



# 1,358 DROWNING DEATHS (2002/03-2014/15)



GENDER



AGE



ACTIVITY



18% UNKNOWN  
17% NON-AQUATIC TRANSPORT  
16% SWIMMING AND RECREATING



22% BOATING AND WATERCRAFT  
19% SWIMMING AND RECREATING  
14% UNKNOWN

## FACTORS & STRATEGIES

### CAUSAL FACTORS

- Drinking alcohol while swimming or boating
- Not wearing a life jacket
- Unseen hazards, e.g. currents and snags
- New or unfamiliar aquatic locations
- Remoteness of incident location
- Changing weather patterns, e.g. flooding

### PREVENTION STRATEGIES

- Avoid alcohol around water
- Wear a life jacket
- Create Child Safe Play Areas for young children
- Check conditions and hazards before entering the water
- Never swim alone
- Learn lifesaving skills (CPR, rescue skills)

## Background

Inland waterways are responsible for more drowning deaths than any other aquatic location<sup>1</sup>. Each year people of all ages lose their lives in inland waterways across the country. The Australian Water Safety Strategy 2016-20 has identified inland waterways as a high-risk location where a reduction in drowning is required<sup>2</sup>.

Inland waterways include rivers, creeks and streams, as well as lakes, dams and lagoons. Recent research has identified gaps in published knowledge of drowning in inland waterways<sup>3</sup>. It was found that epidemiological studies focusing on river drowning were lacking, as was information on the activity being undertaken prior to drowning in these areas<sup>3</sup>. While location specific risk factors and prevention strategies have been established for swimming pools and beaches, sufficient research has not been conducted to develop effective prevention strategies for inland waterways<sup>4</sup>.

Previously released data revealed the top ten river drowning blackspots. Over a ten year period (1 July 2002-30 June 2012), 43 people drowned in the Murray River, followed by the Brisbane River (33 deaths), Yarra River (29 deaths), Swan River (24 deaths) and the Hawkesbury River (15 deaths)<sup>5</sup>. Despite the high proportion of drowning deaths that inland waterways are responsible for, they have not received the same level of attention as coastal waterways.

## Methods

Information for this report has been collected from the Australian National Coronial Information System (NCIS), State and Territory Coronial Offices and media reports. Royal Life Saving uses a media monitoring service (electronic and print media) throughout the year to identify all drowning cases reported in the media. This information is then corroborated with data from the NCIS, police and Royal Life Saving State and Territory Member Organisations before being included in this report. Analysis has been conducted for all cases of unintentional fatal drowning in inland waterways.

The data was collated into the Royal Life Saving National Fatal Drowning Database. All deaths resulting from drowning or immersion-related incidents have been included. Exclusions from this data include: suicide, homicide, deaths from natural causes, shark or crocodile attack and hypothermia.

All care is taken to ensure that the information is as accurate as possible. Please note that the figures from more recent financial years may change depending upon the outcomes of ongoing coronial investigations. Data correct as of 3 February 2016. As of this date, 78% of cases analysed were closed (i.e. no longer under coronial investigation).

## References

- <sup>1</sup> Royal Life Saving Society - Australia. Royal Life Saving National Drowning Report 2015. Sydney, 2015.
- <sup>2</sup> Australian Water Safety Council. Australian Water Safety Strategy 2016-2020, 2015.
- <sup>3</sup> Peden AE, Franklin, RC., Leggat, PA. Fatal River Drowning: Identification of Research Gaps through a Systematic Literature Review Injury Prevention 2016.
- <sup>4</sup> Franklin RC, Scarr JP, Pearn JH. Reducing drowning deaths: the continued challenge of immersion fatalities in Australia. Medical Journal of Australia 2010;192(3):123-6.
- <sup>5</sup> Peden A, Queiroga AC. Drowning Deaths in Australian Rivers, Creeks and Streams: A 10 Year Analysis: Royal Life Saving Society - Australia, 2014.

## Respect the River

Royal Life Saving's Respect the River campaign has been designed to educate the public about the hidden dangers of inland waterways. It encourages people to respect rivers by following some simple safety tips:

- **Never swim alone** – Take care when walking in or around inland waterways, enter the water slowly, feet first, check conditions and swim with a friend
- **Avoid alcohol around water** – Alcohol impairs judgement and increases risk-taking behavior, do not swim or go out boating after consuming alcohol
- **Wear a life jacket** – Boating and watercraft related drowning deaths can occur if people are not wearing a life jacket and get into difficulty on the water
- **Learn how to save a life** – Learn lifesaving skills, as well as first aid/resuscitation so you are able to respond in an emergency

For more information visit  
[www.royallifesaving.com.au/respecttheriver](http://www.royallifesaving.com.au/respecttheriver)



**Respect the River**  
Saving lives in Australian Rivers

## Results

### Overall

Between 1 July 2002 and 30 June 2015, 1,358 people drowned in inland waterways (rivers, creeks and streams, lakes, dams and lagoons). They accounted for 36% of all drowning deaths during this period (13 financial years), with most deaths occurring in males (82%).

The state with the highest number of deaths in inland waterways was NSW (36%), followed by Queensland (27%) and Victoria (15%).

Most deaths occurred in inner regional locations (32%), major cities (28%) or outer regional locations (26%). The majority of people were not visitors to the area where they drowned (73%).

### Rivers, creeks and streams

There were 1,001 deaths in rivers, creeks and streams during this time period (74% of deaths in inland waterways). Males accounted for 81% of these deaths.

The age groups most commonly involved were people aged 35-44 years (15%), 25-34 years (14%), 45-54 years (14%) and 55-64 years (13%), indicating middle-aged and older adults are key demographics for river drowning.

Falls accounted for the highest number of drowning deaths (21%), followed by unknown activity (18%), non-aquatic transport (17%) and swimming and recreating (16%). Most drowning deaths occurred in Summer (38%) or Spring (22%). The days with the highest proportion of deaths were Sundays (17%) and Fridays (17%).

### Lakes, dams and lagoons

There were 357 deaths in lakes, dams and lagoons during this time period (26% of deaths in inland waterways). Males accounted for 84% of these deaths.

The highest number of fatalities occurred in people aged 25-34 years (15%), 45-54 years (14%), 55-64 years (13%) and children aged 0-4 years (11%). Unlike rivers, young children feature prominently among the most common age groups for lake and dam drowning deaths, with these incidents often occurring in unfenced dams on farms.

Falls were the most common activity prior to drowning (27%), followed by boating and watercraft (22%), swimming and recreating (19%) and unknown activity (14%). Summer was the most common season for drowning deaths (34%), followed by Spring (28%), with incidents most commonly occurring on Sundays (19%) or Saturdays (17%).

# 1,001

DEATHS IN RIVERS, CREEKS  
AND STREAMS BETWEEN  
1 JULY 2002 AND 30 JUNE 2015

# 357

DEATHS IN LAKES, DAMS  
AND LAGOONS BETWEEN  
1 JULY 2002 AND 30 JUNE 2015



## Discussion

Inland waterways continue to be the leading location for drowning in Australia. They often look calm and still but hidden beneath the water surface there may be strong currents, cold water and submerged objects. River banks and dam edges are often slippery and crumbling, making it easy for people to lose their footing and fall into the water. Unlike beaches, inland waterways do not have flags indicating safe areas to swim, nor do they have lifeguards on duty to help if anyone gets into trouble. It is not possible to fence rivers and lakes, as a swimming pool can be fenced, meaning alternative methods to restrict access must be used.

Prevention efforts should be focused on middle-aged and older males, emphasising the need to avoid alcohol and take care in areas where conditions can change rapidly. A large number of fatalities occurred following an unknown activity, indicating the person was alone when they drowned. Even experienced swimmers and boaters should avoid going out alone so there is someone close by in case help is needed.

A key high risk location for young children is the farm dam. It is often not practical to fence farm dams, making supervision vital. The Keep Watch @ The Farm program promotes active supervision of children, as well as the creation of Child Safe Play Areas to prevent children accessing water without being accompanied by an adult.

## Recommendations

1. Expand promotion of the Respect the River campaign, especially in regional areas, to increase public knowledge of the hazards posed by inland waterways, as well as educating the public on how to enjoy these areas safely
2. Raise awareness of the dangers of consuming alcohol around inland waterways, primarily targeting males between the ages of 25 and 64 years
3. Continue to promote life jacket use for boating, especially among middle-aged and older males
4. Encourage communities and individuals to undertake resuscitation courses, and keep their skills up to date, as deaths in inland waterways often occur in rural and remote locations which may be some distance from timely medical assistance
5. Conduct further research into drowning deaths as a result of boating and watercraft incidents to examine causal factors, trends over time and propose prevention strategies

### Alcohol and inland waterways

Alcohol consumption is commonly linked to drowning deaths in inland waterways. It was involved in 31% of cases overall, including 35% of deaths occurring in rivers, creeks and streams, and 20% in lakes, dams and lagoons (2002/03-2014/15). It is likely that this figure is an underrepresentation, as complete information was not always available.

The risks of consuming alcohol and recreating in and around water are well-documented. It can impair judgement, increase the likelihood of engaging in risky behavior, decrease coordination, impair reaction time and reduce the effectiveness of CPR.

If you are swimming in inland waterways, or taking a boat out, do not consume alcohol.

