



# STRATEGIC DEMOGRAPHIC ASSESSMENT

WALLACIA CEMETERY

24 OCTOBER 2017  
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 Metropolitan Sydney. CMCT is proposing to develop the Wallacia Cemetery on the current Wallacia Golf Course site.
- The purpose of this study is to investigate the need for cemetery space in Sydney, and within the Wallacia Catchment Area defined as comprising the Blue Mountains, Liverpool and Penrith Local Government Areas (LGAs). The Catchment Area was defined as the LGAs within around a 15km radius of the cemetery with analysis of similar cemeteries indicating around 80% of people buried at the cemetery resided within 15km.

## CATCHMENT AREA DEMOGRAPHIC PROFILE

- The Catchment Area is expected to grow by around 140,000 residents from 2016 to 2041, with annual growth over the period forecast to range from 1.5% to 1.8% per annum. From 2016, migration and natural increases are both expected to be key drivers of population growth in the Catchment Area.
- The 65+ year age group population in the Catchment Area is expected to grow by 62,750 people from 2016 to 2036, at an average annual growth rate between 2.7% and 5.0%.
- 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 Catchment Area population is predominantly of Anglo Saxon descent, in particular Australian (25%), English (23%), Irish (6%) and Scottish (5%). The other largest ethnic groups in the Catchment Area are Italian (4%), Indian (3%) and German (2%).
- As at 2016, 58% of the population in the Catchment Area identified themselves as Christian, of which 29% identified as Catholic, 13% identified as Anglican and 16% identified as 'other' Christian denominations such as Church of Christ, Baptist and Presbyterian. In addition, 19% of the population stated they had no religion.

## CEMETERY MARKET REVIEW & NEEDS 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 2015 the NSW Department of Lands estimated that approximately 310,000 to 330,000 grave sites were available in Metropolitan Sydney.
- Considering the estimated number of deaths that have occurred in Sydney since 2015 and the estimated proportion that are buried (33.7%), the number of burial plots estimated to be available in Sydney as at June 2017 is in the order of 299,600.
- There are 20 existing cemeteries in the Catchment Area, of which 14 are local government operated, three are owned/operated by CMCT and three private cemeteries.
- Combined, the 20 cemeteries in the Catchment Area have an estimated 25,000 unused burial plots. This represents approximately 8.5% of all available burial plots in Metropolitan Sydney.
- It should be noted that the current supply estimates are based on consultation with CMCT, cemetery operators and Urbis analysis. Overall, relatively little is known about the supply of burial space within Sydney. The potential passing of Part 4 of the NSW Cemeteries and Crematoria Act would have an impact on the future capacity of cemeteries (due to the potential introduction of renewable tenure of burials), though the potential impact is not yet fully understood.
- There are currently three approved applications for cemeteries in the Catchment Area (two in Liverpool LGA and one in Penrith LGA) with another being considered within the Liverpool LGA. The four projects comprise approximately 143,000 additional burial plots within the Catchment Area.

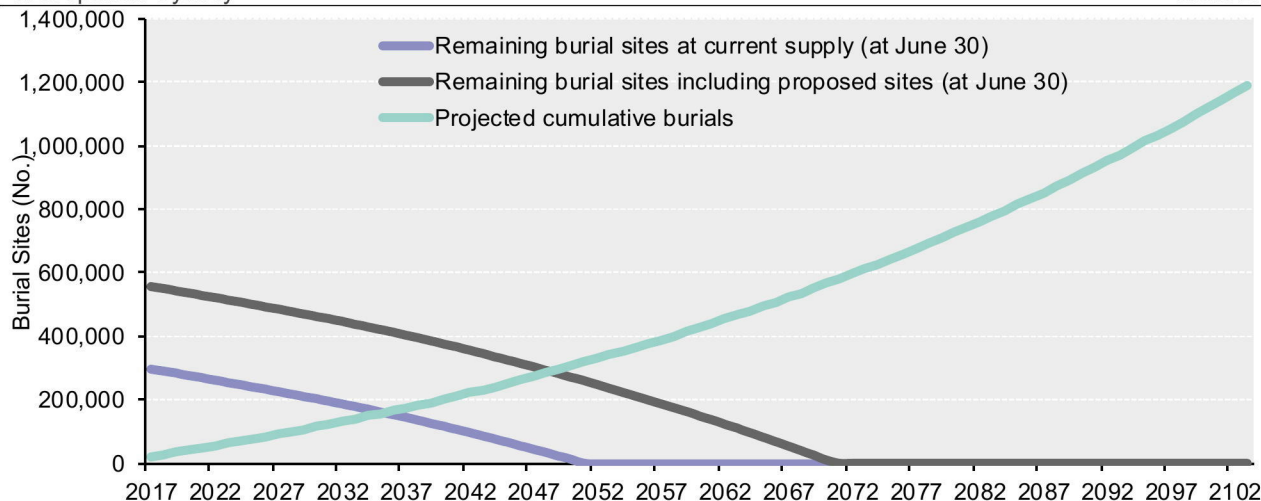


- Based on the projected number of deaths within Metropolitan Sydney from 2017 onwards, approximately 116,000 new burial sites will be required over the next 15 years from 2017 to 2032. This represents around 40% of the current supply of burial plots and 21% of the current and proposed supply. The current stock of burial plots in Metropolitan Sydney would be fully absorbed in approximately 35 years. It is noted that with the additional 270,490 proposed burial plots, stock would be fully absorbed in approximately 54 years (2071), allowing for an additional 19 years of supply.

## Burial Demand and Supply

Metropolitan Sydney

Chart E.1



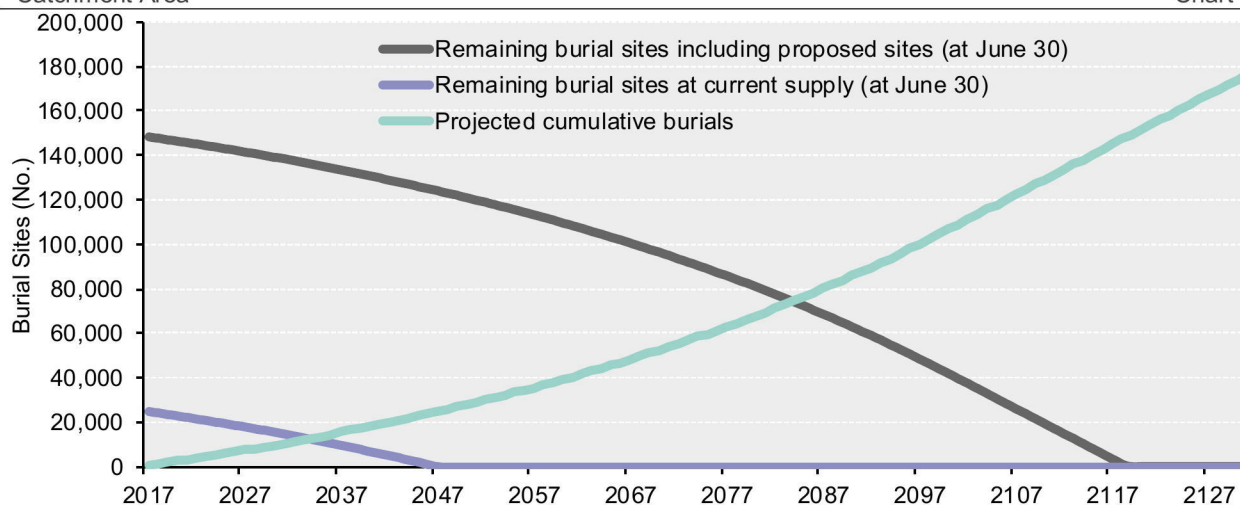
Source: Urbis

- Within the Catchment Area, it is projected there will be some 45,000 deaths over the period 2017 to 2032. Assuming all residents are buried within the Catchment Area, around 10,370 burial sites will be required in the catchment area over the period. This represents around 41% of the current supply of burial plots and 6% of current and proposed supply. The current stock of burial plots in the Catchment Area would be fully absorbed in approximately 31 years. It is noted that with the additional 123,490 proposed burial plots, stock would be fully absorbed in approximately 102 years (2119), allowing for an additional 71 years of supply.
- 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 throughout Western Sydney, the total demand for burial plots will exceed supply by approximately 2070.

## Burial Demand and Supply

Catchment Area

Chart 1.2



Source: Urbis

# 1. INTRODUCTION

## 1.1. PROJECT BACKGROUND

CMCT operate cemeteries throughout New South Wales and is investigating the potential development of additional cemeteries. This includes the potential redevelopment of the Wallacia Golf Club into the Wallacia Cemetery.

CMCT requires an independent strategic demographic assessment to understand the need for the proposed Wallacia Cemetery. The CMCT is seeking to understand the future burial needs of the Wallacia catchment area and the wider Metropolitan Sydney region.

## 1.2. PURPOSE OF THE STUDY

The objective of the study is to assess the existing and projected supply and demand of burial sites within the Catchment Area and Metropolitan Sydney to determine the need for additional supply in the future. The study provides an assessment of:

- Historical and future population growth
- Projected deaths within Metropolitan Sydney and the Catchment Area
- Characteristics of residents in the Catchment Area including ancestry and religious affiliation
- Existing supply of cemeteries in the Catchment Area
- Proposed future supply of cemeteries in Metropolitan Sydney and the Catchment Area
- Future demand for burial spaces within the Metropolitan Sydney and the Catchment Area
- Associated social consequences.

## 1.3. CEMETERY CATCHMENT DEFINITION

The Catchment Area has been defined as comprising the three LGAs of Blue Mountains, Liverpool and Penrith. CMCT provided relevant burial data in order to assist Urbis in defining the Catchment Area. Table 1.1 is based on the proportion of people buried and their respective place of residence, which outlines the reach of the cemeteries based on the percentage of burials within a specified distance. The Catchment Area has been defined as LGAs that fall within a 15 km radius of the subject site as this is anticipated to capture over 80% of demand.

### Cemetery Reach

CMCT Cemeteries – Cumulative Share of Burials relative to Distance to Place of Residence

Table 1.1

| Cemetery    | Distance to Home Address |       |       |       |
|-------------|--------------------------|-------|-------|-------|
|             | 5 km                     | 10 km | 15 km | 20 km |
| Liverpool   | 38%                      | 68%   | 81%   | 83%   |
| North Rocks | 14%                      | 55%   | 78%   | 86%   |
| Rookwood    | 17%                      | 79%   | 83%   | 94%   |

Source: CMCT, Urbis

Cemetery planning is a Sydney Metropolitan issue rather than a local issue due to the limited availability of land in more inner-city areas. As such, the analysis also focuses on the supply and demand within the city to determine the potential role of the Wallacia Cemetery to Sydney as a whole. Metropolitan Sydney has been defined as comprising the Sydney Statistical Division, which aligns with the definition of Sydney as adopted for the supply assessment within the Cemeteries and Crematoria NSW Activity Report in 2015.





Source: Urbis

## 1.4. 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 contains provisions relating to the administration and regulation of the interment industry, which is overseen and managed by the State Agency, Cemeteries and Crematoria NSW.

Part 4 of the Act introduces provisions for the operation of renewable tenure, whereby a burial right can be granted for a limited number of years. Under Part 4, the tenure period can be 25 to 99 years. A burial plot can be reused upon the expiry of the burial right. Part 4 has not been enacted yet and it is uncertain as to whether cemetery operators will be required to offer renewable interment rights. Renewable tenure had 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 future enactment of Part 4 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. There has been limited work done on the extent of the potential impact. As a result, the future rate of offering and the public demand for renewable interment rights is currently unknown.



## 2. CATCHMENT AREA DEMOGRAPHIC PROFILE

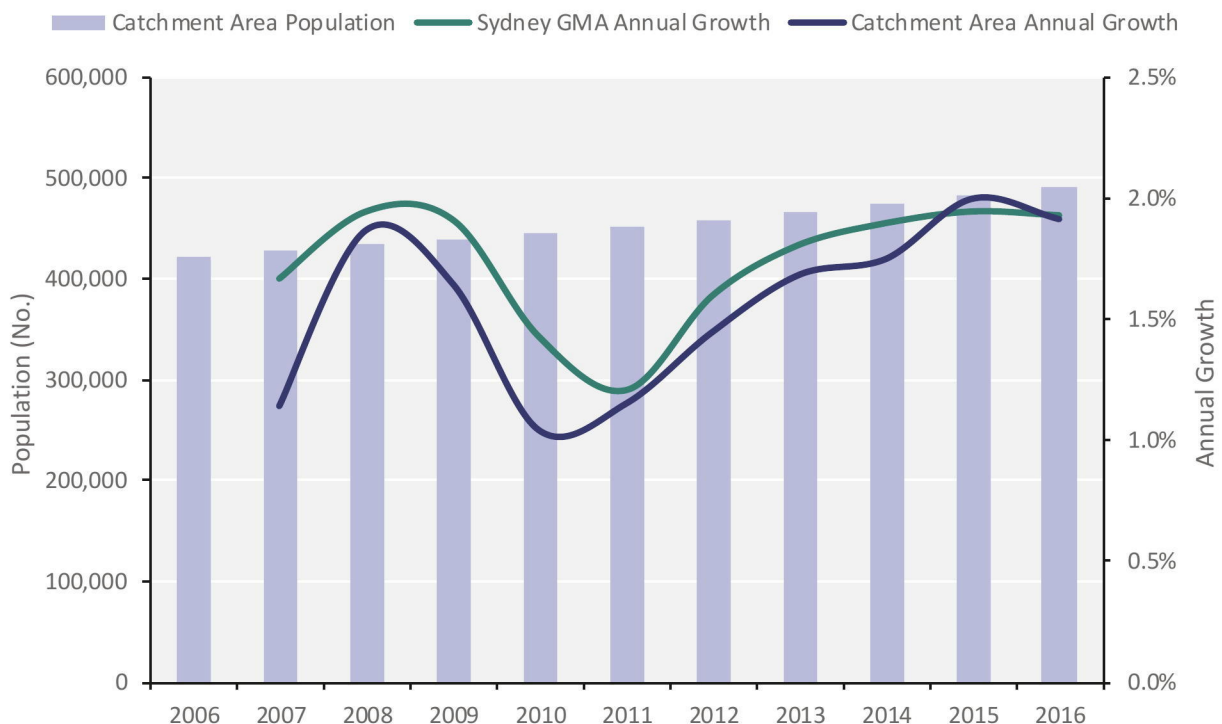
### 2.1. POPULATION GROWTH

Chart 2.1 outlines population growth in the Catchment Area and Metropolitan Sydney over the last ten years. Over the last decade, the Catchment Area population has recorded growth of approximately 70,000 residents at an average of 1.6% per annum. The Catchment Area recorded slower annual growth compared to Sydney from 2006 to 2014, however during the past two years the Catchment Area has boasted higher growth.

#### Population Growth

Catchment Area and Metropolitan Sydney

Chart 2.1



Source: ABS, Urbis

### 2.2. POPULATION FORECASTS

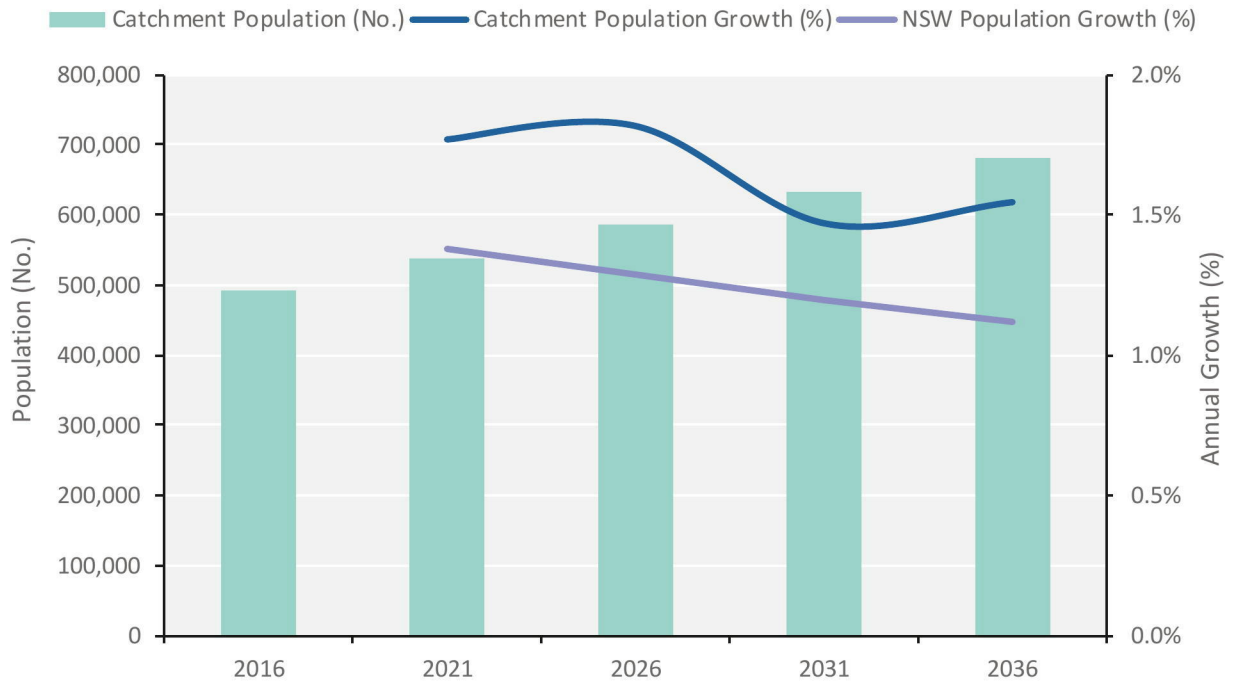
Chart 2.2 presents population forecasts for the Catchment Area. The forecasts are based on the latest official NSW Department of Planning and Environment (NSWDPE) population forecasts, released in September 2016, but have been rebased to account for ABS population figures that were recently released as a part of the ABS 2016 Census. The chart shows the 'actual' 2016 population count for the Catchment Area based on the ABS 2016 Census, with figures beyond 2016 derived through applying the NSWDPE projected growth rates to the 2016 figures.

The Catchment Area is forecast to grow by 140,000 residents from 2016 to 2036, with annual growth over the period forecast to range from 1.5% to 1.8% per annum. This represents a higher growth rate than what is forecast for NSW (1.1% to 1.4% per annum) and is largely tied to the significant population growth expected to occur within the Penrith and Liverpool LGAs.

## Catchment Area Population Forecasts

Catchment Area, 2016-2036

Chart 2.2



Source: ABS, NSWDP, Urbis

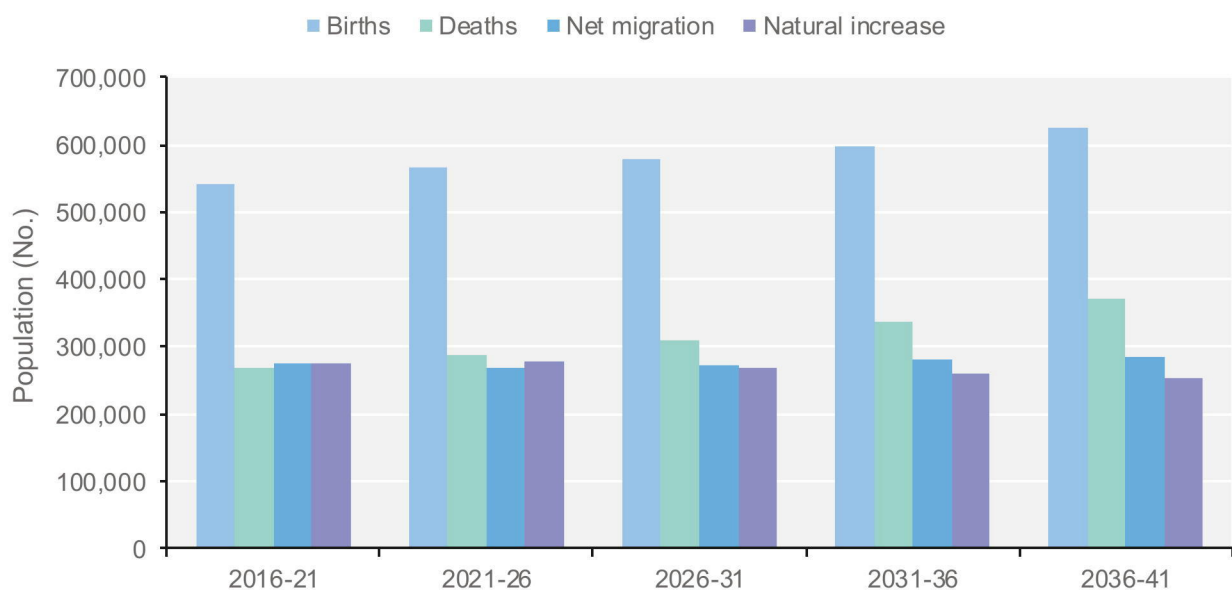
From 2016, migration and natural increases are expected to have a similar impact on population growth in NSW. Net migration is forecast to remain relatively steady at about 250,000 to 285,000 throughout the five-year intervals.

The number of deaths each year is forecast to increase significantly and this will result in a higher level of demand for cemetery space compared to historical levels. The drivers of population change are illustrated in Chart 2.3. The forecast birth rate is expected to grow at a slower rate than deaths over the period which will result in a slowing natural increase.

## Drivers of Population Growth

NSW (2016-2041)

Chart 2.3



Source: NSWDP, Urbis

Table 2.1 shows the projected growth in the 65+ year age group population in the Catchment Area. This age group is expected to grow by 62,750 people from 2016-2036, at an average annual growth rate between 2.7% and 5.0% (2,980 to 3,390 residents 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 a 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 1,150 people per annum compared to 340 people per annum between 2016-2021. It is noted that an increase in life expectancy is considered when forecasting growth rates which ultimately influences the number of residents within the age group.

### Catchment Area Population Forecasts – 65+ Age Group

Catchment Area

Table 2.1

| Estimated Resident Population |               |               |               |                |                |
|-------------------------------|---------------|---------------|---------------|----------------|----------------|
| Age Group                     | 2016          | 2021          | 2026          | 2031           | 2036           |
| 65-69                         | 22,350        | 24,900        | 28,400        | 29,700         | 31,450         |
| 70-74                         | 15,600        | 21,100        | 23,700        | 27,050         | 28,600         |
| 75-79                         | 10,500        | 14,250        | 19,400        | 21,900         | 25,300         |
| 80-84                         | 7,050         | 8,950         | 12,300        | 16,800         | 19,250         |
| 85+                           | 6,700         | 8,400         | 10,750        | 14,600         | 20,350         |
| <b>Total</b>                  | <b>62,200</b> | <b>77,600</b> | <b>94,550</b> | <b>110,050</b> | <b>124,950</b> |
| Average Annual Growth (No.)   |               |               |               |                |                |
| Age Group                     | 2016-21       | 2021-26       | 2026-31       | 2031-36        |                |
| 65-69                         | 510           | 700           | 260           | 350            |                |
| 70-74                         | 1,100         | 520           | 670           | 310            |                |
| 75-79                         | 750           | 1,030         | 500           | 680            |                |
| 80-84                         | 380           | 670           | 900           | 490            |                |
| 85+                           | 340           | 470           | 770           | 1,150          |                |
| <b>Total</b>                  | <b>3,080</b>  | <b>3,390</b>  | <b>3,100</b>  | <b>2,980</b>   |                |
| Average Annual Growth (%)     |               |               |               |                |                |
| Age Group                     | 2016-21       | 2021-26       | 2026-31       | 2031-36        |                |
| 65-69                         | 2.3%          | 2.8%          | 0.9%          | 1.2%           |                |
| 70-74                         | 7.1%          | 2.5%          | 2.8%          | 1.1%           |                |
| 75-79                         | 7.1%          | 7.2%          | 2.6%          | 3.1%           |                |
| 80-84                         | 5.4%          | 7.5%          | 7.3%          | 2.9%           |                |
| 85+                           | 5.1%          | 5.6%          | 7.2%          | 7.9%           |                |
| <b>Total</b>                  | <b>5.0%</b>   | <b>4.4%</b>   | <b>3.3%</b>   | <b>2.7%</b>    |                |

Source: NSWDPPE, Urbis

## 2.3. PROJECTED DEATHS

Table 2.2 below shows the rate of deaths in New South Wales by age group in 2015. The average death rates are based on ABS data for New South Wales in 2015.

## Average Death Rates by Age Group

New South Wales (2015)

Table 2.2

| Age Group   | Deaths per 1,000 people |
|-------------|-------------------------|
| 0-4         | 0.8                     |
| 5-9         | 0.1                     |
| 10-14       | 0.1                     |
| 15-19       | 0.3                     |
| 20-24       | 0.3                     |
| 25-29       | 0.4                     |
| 30-34       | 0.6                     |
| 35-39       | 0.8                     |
| 40-44       | 1.2                     |
| 45-49       | 1.9                     |
| 50-54       | 2.9                     |
| 55-59       | 4.2                     |
| 60-64       | 6.3                     |
| 65-69       | 9.5                     |
| 70-74       | 16.6                    |
| 75-79       | 27.9                    |
| 80-84       | 52.3                    |
| 85 and over | 136.8                   |

Source: ABS

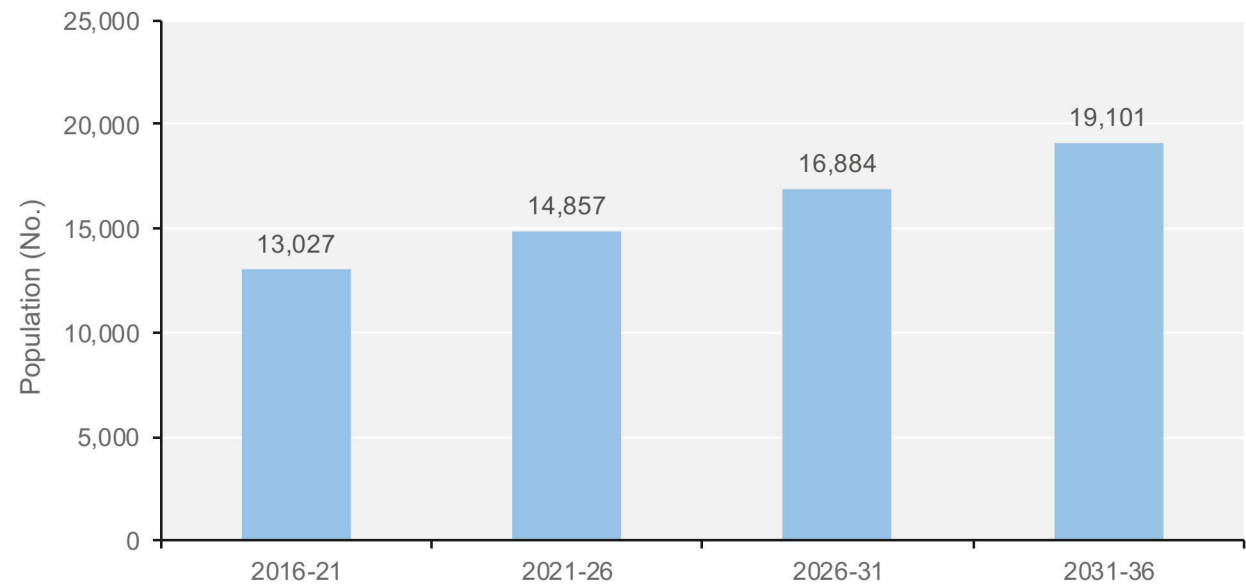
Chart 2.4 shows the projected deaths within the Catchment Area from 2016-36. As shown, from 2016 to 2036 there is expected to be almost 63,860 deaths in the Catchment Area. By 2036, the annual number of deaths is expected to be almost 50% higher than the current rate. Again, this will drive higher levels of demand for cemetery space than historic levels.



Projected Deaths

Catchment Area, 2016-36

Chart 2.4



Source: ABS, NSWDPPE, Urbis

2.4. ANCESTRY

Table 2.3 outlines the ancestry breakdown within the Catchment Area. The population is predominantly of Anglo Saxon descent, in particular Australian (25%), English (23%), Irish (6%) and Scottish (5%). The other largest groups in the Catchment Area are Italian (4%) and Indian (3%).

## Ancestry

Catchment Area, 2016

Table 2.3

| Country of Ancestry | % of Catchment Population |
|---------------------|---------------------------|
| Australian          | 25%                       |
| English             | 23%                       |
| Irish               | 6%                        |
| Scottish            | 5%                        |
| Italian             | 4%                        |
| Indian              | 3%                        |
| German              | 2%                        |
| Lebanese            | 2%                        |
| Maltese             | 2%                        |
| Chinese             | 2%                        |
| Filipino            | 2%                        |
| Vietnamese          | 2%                        |
| Greek               | 1%                        |
| Serbian             | 1%                        |
| Dutch               | 1%                        |
| Croatian            | 1%                        |
| Polish              | 1%                        |
| Spanish             | 1%                        |
| Maori               | 1%                        |
| New Zealander       | 1%                        |
| Macedonian          | 1%                        |
| Other               | 14%                       |

Source: ABS, Urbis

## 2.5. RELIGIOUS AFFILIATION

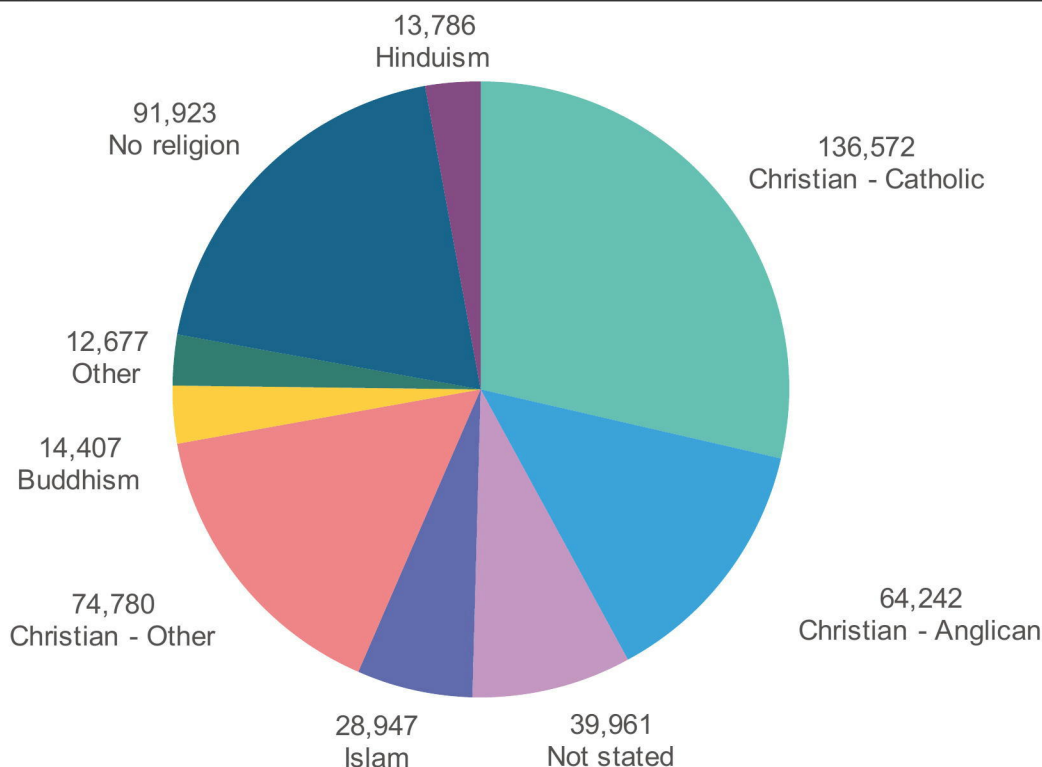
As at 2016, 58% of the Catchment Area residents identified themselves as Christian, of which 29% identified as Catholic, 13% identified as Anglican and 16% identified as 'other' Christian denominations such as Church of Christ, Baptist and Presbyterian. In addition, 19% of the population stated they 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 cemetery in the Catchment Area.

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

### Religious Affiliations of Residents

Catchment Area, 2016

Chart 2.5



Source: ABS, Urbis

## 3. CEMETERY SUPPLY

### 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 nine active Crown Cemeteries and approximately 34 local government cemeteries within the Metropolitan Sydney.
- **Private Cemeteries:** are primarily located on freehold land (with the exception of the private operated Rookwood Crematorium which is on Crown Land). There are nine active private cemeteries in the Metropolitan Sydney.
- **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. There are approximately 10 active Church and Family cemeteries in the Metropolitan Sydney.

### 3.2. AVAILABLE BURIAL SPACE IN SYDNEY

As the population of NSW has grown, 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, in Metropolitan Sydney.

The CCNSW Activity Report in 2015 estimated that around 310,000 – 330,000 grave sites were available in Metropolitan Sydney as at 2015. As at October 2017 there were six new cemeteries planned for Metropolitan Sydney. This included three cemeteries that have been approved with a total of 123,490 burial spaces. Proposed cemeteries include Macarthur Memorial Park that has been proposed by the CCMT with a total of 136,000 burial plots.

Urbis is aware of two projects within Metropolitan Sydney with a total of 11,000 burial plots proposed, however, it is noted that both projects have not lodged a development application.

Based on available information of proposed cemeteries, it is estimated that there are approximately 270,500 proposed future burial spaces within the six proposed cemeteries in the Metropolitan Sydney.



## Proposed Future Cemeteries

Metropolitan Sydney

Table 3.1

| Firm   |              |                |                         |
|--|--------------|----------------|-------------------------|
| Cemetery   | LGA          | Burial Plots   | Status                  |
| Macarthur Memorial Park                            | Campbelltown | 136,000        | Development Application |
| The Garden Cemetery (41 Greendale Road, Bringelly) | Liverpool    | 14,490         | Approved                |
| 2207-2223 Elizabeth Drive, Luddenham               | Penrith      | 38,000         | Approved                |
| 321 Greendale Road, Bringelly                      | Liverpool    | 71,000         | Approved                |
| <b>Total</b>                                       |              | <b>259,490</b> |                         |
| Potential  |              |                |                         |
| Eastern Suburbs Memorial Park                      | Randwick     | 3,000*         | Early Planning          |
| St Bartholomew's Expansion                         | Blacktown    | 8,000*         | Early Planning          |
| <b>Total</b>                                       |              | <b>11,000*</b> |                         |

Note: Estimated based on public reports

Source: Cordell Connect, Urbis

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 which 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 introduced renewable tenure for graves in public cemeteries, to give the option for plots to be opened and reused after 25 years. Part 4 of the Act which outlines the renewable tenure has not been enacted yet and it is uncertain as to whether cemetery operators will be required to offer renewable interment rights. This would allow cemeteries to accommodate additional burials and extend the burial life of the cemetery.
- **Staged Release:** Cemeteries often stage the release of the 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. This can act to slow the rate of burial space availability in the short to medium term.

## 3.3. CATCHMENT CEMETERIES

### 3.3.1. Existing

Table 3.2 outlines the existing supply of cemeteries located within the Catchment Area. Of the cemeteries that are located within the Catchment Area 14 are operated by local government, three owned or operated by the CMCT and three private cemeteries. It is noted that CCNSW have prepared a report on Metropolitan Sydney, however, the report is not publicly available at October 2017. Urbis requested data on available burial sites from cemetery operators. Limited data was provided and as such, Urbis has estimated available burial sites based on available land within each of the cemeteries. It is estimated that there are approximately 25,000 burial spots within the Catchment Area.

## Cemeteries in Catchment Area

2017

Table 3.2

| <b>Cemetery</b>                          | <b>LGA</b>     | <b>Overview</b>  | <b>Available Burial Sites*</b> |
|--|----------------|--|--------------------------------|
| Emu Plains General Cemetery              | Penrith        | Local government cemetery                                      | 2,200                          |
| Penrith General Cemetery (Kingswood)     | Penrith        | Local government cemetery                                      | 7,700                          |
| St Mary's General Cemetery               | Penrith        | Local government cemetery                                      | 1,100                          |
| Castlereagh Anglican Cemetery            | Penrith        | Local government cemetery                                      | 0                              |
| St Stephen and Martyr Graveyard Cemetery | Penrith        | Local government cemetery                                      | 0                              |
| McCarthy Lane Cemetery                   | Penrith        | Private  | 1,900                          |
| Sir John Jamisons Catholic Cemetery      | Penrith        | Operated by St Nicholas of Myra Catholic Church                | 0                              |
| Greendale Cemetery                       | Liverpool      | Managed by the Catholic Cemeteries Trust                       | 1,200                          |
| Kemps Creek Catholic Cemetery            | Liverpool      | Managed by the Catholic Cemeteries Trust                       | 1,200                          |
| Liverpool Cemetery                       | Liverpool      | A non-sectarian cemetery managed by Catholic Cemeteries Trust. | 7,200                          |
| Mt Irvine Cemetery                       | Blue Mountains | Local government cemetery                                      | 0                              |
| Mt Victoria Cemetery                     | Blue Mountains | Local government cemetery                                      | 10                             |
| Blackheath Cemetery                      | Blue Mountains | Local government cemetery                                      | 40                             |
| Megalong Cemetery                        | Blue Mountains | Local government cemetery                                      | 0                              |
| Katoomba Cemetery                        | Blue Mountains | Local government cemetery                                      | 700                            |
| Wentworth Falls Cemetery                 | Blue Mountains | Local government cemetery                                      | 400                            |
| Lawson Cemetery                          | Blue Mountains | Local government cemetery                                      | 800                            |
| Faulconbridge Cemetery                   | Blue Mountains | Local government cemetery                                      | 0                              |
| Springwood Cemetery                      | Blue Mountains | Local government cemetery                                      | 300                            |
| St Georges Anglican Church               | Blue Mountains | Private  | 100                            |
| <b>Total</b>                             |                |  | <b>24,850</b>                  |

Source: Catholic Metropolitan Cemeteries Trust, Urbis

Note: \* Figure is an estimate based on available land.

## 3.4. PROPOSED

As at October 2017, there were three new cemeteries planned for the Catchment Area. All cemeteries have been approved with a total of 123,490 burial spaces.

### Proposed Future Cemeteries

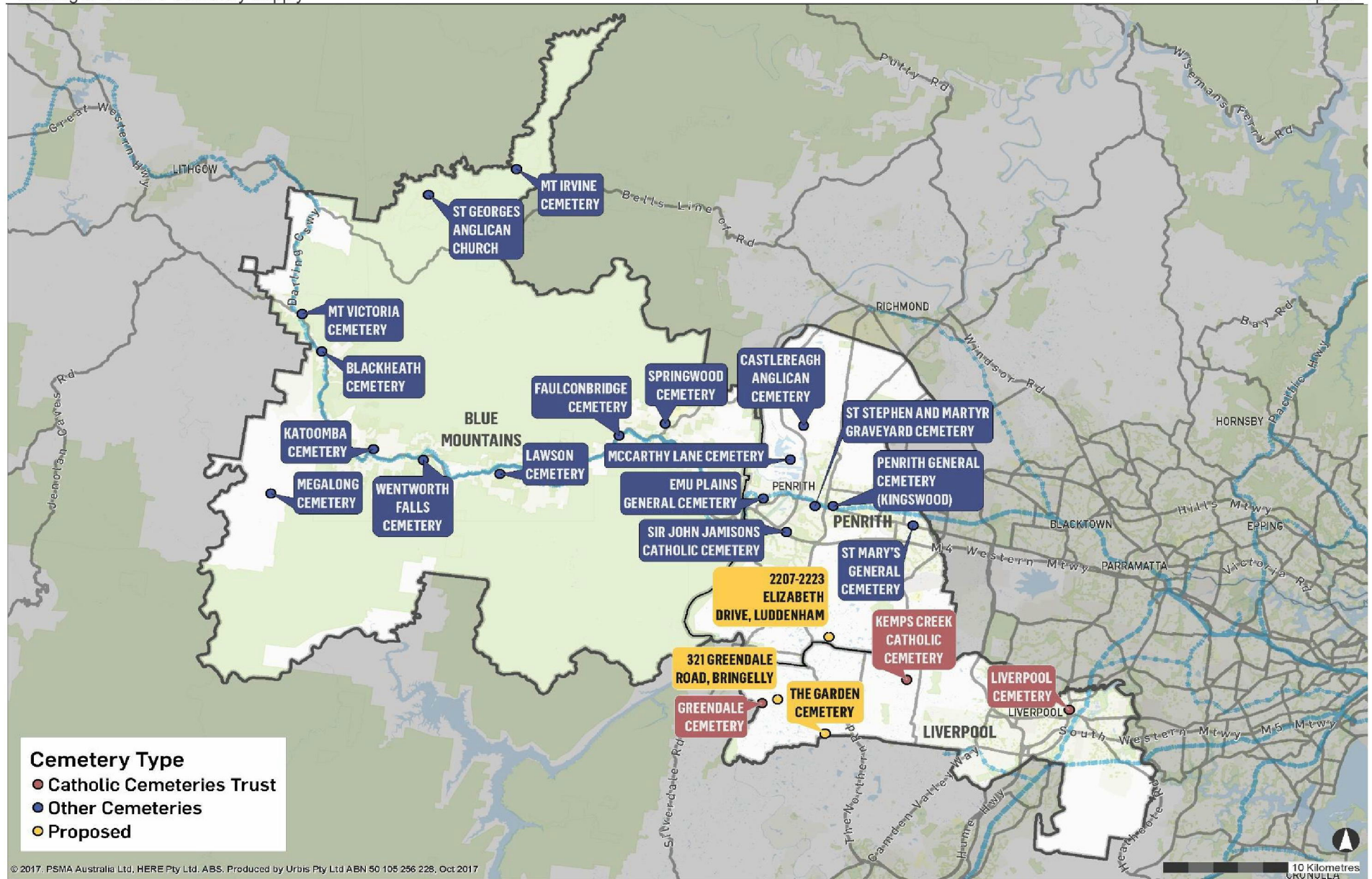
Catchment Area

Table 3.3

| Cemetery                             | LGA       | Burial Plots   | Status   |
|--------------------------------------|-----------|----------------|----------|
| The Garden Cemetery                  | Liverpool | 14,490         | Approved |
| 2207-2223 Elizabeth Drive, Luddenham | Penrith   | 38,000         | Approved |
| 321 Greendale Road, Bringelly        | Liverpool | 71,000         | Approved |
| <b>Total</b>                         |           | <b>123,490</b> |          |

Source: Cordell Connect, Urbis





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Source: Cordell Connect, Urbis



## 4. CEMETERY DEMAND AND GAP ASSESSMENT

### 4.1. APPROACH

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 Fawcner 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.

Urbis has assessed the demand for burial plots using the following approach and key assumptions:

- Mortality rates by age group across NSW have been calculated from Australian Bureau of Statistics (ABS) data. It is assumed that mortality rates will decline into the future as average life expectancies increase. As such, Urbis has adjusted mortality rates so that they correspond to the forecast number of deaths in NSW as projected by the NSW Department of Planning and Environment.
- Projected population by age group for the Catchment Area has been sourced from the NSW Department of Planning and Environment. The adjusted mortality rates for NSW were applied to the population projections by age for the catchment areas to estimate future deaths.
- The proportion of deaths that result in burial in Metropolitan Sydney were outlined from the 2014-15 Crematories and Crematoria NSW Activity Report comprising 33.7%. It is noted that scarcity could result in higher prices for burial plots and result in a lower proportion of people choosing burial. It is also noted that cremation is increasing in popularity among Judaism and Catholicism. Urbis has assumed that burial rates will continue to decline and have adopted a straight-line decline from 33.7% in 2017 to 30% in 2030 before adopting a constant burial rate of 30% from 2030 onwards.
- It is noted that not all people are buried in new plots with some people choosing existing burial sites such as family members being buried together. As such, an allowance has been made on the proportion of burials that will occur in new burial plots. Data from the Cemetery Reform Group indicated that approximately 73% of burials occurred in new or unused burial sites.
- According to the 2014-15 Crematories and Crematoria NSW Activity Report, the Metropolitan Sydney recorded a net volume of services equal to 1,019 in 2014/15 (services minus deaths within region), with the West Central area recording a net volume of services equal to 4,944 indicating a significant number of services are being 'exported' to areas within the Catchment Area.
- It is noted that the data presented is as at 30<sup>th</sup> June 2017 and data is presented in financial year intervals.

### 4.2. METROPOLITAN SYDNEY AND CATCHMENT AREA

Based on the projected number of deaths within Metropolitan Sydney from 2017 onwards, approximately 116,000 new burial sites will be required over the next 15 years from 2017 to 2032. This represents around 40% of the current supply of burial plots and 21% of the current and proposed supply. The current stock of burial plots in Metropolitan Sydney would be fully absorbed in approximately 35 years. It is noted that with the additional 270,490 proposed burial plots, stock would be fully absorbed in approximately 54 years (2071), allowing for an additional 19 years of supply.

Within the Catchment Area, it is projected there will be some 45,000 deaths over the period 2017 to 2032. Assuming all residents are buried within the Catchment Area, around 10,370 burial sites will be required in the catchment area over the period. This represents around 41% of the current supply of burial plots and 6% of current and proposed supply. The current stock of burial plots in the Catchment Area would be fully absorbed in approximately 31 years. It is noted that with the additional 123,490 proposed burial plots, stock would be fully absorbed in approximately 102 years (2119), allowing for an additional 71 years of supply.

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 throughout Western Sydney, the total demand for burial plots will exceed supply by approximately 2070.

## Burial Demand

Metropolitan Sydney and Catchment Area

Table 4.1

|   | 2017-2022 | 2022-2027 | 2027-2032 |
|---|-----------|-----------|-----------|
| <b>Metropolitan Sydney</b>                  |           |           |           |
| Projected deaths (cumulative)               | 143,977   | 300,001   | 471,514   |
| No. of burials in unused sites (cumulative) | 34,957    | 71,208    | 109,343   |
| Remaining burial sites* (at end of period)  | 528,490   | 492,238   | 454,104   |
| <b>Catchment Area</b>                       |           |           |           |
| Projected deaths (cumulative)               | 13,027    | 27,884    | 44,768    |
| No. of burials in unused sites (cumulative) | 3,162     | 6,613     | 10,367    |
| Remaining burial sites* (at end of period)  | 145,328   | 141,877   | 138,123   |

Source: Urbis

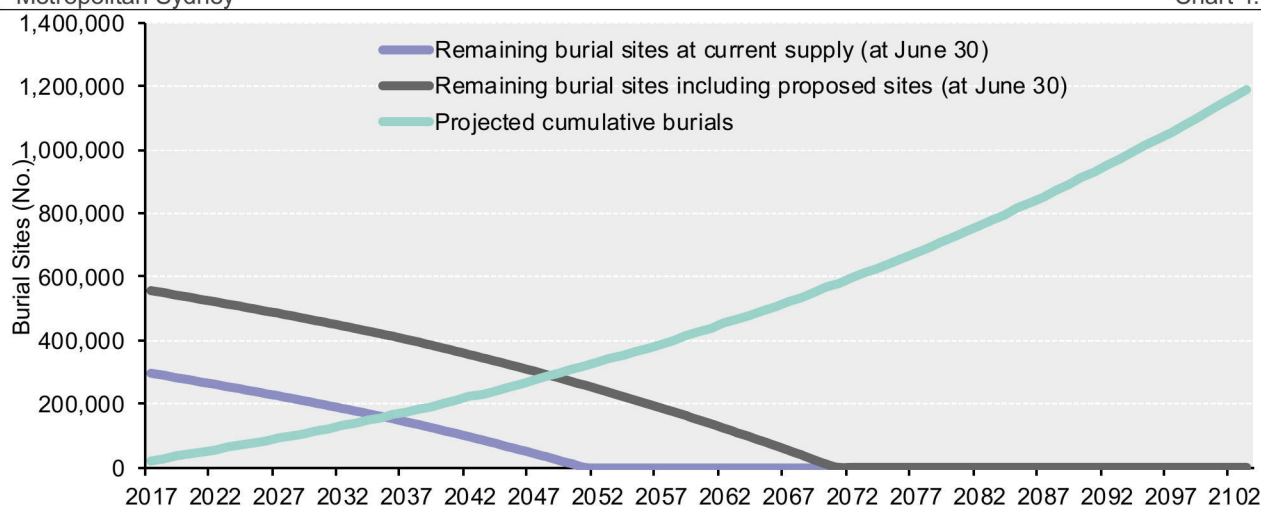
Note: \*indicates proposed supply and current supply

By projecting the remaining unused burial sites in Metropolitan Sydney beyond 2017, it is estimated that if no further burial sites become available capacity will be reached at 2052. With the addition of the proposed supply (270,490 spaces), capacity will be reached in approximately 2071.

## Burial Demand and Supply

Metropolitan Sydney

Chart 4.1



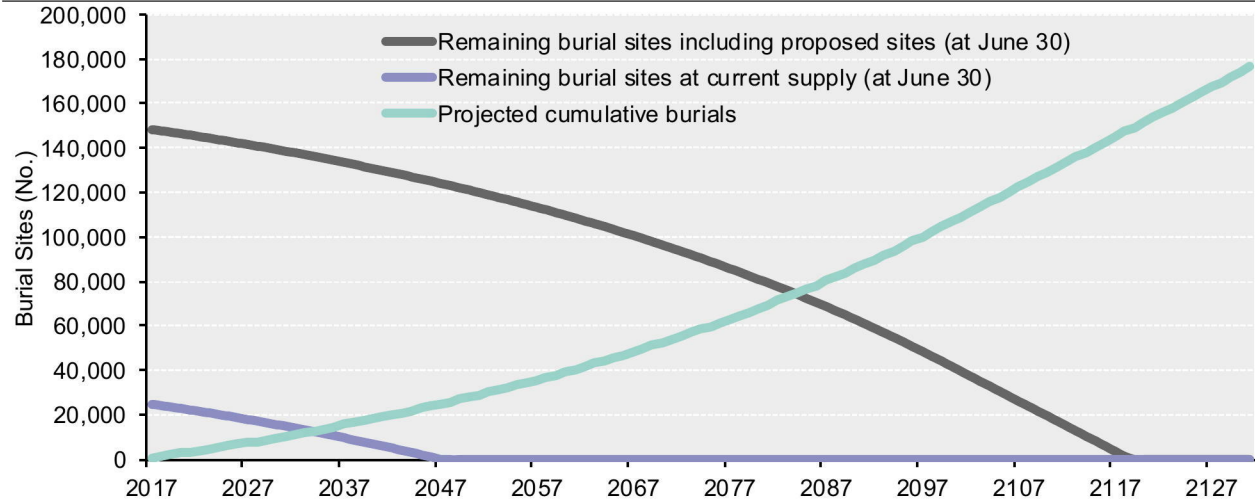
Source: Urbis

By projecting the remaining unused burial sites in the Catchment Area beyond 2017, it is estimated that if no further burial sites become available, capacity will be reached at 2048. With the addition of the proposed supply (123,490 spaces), capacity will be reached in approximately 2119. This level of supply will assist in fostering a long term operating life for catchment cemeteries, allowing families to utilise single cemeteries for multi-generation interment. This has been the case with other cemeteries in Sydney (e.g. Rookwood, which has been in operation for 150 years).

Burial Demand and Supply

Catchment Area

Chart 4.2



Source: Urbis



## 5. ECONOMIC AND BROADER BENEFITS

The following section assesses the social and economic benefit of a new cemetery development within Western Sydney.

### BROADER BENEFIT ASSESSMENT

In considering the need for future burial space, it is important to consider the potential broader benefits of a new cemetery in Western Sydney. Cemeteries are important to local communities as they provide a location for residents to remember friends and family. Cemeteries offer green spaces in urban areas and are considered to be intergenerational investment in infrastructure. Cemeteries provide many broader benefits including:

- Cemeteries are park-like settings which are actively maintained, contributing to a region's open space by virtue of their size and landscape.
- In some instances, cemeteries can act as community gathering places for special events. The parks provide aesthetic landscapes that can host a variety of events within designated venues. Rookwood Cemetery has hosted events such as commemorations, art events and workshops, and open days.
- In some instances, cemeteries act as a haven for flora and fauna, providing a sanctuary for many different species to thrive in urban areas.

### ECONOMIC BENEFITS

It is important to consider the potential economic benefits that a new cemetery at Wallacia would provide to the local economy. The economic benefits listed in Table 5.1, the key findings include:

- A \$3 million refurbishment to the existing golf clubhouse to service the golf club, which is anticipated to contract from 18 to 9 holes in the medium term. The expanded clubhouse would service the members with a new function space capable of hosting wakes associated with the cemetery (as well as other private functions). The investment will act as an investment in the community and provide employment to local workers.
- CMCT is proposing to develop the Wallacia Cemetery in stages with the eastern precinct being developed first and including an office, crematorium, roads and landscaping. The first stage of development is estimated to cost \$8 million with an additional \$8 million for the future stages
- The cemetery is anticipated to employ six to eight full-time staff to conduct the day-to-day business once the cemetery is operational. It is also worth noting that the golf club will also retain approximately 12 employees as the course will continue to operate as a 9-hole course.

#### Economic Benefits

Wallacia Cemetery

Table 5.1

| Type of Investment         | Total Investment | Expenditure Period |
|----------------------------|------------------|--------------------|
| Refurbishment of clubhouse | \$3 million      | 2 years            |
| Construction of cemetery   | \$16 million     | Staged from 2021   |
| Cemetery Employment        | 6-8 Staff        | Ongoing            |

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