the addition of the Macarthur Memorial Park's 136,000 spaces, capacity would extend to around 2119 and should the two proposed cemeteries in Liverpool eventuate (offering 50,000 burial sites), capacity would be stretched to around 2144.

FIGURE 5 – PROJECTED REMAINING BURIAL SITES FOR THE CATCHMENT AREA

Need for Burial Space

CATCHMENT AREA: CAMPBELLTOWN, LIVERPOOL AND CAMDEN LOCAL GOVERNMENT AREAS (LGA)



4 Summary & Recommendations

The preceding assessment indicates that there is will be a requirement for additional cemeteries in Sydney in the long term, and a particular need for a Catholic cemetery in the study area. The key findings to note which support this position are summarised as follows:

- From 2011 to 2036 there is expected to be more than 69,000 deaths in the catchment area. By 2036, the number of deaths each year is expected to be more than double the current rate.
- It is estimated that some 283,000 burial sites will be required across Sydney GMA from 2011 to 2036. This represents around 45% 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 2058). This is considered to be a relative short timeframe in the planning and operation of cemeteries. The proposed development of a cemetery at Varroville would extend this out to approximately 2069 with no other burial spaced being added.
- Assuming that Catholic people – who represent 28% of the Sydney GMA population – have a preference to be located in Catholic cemeteries, there would be a need for around 79,000 plots in Catholic cemeteries from 2011 to 2036.
- Within the catchment area, there is projected to be some 69,000 deaths over the period 2011 to 2036 resulting in a need for some 19,000 burial spaces. All existing burial spaces within the catchment area are expected to be absorbed within the next 30 years.
- There is a very substantial Christian, in particular Catholic, population in the catchment area who might be inclined to be buried in a Catholic cemetery. The future need for burial plots in Catholic cemeteries within the catchment area from now till 2036 is estimated to be somewhere in the order 6,100 plots.

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