
Cemeteries and Crematoria NSW

2014-15

Activity Report



Cemeteries &
Crematoria NSW

Cemeteries and Crematoria NSW 2014-15 Activity Report

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Abstract : A report which presents and analyses mortal remains interment, cremation and ash interment activity completed in NSW in 2014/15. CCNSW has surveyed operators of all active NSW facilities, including 49 crematoria and 851 cemeteries, in respect of burial, second and renewable burial, cremation, and ash interment and scattering activity for 2014/15. This report presents and analyses the activity information provided by NSW operators. The report is expected to be of value in evidencing current practices, in supporting the CCNSW greater metropolitan cemetery capacity analysis work which follows in 2016, and in maintaining industry awareness of the operational and demographic contexts of cemetery and crematorium facilities.

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PHOTOGRAPHIC CREDITS

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JTN: 13930

Message from the Chair



On behalf of the Board, I am very pleased to present the Cemeteries and Crematoria NSW 2014-15 Activity Report.

Recently Cemeteries and Crematoria NSW developed and published a Strategic Plan, which sets the blueprint for the next five years. It describes how we will work collaboratively with our partners to meet ongoing challenges and ensure the communities of NSW have respectful, accessible, consistent and affordable burial and cremation services.

Cemeteries and crematoria are critical community infrastructure and provide essential services to the people of NSW. Among the serious challenges facing the interment industry is the growing awareness that cemetery space in the Greater Sydney area is fast running out. There are other centres in regional NSW where similar cemetery capacity challenges are present, some where urgent action to plan and provide for future capacity for those communities is required.

Among other functions, the Cemeteries Agency was established to collect information about cemetery capacity and usage, future cemetery needs, and cemetery and crematorium performance, and to use the evidence to identify planning and policy issues, and to work with industry to develop and implement collaborative, sustainable solutions. CCNSW carries forward the Government's commitment to recognise and take account of the right of all individuals in NSW to a dignified interment and the treatment of their remains with respect.

Annual activity reporting on cremation and interment services provided in all regions of NSW and by all sectors of industry, and the associated information on the consumption of cemetery land, provides essential evidentiary material to inform planning for the future provision of service capacity for the community of NSW.

The 2014/15 cemeteries and crematoria report includes information in respect of 900 facilities, including 49 crematoria and 851 cemeteries, as reported by industry operators. I wish to acknowledge and thank the many cemetery and crematorium operators in NSW who have committed time and effort to providing the activity information on which the Activity Report is based.

The Report identifies cremation rates and rates of consumption of new grave plots for all planning regions of NSW. The analysis also identifies many differences between regions, reflecting the different circumstances faced by operators, and different orientations and different service access opportunities for community members. I hope that NSW cemetery and crematorium operators find in the report information of value to their current delivery of services, and to their planning of services to be required in the years ahead.

I look forward to activity reporting for future periods, so that evidence on the trends which are material to future service requirements can be monitored. With the projected increase in deaths per annum in NSW over coming decades, updated information on metropolitan and regional cremation rates, and the take-up of renewable interment rights, will be of particular value.

A handwritten signature in black ink, reading 'Stepan Kerkyasharian'.

Dr Stepan Kerkyasharian AO

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1. Executive Summary

New South Wales has a long history of setting aside significant areas of land for public cemeteries to ensure that the right to a dignified burial is afforded to all members of the community. NSW is also unique among Australian jurisdictions with its mix of Crown, local government and private cemetery sectors.

In 2012 the NSW Government commenced a program of reforms to bring a coordinated, strategic approach to management of the interment industry, to address the critical shortage of burial space and to ensure the full range of interment options is accessible and affordable to everyone. The reforms provided for the *Cemeteries and Crematoria Act 2013*, and the establishment of Cemeteries and Crematoria NSW (CCNSW), an agency with functions including to collect information about cemetery capacity and needs, usage and performance; and to deliver evidence from which to identify planning and policy issues, and develop and implement collaborative, sustainable solutions.

The CCNSW 2014/15 activity survey sourced activity information from cemetery and crematoria operators state-wide, in respect of burial, second and renewable burial, cremation, and ash interment, including information in respect of 900 facilities, including 49 crematoria and 851 cemeteries. The following table represents 2014/15 mortal remains interment and cremation activity reported for all Planning Regions in NSW:

Table 1.1 Number and distribution of services in NSW by planning region

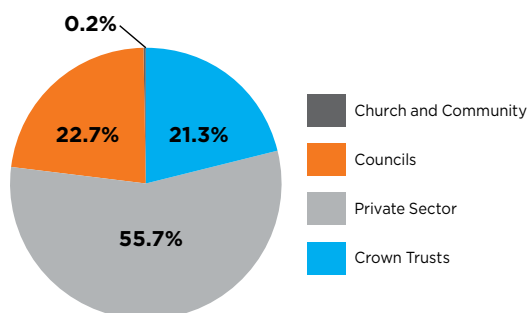
Planning Region	No. of deaths 2014 ¹	Burials 2014/15	Cremations 2014/15	Total services 2014/15 ²	% of total NSW services (burials and cremations)	Cremation rate %
Central Coast	3,321	472	2,405	2,877	5.3%	83.6%
Far West	472	337	296	633	1.2%	46.8%
Hunter	5,284	1,208	4,431	5,639	10.5%	78.6%
Illawarra	3,398	817	2,433	3,250	6.0%	74.9%
Metropolitan Sydney	24,919	8,730	17,208	25,938	48.0%	66.3%
Murray-Murrumbidgee	2,206	1,436	2,493	3,929	7.3%	63.5%
New England - North West	1,636	973	450	1,423	2.6%	31.6%
North Coast	6,246	1,415	4,528	5,943	11.0%	76.2%
Orana & Central West	2,418	1,434	1,067	2,501	4.6%	42.7%
South East & Tablelands	2,262	1,011	801	1,812	3.4%	44.2%
TOTAL	52,162	17,883	36,112	53,945	100.0%	66.9%

¹ Australian Bureau of Statistics, 33020DO006_2014 Deaths, Australia, 2014, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3302.0> ABS reports Deaths statistics by calendar year, without subdivision by month. This report relies upon ABS death data for calendar year 2014, and necessarily compares calendar year 2014 deaths with 2014/15 burial, cremation and associated service activity reported by operators. While the periods are not absolutely coincident, 2014 deaths is the closest available 12-month statistic for comparison purposes.

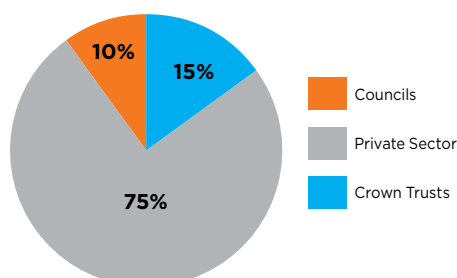
² 'Total Services' refers to primary services, ie burial or cremation of human remains, the means of disposition of human remains as defined by the Public Health Regulation 2012. Ash interment, ash scattering and memorialisation are considered as secondary services in this context.

Analysis of 2014/15 activity data provides the following principal findings

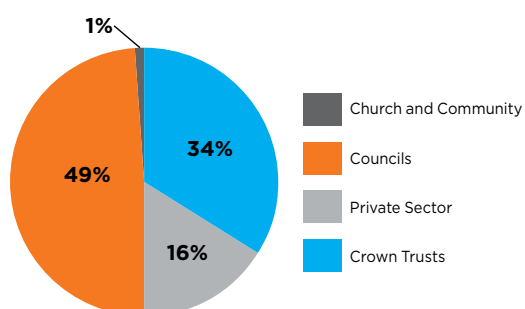
Sector % of total NSW services (53,945)



Sector % of total NSW cremations (36,112)



Sector % of total NSW burials (17,883)



No. of deaths v No. of interment services

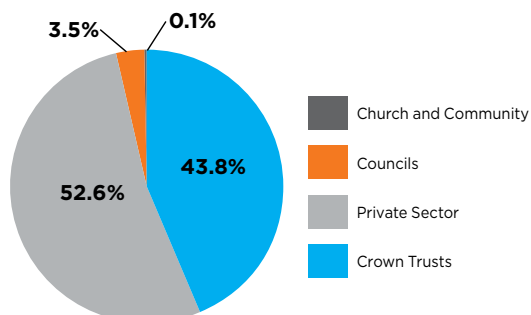
- » Whole of NSW - a net incoming traffic to NSW for burial and cremation services (53,945 burials and cremations in 2014/15, compared with 52,320 deaths recorded for 2014, a difference of +1,625 or +3.1%)³
- » Deaths: estimated populations of metropolitan and regional NSW as at 2014 were Metro 4,509,579 (60%), and rural and regional 3,008,893 (40%); deaths recorded for 2014 were Sydney 24,919 (47.7%) and regions 27,243 (52.3%), reflecting the difference in age profiles between Sydney and regional communities
- » Metropolitan Sydney - a net incoming traffic to Metropolitan Sydney for burial services (25,938 burials and cremations for 2014/15, compared with 24,919 deaths for 2014, a difference of +1,019 or +4.1%)
- » NSW excluding Sydney - a net incoming traffic to regional NSW for services (28,007 burials and cremations for 2014/15, compared with 27,401 deaths for 2014, a difference of +606 or +2.2%)

Distribution of services by sector

- » Private sector operators provide the majority (55.7%) of primary services in NSW, delivering 30,049 primary services, comprising 2,845 burials and 27,204 cremations
- » Private sector operators provide 75% of cremation services in NSW, including 69% of metropolitan area cremations (11,821), and 81% of regional cremations (15,383)
- » Councils provide 22.7% of overall services; the largest share of all burials in NSW (8,736, or 49% of NSW burials), and the great majority of regional burial services (7,840, or 86% of regional burials)

³ While the reporting period for deaths (2014) and services provided (2014/15) are not absolutely coincident, the no. of services provided is sufficiently higher than the no. of deaths expected to be recorded, as to confirm a rate of traffic incoming to NSW for burial and cremation services.

**Sector % of Sydney Metro services
(25,398)**

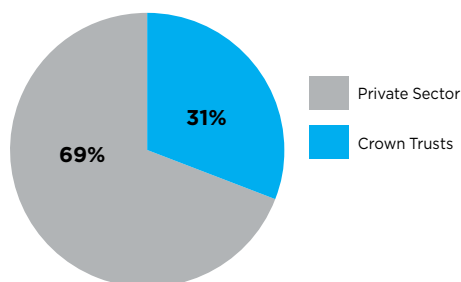


- » Crown Trusts provide 21.3% of primary services in NSW, but provide the great majority of metropolitan burial services (5,984, or 69% of metropolitan burials)

Cremation rates

- » the Sydney cremation rate (66.3%) is consistent with the rest of NSW (66.9%); given proximity constraints in the regions, the rate likely reflects an orientation to burial for many communities in greater Sydney
- » a much higher level of cremation is current in the Central Coast, Hunter and Illawarra⁴ regions (78.8%)
- » the number of cremations for 2014/15 is considerably higher than 2013 (+2,288) and suggests an increase in the state-wide cremation rate of 1.4% from 65.3% to 66.9%
- » it will be of particular interest in 2015/16 whether an ongoing trend toward cremation is in effect

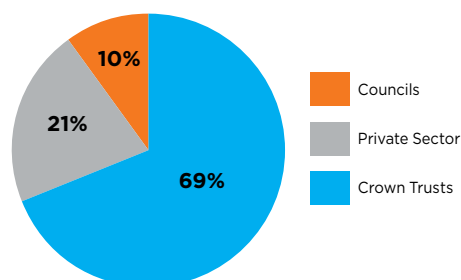
**Sector % of Sydney Metro cremations
(17,208)**



Burials per cemetery

- » there is great variance in burial rates per cemetery between metropolitan and regional areas; for Sydney the average is 153 burials per cemetery for 57 active cemeteries; for the remainder of the state excluding Sydney, 11 burials per cemetery for 794 active cemeteries

**Sector % of Sydney Metro burials
(8,730)**

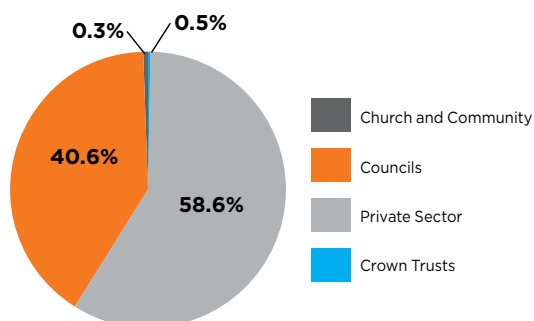


Second interments and occupancy rates

- » in the metropolitan area, where cemetery space is at a premium, the rate of second or subsequent interment is 30.3% of all burials, suggesting a 'current' grave occupancy rate of 1.45
- » the figures identify that metropolitan cemetery space is being consumed with relative efficiency, and the occupancy rate is expected to increase in future years

⁴ Region-specific cremation rates are provided below at Table 4.9 Number and distribution of services and cremation rate in NSW by region

**Sector % of NSW regional services
(28,007)**



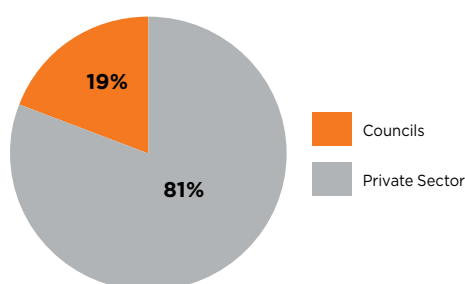
Rate of cemetery land consumption in Metropolitan Sydney

- » CCNSW calculates that as at 1 Jan 2015 there were around 310,000-330,000 grave plots available for new interments in Metropolitan Sydney
- » there were 6,013 interments in new graves in Sydney in 2014/15, with around 2% of available stock consumed for interments; steep increases in deaths per annum in future years will greatly increase the rate.

Importance to greater Sydney of West-Central region facilities

- » 'strategic' facilities in the West-Central region of Sydney, including Rookwood, Pinegrove and Castlebrook facilities currently service much of the greater Sydney community
- » the region sustains 29.7% of the metropolitan population, but provides 40.3% of primary services (burials and cremations) and 54.6% of greater Sydney burials

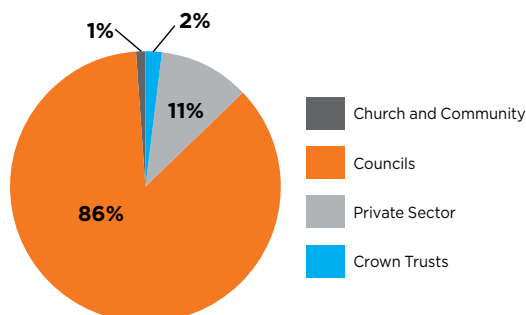
**Sector % of NSW regional cremations
(19,904)**



Interment and memorialisation following cremation

- » 2013 activity data identified the interment of 30,498 remains in NSW cemeteries (17,968 burials and 12,530 ash interments), 60.7% of deaths recorded in NSW for the period
- » 2014/15 data identifies the disposition of 29,951 remains in NSW cemeteries (17,853 burials and 11,738 ash interments or scatterings), 57.4% of deaths recorded in NSW for the period
- » the Metropolitan Sydney 'share' of reduced ash interments (approx. 80% of the reduced total) is much higher than the metropolitan 'share' of ~50% of total services provided

**Sector % of NSW regional burials
(9,103)**



- » regional Councils report a rate of ash interment or ash scattering to 80.5% of cremation services provided (however the rate of ash interment will include interment of ashes cremated by other operators)

Looking ahead

The relatively low cremation rate for the heavily populated Sydney region, by comparison with adjoining Hunter, Central Coast and Illawarra region cremation rates, suggests a continued orientation to burial for many Sydney communities. The cremation rate for Sydney will be material to the cemetery capacity which is required for the Sydney population in future decades. CCNSW intends to publish a Greater Sydney cemetery capacity report later in 2016, including sensitivity testing in respect of the future Sydney cremation rate, and effect upon cemetery land consumption.

It will be of particular interest in 2015/16 whether an ongoing trend toward cremation is in effect, given the effect of the variable to increasing deaths per annum and long term cemetery land requirements.

Further reporting in future periods by cemetery and crematoria operators will provide visibility of increased interment volumes and efficiency of cemetery land use in the years ahead, as annual mortality volumes double between 2011 and 2051. Activity reporting will provide an evidence base of actual rates of cremation, mortal remains interment, and second and subsequent interments, to inform planning for future community infrastructure requirements.

2. Background and context

Cemeteries and crematoria are critical community infrastructure and provide essential services to the people of NSW. They are vital places for remembrance and reflection, a rich source of cultural and environmental heritage and provide valuable open spaces. The rich diversity of our community means there are a wide range of needs and expectations for burial and cremation services. Information compiled by Multicultural NSW shows that NSW is home to 200+ languages, 125+ religions, and some 300 ancestries.

There are over 50,000 deaths a year in NSW, and associated burial and cremation services, with many more cremations than burials overall.

Cemetery and crematorium operators in NSW

Over 230 cemetery and crematorium operators provide interment services across NSW. Service providers active in NSW include:

Crown trusts: four large trusts in Sydney; five smaller trusts in regional NSW; Crown trusts conduct around 70 per cent of burials in Sydney

Local Councils: Councils manage around 950 cemeteries in NSW; 80 per cent of council-run cemeteries are closed or conduct 10 or fewer burials per year; Councils manage 8 crematoria in NSW; and conduct around 50 per cent of burials in NSW and 10 per cent of burials in Sydney

Private operators: private operators manage over 70 per cent of crematoria in NSW; manage around 2 per cent of cemeteries in NSW; and conduct 75 per cent of cremations in NSW

Community operators: community operators oversee many small, closed cemeteries; manage around 10 per cent of operational cemeteries in NSW; and conduct around one per cent of burials and no cremations.

Cemeteries and Crematoria NSW

Cemeteries and Crematoria NSW (CCNSW) is the statutory body with strategic and regulatory oversight of the interment industry and responsibility for administering the *Cemeteries and Crematoria Act 2013*.

CCNSW is led by an independent expertise-based board responsible to the Minister for Primary Industries (DPI), the Hon Niall Blair MLC. The Board is Chaired by Dr Stepan Kerkyasharian AO, former Chair and CEO of Multicultural NSW. A specialist business unit of DPI employees, led by CEO Carl Malmberg, supports the Board and enables CCNSW to carry out its functions. The Agency was established to collect information about cemetery capacity and usage, future cemetery needs, and cemetery and crematorium performance, to use the evidence to identify planning and policy issues and develop and implement collaborative, sustainable solutions. CCNSW carries forward the Government's commitment to recognise and take account of the right of all individuals to a dignified interment and the treatment of their remains with respect. This includes ensuring that the beliefs of all community groups are respected and equitable and affordable access to interment services is adequately provided, irrespective of religious or cultural heritage.

CCNSW has prepared a Strategic Plan for 2015-2020, to articulate our role and priorities to the community and industry partners⁵. It describes how CCNSW will deliver the NSW Government's commitment to ensuring community needs and expectations are met. The plan also sets out a blueprint for implementing the new regulatory framework for the interment industry. CCNSW is responsible for ensuring that planning and acquisition of cemetery capacity sufficient to provide for the needs of the NSW population and communities is carried forward, and land acquired as necessary to meet the service needs of communities.

Population and mortality project data developed by the NSW Department of Planning and Environment projects that the number of persons who die each year in NSW will increase from around 50,160 in 2011 to 73,270 by 2041 (+46%)⁶. In the greater metropolitan area, including Metropolitan Sydney, Hunter, Central Coast and Illawarra regions, the number of persons who die each year is projected to increase from around 35,390 per annum in 2011 to 53,070 per annum by 2041 (+50%).

The last substantive survey of cemetery capacity in the greater Sydney region completed in 2002-2005, projected exhaustion of available cemetery capacity in the Sydney Metropolitan area before 2050. Some population centres in regional NSW are also understood to be approaching exhaustion of cemetery capacity.

CCNSW is currently completing a refreshed survey of cemetery capacity available within metropolitan Sydney, and of the service needs of the diverse metropolitan community. These surveys will provide an evidence base for planning and securing the cemetery and crematoria facilities which will be required in coming decades. In 2016 and 2017 CCNSW plans to extend survey work to regional areas, to identify where future cemetery capacity is at risk, so that appropriate actions in planning and securing land for cemetery usage may be carried forward.

CCNSW 2014/15 cemeteries and crematoria operator activity survey

The activity survey completed with NSW cemetery and crematorium operators for the 2014/15 financial year was completed in order to contribute to the evidence base for planning for future service and cemetery space requirements. The objects of the *Cemeteries and Crematoria Act 2013* include objects

- (c) to ensure that sufficient land is acquired and allocated so that current and future generations have equitable access to interment services;
- (d) to provide for the operation of a consistent and coherent regime for the governance and regulation of cemeteries and crematoria;
- (e) to ensure that the operators of cemeteries and crematoria demonstrate satisfactory levels of accountability, transparency and integrity; and
- (g) to promote environmental sustainability of the interment industry, including provision for natural and private burial.

Part 4 of the Act, upon commencement, will establish a consistent regime of interment rights for NSW cemeteries, including a regime for renewable interment rights. Implementation of renewable interment rights will be an option available to cemetery operators, which is expected to have the effect of increasing the efficiency of cemetery land usage, by allowing for increased numbers of

⁵ Information about CCNSW and the CCNSW Strategic Plan 2015 may be accessed at <http://www.dpi.nsw.gov.au/lands/cemeteries-crematoria>.

⁶ Projection of expected deaths per annum in NSW 2011-2041 is provided at Attachment F below, NSW Deaths Projected to 2041 - Planning Region level. Data was developed for CCNSW by the NSW Department of Planning and Environment, Demography Team, February 2016. The numbers presented are indicative of overall trends and should be treated as such. Demography reports and datasets published by DPE Demography and Economics division are available at <http://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-Projections>.

interments in individual grave plots⁷. With the view to tracking the efficiency of grave plot use in future, the 2014/15 activity survey included sourcing from operators information in respect of the number of interments of bodily remains in perpetual interment sites **in which one or more previous interments had taken place** (ie where an existing grave was re-opened).

It is intended that annual activity reporting by cemetery and crematoria operators be continued, to provide for visibility of increased mortality volumes and efficiency of cemetery land use in the years ahead as annual mortality volumes are projected to double between 2011 and 2051. Activity reporting will provide an evidence base of actual rates of cremation, mortal remains interment, and second and subsequent interments, to inform planning for future community infrastructure requirements.

History of cemetery and crematorium activity reporting in NSW

Visibility of whole-of-industry annual activity volumes for NSW cemeteries and crematoria prior to 2014 was reliant upon occasional sampling performed with major facility operators⁸. There is some private sector research on the aggregate industry sector of funeral directors, crematoria and cemeteries nationally, which does not report on service activity volumes, or by jurisdiction⁹.

To assist in communications with industry participants upon implementation of the *Cemeteries and Crematoria Act 2013*, the DPI Cemetery Reform Group (CRG) completed a process to register cemetery and crematorium facilities during 2014, with registration forms requiring reporting of 2013 interment service activity. Activity information captured was used to plan the forward work program for the CCNSW entity, but was not published as a representation of 2013 industry activity.

During 2014, the CRG and then CCNSW continued compilation of a Cemeteries and Crematoria Register, targeting registration of all currently operating cemetery and crematorium facilities in NSW. From July 2015, CCNSW performed a refreshed and more comprehensive activity survey, sourcing activity volumes and related estimates for cemetery and crematorium services performed in 2014/15, for all operators and facilities registered as 'operational' on the CCNSW Cemeteries and Crematoria Register.

⁷ Many cemeteries in NSW allow double-depth perpetual interments as at 2015, ie a first burial at an increased depth, and a subsequent burial above the initial burial in the same grave plot. As a result there is already an 'occupancy rate' of interments per grave which is higher than 1.

⁸ Sampling was occasionally performed by state Lands agency personnel in the context of work to determine metropolitan cemetery capacity and consumption.

⁹ IBIS World, Funeral Directors, Crematoria and Cemeteries in Australia: Market Research Report, <http://www.ibisworld.com.au/industry/default.aspx?indid=675>.

Approach to the 2014/15 activity survey

The CCNSW 2014/15 activity survey refined the data required from operators, to allow better tracking of grave plot consumption, and was supported by follow-up with operators where questions presented over data completeness or accuracy.

The 2014/15 NSW cemeteries and crematoria activity survey relies on four primary data inputs;

- » Use of NSW Government projections of population and mortality by local government area
- » Use of the CCNSW Cemeteries and Crematoria Register, to identify facilities and contacts for sourcing of activity information
- » Use of cemetery operator activity survey information captured for the 2013 year, as a sense-check on 2014-15 activity data provided by operators
- » Use of 2014-15 cemetery operator cemeteries and crematoria activity information, sourced from operators between July and September 2015.

Activity survey information captured from operators includes information in respect of 900 facilities, including 49 crematoria and 851 cemeteries. The work commenced with CCNSW review of the 2013 survey data, and framing of data and methodology parameters for the revised survey, and the issue of survey information and data collection forms. CCNSW liaised with operators to assist in correction of registration data, and to clarify data types and associated definitions, as necessary. Where activity information received to CCNSW was unclear, or significantly different from indicative data collected in 2013, CCNSW followed up with operators to confirm the reliability of activity information recorded.

3. Purpose and Scope

Given projected population increases through to 2056, and associated increases in deaths per annum, additional facilities and additional cemetery capacity will be required in NSW to provide the services required by the NSW community.

Many of the operational cemeteries in NSW were established in the 19th and early 20th centuries. While a number of private cemeteries established in greater Sydney later in the 20th century, the last major commitment of land to Crown cemetery usage in greater Sydney was in 1937. A review of cemetery capacity available in greater metropolitan Sydney was last completed in 2002-05, and identified that cemetery capacity may be exhausted by 2050 if not before¹⁰.

Annual activity reporting on cremation and interment services provided in all regions of NSW and by all sectors of industry, and the associated information on the consumption of cemetery land, provides essential evidentiary material to inform planning for the future provision of service capacity for the community of NSW.

Strategic review of community needs in relation to burial and cremation, and remaining cemetery capacity, is increasingly a function performed by Governments in Australia. In Victoria the Cemeteries and Crematoria Regulation Unit published a report estimating the remaining capacity of Victorian cemeteries in 2012¹¹, and a number of NSW Councils active as the primary service provider for their communities have undertaken cemetery strategic planning in recent years¹².

To avoid disclosure of individual operator activity information, data capture and analysis is premised on bundling to NSW Government planning regions¹³, and includes the following planning regions and local government areas:

¹⁰ NSW Government, Report of the Cemeteries Interdepartmental Committee 2005, page 4

¹¹ Victoria Department of Health, Estimation of the remaining capacity of Victorian cemeteries, January 2012, https://www2.health.vic.gov.au/getfile/?sc_itemid=%7B7F523243-5D13-4C90-B5FB-D15182535149%7D&title=Estimation%20of%20the%20remaining%20capacity%20of%20Victorian%20cemeteries

¹² Councils known to CCNSW to have completed Cemetery strategic planning work include Cessnock, Maitland, Shoalhaven and Wingecarribee, and relevant work is understood to be progressing in Orange, Queanbeyan and other LGAs. Council cemetery strategic plan links accessible online include www.cessnock.nsw.gov.au/resources/file/Cemetery/Cemetery%20Strategy%204.pdf; <http://doc.shoalhaven.nsw.gov.au/Displaydoc.aspx?Record=d12/274413>; <http://www.maitland.nsw.gov.au/UserFiles/File/MCC%20Cemetery%20Strategy%20Updated%20February%202013%20v5.pdf>.

¹³ NSW planning regions are under revision as at 2015, with changes to groupings presenting in the potential Council amalgamation context, and in development of DP&E 'Regional Plans'. As a stable basis for data analysis, regions and LGA groupings specified in the document '19 regional groupings of councils as agreed by DP&I and the Independent Local Government Review Panel', 2014, are used in this analysis.

Table 3.1 NSW planning regions and Local Government Areas, as used in the CCNSW analysis

Planning region	LGAs
Metropolitan Sydney - Central	Ashfield, Botany Bay, Burwood, Canada Bay, Leichhardt, Marrickville, Randwick, Strathfield, Sydney, Waverley, Woollahra
Metropolitan Sydney - West Central	Auburn, Bankstown, Blacktown, Holroyd, Parramatta, The Hills Shire
Metropolitan Sydney - North	Hornsby, Hunters Hill, Ku-ring-gai, Lane Cove, Manly, Mosman, North Sydney, Pittwater, Ryde, Warringah, Willoughby
Metropolitan Sydney - West	Blue Mountains, Hawkesbury, Penrith
Metropolitan Sydney - South West	Camden, Campbelltown, Fairfield, Liverpool, Wollondilly
Metropolitan Sydney - South	Canterbury, Hurstville, Kogarah, Rockdale, Sutherland
Hunter	Cessnock, Dungog, Lake Macquarie, Maitland, Muswellbrook, Newcastle, Port Stephens, Singleton, Upper Hunter
Central Coast	Gosford, Wyong
Illawarra	Kiama, Shellharbour, Shoalhaven, Wollongong
South East & Tablelands	Bega Valley, Bombala, Boorowa, Cooma – Monaro, Eurobodalla, Goulburn Mulwaree, Harden, Palerang Queanbeyan, Snowy River, Upper Lachlan, Wingecarribee, Yass Valley, Young
Murray - Murrumbidgee	Albury, Berrigan, Bland, Carrathool, Conargo, Coolamon, Cootamundra, Corowa, Deniliquin, Greater Hume, Griffith, Gundagai, Hay, Jerilderie, Junee, Leeton, Lockhart, Murray, Murrumbidgee, Narrandera, Temora, Tumbarumba, Tumut, Urana, Wagga Wagga, Wakool
Orana and Central West	Bathurst, Blayney, Bogan, Cabonne, Coonamble, Cowra, Dubbo, Forbes, Gilgandra, Lachlan, Lithgow, Mid Western, Narromine, Oberon, Orange, Parkes, Warren, Warrumbungle, Weddin, Wellington
North Coast	Ballina, Bellingen, Byron Shire, Clarence Valley, Coffs Harbour, Gloucester, Great Lakes, Greater Taree, Kempsey, Kyogle, Lismore, Nambucca, Port Macquarie, Richmond Valley, Tweed
New England - North West	Armidale Dumaresq, Glen Innes Severn, Gunnedah, Guyra, Gwydir, Inverell, Liverpool Plains, Moree Plains, Narrabri, Tamworth, Tenterfield, Uralla, Walcha
Far West	Balranald, Bourke, Brewarrina, Broken Hill, Central Darling, Cobar, Unincorporated Far West, Walgett, Wentworth

Chart 3.1 NSW planning regions and Local Government Areas, rural and regional NSW

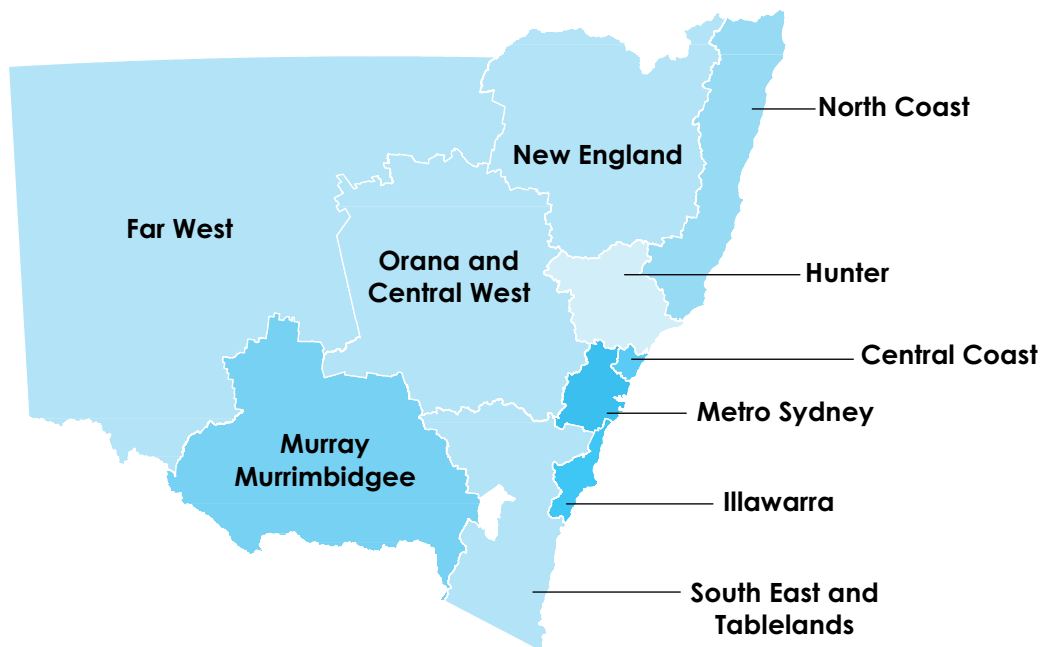
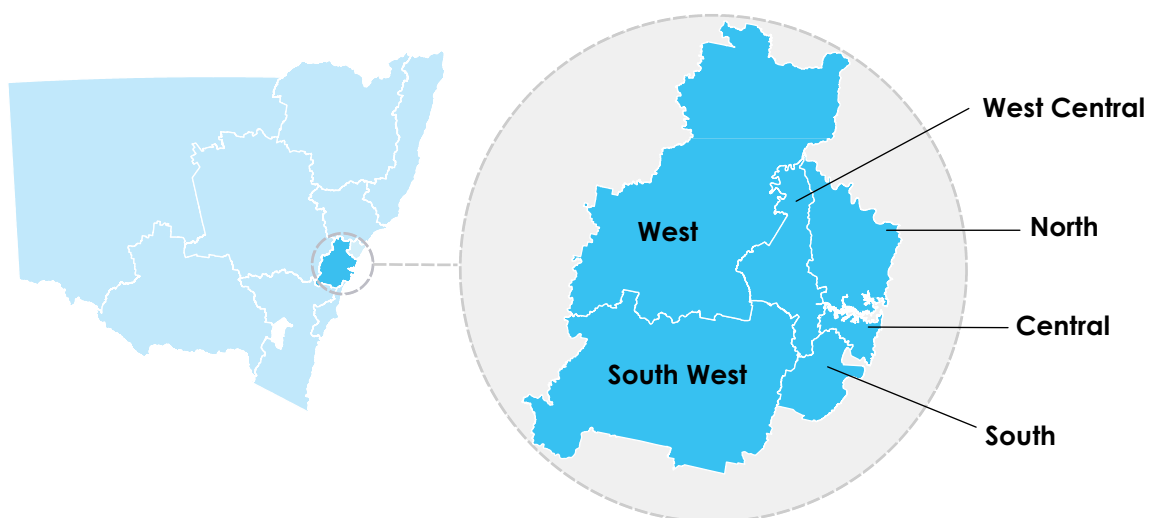


Chart 3.2 NSW planning regions, Metropolitan Sydney



4. Methodology and Analysis

The methodology of the analysis has involved the following steps, their application explained further below:

Step 1 – Review of NSW Register of Cemeteries and Crematoria data

Step 2 – Review of Activity Survey Parameters

Step 3 – Review of NSW cemeteries and crematoria activity survey response data

Step 4 – Analysis of the number of deaths and interment services in 2014/15

4.1 Metropolitan and regional interment services by sector

4.2 Metropolitan and regional burial services by sector

4.3 Metropolitan and regional cremation and ash disposition by sector

Step 5 – Comparison of 2014/15 metropolitan and regional interment services with 2013 data

5.1 Comparison between years - for whole of NSW

5.2 Comparison between years - Metropolitan Sydney

5.3 Comparison between years - Rural and Regional NSW

5.4 Comparison between years - Central Coast, Hunter and Illawarra

5.5 Comparison between years - Ash disposition and memorialisation rates

Step 6 – Analysis of the number of deaths and interment services by planning region

6.1 Deaths and interment services by planning region, all of NSW

6.2 Deaths and interment services by Sydney Metropolitan sub-region

Step 7 – Rate of cemetery land consumption

Step 8 – Potential alignments between regional variations and Census information

4.1 Review of NSW Register of Cemeteries and Crematoria data

The NSW Cemeteries and Crematoria Register is maintained by CCNSW in accordance with Section 27 of the *Cemeteries and Crematoria Act 2013*. The purpose of the Register is to provide for ready public access to information about cemetery and crematorium facilities in NSW, and to identify cemetery and crematorium operators subject to the Act and Regulations. A public version of the register is made available at:

<http://www.dpi.nsw.gov.au/lands/cemeteries-crematoria/register-extract#cemeteries>.

Operators are required to notify CCNSW of information for inclusion in the Register, including:

- (a) the name and location of the cemetery or crematorium,
- (b) the name and address and telephone number of the cemetery or the crematorium and operator, and
- (c) any other information required by the regulations to be included in the Register.

CCNSW work with NSW cemetery and crematorium operators is focussed on operational facilities, which are the focus of the *Cemeteries and Crematoria Act 2013*. Other resources are available for identification of closed cemeteries and other burial places in NSW¹⁴. Approximately half of all deaths per annum in NSW are in Metropolitan Sydney, and half in rural and regional NSW. In the regions, the great majority of cemetery facilities are operated by Councils, in the absence of other market participants. Cremation services in regions are provided by private operators and by Councils, with distribution of facilities generally to regional towns with a 'critical mass' of population and service demand.

The following tables summarise data maintained in the Register in respect of operational cemeteries and crematoria as at November 2015.

Number of operational Cemetery and Crematorium facilities in NSW by planning region

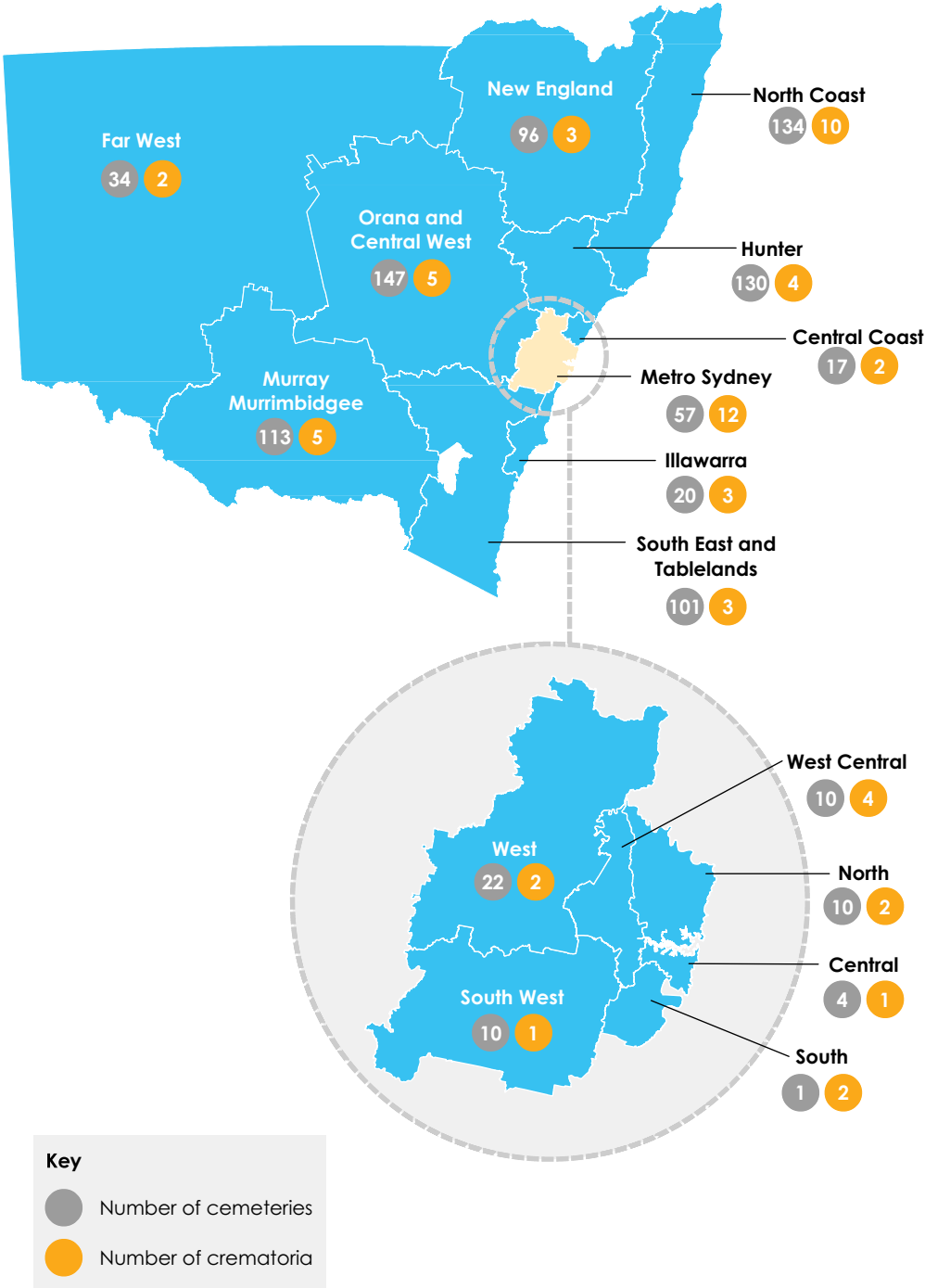
The following tables count the number of cemetery and crematorium facilities in each planning region, as current on the Register of Cemeteries and Crematoria to Nov 2015.

Table 4.1 No. of operational Cemetery and Crematorium facilities in NSW by region

Planning Region	No of cemeteries	No of crematoria
Central Coast	17	2
Far West	34	2
Hunter	130	4
Illawarra	20	3
Metropolitan Sydney	57	12
Murray-Murrumbidgee	113	5
New England - North West	96	3
North Coast	134	10
Orana & Central West	147	5
South East & Tablelands	101	3
Unincorporated	2	0
TOTAL	851	49

¹⁴ Information on Aboriginal cemeteries, heritage cemeteries and private burial grounds of cultural significance is maintained by the Office of Environment and Heritage at <http://www.environment.nsw.gov.au/nswcultureheritage/index.htm>.

Chart 4.1 Cemeteries and Crematoria in NSW - rural and regional planning regions and Metropolitan Sydney



Number of operational Cemetery and Crematorium facilities within Metropolitan Sydney by sub-region

Table 4.2 No. of operational Cemetery and Crematorium facilities within Metropolitan Sydney by sub-region

Metropolitan Sydney Sub-Region	No of cemeteries	No of crematoria
Central	4	1
West Central	10	4
North	10	2
West	22	2
South West	10	1
South	1	2
TOTAL	57	12

Many NSW cemeteries and crematoria are operated by members of the Cemeteries and Crematoria Association of New South Wales, and the Australasian Cemeteries & Crematoria Association.

Information about these associations is available at <https://www.ccansw.org.au> and <http://accaweb.com.au/>.

A community resource identifying many closed cemeteries and private burial places in NSW is the Australian Cemeteries Index, available at <http://austcemindex.com/>.

4.2 Review of Activity Survey parameters

As above, an initial interment services activity survey was completed in 2013, in association with compilation of the Register. The survey sought activity information from operators including

- » No of interments (2013) — bodily remains
- » No of interments (2013)— cremated remains
- » No of cremations (2013).

The data provides a valuable snapshot of interment practices across the state for the calendar year, and provides a measure for changes in interment choices in years ahead.

Renewable interment rights

CCNSW is responsible for coordinating implementation of the *Cemeteries and Crematoria Act 2013*, which provides for strategic oversight and regulation of the interment industry for the first time in NSW. Implementation work scheduled for 2016 includes commencement of Part 4 of the Act, which establishes a consistent regime of interment rights for all cemeteries in NSW. Provisions of Part 4 include standard statutory rights in respect of perpetual interments of mortal remains, and commence a statutory regime of renewable interment rights for interments of mortal remains.

The CCNSW Strategic Plan includes priority work streams to ensure that all people in NSW have access to a range of interment services that preserve dignity and respect and support cultural diversity, and to ensure that sufficient and suitable land is available to meet future demand for interment services.

Supporting increased efficiency of the use of cemetery land, including through renewable interments and double or second interments, is a priority for the Cemeteries agency. Given the majority practice of cremation in NSW, monitoring and providing support for practices for interment of ashes, scattering of ashes, and cremation memorialisation, is also a priority. Reporting on rates and practices for ash disposition will contribute to the preservation of dignity and respect for deceased community members and their families.

Whole of state information

NSW is unique among Australian jurisdictions with its mix of Crown, local government and private cemetery sectors. Cemeteries and crematoria across NSW are independently managed by State agencies, local government, public and religious trusts, community and other organisations, and private companies. To develop and implement a comprehensive, coherent and cohesive evidence-based strategy for the State's interment industry, access to accurate, reliable and consistent data from all three industry sectors is required.

Awareness of services and activity levels across all sectors and regions will assist CCNSW in effectively supporting the implementation of Part 4 with operators state-wide, so that the benefits of a consistent regime of interment rights may be efficiently realised.

Revised data parameters

To provide for visibility of the current and future rate of take-up of renewable interment rights, to allow identification of current and future rates of second burials in existing graves, and to better follow developing arrangements in the disposition of cremated remains in cemeteries, the 2014/15 activity survey sought activity information from operators including

- » Number of interments of bodily remains in new perpetual interments sites (ie, gravesites that had no previous interments)
- » Number of interments of bodily remains in perpetual interment sites in which one or more previous interments had taken place (ie where an existing grave was re-opened)
- » Number of interments of bodily remains in interment sites under renewable rights terms
- » Number of interments of cremated remains - below ground or in a niche wall / columbarium
- » Number of cremated remains scattered within grounds.

Information received in relation to these parameters allows tracking of burial and cremation trends, take-up of renewable interment rights, efficiency of grave plot usage, trends in the disposition of cremated remains, and analysis and projection of future cemetery land requirements.

4.3 Review of NSW cemeteries and crematoria activity survey response data

Response information received from operators was reviewed by CCNSW, and followed-up, with further enquiries as necessary. Response information was reviewed for completeness and consistency with prior year information, and for updated information for inclusion to the Register.

Completeness of response information

As above, an initial NSW interment services activity survey was completed in 2013.

Comparable activity data captured for 2013 included cremation and interment services performed or estimated to have been performed by operators in that year. The original 2013 survey collected data from 691 operational cemeteries and 44 crematoria, managed by 124 cemetery operators and 17 crematorium operators, as registered by DPI to October 2014. Additional facilities registered through to November 2015 have provided additional 2013 activity information. The total number of primary burial and cremation services reported for 2013 is 51,792. This figure compares with 50,237 deaths reported in NSW in 2013 by the ABS¹⁵. The activity figure is slightly higher than the no. of reported deaths, and indicates the activity data is close to complete.

The 2014/15 activity survey includes data provided by 851 operational cemeteries and 49 crematoria, managed by 228 cemetery and crematorium operators. Activity data identifies 53,945 primary burial and cremation services provided in 2014/15. This figure compares with 52,162 deaths reported in NSW in 2014 by the ABS. The activity figure is higher than the no. of reported deaths for 2014, and higher than the 2013 total no. of services provided. Again, the figure indicates the 2014/15 activity data is very close to complete.

Consistency and accuracy of survey response information

As above, for the 2014/15 survey CCNSW collected data from 900 facilities managed by 228 operators, as registered to November 2015.

Activity survey responses received from operators were reviewed for identification of updates required to the Register, for logical consistency, and to identify activity volume changes from 2013 of such quantum as to warrant confirmation. Given the high no. of facilities for which reports were due, and the new categories of information included in the 2014/15 survey, a moderate volume of follow-up enquiries were required to confirm data for inclusion to the analysis. Not all cemetery operators maintain systems which readily differentiate an interment as a 'second interment', so it is likely that aggregate data for the state slightly under represents 'second interments', these being treated as first interments where system constraints applied. Inclusion for the first time of the interment type 1.3 'interments under renewable rights terms' also led to some inaccuracies, with this category requiring a volume of explanation and data correction.

While CCNSW continues to liaise with a small number of operators in respect of 2014/15 activity data, potential variations subsequent to November 2015 are not expected to be material to the analysis or findings.

¹⁵ Australian Bureau of Statistics, 33020DO006_2014 Deaths, Australia, 2014, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3302.0>

4.4 Analysis of the number of deaths and interment services in 2014/15

2014/15 activity information reported represents 103.1% of deaths recorded in NSW in 2014, indicative of a level of incoming traffic received to facilities in NSW for interment and cremation services.

The following table represents 2014/15 mortal remains interment and cremation activity reported for all Planning Regions in NSW, and for Sydney Metropolitan, Rural and Regional NSW, and Central Coast, Hunter and Illawarra subsets of NSW:

Table 4.3 Summary NSW 2014/15 Cemeteries and Crematoria activity information

Planning Region	No. of deaths 2014 (per ABS LGA ¹⁶)	2014/15 burials	2014/15 cremations	2014/15 total services	% of total services (burials and cremations)	2014/15 cremation rate %	2014/15 Ash interments	2014/15 Ashes scattered	2014/15 Ash dispositions	2014/15 Ash disposition rate
Whole of NSW	52,162	17,883	36,112	53,945	100.0%	66.9%	11,092	646	11,738	32.5%
Metropolitan Sydney ¹⁷	24,919	8,730	17,208	25,938	48.1%	66.3%	5,952	492	6,444	37.4%
Rural and Regional NSW ¹⁸	27,243	9,103	18,904	28,007	51.9%	67.5%	5,140	154	5,294	28.0%
Central Coast, Hunter and Illawarra ¹⁹	12,003	2,497	9,269	11,766	21.8%	78.8%	2,763	88	2,851	30.8%

¹⁶ Australian Bureau of Statistics, 33020D0006, 2014 Deaths, Australia, 2014, <http://www.abs.gov.au/ausstats/abs@nsf/mf/3302.0>

¹⁷ ie, Metropolitan Sydney, including the districts or sub-regions Central, West Central, North, West, South-West and South.

¹⁸ ie, all planning regions other than Metropolitan Sydney, including Central Coast, Far West, Hunter, Illawarra, Murray-Murrumbidgee, New England - North West, North Coast, Orana & Central West, South East & Tablelands and Unincorporated areas.

¹⁹ ie, Central Coast, Hunter and Illawarra as a subset of Rural and Regional NSW planning regions; each of these regions has a cremation rate higher than the state average.

Chart 4.2 Services within region as a % of deaths within region - rural and regional planning regions

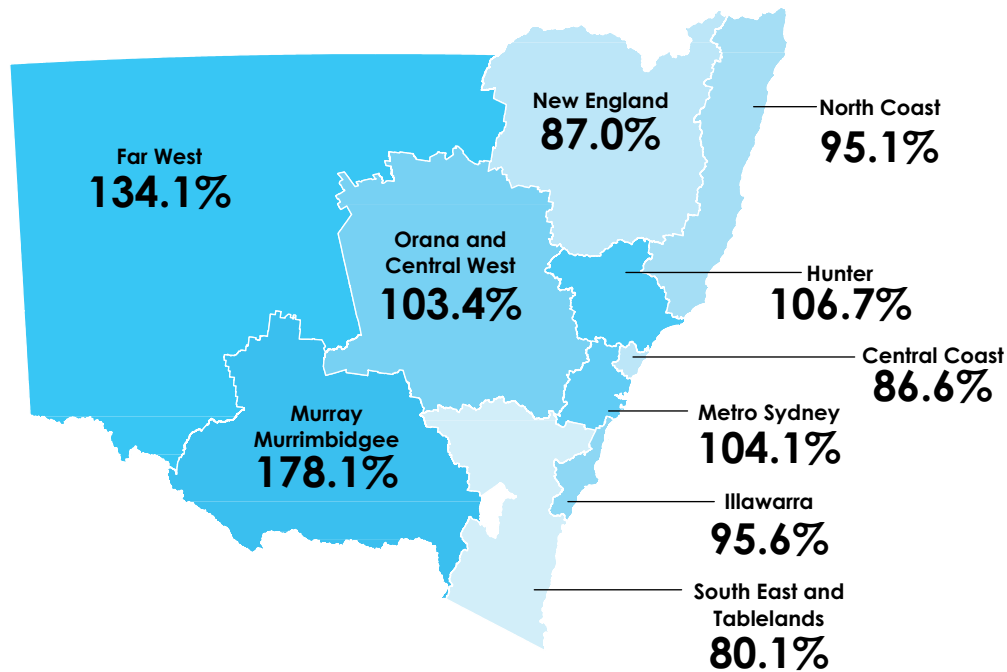
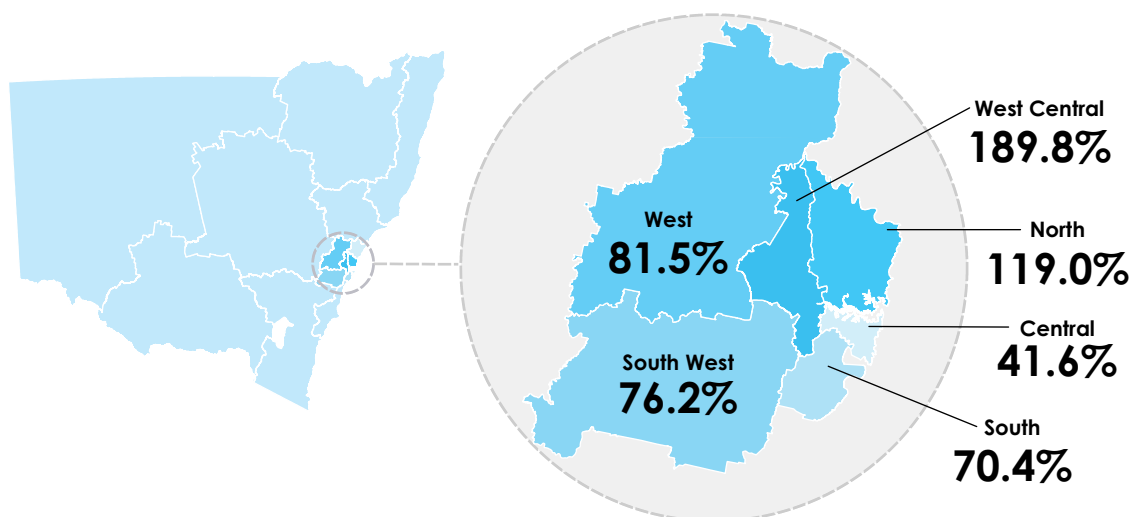


Chart 4.3 Services within region as a % of deaths within region - Metropolitan Sydney



Analysis:

Points of interest arising from the 2014/15 total services activity information include

- » Deaths: the estimated resident populations of metropolitan and regional NSW as at 2014 were Sydney Metropolitan 4,509,579 (60%), and rural and regional 3,008,893 (40%)²⁰. Deaths recorded for 2014 were Sydney Metropolitan 24,919 (47.7%), and rural and regional 27,243 (52.3%), reflecting the difference in age profiles between metropolitan and rural regions²¹.
- » Total no. of services: the number of primary services provided (+53,945) is higher than the no. of reported deaths in NSW (+52,162), suggesting the 2014/15 activity data is very close to complete, and indicating a rate of 'traffic' incoming to NSW for cemetery and cremation services
- » No. and rate of burials: the no. and rate of burials is largely consistent between Sydney Metropolitan and Rural and regional NSW, burials representing 35% of deaths in Sydney and 33.4% of deaths in Rural and regional NSW
- » No. and rate of cremations: the cremation rate is largely consistent between Sydney Metropolitan and Rural and regional NSW, between 66-67%; but a much higher level of cremation is current in the Central Coast, Hunter and Illawarra regions²² (78.8%)
- » No. and rate of ash interments: data on ash scatterings is known to be incomplete²³; but data for ash interments within cemeteries indicates a higher rate of interment and memorialisation in Sydney (37.4%) than for Rural and regional NSW (28%).

4.4.1 Analysis of 2014/15 metropolitan and regional interment services by sector

Over 230 operators provide interment services across NSW. Types of operators providing services in NSW include:

Crown trusts

- » five large trusts in Sydney
- » five smaller trusts in regional NSW
- » Crown trusts conduct around 70 per cent of burials in Sydney.

Private operators

- » manage over 70 per cent of crematoria in NSW
- » manage around 2 per cent of cemeteries in NSW
- » conduct ~75 per cent of cremations in NSW.

20 Australian Bureau of Statistics, 33020DO006_2014 Deaths, Australia, 2014, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3302.0>

21 Australian Bureau of Statistics, 3235.0 - Population by Age and Sex, Regions of Australia, 2014, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3235.0>. As at 2014, the median age of persons in Greater Sydney is 36.1 years; in the rest of the NSW the median age is 41.6 years.

22 Region-specific cremation volumes and rates are provided below at Table 4.9 Number and distribution of services and cremation rate in NSW by region

23 Cemetery operators are not required to register the scattering of ashes within a cemetery (Public Health Regulation 2012; Cemeteries and Crematoria Act 2013). CCNSW asked that operators report the no. of ashes scattered within the cemetery for 2014/15 where available, or to estimate the volume, where possible. Limited response information as received, and the no. of ashes reported as scattered is considered substantively incomplete. Ash interments are required to be registered and these figures are considered complete.

Local Councils

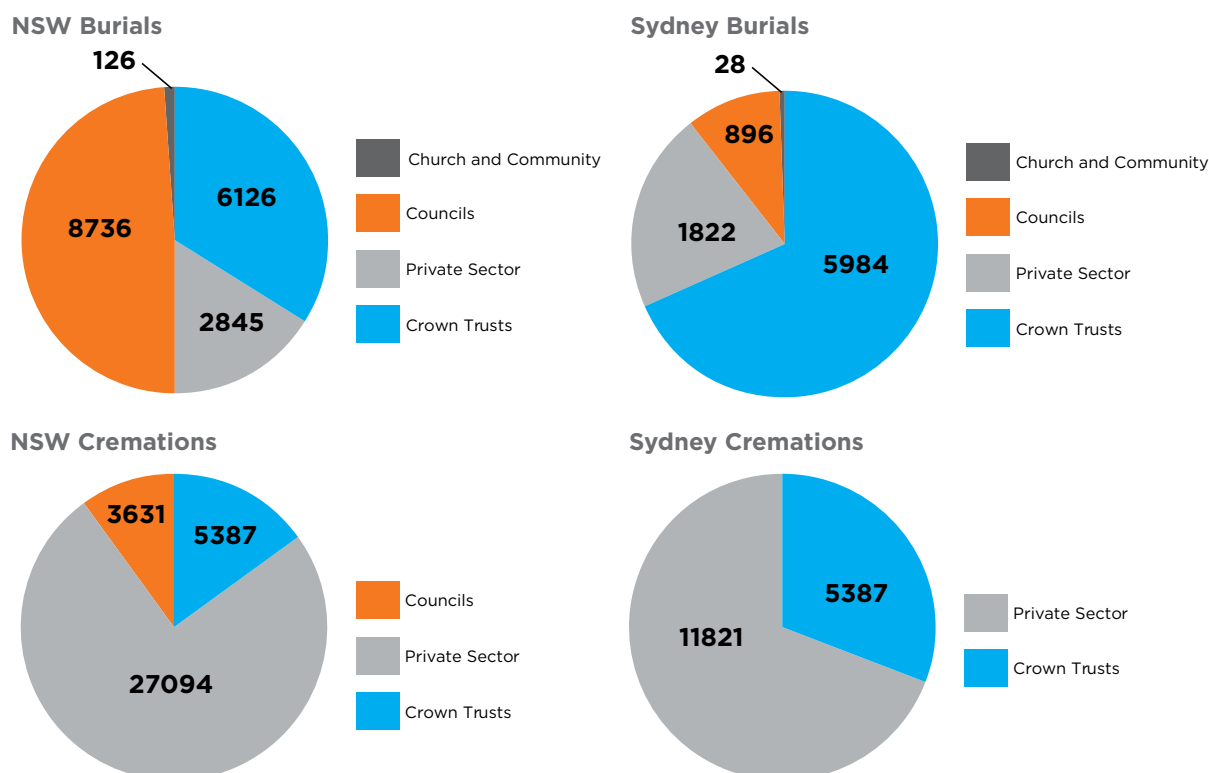
- » manage around 950 cemeteries in NSW
- » 80 per cent of council-run cemeteries are closed or conduct 10 or fewer burials per year
- » manage 8 crematoria in NSW (all are outside Sydney Metro)
- » conduct around 50 per cent of burials in NSW, and only 10 per cent of burials in Sydney

Community operators

- » oversee small, closed cemeteries
- » are typically local communities and religious entities
- » manage around 10 per cent of operational cemeteries in NSW
- » conduct around one per cent of burials across NSW and no cremations.

Distribution of services provided by the respective sectors in 2014/15 between metropolitan and regional area of NSW is as follows:

Chart 4.4 Burial and cremation services in NSW by operator sector



Analysis of 2014/15 activity by sector follows, grouped to metropolitan and regional burial services by sector, and cremation and ash interment services by sector²⁴.

²⁴ A consolidated table representing 2014/15 cemetery and crematoria activity analysed by operator sector, including burial services by sector, and cremation and ash interment services by sector, is provided at Attachment B, Table 7.2 - NSW 2014/15 Metropolitan v Rural & Regional Cemeteries and Crematoria consolidated activity by Sector.

4.4.2 Analysis of 2014/15 metropolitan and regional burial services by sector

The following table represents 2014/15 mortal remains burial or interment activity reported for NSW, grouped by whole of NSW; and Sydney Metropolitan; Rural and Regional NSW; and Central Coast, Hunter and Illawarra subsets of NSW:

Table 4.4 NSW 2014/15 Metropolitan v Rural & Regional burial activity by Sector

Whole of NSW - burials										
Sector	2014/15 burials	New grave burials	Second interments	2nd interments (as % of interments)	Grave occupancy rate ²⁵	2014/15 cremations	2014/15 total services	Sector % of services	Count of Operators ²⁶	Sector % of burials
All operators in NSW	17,833	12,724	5,039	28.3%	1.40	36,112	53,945		228	100%
Crown Trusts	6,126	3,951	2,173	35.5%	1.55	5,387	11,513	21.3%	7	34%
Private sector	2,845	2,218	627	22.0%	1.28	27,204	30,049	55.7%	29	16%
Councils	8,736	6,443	2,225	25.5%	1.36	3,521	12,257	22.7%	123	49%
Church and community	126	112	14	11.1%	1.13	0	126	0.2%	69	1%
Sydney Metropolitan - burials										
All Metropolitan operators	8,730	6,013	2,647	30.3%	1.45	17,208	25,938		25	100%
Crown Trusts	5,984	3,921	2,061	34.4%	1.53	5,387	11,371	43.8%	4	69%
Private sector	1,822	1,451	371	20.4%	1.26	11,821	13,643	52.6%	5	21%
Councils	896	615	213	35.7%	1.46	0	596	2.3%	12	7%
Church and community	28	26	2	7.1%	1.08	0	28	0.1%	4	0%
Rural and Regional NSW - burials										
All Rural & Regional operators	9,103	6,711	2,392	26.3%	1.36	18,904	28,007		205	100%
Crown Trusts	142	30	112	78.9%	N/A*	0	142	0.5%	4	2%
Private sector	1,023	767	256	25.0%	1.33	15,383	16,406	58.6%	25	11%
Councils	7,840	5,828	2,012	25.7%	1.35	3,521	11,361	40.6%	111	86%
Church and community	98	86	12	12.2%	1.14	0	98	0.3%	65	1%

²⁵ Grave occupancy rate is an inferred ongoing rate for the no. of interments per grave plot, at the current rate of second interment. The figure is derived by dividing the number of burials completed in the term by the number of burials in new plots completed for the term. The figures must be used with caution, as at the cemetery-specific level, as a cemetery facility nears exhaustion of capacity, only second or subsequent interments may be completed, and the apparent occupancy rate may exceed 2 per grave. CCNSW considers that grave occupancy rate is of value at the regional level, where variations between facilities net out, and where facility-specific anomalies may be excluded from analysis. In specific cases where a single facility volume predominates, the apparent rate of grave occupancy may be deemed unreliable.

²⁶ Count of Operators in Table 4.4 NSW 2014/15 Metropolitan v Rural & Regional burial activity by Sector includes only those operators who reported burial or cremation activity in the 2014/15 period.

* No ‘Occupancy rate’ is projected for rural and regional Crown Trust cemeteries in Table 4.4 NSW 2014/15 Metropolitan v Rural & Regional burial activity by Sector, as the figure reflects the high rate of second or subsequent interments current at Sandgate Cemetery near Newcastle, a cemetery nearing capacity, and for which only interments pursuant to existing burial rights are permitted.

**Chart 4.5 Distribution of Total Burials and Cremation Services Across NSW
- rural and regional planning regions**

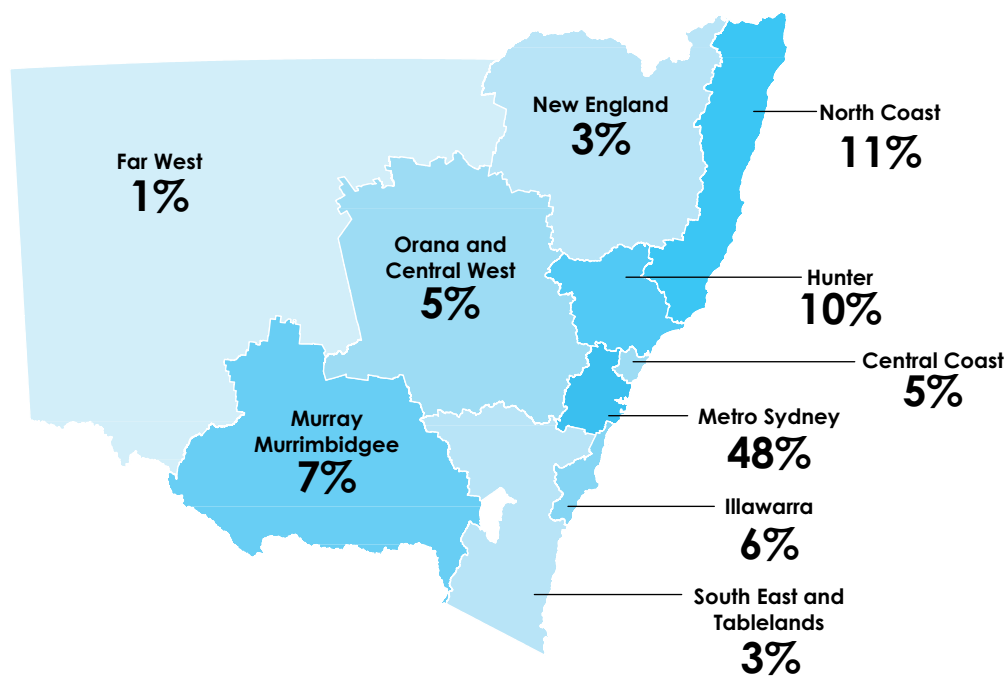


Chart 4.6 Distribution of Total Burials and Cremation Services Across NSW – Metropolitan Sydney

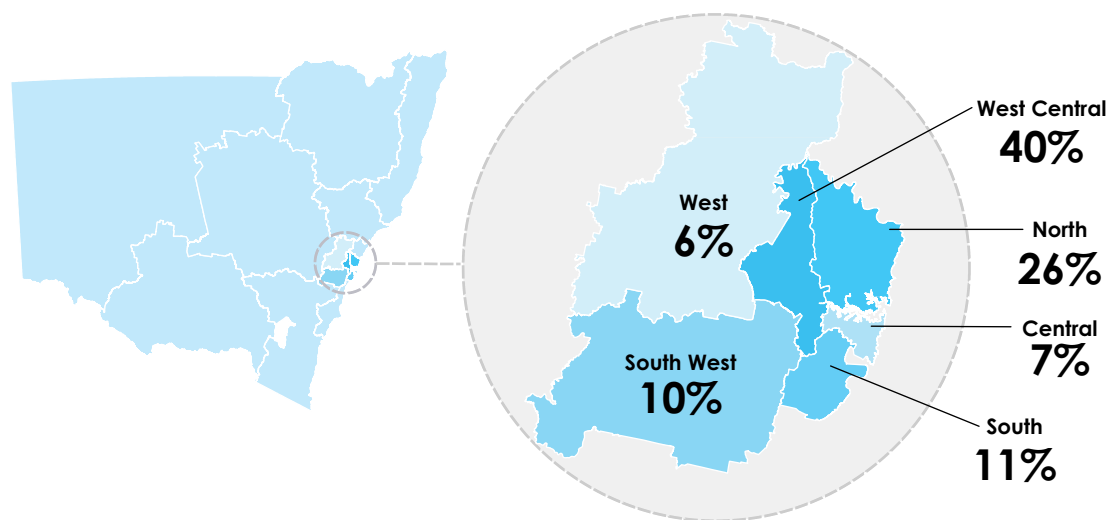
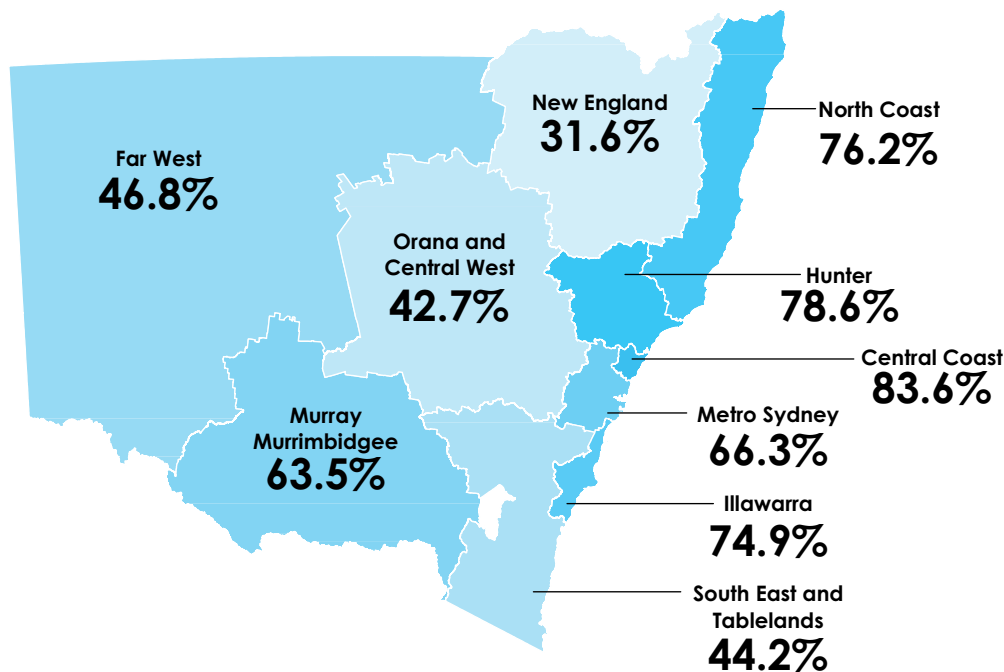


Chart 4.7 Cremation Rate by Region - rural and regional planning regions



Points of interest arising from the 2014/15 metropolitan and regional burial services activity by sector information include

Distribution of services by sector:

- » Private sector operators provide the majority (55.7%) of primary services in NSW, delivering 30,049 primary services, comprising 2,845 burials and 27,204 cremations
- » Councils provide 22.7% of primary services in NSW, but provide the largest share of all burials in NSW (8,736, or 49% of NSW burials), and the great majority of regional burial services (7,840, or 86% of regional burials)
- » Crown Trusts provide 21.3% of primary services in NSW, but provide the great majority of metropolitan burial services (5,984, or 69% of metropolitan burials)
- » Church and community operators maintain 109 cemeteries which reported burial or ash interment activity for 2014/15, which included 126 burials, 86 of these in regional NSW.

Sydney Metropolitan v rural and regional NSW:

- » No. of burials: the no. of burials is similar between Sydney Metropolitan and Rural and regional NSW, with 8,730 burials in the metropolitan area, and 9,103 burials in regional NSW
- » Burials in new graves: burials in new graves still represent a majority of burial activity, at 6,013 of 8,730 burials in metropolitan areas (68.8%), and at 6,711 of 9,103 in regional NSW (73.7%)
- » Second interments and occupancy rates:
 - › In the metropolitan area, where cemetery space is at a premium, the rate of second or subsequent interment is 30.3% of all burials, suggesting a 'current' grave occupancy rate of 1.45.
 - › The figures identify that metropolitan cemetery space is being consumed with relative efficiency, and the occupancy rate is expected to increase in future years.
 - › In regional NSW where there is generally less pressure on cemetery space, the rate of second or subsequent interment is 26.3%, suggesting a grave occupancy rate of 1.36.
 - › If known high rates of second interment at some Hunter and Central Coast cemeteries are excluded, the regional occupancy rate is around 1.3.

Crown and Council operators v Private sector:

- » Share of burials: in the metropolitan area Crown trusts provide 69% of all burial services, while in regional NSW, Council operators provide 86% of burial services; conversely, private sector operators provide 21% of metropolitan burial services and 11% of regional burial services
- » Second interments and occupancy rates;
 - › Crown cemeteries reported the highest rate of second or subsequent interments (35.5%), reflecting their focus on metropolitan burials, and the premium on space
 - › Councils cemeteries reported the next highest rate of second or subsequent interments (25.5%), reflecting an efficient approach to interment land use for burial focused cemeteries
 - › Private sector and church/community operators reported lower second interment rates (private sector 22%; church/community 11.1%).

4.4.3 Analysis of 2014/15 metropolitan and regional cremation and ash disposition by sector

The following table represents 2014/15 cremation and ash disposition activity reported for NSW, grouped by whole of NSW; and Sydney Metropolitan; Rural and Regional NSW; and Central Coast, Hunter and Illawarra subsets of NSW:

Chart 4.8 NSW 2014/15 Ash disposition as % of cremations performed

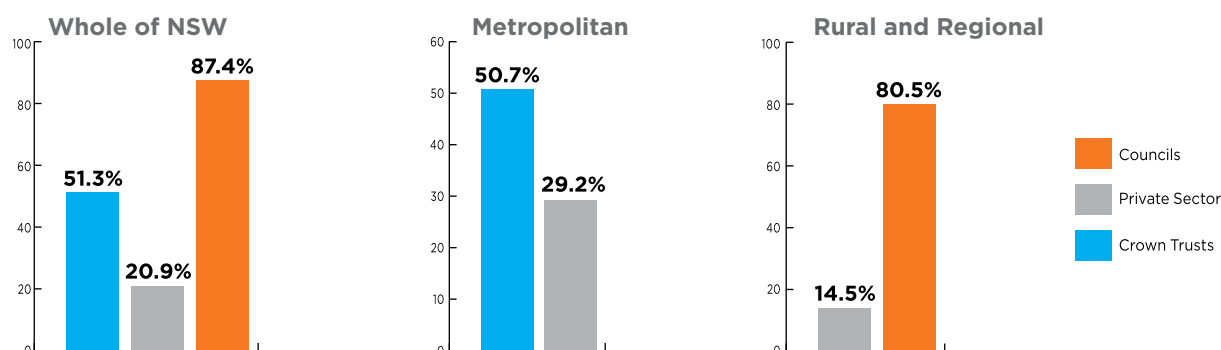


Table 4.5 NSW 2014/15 Metropolitan v Rural & Regional cremation and ash disposition activity by Sector

Whole of NSW - cremation and ash disposition												
Sector	2014/15 burials	2014/15 cremations	2014/15 total services	Sector % of services	Cremation rate %	2014/15 Ash interments	2014/15 Ash scatterings ²⁷	2014/15 Ash dispositions	2014/15 Ash disposition rate	Count of Operators (active in 2014/15)	Sector % of cremations	Sector % of ash dispositions
All operators in NSW	17,833	36,112	53,945		66.9%	11,092	646	11,738	32.5%	228		
Crown Trusts	6,126	5,387	11,513	21.3%	46.8%	2,540	224	2,764	51.3%	7	15%	24%
Private sector	2,845	27,204	30,049	55.7%	90.5%	5,304	370	5,674	20.9%	29	75%	48%
Councils	8,736	3,521	12,257	22.7%	28.7%	3,033	46	3,079	87.4%	123	10%	26%
Church and community	126	0	126	0.2%	0.0%	215	6	221	N/A	69	N/A	2%
Sydney Metropolitan - cremation and ash disposition												
All Metropolitan operators	8,730	17,208	25,938		66.3%	5,952	492	6,444	37.4%	25		
Crown Trusts	5,984	5,387	11,371	43.8%	47.4%	2,506	224	2,730	50.7%	4	31%	42%
Private sector	1,822	11,821	13,643	52.6%	86.6%	3,180	268	3,448	29.2%	5	69%	54%
Councils	596	0	596	2.3%	0.0%	245	0	245	N/A	12	0%	4%
Church and community	28	0	28	0.1%	0.0%	21	0	21	N/A	4	N/A	0.3%
Rural and Regional NSW - cremation and ash disposition												
All Rural & Regional operators	9,103	18,904	28,007		67.5%	5,140	154	5,294	28.0%	205		
Crown Trusts	142	0	142	0.5%	0.0%	34	0	34	N/A	4	0%	1%
Private sector	1,023	15,383	16,406	58.6%	93.8%	2,124	102	2,226	14.5%	25	81%	42%
Councils	7,840	3,521	11,361	40.6%	31.0%	2,788	46	2,834	80.5%	111	19%	54%
Church and community	98	0	98	0.3%	0.0%	194	6	200	N/A	65	N/A	4%

²⁷ Cemetery operators are not required to Register the scattering of ashes within a cemetery. CCNSW asked that operators report the no. of ashes scattered within the cemetery for 2014/15 where available, or to estimate the volume, where not available. Limited response information as received, and the no. of ashes reported as scattered is considered substantively incomplete.

Points of interest arising from the 2014/15 metropolitan and regional cremation and ash disposition activity by sector information include:

Sydney Metropolitan v rural and regional NSW:

- » Cremation rate: the cremation rate is similar between Sydney Metropolitan and rural and regional NSW, with 17,208 cremations in the metropolitan area (at 66.3%), and 18,904 in regional NSW (at 67.5%)

Distribution of cremation services by sector:

- » Private sector operators provide 75% of cremation services in NSW, including 69% of metropolitan area cremations (11,821), and 81% of regional cremations (15,383)
- » Council operators provide 10% of cremation services in NSW, all of these in regional areas (19% of regional cremations)
- » Crown Trusts provide 15% of cremation services in NSW, all of these in the metropolitan area (31% of metropolitan cremations)
- » no church and community operators provide cremations.

Interment of ashes by sector and region:

- » data for ash interments within cemeteries indicates a higher rate of ash interment and memorialisation in the metropolitan area (37.4%) than for rural and regional NSW (28%)
- » given 17,208 cremations in the metropolitan area, there were 3,180 ash interments in cemeteries, and 492 recorded ash scatterings, accounting for 37.4% of metropolitan cremations
- » Crown cemetery survey responses represent a rate of ash interment or ash scattering to 51.3% of cremation services provided (all but one of the major Crown facilities are in the metropolitan area; and ash interments will include interment of ashes cremated by other operators²⁸)
- » given 18,904 cremations in regional NSW, there were 5,140 ash interments in cemeteries, and 154 recorded ash scatterings, accounting for 28% of regional cremations
- » regional Council survey responses represent a rate of ash interment or ash scattering to 80.5% of cremation services provided (NB, the great majority of regional cemeteries are Council operated, and the rate of ash interment will include interment of ashes cremated by other operators).

28 NB, activity survey responses did not ask operators to associate cremation services provided with ash interment services provided at an individual service level; in Table 4.5 - NSW 2014/15 Metropolitan v Rural & Regional cremation and ash disposition activity by Sector the rate of 'ash disposition' includes interments of ashes (in a columbarium, niche wall or in the ground) and recorded scattering of ashes within a cemetery. The 'Ash disposition rate' reflects net volumes of ashes interred and scattered with the reporting period, compared with cremation services provided in the reporting period.

4.5 Comparison of 2014/15 metropolitan and regional interment services with 2013 data

As described above, in 2013 the DPI Cemetery Reform Group completed a process to register cemetery and crematoria facilities during 2014, with registration forms requiring reporting of 2013 interment service activity. Activity information captured was accepted as reported and was not subject to a process of quality assurance and confirmation. Comparison with the 2014/15 activity data suggests the 2013 activity report is reasonably complete and reasonably accurate. Nonetheless, while differences between 2013 and 2014/15 activity data are quantified below for illustration, differences are indicative rather than confirming assured trends in burial and cremation activity.

Summary 2014/15 activity for all Planning Regions in NSW, and for Sydney Metropolitan, Rural and Regional NSW, and Central Coast, Hunter and Illawarra subsets of NSW, is as follows:

Table 4.3 Summary NSW 2014/15 Cemeteries and Crematoria activity information

Planning Region	No. of deaths 2014 (per ABS LGA ²⁹)	2014/15 burials	2014/15 cremations	2014/15 total services	% of total services (burials and cremations)	2014/15 cremation rate %	2014/15 Ash interments	2014/15 Ashes scattered	2014/15 Ash dispositions	2014/15 Ash disposition rate
Whole of NSW	52,162	17,883	36,112	53,945	100.0%	66.9%	11,092	646	11,738	32.5%
Metropolitan Sydney ³⁰	24,919	8,730	17,208	25,938	48.1%	66.3%	5,952	492	6,444	37.4%
Rural and Regional NSW ³¹	27,243	9,103	18,904	28,007	51.9%	67.5%	5,140	154	5,294	28.0%
Central Coast, Hunter and Illawarra ³²	12,003	2,497	9,269	11,766	21.8%	78.8%	2,763	88	2,851	30.8%

²⁹ Australian Bureau of Statistics, 33020DO006_2014 Deaths, Australia, 2014, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3302.0>

³⁰ ie, Metropolitan Sydney, including the districts or sub-regions Central, West Central, North, West, South-West and South.

³¹ ie, all planning regions other than Metropolitan Sydney, including Central Coast, Far West, Hunter, Illawarra, Murray-Murrumbidgee, New England - North West, North Coast, Orana & Central West, South East & Tablelands and Unincorporated areas.

³² ie, Central Coast, Hunter and Illawarra as a subset of Rural and Regional NSW planning regions; each of these regions has a cremation rate higher than the state average.

For comparison, the following table represents 2013 mortal remains interment and cremation activity reported for the same geographical areas:

Table 4.6 Summary NSW 2013 Cemeteries and Crematoria activity information

Planning Region	No. of deaths 2013 (per ABS LGA)	2013 burials	2013 cremations	2013 total services	% of total services (burials and cremations)	2013 cremation rate %	2013 Ash interments	2013 Ashes scattered	2013 Ash dispositions	2013 Ash interment rate
Whole of NSW	50,237	17,968	33,824	51,792	100.0%	65.3%	12,530	N/A	12,530	37.0%
Metropolitan Sydney	24,236	8,702	16,465	25,167	48.6%	65.4%	7,109	N/A	7,109	43.2%
Rural and Regional NSW	26,001	9,266	17,359	26,625	51.4%	65.2%	5,421	N/A	5,421	31.2%
Central Coast, Hunter and Illawarra	11,209	2,354	8,638	10,992	21.2%	78.6%	3,221	N/A	3,221	37.3%

The following table counts the differences between 2013 and 2014/15 activity volumes and rates:

Table 4.7 Differences between 2013 and 2014/15 volumes and rates

Planning Region	Difference: No. of deaths 2013, 2014	Difference: No. of burials 2013, 2014/15	Difference: No. of cremations 2013, 2014/15	Difference: total services 2013, 2014/15	Difference: proportion of total services 2013, 2014/15	Difference cremation rates 2013, 2014/15	Difference: Ash interments 2013, 2014/15	Difference Ashes scattered 2013, 2014/15	Difference: Ash dispositions 2013, 2014/15	Difference: Ash dispositions 2013, 2014/15
Whole of NSW	1,925	-85	2,288	2,153		1.6%	-1,438	N/A	-792	-4.5%
Metropolitan Sydney	683	28	743	771	-0.5%	1.1%	-1,157	N/A	-665	-5.7%
Rural and Regional NSW	1,242	-163	1,545	1,382	0.5%	2.3%	-281	N/A	-127	-3.2%
Central Coast, Hunter and Illawarra	794	143	631	774	0.6%	0.2%	-458	N/A	-370	-6.5%

Calendar year 2013 activity information current to November 2015 identifies 17,968 mortal remains interments and 33,824 cremation services, a total of 51,792 primary services. The data also identifies 12,530 ash interments in cemeteries and memorial gardens subsequent to cremations. Data was not collected for ashes scattered in cemeteries. The rate of ash interment at cemeteries state-wide following cremation was 37%.

The 2014/15 activity information identifies 17,833 mortal remains interments, including 12,724 'first interments' in new graves, and 5,039 second or subsequent interments in existing graves; and 70 burials under existing renewable rights terms. A total of 36,112 cremation services were provided, to a total of 53,945 primary services. The data also identifies 11,738 ash interments or scatterings in cemeteries and memorial gardens subsequent to cremations. The rate of ash disposition at cemeteries state-wide following cremation was 32.5%.

4.5.1 Comparison between years - for whole of NSW

Points of interest arising from the comparison between years for 2014/15 state-wide total services activity information include

- » No. of deaths: the increase in the number of deaths (+1,925, or 3.8%) is significant, and is consistent with the per-annum increases projected by the NSW Government through to 2021 (higher increases follow)
- » No. of services: the increase in the number of primary services provided (+2,153) is consistent with the increase in the no. of reported deaths in NSW (+1,925)
- » No. of burials: the no. of burials was down slightly (-85) against the 2013 figure, and aligns with a slight increase in the cremation rate
- » No. and rate of cremations: the no. of cremations is considerably higher than 2013 (+2,288) and represents an increase in the state-wide cremation rate from 65.3% to 66.9%
- » No. and rate of ash interments: 2014/15 data identifies 11,920 ash interments and 646 ash scatterings within cemeteries subsequent to cremations, noticeably down (-1,438) against 2013 data (by -4.5%, even where ashes formally scattered within cemeteries are included in 2014/15 figures).

4.5.2 Comparison between years - Metropolitan Sydney

Points of interest arising from the comparison between years for 2014/15 Metropolitan Sydney total services activity information include

- » No. of services: the increase in the number of primary services provided (+771) is slightly higher than the increase in the no. of reported deaths in Metropolitan Sydney (+683)
- » No. of burials: the no. of burials was up slightly (+28) against the 2013 figure, indicating a persisting orientation to burial for many Sydney communities
- » No. and rate of cremations: the no. and rate of cremations increased in Sydney (+743 and +1.1%), but at a lower rate than the state-wide increase (+1.7%)
- » No. and rate of ash interments: the Metropolitan Sydney 'share' of reduced ash interments (approx. 80% of the reduced total) is much higher than the 'share' of ~50% of total services provided.

4.5.3 Comparison between years - Rural and Regional NSW

Points of interest arising from the comparison between years for Rural and Regional total services activity information include:

- » No. of deaths: the increase in the number of regional NSW deaths (+1,242, or 4.7%) is significant, and reflects the higher representation of aged persons in regional NSW
- » No. of services: the increase in the number of primary services provided (+1,382) is higher than the increase in the no. of reported deaths, and likely reflects a level of incoming traffic to facilities adjoining Victoria and Queensland for interment and cremation services
- » No. of burials: the no. of burials was down (-163) consistent with the increased cremation rate
- » No. and rate of cremations: the no. and rate of regional cremations increased (+1,545 and +2.3%), partly realised by commissioning of new facilities (Bathurst and Tweed regions)
- » No. and rate of ash dispositions: the fall in regional ash dispositions (-127, or -3.2% to 28%) is less than the state-wide average fall, but commences from a low base (compare 43.2% ash interment rate for Metropolitan Sydney in 2013).

4.5.4 Comparison between years - Central Coast, Hunter and Illawarra

Points of interest arising from the comparison between years for Central Coast, Hunter and Illawarra total services activity information include:

- » No. of deaths: the increase in the number of Central Coast, Hunter and Illawarra deaths (+794, or 7%) is significant, and reflects the higher representation of aged persons outside Metropolitan Sydney
- » No. of services: the increase in the number of primary services provided (+774) is consistent with the increase in the no. of reported deaths
- » No. of burials: the number of burials (+143) is consistent with increases in deaths and cremation rate
- » No. and rate of cremations: the no. and rate of regional cremations increased (+631 and +0.2%)
- » No. and rate of ash dispositions: the fall in Central Coast, Hunter and Illawarra ash dispositions (-370, or -6.5% to 30.8%) is potentially concerning, if carried forward into future periods.

4.5.5 Comparison between years - Ash disposition and memorialisation rates

Cremations represent 66.9% of all primary service activity in NSW, and the rate is understood to be increasing.

Legislation in NSW provides for the recording in cemetery registers of all burials and ash interments within cemeteries. For the 2013 survey, operators were asked to report on burials and on ash interment volumes. Data provided for 2013 identifies the interment of 30,498 remains in NSW cemeteries (17,968 burials and 12,530 ash interments), representing 60.7% of deaths recorded in NSW for the period.

Many cemeteries do not record ash scatterings, and the remains of many cremated persons are understood to be scattered informally, and at places of personal importance other than cemeteries, by community members. Data in respect of ash disposals generally is therefore known to be much less than complete.

With the view to better identifying what happens to the other 39.3% of cremated remains (ie the volume of 21,294 cremations for 2013 for which no ash interment was reported), for the 2014/15 activity survey, operators were asked to report on ash interments and also on ash scatterings, where records were available.

Despite the inclusion in 2014/15 reporting of ashes officially scattered within cemeteries, the rate of ash interment and memorialisation following cremation appears to have fallen noticeably. For the 2014/15 period, the survey identifies the interment or scattering of 29,951 remains in NSW cemeteries (17,853 burials and 11,738 ash interments or scatterings), representing 57.4% of deaths recorded in NSW for the period.

Further work will be required with operators to confirm whether the apparent trend is consistent with industry experience, and whether any actions are feasible to increase memorialisation activity following cremations.

4.6 Analysis of the number of deaths and interment services by planning region in 2014/15

The following section analyses the cremation rate for each region, the 'net' volume of burial and cremation services provided in region, and considers the apparent rate of 'traffic' between regions for burial and cremation services in NSW, including an identified traffic to NSW for burial and cremation services.

As above, deaths by LGA data published by the ABS 2014 is used to represent the number of deaths in each NSW planning region, and to allow comparison with activity information from NSW operators. Not all deaths in a planning region are accommodated in that region. Some residents of the region will be buried or cremated outside the region and some residents of other regions are buried or cremated within the region. There is not a central register of addresses of deceased persons, so the identification of 'traffic' between regions is necessarily at the 'net' level, based on the difference between deaths and service provided within each region.

Burial and cremation data for 2014/15 for NSW by planning region and for Metropolitan Sydney by Sydney sub-region is detailed in the tables below.

Number and distribution of services and cremation rate in NSW by planning region

Table 4.8 Number and distribution of services and cremation rate in NSW by region

Planning Region	No of cemeteries	No of crematoria	No. of deaths 2014	Burials 2014/15	Cremations 2014/15	Total services 2014/15	% of total NSW 2014 deaths	% of total NSW services (burials and cremations)	Cremation rate %	Services within region as % of deaths within region	Net volume: services minus deaths within region	Burials per cemetery	Cremations per crematorium
Central Coast	17	2	3,321	472	2,405	2,877	6.3%	5.3%	83.6%	86.6%	-444	28	1,203
Far West	34	2	472	337	296	633	0.9%	1.2%	46.8%	134.1%	161	10	148
Hunter	130	4	5,284	1,208	4,431	5,639	10.1%	10.5%	78.6%	106.7%	355	9	1,108
Illawarra	20	3	3,398	817	2,433	3,250	6.5%	6.0%	74.9%	95.6%	-148	41	811
Metropolitan Sydney	57	12	24,919	8,730	17,208	25,938	47.6%	48.1%	66.3%	104.1%	1,019	153	1,434
Murray-Murrumbidgee	113	5	2,206	1,436	2,493	3,929	4.2%	7.3%	63.5%	178.1%	1,723	13	499
New England - North West	96	3	1,636	973	450	1,423	3.1%	2.6%	31.6%	87.0%	-213	10	150
North Coast	134	10	6,246	1,415	4,528	5,943	11.9%	11.0%	76.2%	95.1%	-303	11	453
Orana & Central West	147	5	2,418	1,434	1,067	2,501	4.6%	4.6%	42.7%	103.4%	83	10	213
South East & Tablelands	101	3	2,262	1,011	801	1,812	4.3%	3.4%	44.2%	80.1%	-450	10	267
Unincorporated	2	0	158	0	0	0	0.3%	N/A	N/A	N/A	N/A		
TOTAL / Average	851	49	52,320	17,833	36,112	53,945			66.9%	103.1%	1,783	21	737
NSW excluding Sydney	794	37	27,401	9,103	18,904	28,007			67.5%	102.2%	606	11	511

Table 4.9 Number and distribution of services and cremation rate in Metropolitan Sydney by district or sub-region

Metropolitan Sydney	No of cemeteries	No of crematoria	No. of deaths 2014	Burials 2014/15	Cremations 2014/15	Total Metro services 2014/15	% of total Metro 2014 deaths	% of total Metro services	Cremation rate %	Services within region as % of deaths within region	Net volume: services minus deaths within region	Burials per cemetery	Cremations per crematorium
Metro Sydney - Central	4	1	4,480	736	1,126	1862	18.0%	7.2%	60.5%	41.6%	-2,618	184	1,126
Metro Sydney - North	10	2	5,560	1,224	5,394	6618	22.3%	25.5%	81.5%	119.0%	1,058	122	2,697
Metro Sydney - South	1	2	4,092	573	2,309	2882	16.4%	11.1%	80.1%	70.4%	-1,210	573	1,155
Metro Sydney - South West	10	1	3,344	1,039	1,508	2547	13.4%	9.8%	59.2%	76.2%	-797	104	1,508
Metro Sydney - West	22	2	1,938	388	1,192	1580	7.8%	6.1%	75.4%	81.5%	-358	18	596
Metro Sydney - West Central	10	4	5,505	4,770	5,679	10449	22.1%	40.3%	54.3%	189.8%	4,944	477	1,420
TOTAL / Average	57	12	24,919	8,730	17,208	25,938			66.3%	104.1%	1,019	153	1,434

Chart 4.9 Burials per cemetery - rural and regional planning regions

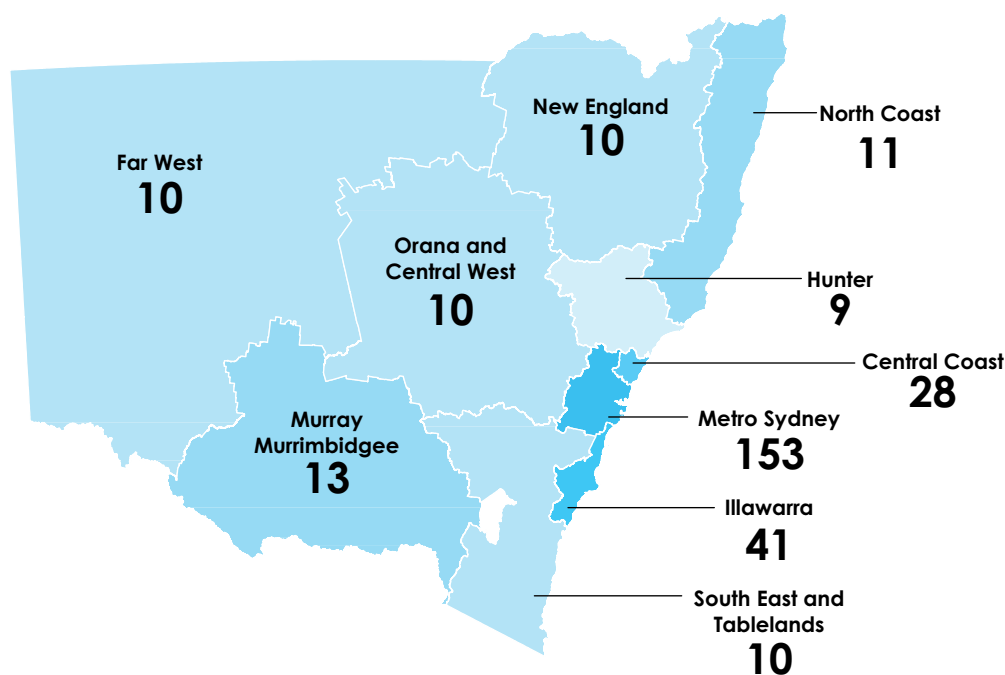


Chart 4.10 Burials per cemetery - Metropolitan Sydney

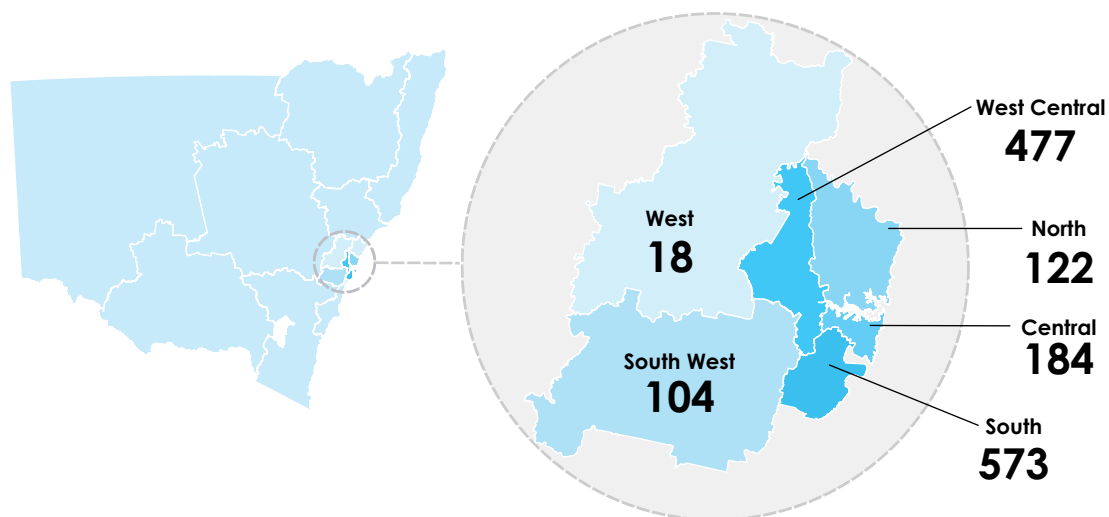


Chart 4.11 Cremations per crematorium - rural and regional planning regions

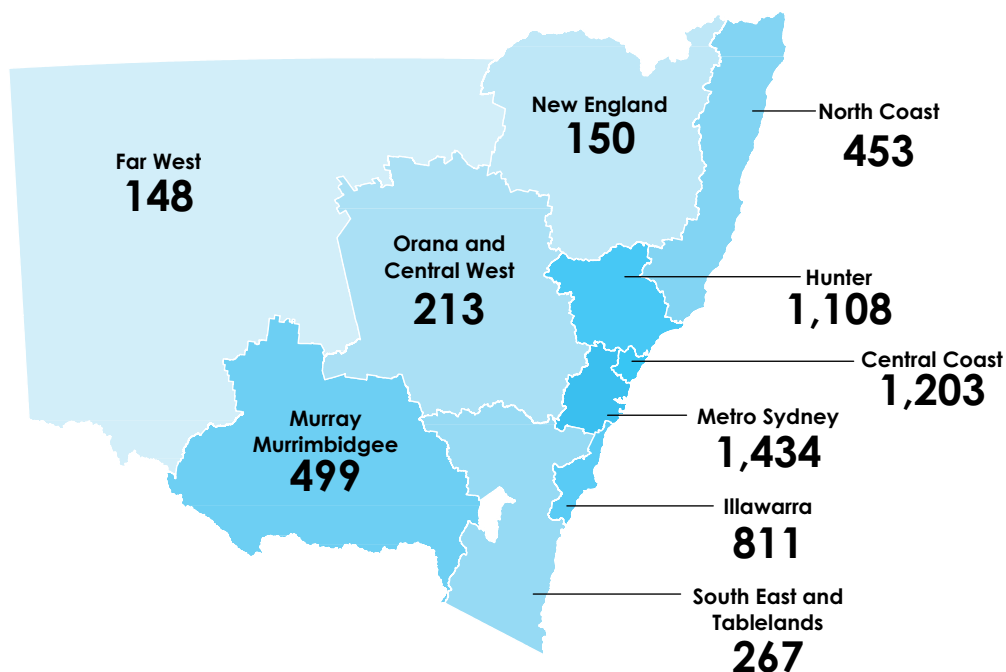
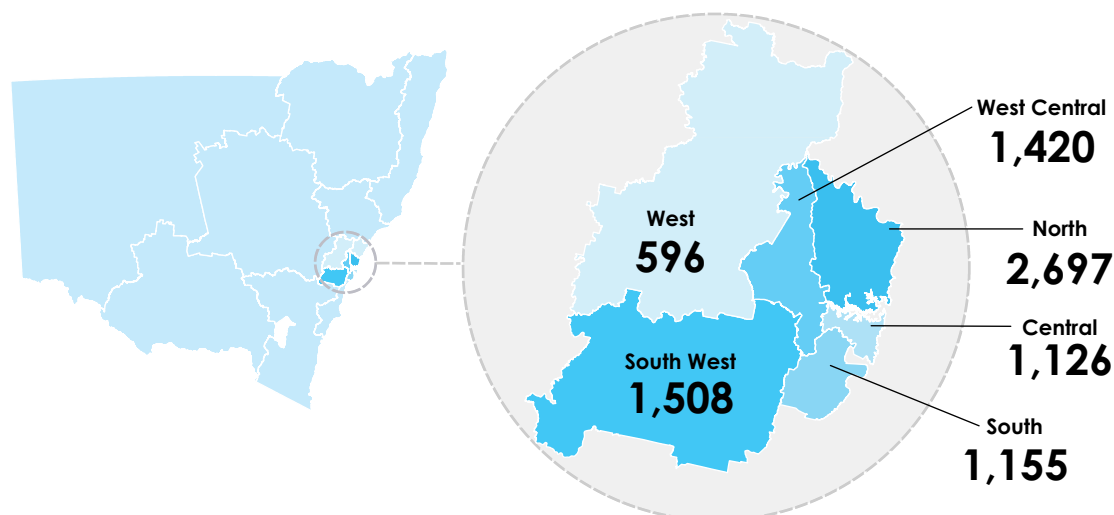


Chart 4.12 Cremations per crematorium - Metropolitan Sydney



4.6.1 Deaths and interment services by planning region, all of NSW

This section considers the 'net' volume of burial and cremation services provided, the apparent rate of 'traffic' to and between NSW planning regions for burial and cremation services, burials per cemetery, and cremations per crematorium.

ABS deaths by LGA data is used to represent the number of deaths in each NSW planning region, and not all deaths in a planning region are accommodated in that region. The identification of 'traffic' between regions is necessarily at the 'net' level, based on the difference between deaths and service provided within each region. It is possible that a higher rate of traffic 'to' Sydney for burial or cremation services exists than is visible by review of the 'net' data provided.

Points of interest arising from review of the number of deaths and interment services by planning region for all of NSW include:

Services within region as % of deaths within region

- » Whole of NSW – primary service activity volumes identify a net incoming traffic to NSW for burial and cremation services (53,945 burials and cremations conducted for 2014/15, compared with 52,320 deaths recorded for 2014, a difference of 1,625 or 3.1%)³³
- » Metropolitan Sydney - a net incoming traffic to Metropolitan Sydney for burial services (25,938 burials and cremations for 2014/15, compared with 24,919 deaths for 2014, a difference of 1,019 or 4.1%)
- » NSW excluding Sydney - a net incoming traffic to regional NSW for services (28,007 burials and cremations for 2014/15, compared with 27,401 deaths for 2014, a difference of 606 or 2.2%)
- » Murray Murrumbidgee - an incoming traffic from Victoria for burial and cremation services (3,929 services for 2014/15, compared with 2,206 deaths for 2014, a difference of 1,723 or 78.1%)

³³ While the reporting period for deaths (2014) and services provided (2014/15) are not absolutely coincident, the no. of services provided is sufficiently higher than the no. of deaths expected to be recorded as to confirm a rate of traffic incoming to NSW for burial and cremation services.

- » North Coast and New England-North West - an outgoing traffic from northern LGAs for burial and cremation services (7,366 services for 2014/15, compared with 7,882 deaths for 2014, an aggregate difference of -515 or -7%)
- » South East and Tablelands - an outgoing traffic, presumed to Canberra (1,812 burials and cremations for 2014/15, compared with 2,262 deaths for 2014, a difference of -450 or -7%)
- » Other regions - differences between the Central Coast and Hunter largely net out; in other regions variances appear not to be significant.

Burials per cemetery

- » Whole of NSW - there is great variance in burial rates per cemetery between metropolitan and regional areas; for Sydney the average is 153 burials per cemetery for 57 operational cemeteries³⁴; for the remainder of the state excluding Sydney, 11 burials per cemetery for 794 operational cemeteries
- » Metropolitan Sydney - the total volume of burials in cemeteries in Sydney provides in-principle opportunity to operators for capture of revenues to fund ongoing maintenance of cemeteries
- » NSW excluding Sydney - the rate of burials per cemetery outside Sydney makes clear the challenge for regional operators in capturing revenues sufficient to fund ongoing maintenance of cemeteries

Cremation rates

- » Whole of NSW & Metropolitan Sydney - the cremation rate for Sydney (66.3%) is consistent with that for the rest of NSW (66.9%); although given proximity constraints to crematoria in many parts of the state, the rate likely reflects an orientation to burial for many communities in the Sydney population
- » Hunter, Central Coast and Illawarra - the cremation rates for Hunter, Central Coast and Illawarra (78.6%, 83.6% and 74.9%) are well above the state average (66.9%)
- » Other - regions with lower cremation rates are likely affected by logistical constraints and costs where access to a local crematorium is not available

Cremations per crematorium

- » Whole of NSW - again considerable difference in cremations per crematorium between metropolitan and regional areas; for Sydney the average is 1,434 cremations per crematorium for 12 crematoria; for the remainder of the state, 511 cremations per crematorium for 37 crematoria
- » Hunter, Central Coast and Illawarra crematoria also have cremations per crematorium rates above the state average, reflecting the high rates of cremation in those regions.

³⁴ Not all cemeteries categorised as 'operational' reported burial or interment activity for 2014/15. Particularly in regional NSW, where a large cohort of cemeteries remain in localities with small populations, cemeteries remain 'operational' but with only occasional services provided.

4.6.2 Deaths and interment services by Sydney Metropolitan sub-region

For the Metropolitan Sydney sub-regions³⁵, points of interest include:

Facilities in each region

- » Sydney West region has the largest no. of cemeteries (22), but lowest no. of burials per cemetery (18), reflecting the historic infrastructure of village cemeteries west of urban Sydney
- » South region has the highest concentration of burials (573 per cemetery; activity is concentrated to two major facilities), followed by West Central region (including Rookwood Cemetery; 477 per cemetery)
- » the major population growth area of South West Sydney is also currently serviced by a historic infrastructure of village cemeteries (10 cemeteries, with 104 burials per cemetery in 2014/15).

Importance to greater Sydney of West-Central region facilities

- » 'strategic' facilities in the West-Central region, including Rookwood³⁶, Pinegrove and Castlebrook³⁷ facilities currently service much of the greater Sydney community
- » as at 2016, the region population is 29.7% of the Sydney Metropolitan population, however 40.3% of greater Sydney total services in 2014/15 were provided by West-Central region facilities, and 54.6% of greater Sydney burials in 2014/15 were at West-Central region cemeteries.

Services within region as % of deaths within region

- » around 4.1% of the interment services in Sydney Metropolitan region are provided to persons who have died outside the region (25,938 burials and cremations, against 24,919 reported deaths for 2014)
- » there appears a significant traffic from across Sydney to the West Central region, which includes the major Rookwood, Castlebrook and Pinegrove cemeteries and crematoria
- » West Central region serviced 10,449 burials and cremations for 2014/15, compared with 5,505 deaths recorded for 2014 (a difference of +4,944 or +89.8%)
- » traffic to the West-Central region appears to overflow most from
 - › Central region (Sydney city, eastern suburbs and inner west, where no facilities with material capacity are available; 2,618 deaths or 58.4% serviced outside the region), and
 - › South region (1,210 deaths or 29.6% serviced outside the region), where reasons for seeking service elsewhere may include cemetery capacity constraints, cultural/community and family connections, service types and pricing

³⁵ Local Government Areas in the Sydney Sub-regions are as follows:

Planning region	LGAs
Metropolitan Sydney - Central	Ashfield, Botany Bay, Burwood, Canada Bay, Leichhardt, Marrickville, Randwick, Strathfield, Sydney, Waverley, Woollahra
Metropolitan Sydney - North	Hornsby, Hunters Hill, Ku-ring-gai, Lane Cove, Manly, Mosman, North Sydney, Pittwater, Ryde, Warringah, Willoughby
Metropolitan Sydney - South West	Camden, Campbelltown, Fairfield, Liverpool, Wollondilly
Metropolitan Sydney - South	Canterbury, Hurstville, Kogarah, Rockdale, Sutherland
Metropolitan Sydney - West	Blue Mountains, Hawkesbury, Penrith
Metropolitan Sydney - West Central	Auburn, Bankstown, Blacktown, Holroyd, Parramatta, The Hills Shire

³⁶ Rookwood Cemetery facilities include those operated by Rookwood General Cemeteries Reserve Trust (cemetery), Catholic Metropolitan Cemeteries Trust (cemetery and crematorium) and the Australian Cremation Company (Invocare - crematorium and ash interment gardens)

³⁷ Invocare operates major cemetery and crematorium facilities at Pinegrove Memorial Park and Castlebrook Pinegrove Memorial Park

- » traffic appears least for the North and West subregions (North region provided 19% more services than deaths within the region, and West region serviced 81.5% of deaths within that region).

Cremation rates

- » as above; the cremation rate for Sydney (66.3%) is consistent with that for the rest of NSW (66.9%)
- » given proximity constraints in regional NSW, the Sydney cremation rate likely reflects an orientation to burial for many communities in the Sydney population
- » the cremation rate is lowest in West-Central (54.3%), which reflects the incoming traffic to the region for burial services (4,770 burials, 54.6% of greater Sydney burials), rather than low cremation volumes (5,679, the highest of all Sydney sub-regions).

Burials per cemetery

- » as above; for Sydney the average is 153 burials per cemetery for 57 active cemeteries
- » the rate of burials per cemetery presents in-principle opportunity to Sydney operators for capture of revenues to fund ongoing maintenance of cemeteries
- » however, the historic village cemeteries of West and South West regions have the lowest rates of burial, and face significant population growth in decades ahead

Cremations per crematorium

- » as above, for Sydney the average is 1,434 cremations per crematorium for 12 crematoria; for the remainder of the state, 511 cremations per crematorium for 37 crematoria
- » facilities in the North region are currently the highest volume facilities in NSW providing 2,697 cremations per crematorium for 2 crematoria.

4.7 Rate of cemetery land consumption

The following factors are relevant to rates of cemetery land consumption, and considered below:

- » Cremation and burial rates
- » Second interment and 'grave occupancy'
- » Presales
- » Renewable interments
- » Ash interments.

4.7.1 'Snapshot' rate of cemetery land consumption 2014/15

Prior to 2015, the most recent substantive survey of Greater Sydney region cemetery capacity, conducted in 2002-2005, projected exhaustion of available cemetery capacity before 2050. In 2015 CCNSW established a refreshed survey to assess remaining cemetery capacity in the Greater Sydney area (Sydney, Hunter, Central Coast and Illawarra planning regions) as at 1 Jan 2015, as a priority project.

CCNSW is completing analysis and quality assurance work to allow publication of the survey report, later in 2016. The report consolidates information captured from cemetery operators in each region, comprising information in respect of 133 cemetery facilities. CCNSW analysis of responses identifies around 310,000-330,000 grave plots as available in Metropolitan Sydney at 1 Jan 2015; ~120,000 grave plots as available in the Hunter region; ~120,000 grave plots as available in the Illawarra region; and ~23,000 available in the Central Coast region. These figures reflect capacity available for provision by existing operational cemeteries. The figures do not include proposed future cemetery lands, or facilities which have planning approval, but have not commenced operation³⁸.

2014/15 burial activity information for these regions can be used to identify a rate of decrease of existing capacity, at the current incidence of deaths and burials per planning region. At 2014/15 burial rates, the rate of decrease of existing capacity in these regions is as follows:

Table 4.10 'Snapshot' rate of cemetery land consumption 2014/15

Planning Region	Capacity as at 1 Jan 2015	Plots consumed, 2014/15 data ³⁹	% rate of decrease, 2014/15 data
Metropolitan Sydney	~320,000	6,013	~1.88%
Hunter	~120,000	840	0.7%
Illawarra	~120,000	582	0.5%
Central Coast	~23,000	183	0.8%

NB that the number of deaths per annum across the more populated regions of NSW is projected to increase significantly between 2011 and 2056. For Metropolitan Sydney, the number of deaths per annum is projected to increase from 24,330 in 2011 to 37,700 by 2041 (55%)⁴⁰. The CCNSW Greater Sydney cemetery capacity survey report will project future rates of burial and cremation for these planning regions, and potential cemetery capacity exhaustion dates. 2014/15 cemetery activity data provides only a 'snapshot' of the current rate of consumption, which will increase significantly in future years, without changes in interment choices.

4.7.2 Cremation and burial rates

Cremation and burial rates are considered at the regional level, in section 4.4.2 Analysis of 2014/15 metropolitan and regional burial services by sector, above. The 2013 activity data collected for NSW cemeteries and crematoria identified a state-wide cremation rate of 65.3%, which has increased slightly to 66.9% in 2014/15. For Sydney Metropolitan region, the 2013 rate identified was 65.4%, which increased slightly to 66.3% in 2014/15.

While 2013 activity data is not known to contain substantive errors, it was collected to indicate state activity levels, without the process of review and quality assurance of 2014/15 activity information. Differences in rates are therefore viewed with caution, as indicators rather than confirmed trends. In this context, if the changes between 2013 and 2014/15 represent a trend toward cremation, and the cremation rate continues to increase, then that could contribute to reduced pressure on cemetery capacity in future.

³⁸ CCNSW is completing work with operators to resolve queries in respect of land area available for burial and reasonable projections of burial plots per hectare, to allow publication of the CCNSW greater metropolitan cemetery capacity report, later in 2016.

³⁹ ie, burials in new grave plots, as per operator activity returns 2014/15; see Attachment B, Table 7.2 - NSW 2014/15 Metropolitan v Rural & Regional Cemeteries and Crematoria activity by Sector

⁴⁰ See projection of expected deaths per annum in NSW 2011-2041 provided at Attachment F below, NSW Deaths Projected to 2041 - Planning Region level. Data was developed for CCNSW by the NSW Department of Planning and Environment, Demography Team, February 2016. The numbers presented are indicative of overall trends and should be treated as such. Demography reports and datasets published by DPE Demography and Economics division are available at <http://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-Projections>.

However, the relatively low rate for the heavily populated Sydney region, by comparison with adjoining Hunter, Central Coast and Illawarra region rates, suggests a continued orientation to burial for many Sydney communities. The cremation rate for Sydney will be material to cemetery capacity required in future decades. CCNSW intends to publish a Greater Sydney cemetery capacity report later in 2016, including sensitivity testing in respect of the future Sydney cremation rate, and effect upon cemetery land consumption.

It will be of particular interest in 2015/16 whether an ongoing trend toward cremation is in effect, given the effect of the variable to increasing deaths per annum and long term cemetery land requirements.

4.7.3 Second interment and 'grave occupancy'

Rates of second interment and 'grave occupancy' are considered at the regional level, in section 4.4.2 Analysis of 2014/15 metropolitan and regional burial services by sector, above.

2014/15 second interment and 'grave occupancy' figures are detailed below, for NSW, Metropolitan Sydney, rural and regional NSW, and the Hunter, Central Coast and Illawarra subset of regional NSW:

Table 4.11 NSW 2014/15 Second interments and grave occupancy rates

Whole of NSW - burials					
Sector	2014/15 burials	New grave burials	Second interments	2nd interments (as % of interments)	Grave occupancy rate ⁴¹
All operators in NSW	17,833	12,724	5,039	28.3%	1.40
Crown Trusts	6,126	3,951	2,173	35.5%	1.55
Private sector	2,845	2,218	627	22.0%	1.28
Councils	8,736	6,443	2,225	25.5%	1.36
Church and community	126	112	14	11.1%	1.13
All Metropolitan Sydney operators	8,730	6,013	2,647	30.3%	1.45
All Rural & Regional operators	9,103	6,711	2,392	26.3%	1.36
All Hunter, Central Coast and Illawarra operators	2,497	1,605	892	35.7%	1.56

2014/15 activity information in respect of second or subsequent interments carries a caution, in that not all operators systems record in readily reportable form whether a burial is a first or second interment. It is likely that the actual rate is slightly higher than that reported. The rate is highest for metropolitan Crown Trust operators, and in the Hunter and Central Coast regions, where existing facilities face continued and increasing demand, and limited capacity.

⁴¹ As above, 'grave occupancy rate' is an inferred ongoing rate for the no. of interments per grave plot, at the current rate of second interment. The figure is derived by dividing the number of burials completed in the term by the number of burials in new plots completed for the term, and the figures must be used with caution. See Footnote 25, above.

The 2013 activity data collected for NSW cemeteries did not differentiate between first and second or subsequent burials, and therefore no trend data is yet available for the rates of second interment and 'grave occupancy'. As referenced above, the substantive survey of Greater Sydney cemetery capacity conducted in 2002-05 considered burial, cremation and grave occupancy as factors relevant to ongoing consumption of new grave plots⁴². While that work did not have industry data on second interments available to inform projection of grave occupancy, the figure used by the survey, referencing discussions with industry, was a grave occupancy rate of 1.4 for Metropolitan Sydney.

If the estimated occupancy rate of 1.4 used in the 2002-05 metropolitan analysis was reasonably accurate, and the current state-wide rate is now 1.4, and the rate in metropolitan areas higher than that, it may be that a trend toward higher grave occupancy is in effect. Similar to cremation rates, the grave occupancy rate in all populous regions, and particularly in Sydney, will be material to cemetery capacity required in future decades. CCNSW intends to publish a Greater Sydney cemetery capacity report later in 2016, including sensitivity testing in respect of the future Sydney cremation rate, and effect upon cemetery land consumption.

4.7.4 Ash interments

Some cemetery facilities are heavily developed for ash interments, consistent with the cremation rate, and with the situation of crematorium facilities within cemeteries. Ash interments may generally be completed at a much higher density than mortal remains interments, and therefore provide a very efficient form of cemetery land use. Nonetheless, arrangements for tracking of cemetery land consumption for ash interment may need to be developed in future, to provide for a reliable forward view to cemetery capacity available for access 'at need' for burials, particularly in metropolitan areas.

4.7.5 Renewable interments

Part 4 of the *Cemeteries and Crematoria Act 2013*, upon commencement, will establish a consistent regime of interment rights for NSW cemeteries, including a regime for renewable interment rights. Implementation of renewable interment rights will be an option available to cemetery operators, which is expected to have the effect of increasing the efficiency of cemetery land usage, by allowing for increased numbers of interments in individual grave plots.

Only 68 renewable interments were reported for 2014/15, from two operators. It is intended that annual activity reporting by cemetery and crematorium operators be continued, to provide for visibility of increased mortality volumes and cemetery and crematorium services in the years ahead as annual mortality volumes are projected to double between 2011 and 2051. Visibility of the take-up of renewable interment rights will also be required to provide for a reliable forward view to cemetery capacity available for access 'at need' for burials, particularly in metropolitan areas.

4.7.6 Presales of burial licences, grave plots and interment rights

Also relevant to cemetery land consumption is the increasing practice of presale of burial licences, grave plots or interment rights. Rights or plots are purchased both in 'at need' and 'pre-sale' scenarios. The volume of grave plots reported as available for new interments at 1 Jan 2015 at the 'Snapshot' 4.7.1 above reflects the no. of plots **not yet used for interments**. The volume of stock available for access in an 'at-need' scenario may be 20-50% less than the volume not yet used, through commitment to a future interment by pre-sale.

⁴² See Footnote 7 above.

Presales have not been included in the parameters of activity reporting for 2014/15, but may need to be considered in future, to provide for a reliable forward view to cemetery capacity available for access 'at need' for burials, particularly in metropolitan areas.

4.8 Potential alignments between regional variations and Census information

CCNSW sought advice from the Department of Planning and Environment Demography Team on considering potential relationships between Census information, most logically religious affiliation and ancestry information, which may have relationships to orientation by communities toward burial or cremation. DPE provided the tables attached at Attachment B and C, detailing the distribution of all people stating a religion in 2011 by planning region, and for those not stating any affiliation, by ancestry by planning region.

There is a logical difficulty in drawing absolute relationships between the profile of a planning region and the burial and cremation activity of that planning region, particularly in Metropolitan Sydney, for reasons which include:

- » limited facilities in some Sydney regions
- » no necessity that person dying in a region is buried or cremated in that region
- » no data differentiating the primary service type for any person buried or cremated outside their region
- » no access to the last addresses of persons buried or cremated, which would allow identification of actual (as opposed to apparent) traffic between regions
- » readiness of access between regions of Sydney, with planning region boundaries not reflecting an effective separation of communities.

Tables provided at Attachments B and C nonetheless provide for Metropolitan Sydney some illustration of community profiles:

- » by religious affiliation; and
- » for those not stating any affiliation, by ancestry.

NSW Religious Affiliation profile Census 2011

This table provides the distribution of all people stating a religion in 2011, of which there were 5.1 million, by NSW planning region. The data does identify concentrations above the state-wide average for some communities understood to maintain an orientation toward burial, in the following regions:

Metropolitan Sydney – Central region (Orthodox, Islam, Judaism)

Metropolitan Sydney – South region (Orthodox, Islam)

Metropolitan Sydney – South West region (Orthodox, Islam)

Metropolitan Sydney – West Central region (Orthodox, Islam).

These concentrations may contribute to the Metropolitan Sydney cremation rate remaining very close to the state-wide average, where the absence of proximity constraints for cremation services in Sydney would otherwise mitigate toward a rate higher than the state-wide average

Table 4.12 NSW Census Religion Profile 2011

Total Numbers - Counts of Persons by Religious Affiliation (2011)										
Planning Region	Buddhism	Orthodox	Anglican / Protestant	Catholic	Hinduism	Sikhism	Islam	Judaism	Other Religions	Total
Central Coast	2,738	2,234	136,599	82,664	725	108	974	362	1,090	227,494
Far West	183	241	16,484	13,181	65	9	81	7	121	30,372
Hunter	4,230	5,717	264,947	141,924	1,560	243	2,254	301	1,974	423,150
Illawarra	4,050	15,280	142,195	99,437	1,032	79	4,745	214	1,439	268,471
Metropolitan Sydney - Central	33,045	38,194	138,446	201,418	16,854	1,039	15,539	27,413	4,301	476,249
Metropolitan Sydney - North	22,767	18,832	268,472	206,052	14,656	2,047	8,385	8,199	5,643	555,053
Metropolitan Sydney - South	21,498	66,445	147,803	156,108	11,072	1,112	39,929	875	2,581	447,423
Metropolitan Sydney - South West	57,872	40,231	154,197	199,603	14,847	1,462	38,160	217	6,699	513,288
Metropolitan Sydney - West	3,142	5,640	120,895	96,734	2,423	881	3,685	261	2,403	236,064
Metropolitan Sydney - West Central	39,365	44,070	249,485	298,607	52,758	12,150	101,476	678	17,134	815,723
Murray - Murrumbidgee	1,226	1,043	111,378	81,441	1,108	937	1,089	72	1,497	199,791
New England - North West	790	311	89,844	43,612	280	37	523	68	547	136,012
North Coast	6,526	1,546	246,867	128,478	1,198	1,290	790	689	4,280	391,664
Orana and Central West	1,297	975	122,298	82,461	458	78	581	85	843	209,076
South East & Tablelands	2,053	3,189	101,823	68,295	663	223	908	252	1,266	178,672
Total	200,782	243,948	2,311,733	1,900,015	119,699	21,695	219,119	39,693	51,818	5,108,502

Table 4.12 NSW Census Religion Profile 2011 (cont'd)

Percentage Profile of each Planning District (Row Percentage)										
Planning Region	Buddhism	Orthodox	Anglican / Protestant	Catholic	Hinduism	Sikhism	Islam	Judaism	Other Religions	Total
Central Coast	1%	1%	60%	36%	0%	0%	0%	0%	0%	100%
Far West	1%	1%	54%	43%	0%	0%	0%	0%	0%	100%
Hunter	1%	1%	63%	34%	0%	0%	1%	0%	0%	100%
Illawarra	2%	6%	53%	37%	0%	0%	2%	0%	1%	100%
Metropolitan Sydney - Central	7%	8%	29%	42%	4%	0%	3%	6%	1%	100%
Metropolitan Sydney - North	4%	3%	48%	37%	3%	0%	2%	1%	1%	100%
Metropolitan Sydney - South	5%	15%	33%	35%	2%	0%	9%	0%	1%	100%
Metropolitan Sydney - South West	11%	8%	30%	39%	3%	0%	7%	0%	1%	100%
Metropolitan Sydney - West	1%	2%	51%	41%	1%	0%	2%	0%	1%	100%
Metropolitan Sydney - West Central	5%	5%	31%	37%	6%	1%	12%	0%	2%	100%
Murray - Murrumbidgee	1%	1%	56%	41%	1%	0%	1%	0%	1%	100%
New England - North West	1%	0%	66%	32%	0%	0%	0%	0%	0%	100%
North Coast	2%	0%	63%	33%	0%	0%	0%	0%	1%	100%
Orana and Central West	1%	0%	58%	39%	0%	0%	0%	0%	0%	100%
South East & Tablelands	1%	2%	57%	38%	0%	0%	1%	0%	1%	100%
NSW	4%	5%	45%	37%	2%	0%	4%	1%	1%	100%

Table 4.12 NSW Census Religion Profile 2011 (cont'd)

Percentage Distribution of each Major Religion (Column Percentage)										
Planning Region	Buddhism	Orthodox	Anglican / Protestant	Catholic	Hinduism	Sikhism	Islam	Judaism	Other Religions	NSW
Central Coast	1%	1%	6%	4%	1%	0%	0%	1%	2%	4%
Far West	0%	0%	1%	1%	0%	0%	0%	0%	0%	1%
Hunter	2%	2%	11%	7%	1%	1%	1%	1%	4%	8%
Illawarra	2%	6%	6%	5%	1%	0%	2%	1%	3%	5%
Metropolitan Sydney - Central	16%	16%	6%	11%	14%	5%	7%	69%	8%	9%
Metropolitan Sydney - North	11%	8%	12%	11%	12%	9%	4%	21%	11%	11%
Metropolitan Sydney - South	11%	27%	6%	8%	9%	5%	18%	2%	5%	9%
Metropolitan Sydney - South West	29%	16%	7%	11%	12%	7%	17%	1%	13%	10%
Metropolitan Sydney - West	2%	2%	5%	5%	2%	4%	2%	1%	5%	5%
Metropolitan Sydney - West Central	20%	18%	11%	16%	44%	56%	46%	2%	33%	16%
Murray - Murrumbidgee	1%	0%	5%	4%	1%	4%	0%	0%	3%	4%
New England - North West	0%	0%	4%	2%	0%	0%	0%	0%	1%	3%
North Coast	3%	1%	11%	7%	1%	6%	0%	2%	8%	8%
Orana and Central West	1%	0%	5%	4%	0%	0%	0%	0%	2%	4%
South East & Tablelands	1%	1%	4%	4%	1%	1%	0%	1%	2%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

NSW Ancestry Profile Census 2011

This table provides the distribution of all people who said in the Census they had 'No Religion', or didn't state a Religion. There were 1.4 million people choosing this category. In this table the differentiation is by the stated Ancestry of the person, which has potential for association with cremation / burial choices.

In this dataset it may be of note that

- » 'No Religion' Ancestry is largely comprised of people with an Oceanian or North-West European Ancestry, and in the absence of other guidance, this group may broadly follow the same break down of choice as the population in general (i.e. Catholic or Anglican split).
- » North-East Asian Ancestry is the third largest group, understood to comprise largely mainland Chinese population, who have a very young population profile, and it may reasonable to anticipate that, amongst this group, cultural preferences are changing, and cremations may be rising amongst this group.

It may be of benefit in future that qualitative research work proceeds among key communities, as a complement to the quantitative census information, to allow more confident determination of community preferences, and reasonably foreseeable interment choice trends.

Table 4.13 NSW Census Ancestry Profile 2011

Percentage Distribution of each Ancestry (Column Percentage)										
Planning Region	Oceanian	North-West European	Southern and Eastern European	North African and Middle Eastern	South-East Asian	North-East Asian	Southern and Central Asian	Peoples of the Americas	Sub Saharan African	Total
Central Coast	6%	6%	3%	1%	1%	1%	1%	3%	3%	5%
Far West	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%
Hunter	12%	10%	5%	1%	2%	1%	2%	4%	4%	9%
Illawarra	7%	7%	6%	2%	2%	2%	1%	4%	3%	6%
Metropolitan Sydney - Central	10%	15%	26%	19%	18%	23%	20%	27%	22%	15%
Metropolitan Sydney - North	11%	15%	16%	19%	9%	24%	20%	20%	29%	15%
Metropolitan Sydney - South	5%	5%	10%	10%	9%	20%	9%	7%	6%	7%
Metropolitan Sydney - South West	5%	4%	8%	11%	33%	5%	8%	11%	6%	5%
Metropolitan Sydney - West	6%	5%	4%	2%	1%	1%	3%	3%	3%	5%
Metropolitan Sydney - West Central	8%	7%	10%	30%	22%	22%	30%	10%	13%	10%
Murray - Murrumbidgee	4%	4%	2%	0%	1%	0%	1%	1%	1%	3%
New England - North West	3%	2%	1%	0%	0%	0%	0%	1%	1%	2%
North Coast	12%	12%	6%	2%	1%	1%	2%	6%	5%	10%
Orana and Central West	4%	3%	1%	0%	0%	0%	1%	1%	1%	3%
South East & Tablelands	5%	5%	3%	1%	1%	0%	1%	3%	2%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

5. Findings

Analysis of the tables provided in the body of the document delivers the following principal findings:

No. of deaths v No. of interment services

- » Whole of NSW – a net incoming traffic to NSW for burial and cremation services (53,945 burials and cremations in 2014/15, compared with 52,320 deaths recorded for 2014, a difference of +1,625 or +3.1%)⁴³
- » Deaths: estimated populations of metropolitan and regional NSW as at 2014 were Metro 4,509,579 (60%), and rural and regional 3,008,893 (40%); deaths recorded for 2014 were Sydney 24,919 (47.7%) and regions 27,243 (52.3%), reflecting the difference in age profiles between Sydney and regional communities
- » Metropolitan Sydney – a net incoming traffic to Metropolitan Sydney for burial services (25,938 burials and cremations for 2014/15, compared with 24,919 deaths for 2014, a difference of 1,019 or 4.1%)
- » NSW excluding Sydney – a net incoming traffic to regional NSW for services (28,007 burials and cremations for 2014/15, compared with 27,401 deaths for 2014, a difference of 606 or 2.2%)

Distribution of services by sector

- » Private sector operators provide the majority (55.7%) of primary services in NSW, delivering 30,049 primary services, comprising 2,845 burials and 27,204 cremations
- » Private sector operators provide 75% of cremation services in NSW, including 69% of metropolitan area cremations (11,821), and 81% of regional cremations (15,383)
- » Councils provide 22.7% of overall services; the largest share of all burials in NSW (8,736, or 49% of NSW burials), and the great majority of regional burial services (7,840, or 86% of regional burials)
- » Crown Trusts provide 21.3% of primary services in NSW, but provide the great majority of metropolitan burial services (5,984, or 69% of metropolitan burials)

43 While the reporting period for deaths (2014) and services provided (2014/15) are not consistent, the no. of services provided is sufficiently higher than the no. of deaths which may be expected to be recorded in NSW for 2014/15 as to confirm a rate of traffic incoming to NSW for burial and cremation services.

Cremation rates

- » the Sydney cremation rate (66.3%) is consistent with the rest of NSW (66.9%); given proximity constraints in the regions, the rate likely reflects an orientation to burial for many communities in greater Sydney
- » a much higher level of cremation is current in the Central Coast, Hunter and Illawarra regions (78.8%)
- » the number of cremations for 2014/15 is considerably higher than 2013 (+2,288) and suggests an increase in the state-wide cremation rate of 1.4% from 65.3% to 66.9%
- » it will be of particular interest in 2015/16 whether an ongoing trend toward cremation is in effect.

Burials per cemetery

- » there is great variance in burial rates per cemetery between metropolitan and regional areas; for Sydney the average is 153 burials per cemetery for 57 active cemeteries; for the remainder of the state excluding Sydney, 11 burials per cemetery for 794 active cemeteries.

Second interments and occupancy rates

- » in the metropolitan area, where cemetery space is at a premium, the rate of second or subsequent interment is 30.3% of all burials, suggesting a 'current' grave occupancy rate of 1.45.
- » the figures identify that metropolitan cemetery space is being consumed with relative efficiency, and the occupancy rate is expected to increase in future years.

Rate of cemetery land consumption in Metropolitan Sydney

- » CCNSW calculates that as at 1 Jan 2015 there were around 310,000-330,000 grave plots available for new interments in Metropolitan Sydney
- » there were 6,013 interments in new graves in Sydney in 2014/15, with around 2% of available stock consumed for interments; steep increases in deaths per annum in future years will greatly increase the rate.

Importance to greater Sydney of West-Central region facilities

- » 'strategic' facilities in the West-Central region of Sydney, including Rookwood, Pinegrove and Castlebrook facilities currently service much of the greater Sydney community
- » the region sustains 29.7% of the metropolitan population, but provides 40.3% of primary services (burials and cremations) and 54.6% of greater Sydney burials.

Interment and memorialisation following cremation

- » 2013 activity data identified the interment of 30,498 remains in NSW cemeteries (17,968 burials and 12,530 ash interments), 60.7% of deaths recorded in NSW for the period
- » 2014/15 data identifies the disposition of 29,951 remains in NSW cemeteries (17,853 burials and 11,738 ash interments or scatterings), 57.4% of deaths recorded in NSW for the period
- » the Metropolitan Sydney 'share' of reduced ash interments (approx. 80% of the reduced total) is much higher than the metropolitan 'share' of ~50% of total services provided
- » regional Councils report a rate of ash interment or ash scattering to 80.5% of cremation services provided (however the rate of ash interment will include interment of ashes cremated by other operators).

Follow-up work which can be expected to be of value in future

Given the findings and indications brought forward by the 2014/15 activity survey, the following work streams are proposed for consideration:

- » continued annual activity reporting by cemetery and crematorium operators, to provide visibility of increased mortality volumes and efficiency of cemetery land use in the years ahead, as annual mortality volumes double between 2011 and 2051. Activity reporting can provide an evidence base of actual rates of cremation, mortal remains interment, and second and subsequent interments, to inform planning for future community infrastructure requirements.
- » discussion with cemetery and crematorium operators of the apparent decline in ash interment and memorialisation following cremation; to determine whether the trend is perceived or actual; and what actions may reasonably be contemplated to seek to increase rates of ash disposition and memorialisation.
- » completion and publication of the CCNSW Greater Sydney cemetery capacity survey report, that work reconciling burial and cremation activity against estimated remaining cemetery capacity as at 1 January 2015, and projecting future rates of burial, cremation and cemetery land consumption.
- » follow-up work on tracking of cemetery land use for ash interment; in some cemeteries large areas have been developed for intensive ash interments; and upon commencement of Part 4 of the *Cemeteries and Crematoria Act 2013* a prohibition on disturbance of ash interments will become effective. Given the focus on providing sufficient cemetery land for forecast future interments, further work with cemetery operators is proposed, to determine whether an efficient approach to reporting the commitment of cemetery land to ash interment may be adopted.

6. Supplementary information

How to update the Cemeteries and Crematoria Register

The Cemeteries and Crematoria Register may be accessed at <http://www.dpi.nsw.gov.au/lands/cemeteries-crematoria>.

If you are unable to find a cemetery on the Register which you consider should be listed, please contact us at ccnsw.register@cemeteries.nsw.gov.au.

A form for facility operators for providing updates or additions to the Register can be provided on request. Please contact ccnsw.register@cemeteries.nsw.gov.au for a copy of the form.

Applicable Policies

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7. Attachments

Attachment A

NSW Deaths Projected to 2041 - Planning Region level

Table 7.1 NSW Deaths Projected to 2041 - Planning Region level

Planning Region	2011-16	2016-21	2021-26	2026-31	2031-36	2036-41	TOTAL
Central Coast	15,050	15,550	16,350	17,450	18,950	20,850	104,200
Far West	1,950	2,050	2,050	2,050	2,300	2,300	12,700
Hunter	24,500	25,750	27,150	29,000	31,450	33,850	171,700
Illawarra	15,750	16,800	17,850	19,000	20,500	22,150	112,050
Metropolitan Sydney - Central	22,600	23,650	24,900	26,700	29,100	31,800	158,750
Metropolitan Sydney - North	28,500	29,750	31,150	33,000	35,950	39,400	197,750
Metropolitan Sydney - South	19,950	20,700	21,450	22,750	24,650	26,950	136,450
Metropolitan Sydney - South West	15,400	17,750	20,200	23,050	26,450	30,350	133,200
Metropolitan Sydney - West	8,500	9,550	10,800	12,200	13,900	15,650	70,600
Metropolitan Sydney - West Central	26,700	29,250	31,900	35,200	39,500	44,350	206,900
Murray - Murrumbidgee	10,750	11,400	11,950	12,650	13,450	14,300	74,500
New England - North West	7,850	8,350	8,800	9,400	9,950	10,500	54,850
North Coast	30,500	31,950	33,550	35,800	38,700	41,500	212,000
Orana and Central West	11,800	12,600	13,200	14,100	15,050	15,850	82,600
South East & Tablelands	11,000	11,850	12,850	14,050	15,350	16,550	81,650
New South Wales - Total	250,800	266,950	284,150	306,400	335,250	366,350	1,809,900
NSW total pa	50160	53390	56830	61280	67050	73270	
Metropolitan Sydney - Total	121,650	130,650	140,400	152,900	169,550	188,500	903,650
Metro Sydney pa	24330	26130	28080	30580	33910	37700	
Metro Sydney & Hunter-Central Coast-Illawarra - Total	176,950	188,750	201,750	218,350	240,450	265,350	1,291,600
Metro Sydney & Hunter-Central Coast-Illawarra pa	35390	37750	40350	43670	48090	53070	

NSW Planning and Environment, Demography Team, bespoke research (2016).

Note: This data is based on bespoke research conducted for Cemeteries and Crematoria NSW. It is based on current assumptions used for NSW population projections. However, the time horizon has been extended to 2041 on request. The numbers presented are indicative of overall trends and should be treated as such.

Attachment B

NSW 2014/15 Metropolitan v Rural & Regional Cemeteries and Crematoria consolidated activity by Sector

Table 7.2 NSW 2014/15 Metropolitan v Rural & Regional Cemeteries and Crematoria activity by Sector

Sector	2014/15 burials	New grave burials	Second interments	2nd interments (as % of interments)	Grave occupancy rate	2014/15 cremations	2014/15 total services	Sector % of services	Cremation rate %	2014/15 Ash interments	2014/15 Ash scatterings	2014/15 Ash dispositions	2014/15 Ash disp. rate	Count of Operators	Sector % of burials	Sector % of cremations	Sector % of ash disp.
Whole of NSW																	
All operators in NSW	17,833	12,724	5,039	28.3%	1.40	36,112	53,945		67.0%	11,092	646	11,738	32.5%	228	100%		
Crown Trusts	6,126	3,951	2,173	35.5%	1.55	5,387	11,513	21.3%	46.8%	2,540	224	2,764	51.3%	7	34%	15%	24%
Private sector	2,845	2,218	627	22.0%	1.28	27,204	30,049	55.7%	90.5%	5,304	370	5,674	20.9%	29	16%	75%	48%
Councils	8,736	6,443	2,225	25.5%	1.36	3,521	12,257	22.7%	28.7%	3,033	46	3,079	87.4%	123	49%	10%	26%
Church and community	126	112	14	11.1%	1.13	0	126	0.2%	0.0%	215	6	221	N/A	69	1%	N/A	2%
Sydney Metropolitan																	
All Metropolitan operators	8,730	6,013	2,647	30.3%	1.45	17,208	25,938		66.3%	3,180	492	3,672	21.3%	25	100%		
Crown Trusts	5,984	3,921	2,061	34.4%	1.53	5,387	11,371	43.8%	47.4%	2,506	224	2,730	50.7%	4	69%	31%	74%
Private sector	1,822	1,451	371	20.4%	1.26	11,821	13,643	52.6%	86.6%	3,180	268	3,448	29.2%	5	21%	69%	94%
Councils	596	615	213	35.7%	0.97	0	596	2.3%	0.0%	245	0	245	N/A	12	7%	0%	7%
Church and community	28	26	2	7.1%	1.08	0	28	0.1%	0.0%	21	0	21	N/A	4	0%	N/A	1%
Rural and Regional NSW																	
All Rural & Regional operators	9,103	6,711	2,392	26.3%	1.36	18,904	28,007		67.5%	5,140	154	5,294	28.0%	205	100%		
Crown Trusts	142	30	112	78.9%	N/A	0	142	0.5%	0.0%	34	0	34	N/A	4	2%	0%	1%
Private sector	1,023	767	256	25.0%	1.33	15,383	16,406	58.6%	93.8%	2,124	102	2,226	14.5%	25	11%	81%	42%
Councils	7,840	5,828	2,012	25.7%	1.35	3,521	11,361	40.6%	31.0%	2,788	46	2,834	80.5%	111	86%	19%	54%
Church and community	98	86	12	12.2%	1.14	0	98	0.3%	0.0%	194	6	200	N/A	65	1%	N/A	4%

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Notes

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