

# SURF LIFE SAVING NSW **COASTAL SAFETY REPORT 2016**

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SURF LIFE SAVING  
**NEW SOUTH WALES**

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# INTRODUCTION



It gives me great pleasure as the Director of Lifesaving, Surf Life Saving NSW to write the introduction for our inaugural *NSW Coastal Safety Report*.

For over a decade our organisation has been providing data to the national governing body Surf Life Saving Australia for inclusion in the annual *Coastal Safety Report*, but there has never been a publication, until now, which focuses exclusively on the challenges and statistics of NSW, and this is what makes this report unique.

Tragically the 2015/16 season has seen a significant spike in the coastal drowning death toll, which I know is something that concerns all surf lifesavers and the community. This year there have been 53 drowning deaths in NSW coastal waters in comparison to the ten-year average of 37. The majority of these deaths are male (92%) with the main activity undertaken at the time of drowning being swimming/wading (30%) and rock fishing (19%).

As we head into the new season, it is an ideal time to reflect on the many positive impacts that surf lifesavers have on the wider community.

A report on *The Value Of Surf Life Saving NSW To The Community*, released earlier this year, has identified the direct economic value of Surf Life Saving NSW and its surf lifesavers to the wider community. This report found that the estimated value of Surf Life Saving NSW in preventing:

- drowning deaths is \$1.35 billion
- permanent incapacitations is \$565 million

Further, it was estimated that in the absence of Surf Life Saving services through surf lifesavers there would have been

320 additional drowning deaths and 234 additional permanent incapacitations.

By releasing the *NSW Coastal Safety Report* we aim to provide information and data about coastal safety in NSW to help inform decisions across the state that will result in the reduction of drowning deaths.

This publication will be a valuable resource for our members, government, sponsors, partners, researchers, water safety agencies, community groups and the media to inform them about key drowning data and interventions. This report also highlights the capabilities of our surf lifesaving operations in NSW and demonstrates our commitment to water safety.

I know that all of our surf lifesavers will be working hard to ensure that visitors to our beaches can enjoy them safely into the future.

A handwritten signature in black ink, reading 'John Restuccia'.

**John Restuccia**

Director of Lifesaving  
Surf Life Saving New South Wales

# COASTAL DROWNING

For over a century NSW surf lifesavers have maintained a long and proud tradition of keeping people safe on our many diverse and beautiful beaches. To this very day saving lives is ingrained in the mission and philosophy of every surf lifesaver from the Nipper just beginning their journey through to bronzed veterans telling yarns in the clubhouse.

The 2015/16 drowning death toll of 53 is the highest on record. More people have drowned in NSW waters than anywhere else in Australia. Rock fishing is a particularly unique challenge in NSW due to the higher number of drowning deaths that are occurring each year at the same geographical hotspots. Collaboration with other agencies, community groups and all levels of government is the first step in changing the attitudes of recreational water users.

The high drowning death toll of recent seasons is not a reflection on the efforts of our patrolling membership as no drowning deaths have occurred between the red and yellow flags over the last 10 years. In each of the last three summers over 5,000 people were rescued by surf lifesavers.

A key part of surf lifesaving training is the ability to recognise and intervene in situations before they escalate to the point where major injury or death occurs.

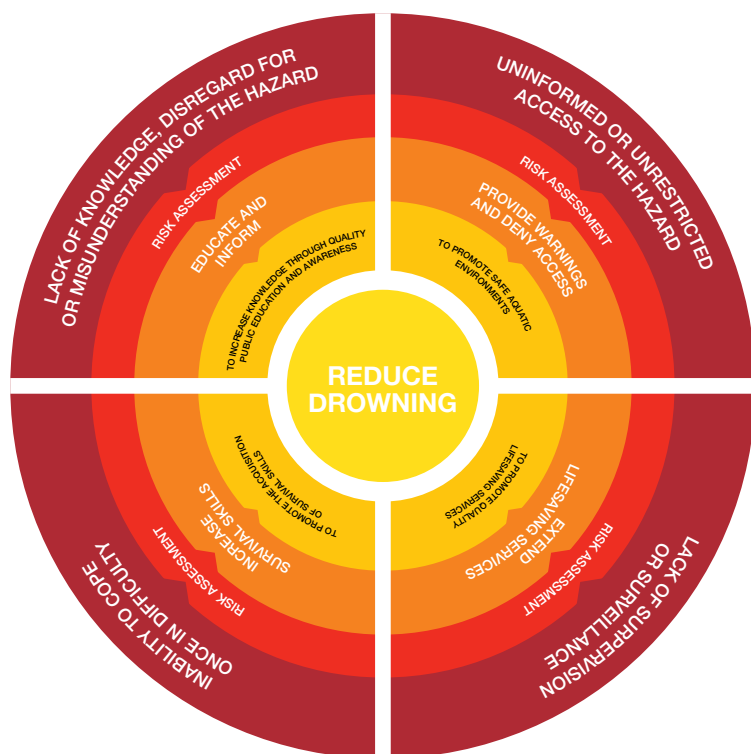
This focus and dedication is one of the key reasons surf lifesavers are such a respected and trusted part of the summer landscape.

What concerns surf lifesavers is that many of these drowning deaths could have been avoided. This is why water safety education will remain a key focus for surf lifesavers moving forward and SLSNSW will be working with the NSW Government to reduce the drowning death toll.



53 

COASTAL DROWNING DEATHS (2015/16)





## CASE STUDY: RISING DROWNING TOLL A CAUSE FOR CONCERN

The final coastal drowning toll of 53 deaths in the 2015/16 season was a source of major frustration for surf lifesavers as it's the highest on record.

As in previous studies the activities that resulted in drowning deaths were mapped and some trends observed.

This season swimming (n=17), rock fishing (n=10) and diving/snorkelling (n=6) were the leading activities resulting in drowning deaths.

### A Spike In Drowning Deaths

Prior to the New Year, drowning statistics were tracking at average levels. Between 1 July and 31 December 2015 there were 18 drowning deaths recorded along the NSW coastline. During the peak summer of 2016 there was a significant spike in fatalities, including eight drowning deaths in the space of just four days.

This prompted surf lifesavers to issue repeated pleas to the community including around public holidays and significant events such as the traditional school leavers period or Schoolies as it's more commonly known.

### Historical High

Over the last decade the average annual drowning death toll has historically hovered around 39. Prior to this year the previous highest drowning death rate on record was 48 in the 2011/12 season.

In what proved to be a sobering statistic, during the autumn of 2016, NSW was averaging one drowning death every five days.

Figure 01 (see pg. 4)

### THE INTERNATIONAL LIFE SAVING FEDERATION DROWNING PREVENTION CHAIN

Depicting the four factors recognised as contributing to accidental drowning deaths and the broad mitigation strategies that should be applied to reduce drowning deaths.

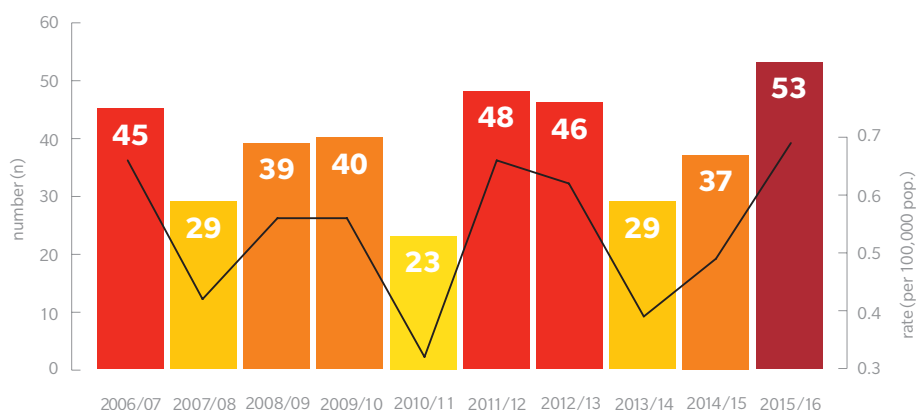


Figure 02

### 10 YEAR DROWNING DEATH TREND

New South Wales coastal drowning death numbers and crude drowning rates 2006-16. The 10 year average rate per 100,000 population is 0.54 (n=39), while the rate for 2015/16 is 0.69 (n=53).



# WHO IS DROWNING?

A working knowledge and understanding of the demographics of past drowning death victims continues to play a crucial part in identifying specific target groups for public education and beach safety programs.

Two of these programs, the extremely successful *Beach to Bush* and the *Western Sydney Schools Program*, are targeting school aged children (6-18 years) before they reach the peak drowning age of 20-39 years. These programs are conducted in residential hotspots and areas that are over represented in drowning statistics with the goal of increasing community knowledge of the dangers associated with the coastline, and ultimately reducing the coastal drowning death rate.

In the past decade 389 people have drowned along the NSW coast. Males have been disproportionately represented in the drowning death rate accounting for 345 (89%) deaths in coastal waters. Unfortunately this trend has continued to rise in the 2015/16 season with 49 males (92%) drowning in NSW.

In terms of the age of all victims, the 20-39 age bracket represented 140 or 36% of fatalities between 2006 and 2016. This age group has continued to have a higher than average mortality rate, with 24 drowning deaths reported (45% of all drowning deaths) this season.

Between 2006-16, 89% of the 389 drowning death victims have resided in Australia at their time of death. Contrary to popular misconceptions, the number of coastal drowning victims that resided internationally is significantly low at 8% over the past 10 years.

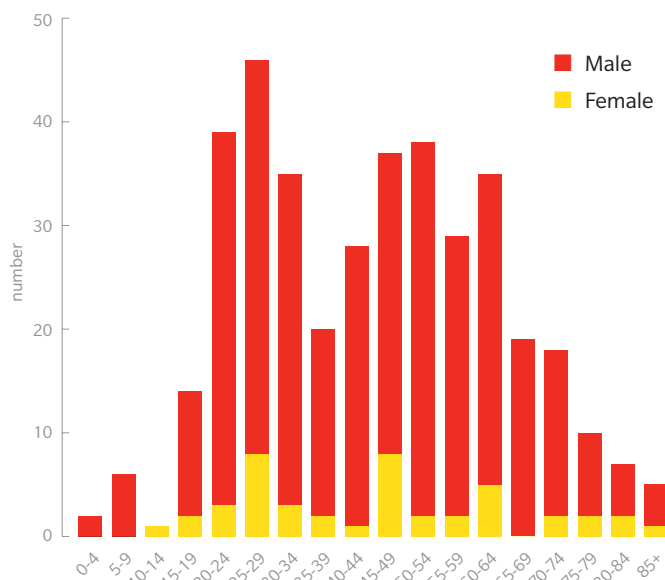


Figure 03

## 10 YEAR DROWNING DEATH AGE AND SEX

Between 2006-16, the age group representing the highest rate of fatalities is 25-29 years (n=46), followed by 20-24 years (n=39). 89% (n=344) were male.

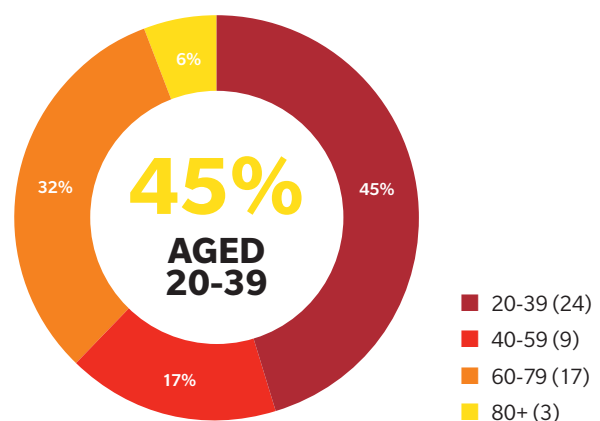


Figure 04

## 2015/16 DROWNING DEATH AGE

In 2015/16, the 20-39 years age bracket represented 45% (n=24) of drowning deaths. This is an increase on the 10 year average of 36% (n=140).

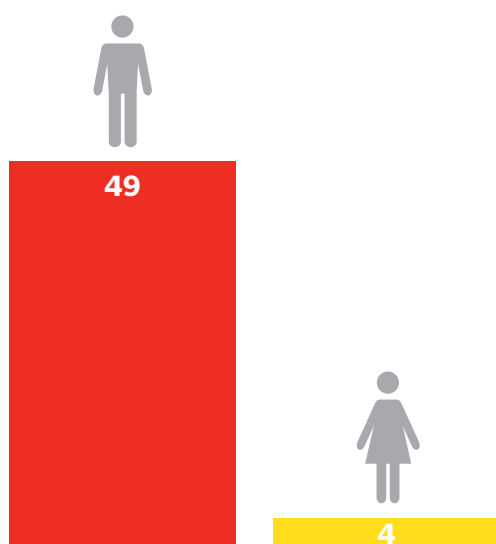


Figure 05

#### 2015/16 DROWNING DEATH SEX

In 2015/16, 92% (n=49) of fatalities were male, an increase on the 10 year average.

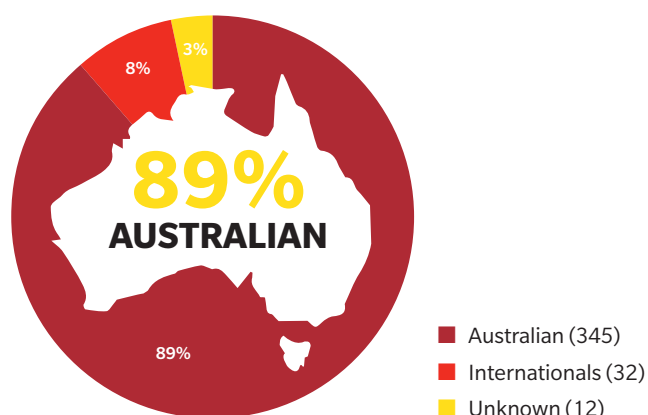


Figure 06

#### 10 YEAR DROWNING DEATH REGIONAL CITIZENSHIP

89% (n=345) of coastal drowning deaths were Australian citizens. The citizenship of 3% (n=12) of fatalities has not been confirmed.

# WHEN ARE THEY DROWNING?

At present, volunteer surf lifesavers and lifeguards patrol 175 locations at various dates and times throughout the year. Service provisions are periodically reviewed to ensure they align with current beach usage trends. Over the last ten years, 169 drowning deaths (44%) have occurred on the weekend.

There was a shift in this trend in the 2015/16 season with drowning deaths being spread out across a greater number of days. Eighteen drowning deaths (34%) were recorded as occurring on Tuesday and Wednesday, while 17 (32%) occurred on the weekend.

Throughout the last decade, the summer months of December, January and February recorded a total of 129 deaths (33%), which is the highest proportion. This is followed by autumn (March, April and May) when 109 (28%) of all reported drowning deaths occurred.

Air and water temperature during this period is usually the warmest time of the year resulting in peak beach attendance. The summer months see 52% of seasonal attendance, and a further 23% of the total beach attendance recorded in autumn.

Most aquatic recreational activities are commonly conducted during daylight hours and this is represented within data over the past 10 years. Almost half of all drowning deaths (n=189) recorded over the last ten years have occurred in the afternoon period between 12:01pm and 6:00pm.

The 20 drowning deaths recorded over the summer months of 2015/16 was above the ten-year average, while the autumn rate of 15 drowning deaths tracked at historical levels.

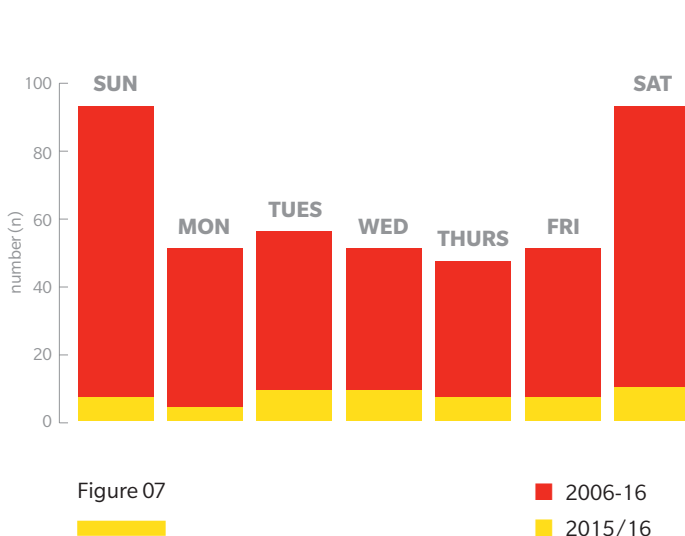


Figure 07

## 10 YEAR VS 2015/16 DROWNING DEATH DAY

Over the past 10 years (2006-16), the majority of coastal drowning deaths have occurred on Saturday and Sunday (44%, n=169). In 2015/16, 32% (n=17) occurred on the weekend and 9 fatalities occurred on Tuesday or Wednesday.

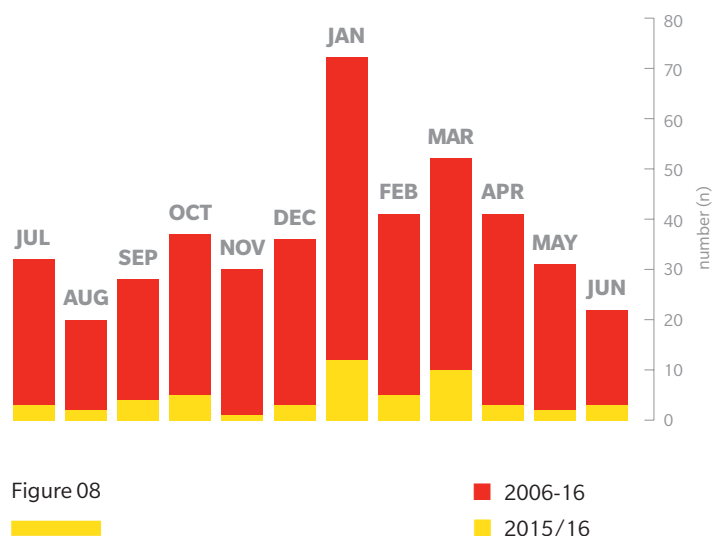


Figure 08

## 10 YEAR VS 2015/16 DROWNING DEATH MONTH

The highest number of coastal drowning deaths, in the last 10 years (2006-16), occurred in the month of January (n=60); this is followed by March (n=42), April (n=38), February (n=36) and December (n=33). This is noted in the 2015/16 incident breakdown.





## CASE STUDY – MESSAGES KEY TO PUBLIC SAFETY

Aside from our frontline patrol services on our beaches between September and April each season, Surf Life Saving NSW places significant emphasis on educating the public.

One of the key ways we do this is by the distribution of media releases about important issues such as the forecasting of dangerous surf conditions.

These warnings are generated through our working relationship with the Australian Bureau of Meteorology. Once certain weather parameters are met a warning is created and widely issued, with general safety advice included.

These warnings are also distributed to over 150 accommodation providers, who are part of our Coastal Accommodation Network initiative, and to foreign language media publications ensuring that the wider public has access to this important information.

Below is an example of a warning that was sent out in the days leading into the East Coast Low in June 2016, which saw huge swells along the coast cause wide spread damage and destruction.

### Powerful Surf Expected Along NSW Coast

*The first weekend of winter is expected to be a challenging one for swimmers, surfers, boat users and rock fishers with powerful swells and strong coastal winds prompting the Bureau of Meteorology and Surf Life Saving NSW to issue a warning to beachgoers.*

*A peak east/north east swell of four metres is expected to impact the coastline on Saturday from Southern NSW right through to the Queensland Border.*

*Similar conditions are forecast to continue throughout Sunday and into Monday with large and powerful swells right along the coast expected.*

*Along with the powerful swells that have been forecast, rock fishers in particular need to be aware that a long period swell of up to 12 seconds is anticipated.*

*Lifesaving Manager Andy Kent has reminded the public that there are no volunteer surf lifesavers on patrol during winter and urges those heading to the beach to visit [beachsafe.org.au](http://beachsafe.org.au) to find a beach that is patrolled by Council Lifeguards.*

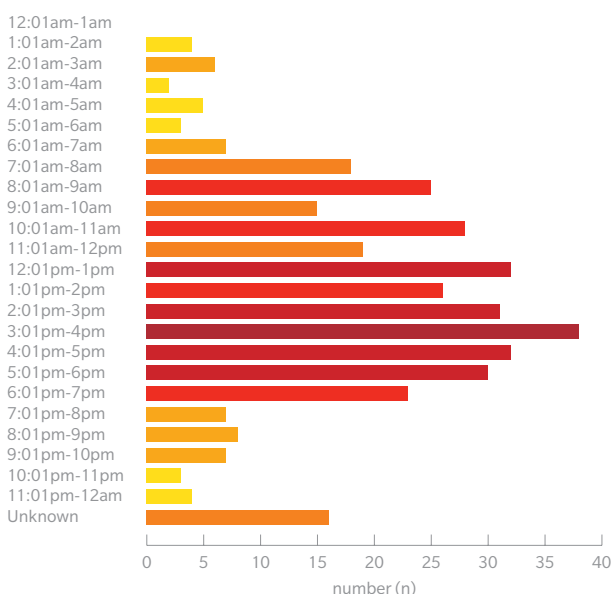


Figure 09

### 10 YEAR DROWNING DEATH TIME

Between 2006-16, there were 372 coastal drowning deaths (96% of the total) with recorded times. 49% (n=189) occurred between 12:01pm and 6:00pm.

# HOW ARE THEY DROWNING?



Figure 10

## 2015/16 DROWNING ACTIVITY

In 2015/16, swimming/wading was the most common activity being undertaken at the time of death 30% (n=16). Rock fishing made up 19% of activities (n=10), which was above the 10 year average of 8 incidents per year.

- Swimming
- Rock Fishing
- Diving/ Snorkelling
- Watercraft
- Rock / Cliff related
- Boating
- Attempting a rescue
- Other
- Unknown

A range of factors including time, location, experience in the activity and the inherent risk of the activity being undertaken can all contribute to an individual's risk of drowning. It is fair to say that swimming at a supervised patrolled location between the flags is a relatively low risk activity. Swimming however, remains the leading activity that drowning victims are participating in at the time of death with 126 cases (32%) reported between 2006-16. Fortunately no drowning deaths have been recorded between the flags during this period.

With the exception of the 2013/14 season when rock fishing was the leading cause of drowning, swimming has been consistently the most common activity being undertaken by drowning victims.

Rock fishing is an inherently risky activity which has been associated with a disproportionately high number of drowning deaths along the NSW coastline over the past decade. These incidents have largely occurred at known hotspots including Munmorah State Conservation Area in Wyong/Lake Macquarie Local Government Areas and the rock platforms between Little Bay and Cape Banks in Randwick LGA.

Ultimately the victims in over half of all drownings over the last ten years (n=206 or 53%) were participating in swimming or rock fishing at the time of death. Regardless of the activity being undertaken, there are a number of safety measures that can be utilised by individuals to reduce their risk of injury and death. These personal precautions continue to form the basis of ongoing public safety message campaigns by surf lifesavers.

ACTIVITY	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	TOTAL
Swimming	17	11	10	15	9	14	11	7	15	16	125
Rock Fishing	4	7	9	12	4	11	8	8	7	10	80
Boating	6	2	3	3	3	4	6	3	6	5	41
Watercraft	6	1	1	1	4	5	5	1	3	5	32
Diving/Snorkelling	1	1	2	2	1	5	4	2	3	6	27
Attempting a rescue	2	0	3	4	1	2	2	4	0	3	21
Rock/cliff related	1	3	1	1	0	4	4	1	1	5	21
Fishing	0	0	2	0	0	0	0	0	0	0	2
Unknown	8	4	7	1	1	2	4	2	2	1	32
Other	0	0	1	1	0	1	2	1	0	2	8



## CASE STUDY: ROCK FISHING AN ONGOING ISSUE

Rock Fishing remains one of Australia's deadliest pastimes, with drowning deaths taking an enormous toll on the family, friends and wider community of the victim, as well as rescuers.

In the 2015/16 season there were 10 drowning deaths attributed to rock fishing which occurred in locations as varied as Whale Beach on Sydney's Northern Beaches through to Tacking Point on the Mid North Coast.

A common factor across all 10 fatalities was that not one victim was wearing a lifejacket.

### NSW Coroner Announces Landmark Recommendations

In July 2015 NSW Deputy Coroner Carmel Forbes concluded an inquest into the drowning deaths of eight rock fishers. A key recommendation that came out of this inquest was the need to mandate the use of lifejackets for rock fishers and to increase shock signage at high risk locations. Surf Life Saving NSW was among a host of agencies to support these recommendations.

Working groups have been set up to identify high risk locations where the signs could prove the most effective, while legislation outlining the changeover to mandatory lifejackets with the provision of a grace period is expected to be tabled in the NSW State Parliament during this term

### Importance of Safety Messages

*In late June the importance of lifejackets was highlighted with the successful rescue of a fisherman at Avalon Beach. The 55-year-old Chinese national was not a confident swimmer and his decision to wear a lifejacket proved crucial in his survival after he was pulled from the water by local surfers and subsequently winched out by the Southern Region Westpac Life Saver Helicopter.*

*The ongoing dissemination of educational messages remains a core part of helping to reduce the drowning death toll through rock fishing incidents. These guidelines highlight key safety measures to follow:*

- ✓ Check the weather, surf conditions and tides before going fishing
- ✓ Tell someone where you're going & when you'll be back
- ✓ Always wear a lifejacket, appropriate non-slip footwear and light clothing
- ✓ Never turn your back to the water
- ✓ Always fish with a friend
- ✓ Check the warnings signs for information about the area, particularly in winter
- ✓ Don't follow someone in - wait for assistance or throw an 'Angel Ring' or Lifebuoy
- ✓ Call Triple Zero - Police to report an in-water emergency

## 10

### ROCK FISHING RELATED DROWNING DEATHS (2015/16)

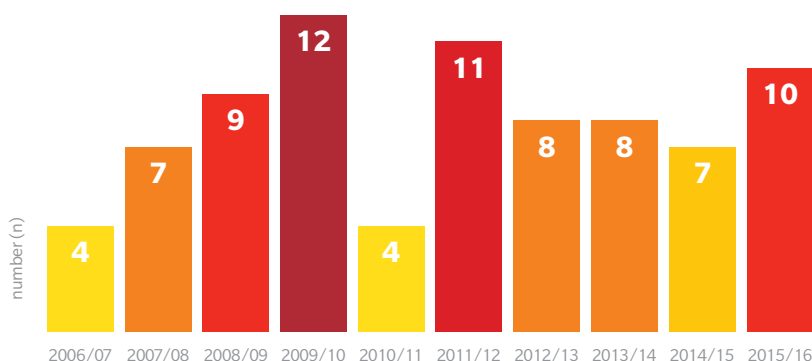


Figure 11

### 10 YEAR DROWNING DEATH ROCK FISHING

The 10 year average of coastal drowning incidents for rock fishing is 8 per year. In 2015/16 there were 10 incidents.



# DROWNING DEATHS HEAT MAP

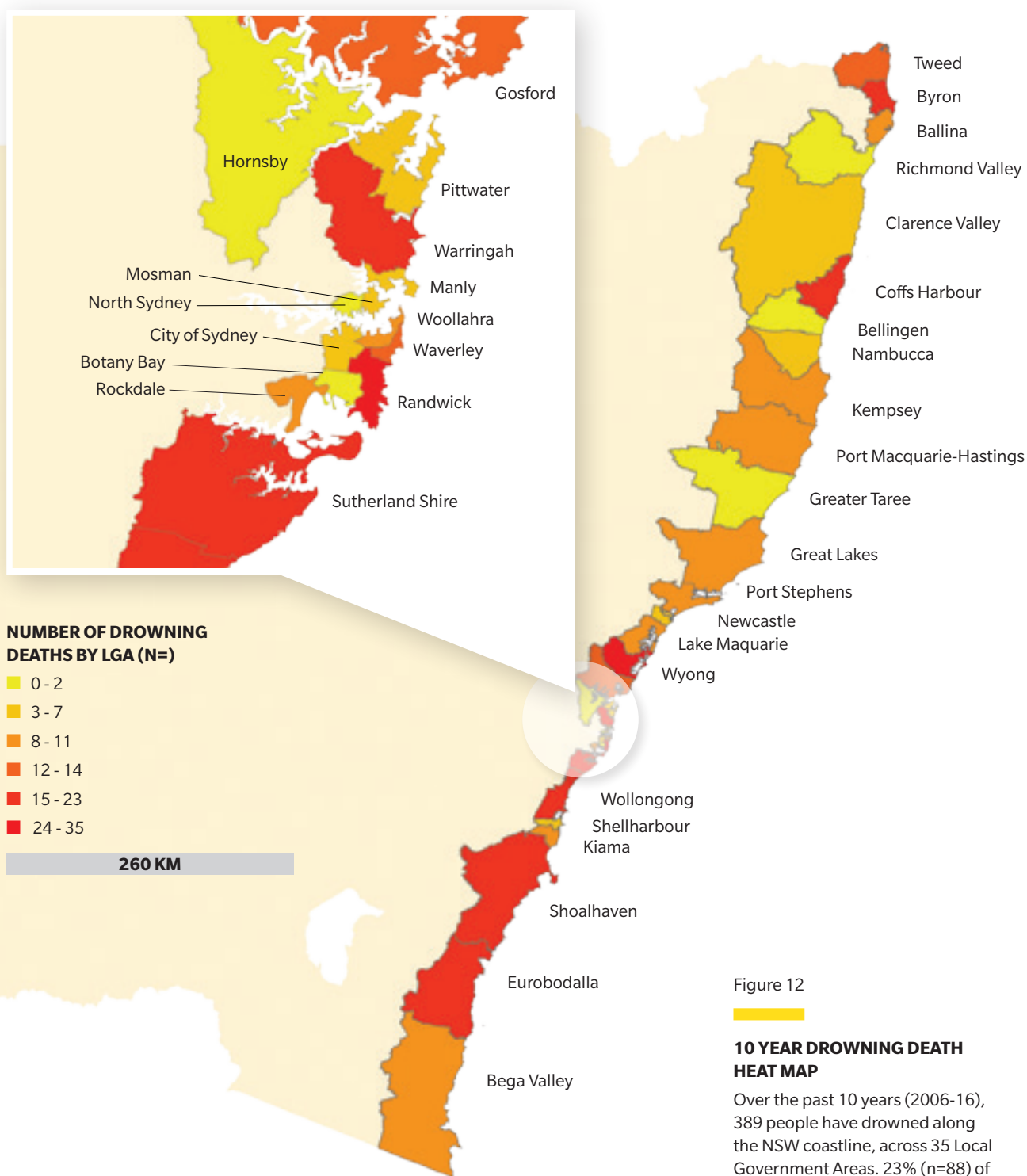


Figure 12

## 10 YEAR DROWNING DEATH HEAT MAP

Over the past 10 years (2006-16), 389 people have drowned along the NSW coastline, across 35 Local Government Areas. 23% (n=88) of fatalities have occurred within the Sydney Metropolitan Area.

# WHERE ARE THEY DROWNING?

Between 2006-16 most coastal drowning deaths occurred either at the beach with 197 deaths (51%) or at rock/cliff locations with 115 deaths (30%) recorded. This trend is consistent with the activities being undertaken at the time of death.

In the 2015/16 season there were 28 drowning deaths at beaches, and a further 18 at rock/cliff locations. Both these locations recorded drowning death tolls higher than the ten-year average.

Since 2006, 167 drowning deaths have occurred within 1 kilometre of a patrolled location, with only 74 (19%) of all incidents taking place during the patrol hours of that particular service. This indicates that while people are participating in recreational activities at or near supervised locations, they are not doing so when supervision is present.

Over the last decade 240 (62%) people have drowned at locations greater than 5 kilometres from a patrolled area at the time of the incident. This increased to 35 people (66%) in the 2015/16 season, and this highlights a worrying trend of more people participating in recreational aquatic activities further from a patrolled area.

Randwick (n=35), Wyong (n=28) and Wollongong City (n=23) Local Government Areas represent 22% (n=86) of all coastal drowning deaths between 2006-16 and are identified as priority Black Spot locations with a range of safety initiatives and programs in place within these LGAs.

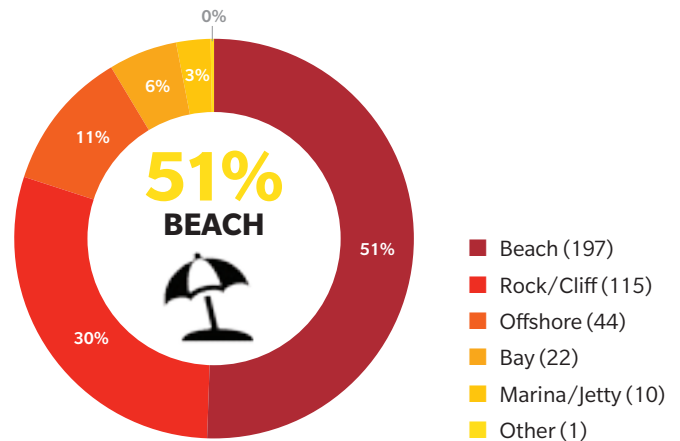


Figure 13

## 10 YEAR DROWNING DEATH LOCATION TYPE

In the last 10 years, the majority of coastal drowning deaths occurred at a beach (51, n=197), followed by rock/cliff locations (30, n=115). In 2015/16, there was an increase in fatalities at both beaches (53, n=28) and rock/cliff locations (34, n=18).

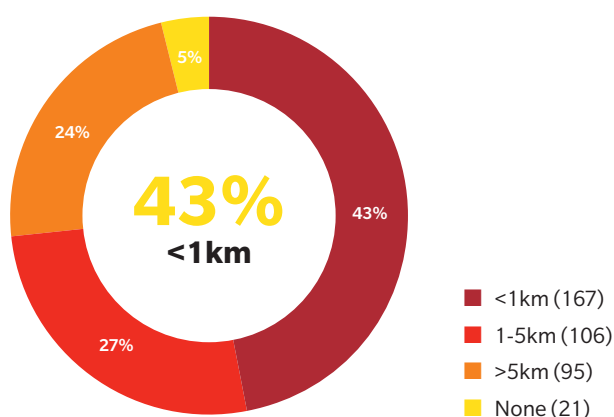


Figure 14

## 10 YEAR DROWNING DEATH DISTANCE FROM LS SERVICE

In the past 10 years (2006-16), 43% (n=167) of coastal drowning deaths have occurred within 1km of a patrolled location irrespective of the time of day. 30% (n=116) of coastal drowning deaths occurred further than 5km from a patrolled location.

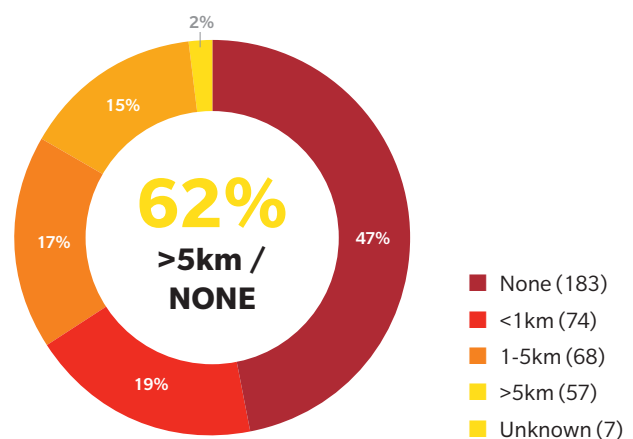


Figure 15

## 10 YEAR DROWNING DEATH DISTANCE FROM LS SERVICE AT TIME OF INCIDENT

Over a 10 year period (2006-16), 62% (n=240) of coastal drowning deaths occurred greater than 5km from a patrolled location at the time of the incident. In 2015/16, 66% (n=35) of fatalities occurred greater than 5km from a patrolled location at the time of the incident.

# SERVING OUR COMMUNITY

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## Our Mission

To save lives, create great Australians and build better communities.



**6,672**  
**RESCUES  
COMPLETED  
2015/16**



**848,014**  
**VOLUNTEER  
PATROL HOURS  
2015/16**





## CASE STUDY - HONOURING PATROLLING MEMBERS

During the 2015/16 season there were 21,000 patrolling surf lifesavers across 129 NSW surf lifesaving clubs. A welcome sight for beachgoers in summer, the men and women wearing red and yellow conducted in excess of 6,000 rescues this year all the while enhancing their reputation in the wider community.

The prestigious *NSW Rescue of the Month* award honours members who have distinguished themselves by performing exceptional rescues. Local Branches are invited to submit rescues that they consider to be significant in its execution. A panel then selects an overall state winner which becomes automatically eligible for consideration for the *National Rescue of the Month Award*.

NSW surf lifesavers continue to perform strongly winning 7 out of the last 10 of these Australian awards.

This year the award for *NSW Rescue of the Year* went to a group of surf lifesavers from Macksville-Scotts Head on the NSW Mid North Coast.

### Macksville Surf Lifesavers Honoured For Dramatic Rescue

Club President, Jason O'Donnell and fellow member, Scott Balfour launched an IRB (Inflatable Rescue Boat) risking their own lives in the process to rescue an Irish national who had been knocked off his kayak by the dangerous surf conditions during an East Coast Low in June.

The operation was a team effort and the on-water duo were ably supported by fellow Macksville-Scotts Head members, Cathryn O'Donnell, Barry Clow and Peter Dyba and Mid North Coast Branch Duty Officer, David Brunson. Throughout the operation waves were consistently around the 5-6 metre mark and the window of opportunity to rescue the stranded kayaker was incredibly small.

"It shows the dedication and team work of a small club in country NSW. This rescue highlights how important communication with the State Operations Centre is when we as surf lifesavers need to work with other emergency services," Jason O'Donnell said after the rescue.

"If we didn't rescue the male in that five minute window he probably would've drowned simply because of a loss of consciousness and the effects of hypothermia. Luckily he had a lifejacket which ultimately saved his life and gave us more time to perform the rescue," he concluded.

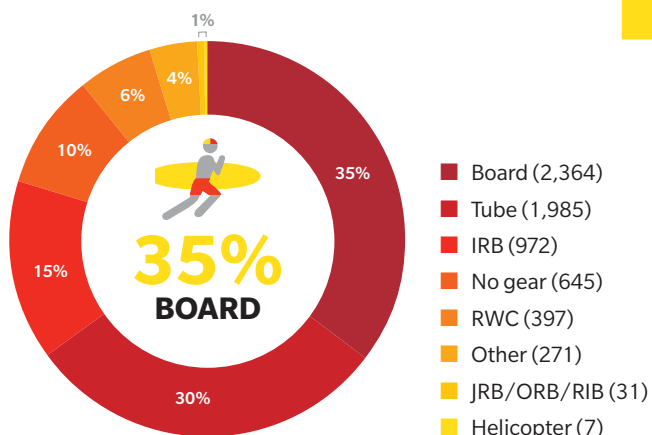


Figure 16

### 2015/16 RESCUES

In 2015/16, 35% (n=2,634) of rescues performed by surf lifesavers were conducted using a rescue board. 30% (n=1,985) of rescues were completed with a rescue tube. Rescue tubes and rescue boards are the two most common pieces of rescue equipment at Surf Life Saving Clubs.

# RESCUES HEAT MAP

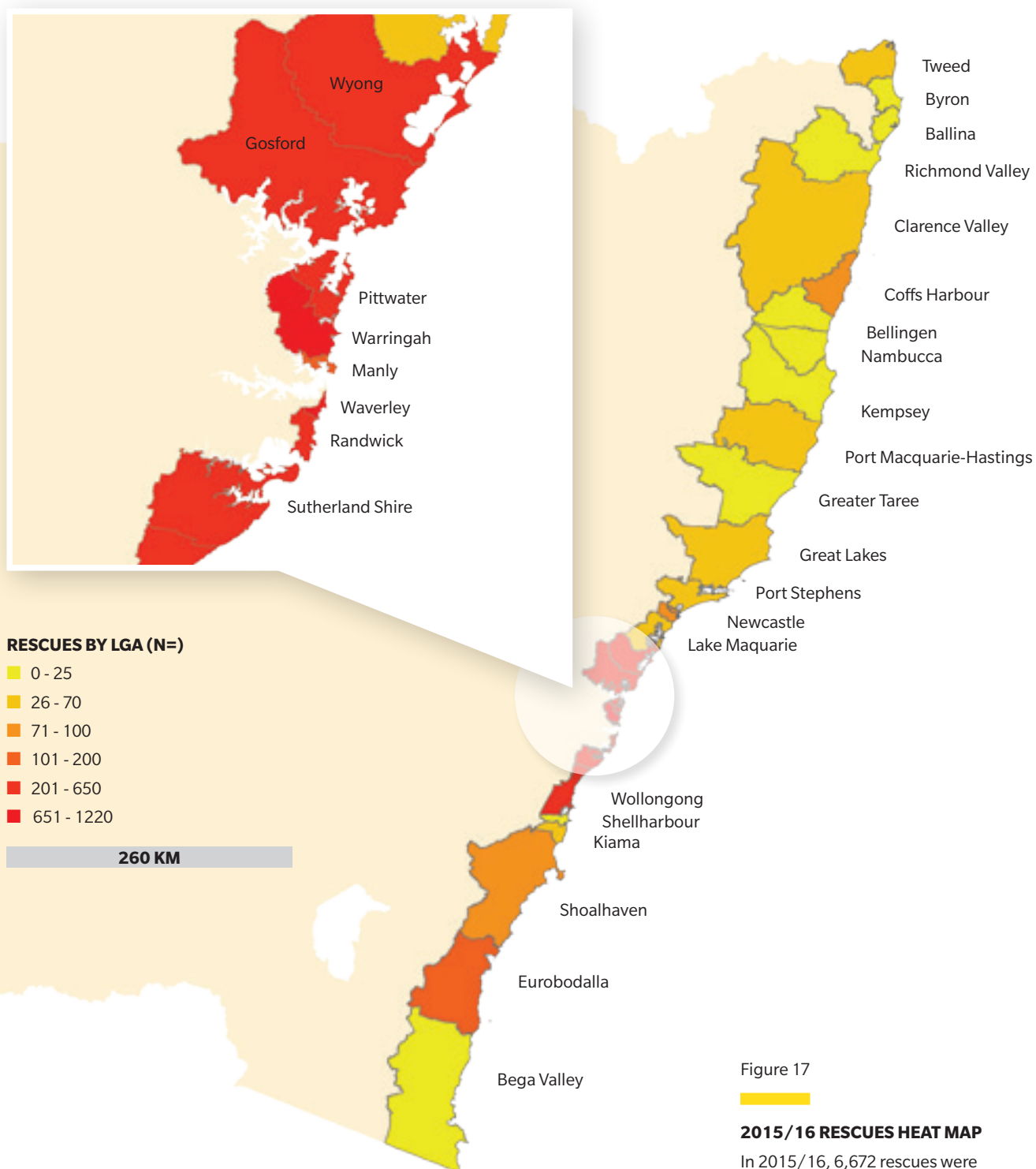


Figure 17

## 2015/16 RESCUES HEAT MAP

In 2015/16, 6,672 rescues were performed by surf lifesavers across 129 beaches in NSW. 54% (n=3,620) of rescues occurred within the Sydney Metropolitan Area.



## 2015/16 PREVENTATIVE ACTIONS

**156,731**  
PREVENTIONS



**806**  
LOST CHILDREN



**265**  
SEARCHES



**180**  
EVACUATION  
ALARMS

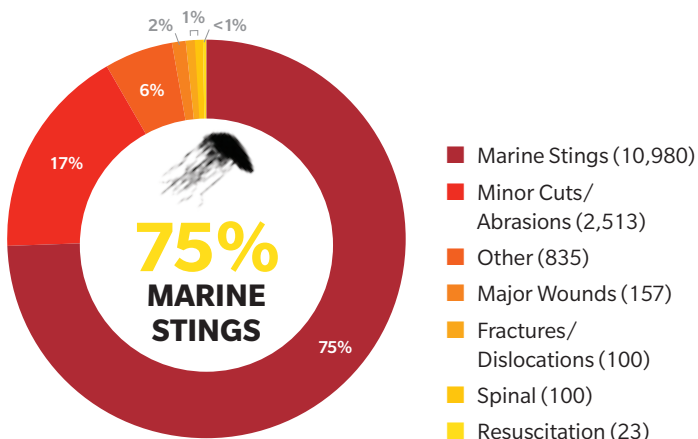


Figure 18

### 2015/16 FIRST AIDS

75% (n=10,980) of first aid actions performed by surf lifesavers in 2015/16 were for marine stings, twice as many as in 2014/15.

Figure 19

### 2015/16 PREVENTATIVE ACTIONS

During 2015/16, surf lifesavers conducted 157,982 preventative actions, an increase of 9% from 2014/15.



# FIRST AID INCIDENTS

**66%**  
TRANSPORTED  
TO HOSPITAL



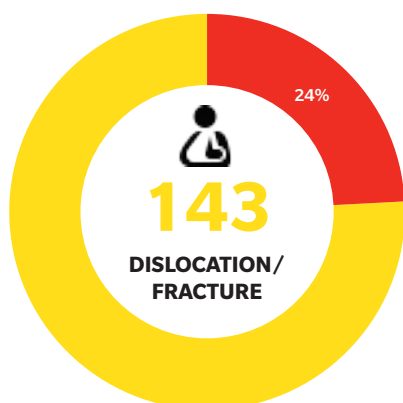
A key part of the training for surf lifesavers is first aid management with all patrols required to have members who have qualifications dealing with a range of injuries. This initial treatment is an important aspect of the role of the modern day surf lifesaver. More severe injuries require assessment by paramedics and potential transportation to hospital.

In season 2015/16, Surf Life Saving NSW requested ambulance assistance 591 times for a huge range of injuries sustained by the beach going public. Of these cases, 391 patients were required to be transported to hospital for further treatment.

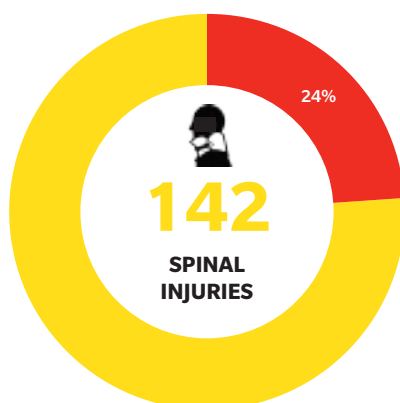
Most of the incidents that required assessment occurred during the peak visitation months of summer. In January 156 incidents (26% of the season's total) required assessment followed by 93 in March and 84 in February.

With weekends being the primary patrol period for volunteers it is unsurprising that 68% (n=403) of incidents requiring assessment occurred during these times. An analysis of the statistics also found that 365 (62%) of these incidents occurred between the hours of 12:01pm and 6:00pm which tracks historically with the known data.

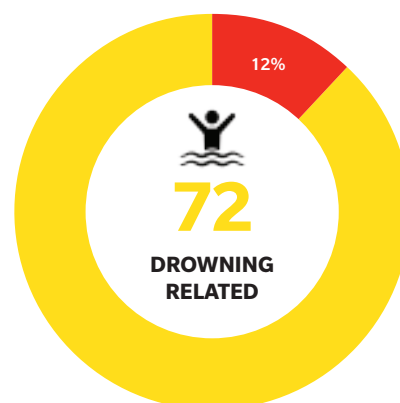
The busiest day in terms of requests for ambulance assistance was the New Year period of 1-2 January with 35 requests across NSW made during those two days. Coogee Beach recorded the most requests for ambulances in 2015/16 with 47. Primarily these requests for assistance were for dislocations/fractures, spinal injuries and sprains. This is consistent with the New South Wales trend of the type of incidents which are most likely to require assessment from paramedics and subsequent hospitalisation.



■ Dislocation / fracture  
■ All other



■ Spinal injuries  
■ All other



■ Drowning related  
■ All other



## CASE STUDY – STATE OPERATIONS CENTRE, A HUB WITH A DIFFERENCE

Since its inception the State Operations Centre has grown to play a crucial role in providing a communication link between frontline surf lifesavers on the beach and the wider emergency responders community, including providing the radio network for the Surf Emergency Response System. Its core function is simple – to know where all surf lifesaving assets are and to task the most appropriate resource to respond to any coastal emergency.

In 2015 a major milestone was achieved with the State Operations Centre coordinating the 1,000th successful rescue through the Surf Emergency Response System. In recognition of its developing role, the State Operations Centre hours were extended throughout summer in the 2015/16 season and it now provides a year-round service.

This year the State Operations Centre coordinated 616 of the 735 callouts to the Surf Emergency Response System at areas all around NSW. In addition 454 of the 591 ambulances requested for coastal incidents were through the State Operations Centre.

### Moving Into The Digital Age

A comprehensive review of the National Volunteer Radio Networks in 2013 recommended converting the analogue system into a modern digital network. Among a host of benefits was that it would be moving towards industry best practice, provide increased coverage over a greater area and include features such as GPS functionality.

This digital upgrade has now been completed in the Mid North Coast and Illawarra Branch areas with Sydney Northern Beaches and Hunter next to be upgraded as funding becomes available. It is hoped that all 11 Branches will eventually be upgraded to the digital network.

### Our People Are Our Best Asset

The State Operations Centre is operated by a dedicated group of 50 volunteers who devote countless hours throughout a season.

Surf Life Saving NSW is always looking to recruit interested members and frequently conducts training sessions. There is a clearly defined mentoring experience with opportunities to progress to positions such as Duty Operations Officers as they gain confidence with their skills and knowledge.

As surf lifesaving technology continues to develop into the 21st century it is clear that the State Operations Centre will play an important role as a communications hub into the future.

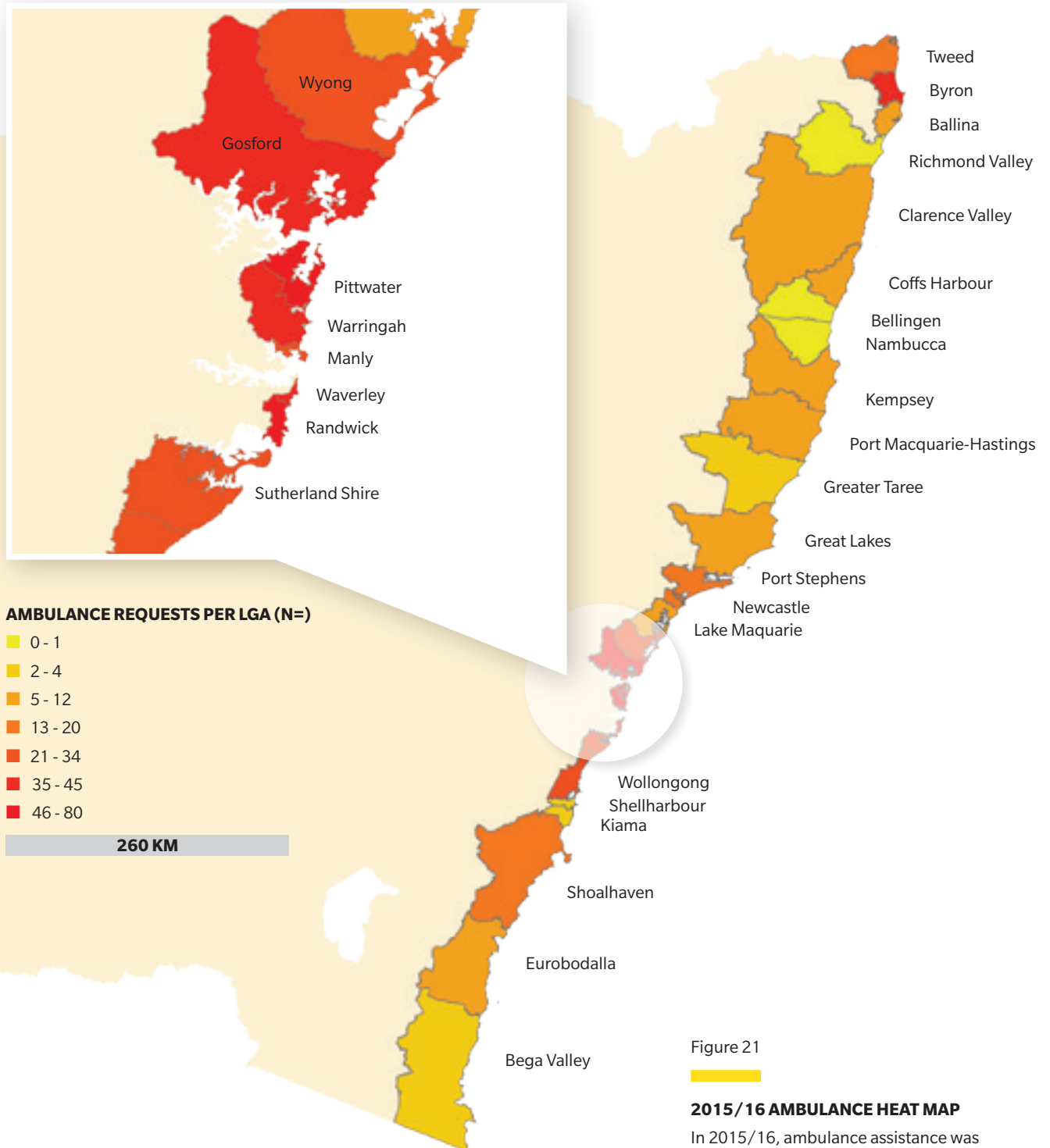
INJURY TYPE (2015/16)			
Dislocation/Fracture/Sprain	143	Chest Pain/Heart Attack	10
Suspected Spinal Injuries	142	Heat Exhaustion/Hypothermia	10
Drowning/Non-fatal Drowning	72	Fit/Seizure	7
Laceration/External Wounds	42	Intoxication/Overdose	7
Fainting/Collapse	39	CPR	6
Sting/Bite	34	Possible Internal Injury	4
Head Injury/Concussion	23	Diabetic Event	1
Other	21	Shock	1
Asthma/Breathing Difficulties	16	Stroke	1
Allergic Reaction	11	Burn Related	1

Figure 20

### 2015/16 AMBULANCE INJURY TYPE

Incidents relating to dislocations/fractures/sprains (24, n=143) and suspected spinal injuries (24, n=142) were the most common injuries requiring ambulance assistance in 2015/16.

# AMBULANCE REQUEST HEAT MAP





270,000 

STUDENTS REACHED  
THROUGH BEACH TO  
BUSH PROGRAM

WESTERN SYDNEY  
RESIDENTS ARE

TWICE   
AS LIKELY TO  
DROWN ON THE COAST

## CASE STUDY - EDUCATION KEY TO IMPROVING BEACH SAFETY

Surf Life Saving NSW's education programs are designed to introduce the wider community to beach safety.

### Beach Safety Isn't Just For Coastal Kids

For over 20 years surf lifesavers have been involved in delivering the *Beach to Bush Program* to rural and inland primary aged students. In 2015, volunteer presenters visited 60 schools and delivered over 100 talks.

For many of the students it's the first chance they have to come face to face with a real surf lifesaver and as many visit the coast on their holidays it's a positive way to expose them to the fundamentals of beach safety.

The *Beach to Bush Program*, supported by ClubsNSW and the NSW Cancer Institute, is the largest surf safety education program in Australia, having reached more than 270,000 primary school students since it began in 1994.

### Targeting At Risk Populations

Research has shown that Western Sydney residents are disproportionately represented in the statistics, being twice as likely as residents from any other area in NSW to drown.

Thanks to the *NSW Government's Water Safety Black Spots Fund*, Surf Life Saving NSW has been working with high schools in Western Sydney over the past three years to provide a fun and safe learning environment to almost 10,000 students. This has incorporated both theory and practical education and it is hoped that these teenagers will be able to share this knowledge more broadly among their community.

### Wet 'N' Wild Program Continues To Enthral

Sydney's most unique Nippers program completed its third season in 2015/16. Based at Wet 'N' Wild Water Park at Prospect in Sydney's West over 12 weeks each summer and concluding with a carnival at the iconic waterpark it's an opportunity for children who live away from the coast to be introduced to the basics of surf safety.

The concept has been embraced by many within the surf lifesaving community and many coastal clubs volunteered their time to assist with water safety during the program. North Steyne SLSC also hosted the *Wet 'n' Wild Nippers* at their beach.

The program is targeted at those aged between 6 and 12 years with at least 200 children registered each season.

### Community Education Gathers Momentum

The Surf Life Saving NSW Education team continue to explore ways to communicate the importance of surf safety, including exploring new ways of reaching Culturally And Linguistically Diverse (CALD) communities and working with Surf Life Saving Branches and Clubs to build their capacity to deliver education to their local communities.



# CAPABILITY - WHAT WE DO

In order to deliver a professional water safety service to the estimated 7 million people that visit the beach every year, Surf Life Saving NSW needs the appropriate gear and equipment, as well as the training structures in place to develop our member’s skills.

The membership of Surf Life Saving NSW encompasses a broad spectrum of the community with 72,000 members registered in the 2015/16 season. Of these, 21,000 are currently involved in patrols while the rest is comprised of Nippers and other members who contribute to the successful functioning of the surf lifesaving movement. Our volunteers play a significant and ongoing role in our ability to provide a surf lifesaving service during the patrol season of September through to April each year and this is reflected in the 848,014 volunteer hours they contributed last season.

It costs approximately \$60,000 to purchase the required gear and equipment to establish patrolling service from start-up. This equates to approximately \$13,000 per year for each club when the lifespan of equipment is taken into consideration.

The NSW coastline is over 1,700 kilometres in length with in excess of 800 accessible beaches as well as at least 300 rock platforms for people to enjoy. This is a huge and challenging area for surf lifesavers to cover but our assets are strategically placed to ensure strong coverage in the most heavily frequented areas.

Some of this is by tradition with a number of our clubs dating back to the early years of the 20th century, while others have emerged in response to a growing community need. For example Salt SLSC was established in 2004 when the Salt/ Casuarina Beach area became heavily developed.



Figure 22 (see pg. 23)

## 2015/16 MEMBERSHIP HEAT MAP

Surf Life Saving NSW’s membership in 2015/16 was 72,670. 48% (n=35,006) of surf lifesavers are members of clubs within the Sydney Metropolitan Area.

2015/16 EQUIPMENT	
Rescue Tube	2,285
Rescue Board	1,891
Oxygen Resuscitation Equipment	454
Radios	1,514
Beach vehicles (ATV)	102
Defibrillator	327
IRB Hull	384
IRB Motor	531
RWC	44
JRB	2
ORB	1

SLSNSW AWARDS	AWARDS DELIVERED	PROFICIENT MEMBERS
Advanced Resuscitation Techniques	93	4,333
Provide First Aid	375	3,552
Silver Medallion Beach Management	461	3,747
IRB Driver	327	2,350
IRB Crew	793	4,531
Bronze Medallion	2,904	13,803
Surf Rescue Certificate	1,691	N/A



# THE VALUE OF SLSNSW TO THE COMMUNITY

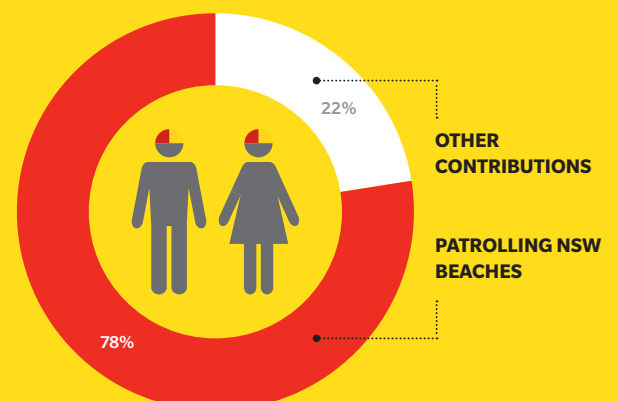
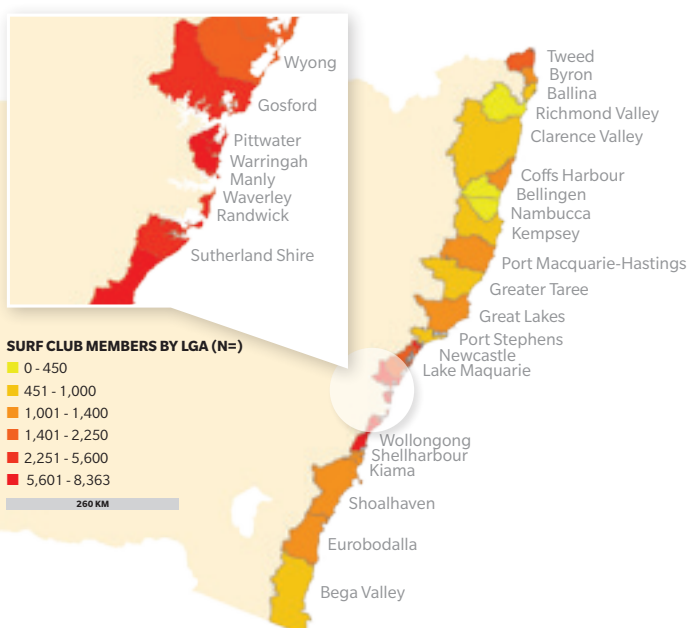
2014/15 REPORT

## 46:1

FOR EVERY \$1 INVESTED,  
\$46 IS RETURNED

## \$1.9 BILLION

VALUE OF LIVES SAVED &  
INJURIES PREVENTED



## 848,014

VOLUNTEER  
HOURS 2015/16



# ASSET RANGES HEAT MAP



Figure 23

## ASSET RANGE MAP

Surf Life Saving consists of 129 Clubs, 35 Rescue Water Crafts, 2 Jet Rescue Boats and 1 Offshore Rescue Boat.

# IMPACT OF SHARKS ON SLSNSW



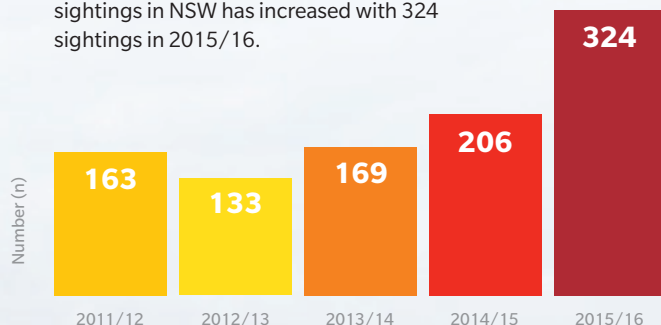
Following increased sightings and shark encounters in 2015, there were heightened demands on our surf lifesaving services out of our patrolling season. As our patrolling season didn't start until Saturday, 19th September (start of NSW school holidays) there was a considerable drain on volunteer resources over the winter break, which is typically the quieter time of year for surf lifesavers. This resulted in increased callouts to our Surf Emergency Response System.

In the Far North Coast area between July and the end of September 2015, our Surf Emergency Response System received 53 shark related callouts in comparison with the corresponding period of 2014 where there were just 4 calls through the system. This is an incredible surge of 1,225%. The callouts had a significant impact on support services such as Rescue Water Crafts and Jet Rescue Boats as well as increased expenses for NSW clubs. There has also been more demands on surf lifesavers and other SLSNSW personnel to respond to escalating enquiries from both the media and general public.

Figure 24

## 5 YEAR SHARK SIGHTINGS

Over the past 5 years the number of shark sightings in NSW has increased with 324 sightings in 2015/16.



## CASE STUDY - SEASON OF SHARKS

There are many theories about why the summer of 2015/16 will always be remembered for the large shark presence off the NSW coast. Some believe it is a natural migration pattern and others put it down to a plentiful food supply in the warmer waters.

While science seeks to understand, there is little doubt that those surf lifesavers on the frontline played an important part in reassuring their community but their efforts took a toll on both the volunteers and their equipment.

### Rescuers unite in joint effort

While the vast majority of sightings occurred on the Far North Coast, surf lifesavers from across the state participated in operations. In July 2015 the Northern Region Westpac Life Saver Rescue Helicopter Service and a Duty Officer assisted other emergency responders to help save the life a male body boarder at Lighthouse Beach, Ballina, after he was mauled by a Great White.

Surf lifesavers were involved in clearing the water after suspected sightings, assisting Councils and Police in closing beaches and also assisting in providing first aid treatment after shark encounters.

It was a heavy workload for our volunteers.

Between July 2015 and June 2016 there were 324 sightings state-wide that surf lifesavers were tasked to attend as well as eight reported shark attacks and one fatality in February 2015.



# SURF EMERGENCY RESPONSE SYSTEM

The Surf Emergency Response System (SERS) was established in 2008 in an effort to streamline the process of requesting Surf Life Saving assistance for an on-water emergency. The SERS provides a single point of contact 24 hours a day, 7 days a week, for emergency services and external stakeholders such as NSW Police to request Surf Life Saving assets quickly and efficiently.

One of its key strengths is that it is an improvement on the previous system where complex local arrangements and communication issues posed a significant challenge for surf lifesavers.

The first year of SERS operations resulted in 46 incidents where a Surf Life Saving response was required. Over the following years the SERS has been refined to such an extent that it is now considered a reliable and indispensable asset for coastal emergencies. To emphasise this in the 2015/16 season, the SERS was activated a record 735 times.

Over the past 5 years Surf Life Saving NSW has rescued and effectively saved the lives of 880 people through the SERS system. Although summer is the most common time for activations, largely as a result of peak beach visitations and favourable weather conditions, SERS is utilised throughout the year. Traditionally May is the quietest month for activations. Even so, 130 activations have been recorded during this month between 2011 and 2016, at an average of 26 each year.

Over the last five seasons, 1,027 incidents (40%) requiring a Surf Life Saving response occurred on weekends, while 12% occurred on weekdays. During this period 87% (n=1,486) of incidents that have come through SERS have occurred outside the traditional areas and hours of patrol.

Although Surf Life Saving's primary focus is coastal orientated activities, the SERS is regularly activated for non-coastal incidents such as 525 boating related incidents and 68 diving/snorkelling incidents.

Over the last five seasons there have also been 109 (4% of all incidents) requests for assistance involving a rock fisher, with 47 (or 43%) of those tragically resulting in a drowning death. In comparison people getting into difficulty while swimming/wading accounted for 661 requests for help (25% of all incidents) during this time frame but only 43 people (7%) subsequently drowned.

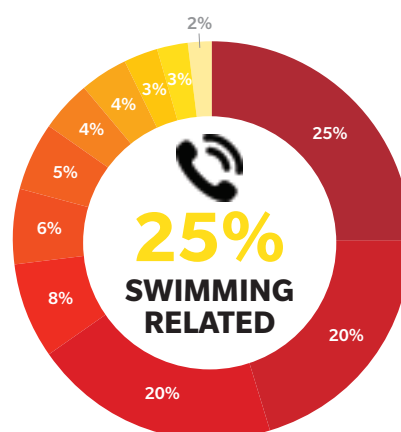


Figure 25

## 5 YEAR SERS ACTIVITY

Between 2011-16, swimming/wading incidents were the most common activity responded to through the SERS (25, n=661). Watercraft (20, n=534) and Boating (20, n=525) were the next most common activities responded to through the SERS.

- Swimming / Wading (661)
- Watercraft (534)
- Boating (525)
- Other (200)
- Shark sighting: land based observation (164)
- Rock/Cliff related (141)
- Rockfishing (109)
- Suicide/Self Harm (108)
- Diving/Snorkelling (68)
- Shark sighting: aerial based observation (66)
- Missing Person: Land (49)





## CASE STUDY – THE IMPORTANCE OF JOINT AGENCY RELATIONSHIPS

As a constant and trusted presence on the state's many beaches, surf lifesavers are often involved in joint operations with other agencies. These situations can be as diverse as search and rescue efforts, transporting an injured patient to the care of Paramedics or involvement in recovery operations.

It has been a priority in recent seasons to strengthen these relationships with first responders as good communication is crucial in an emergency situation.

The relationship has broadened to include public education campaigns with surf lifesavers working closely with Police and Marine Rescue NSW to address key issues such as the rising drowning death toll throughout the season.

In January 2016 this interagency cooperation proved crucial during a major search operation at Hawks Nest in the Great Lakes area. Unfortunately the man did not survive the incident but the response from all first responders highlighted how each agency had a role to play during the operation.

### Man Missing At Hawks Nest

A search for a man who went missing at Hawks Nest in the Great Lakes area on Friday has been suspended for the evening. The missing man believed to be in his 20s was with two friends at an unpatrolled location at around 4pm when they got into difficulty while in the water. It is not yet clear how that situation arose.

A member of the public raced the two kilometres to where Lifeguards from the Australian Lifeguard Service (ALS) were patrolling and informed them of the developing situation. Once on-scene lifeguards were able to rescue two of the missing man's friends but were unable to locate him. The man's friends were assessed at the scene by paramedics.

A search operation was launched under the direction of New South Wales Police with lifeguards, off-duty surf lifesavers and the Hunter Westpac Rescue Helicopter Service all involved in the effort.

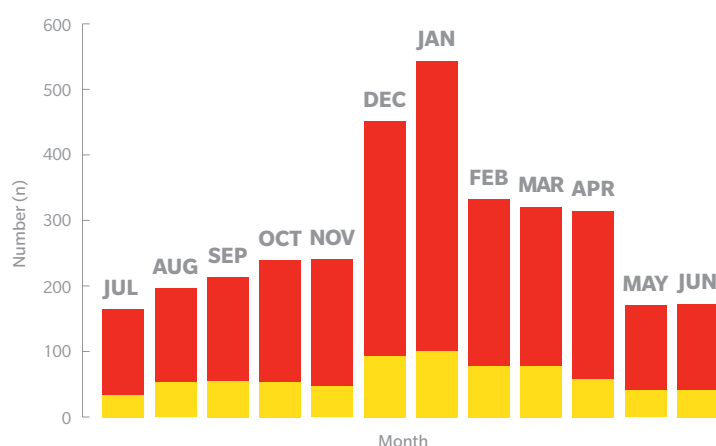


Figure 26

■ 2006-16  
■ 2015-16

### 5 YEAR VS 2015/16 SERS MONTH

40% (n=1054) of SERS activations between 2011 and 2016 occurred during summer (December, January and February). In 2015/16, 37% (n=272) activations occurred during summer.

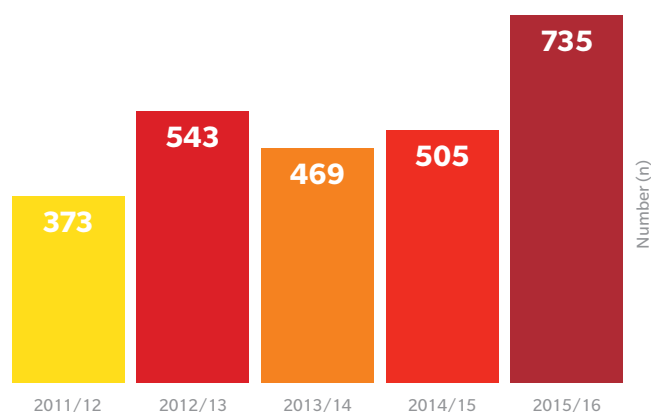


Figure 27

### 5 YEAR SERS TREND

The SERS system was activated 735 times during 2015/16, which was a substantial increase on 2014/15. It is also the highest volume of incidents since the inception of the SERS system in 2008.

# SURF EMERGENCY RESPONSE SYSTEM HEAT MAP

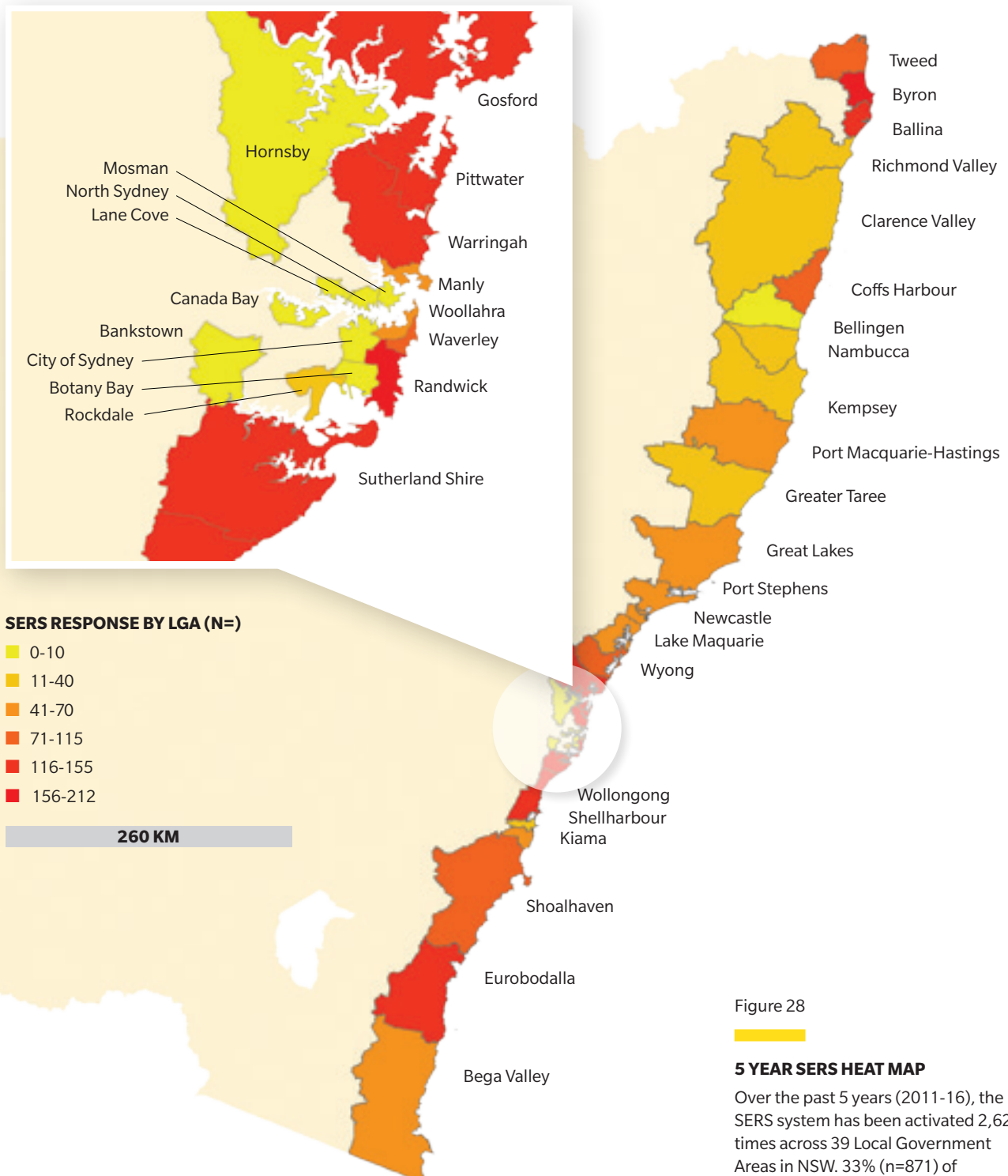


Figure 28

## 5 YEAR SERS HEAT MAP

Over the past 5 years (2011-16), the SERS system has been activated 2,625 times across 39 Local Government Areas in NSW. 33% (n=871) of activations have occurred within the Sydney Metropolitan Area.

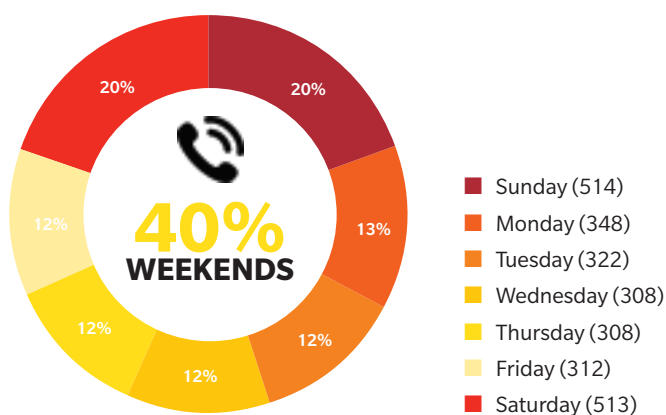


Figure 29

#### 5 YEAR SERS DAY

Over the past 5 years (2011-16), 40% (n=1027) of SERS activations have occurred on Saturday and Sunday. In 2015/16, 37% (n=271) of SERS activations occurred on Saturday and Sunday.

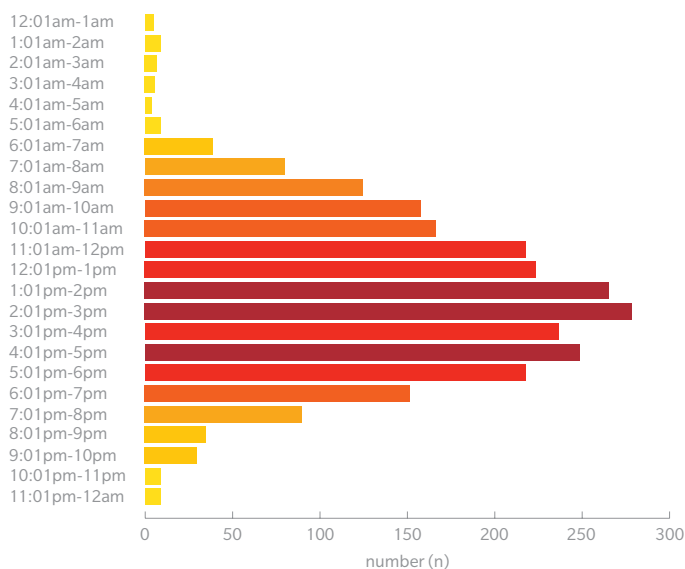


Figure 30

#### 5 YEAR SERS TIME

39% (n=1,031) of SERS activations from 2011-16 occurred between 1:01pm and 5:00pm. In 2015/16, 38% (n=277) of SERS activations occurred between 1:01pm and 5:00pm.

2011-16



87%

INCIDENTS OCCURRED  
OUTSIDE PATROL  
AREA / HOURS



880

PATIENTS  
RESCUED



24/7/365  
COVERAGE



# PROJECT BLUEPRINT

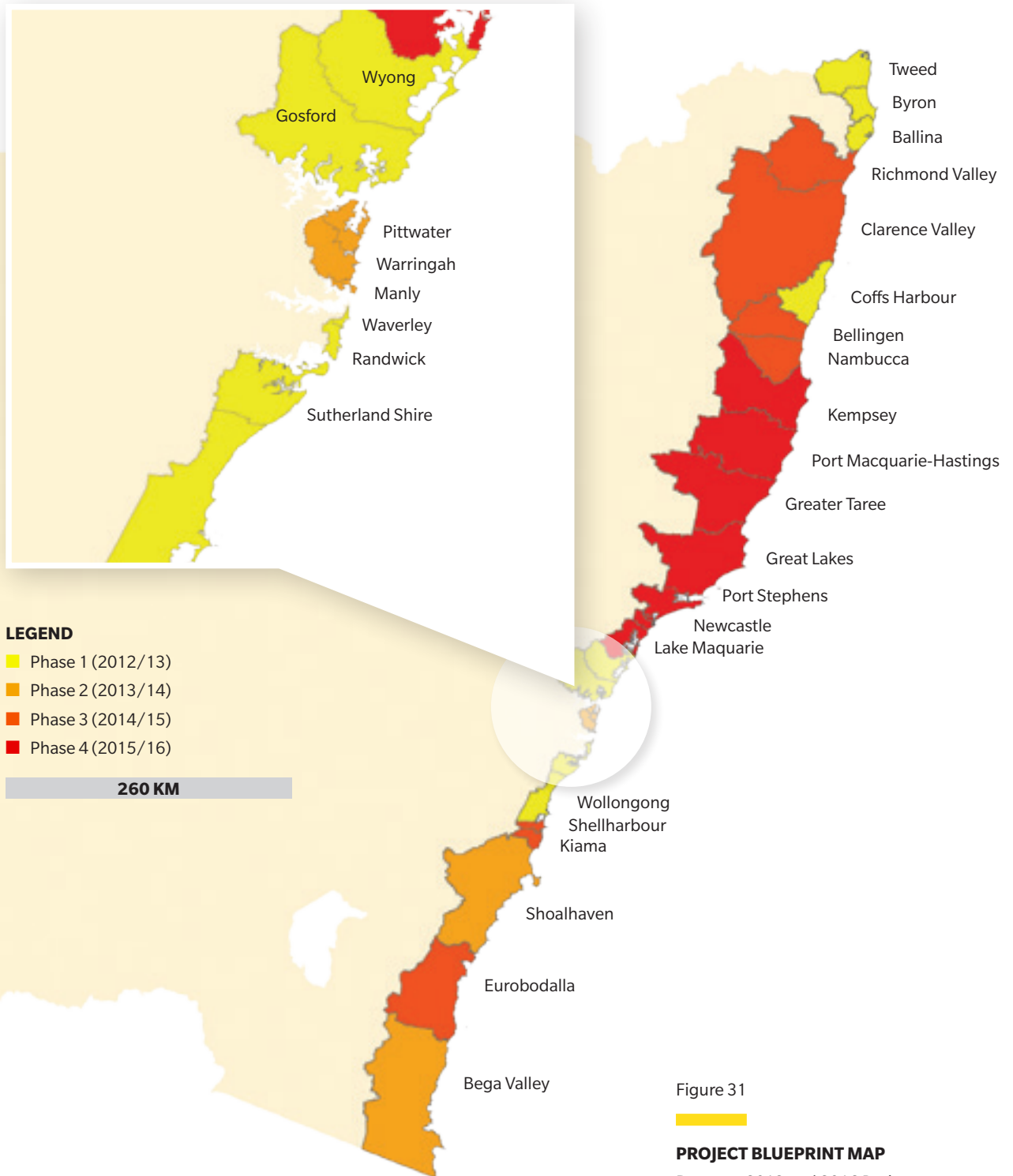


Figure 31

## PROJECT BLUEPRINT MAP

Between 2012 and 2016 Project Blueprint reported on 811 beaches and 322 rock platforms covering 1,736km across 29 Local Government Areas.



**1,133**  
**ASSESSED  
LOCATIONS**



**14,923**  
**FACILITIES**



## CASE STUDY - PROJECT BLUEPRINT CONCLUDES FOUR YEAR STUDY

In 2016 Surf Life Saving NSW concluded the final stages of *Project Blueprint*, a four-year risk assessment of all accessible beaches and rock platforms along the entire length of the coastline.

The program was made possible with funding from the *NSW Government's Water Safety Black Spots Fund*. *Project Blueprint* expands upon the research of Professor Andrew Short and the University of Sydney's Coastal Studies Unit which developed the *Australian Beach Safety And Management Program* (ABSAMP).

### An Enormous Undertaking

Throughout the duration of the program the CoastSafe team travelled to 29 Local Government Areas, covered over 1,700 kilometres of coastline, assessed 811 beaches and 322 rock platforms and headlands.

A comprehensive report was then compiled from the data which was then presented to Local Councils and other stakeholders to form a part of beach safety strategies going forward.

### Working With Stakeholders

An integral part of *Project Blueprint* has been developing relationships with key stakeholders. This has included forming strong ties with the various Councils, the NSW National Parks and Wildlife Service and local community groups.

An important part of site visits were the community consultation workshops. These workshops were advertised beforehand in local media and residents were encouraged to come along and provide their feedback regarding what they considered to be risks in their beach environment. This feedback proved invaluable as local residents are considered to be a great asset of knowledge.

In addition, the CoastSafe team encouraged feedback from the community and from those who were unable to attend the workshops and were happy to engage with any concerns throughout the process.

### Improving Beach Safety

Since 2004, just under half of drowning deaths have occurred in NSW.

Over 400 people have lost their lives in NSW coastal waters during this period and one of the key aims of *Project Blueprint* is to identify gaps in the drowning chain and prioritise drowning death prevention strategies based on evidence and consultation so this toll can be reduced in the future.

# ATTENDANCE HEAT MAP

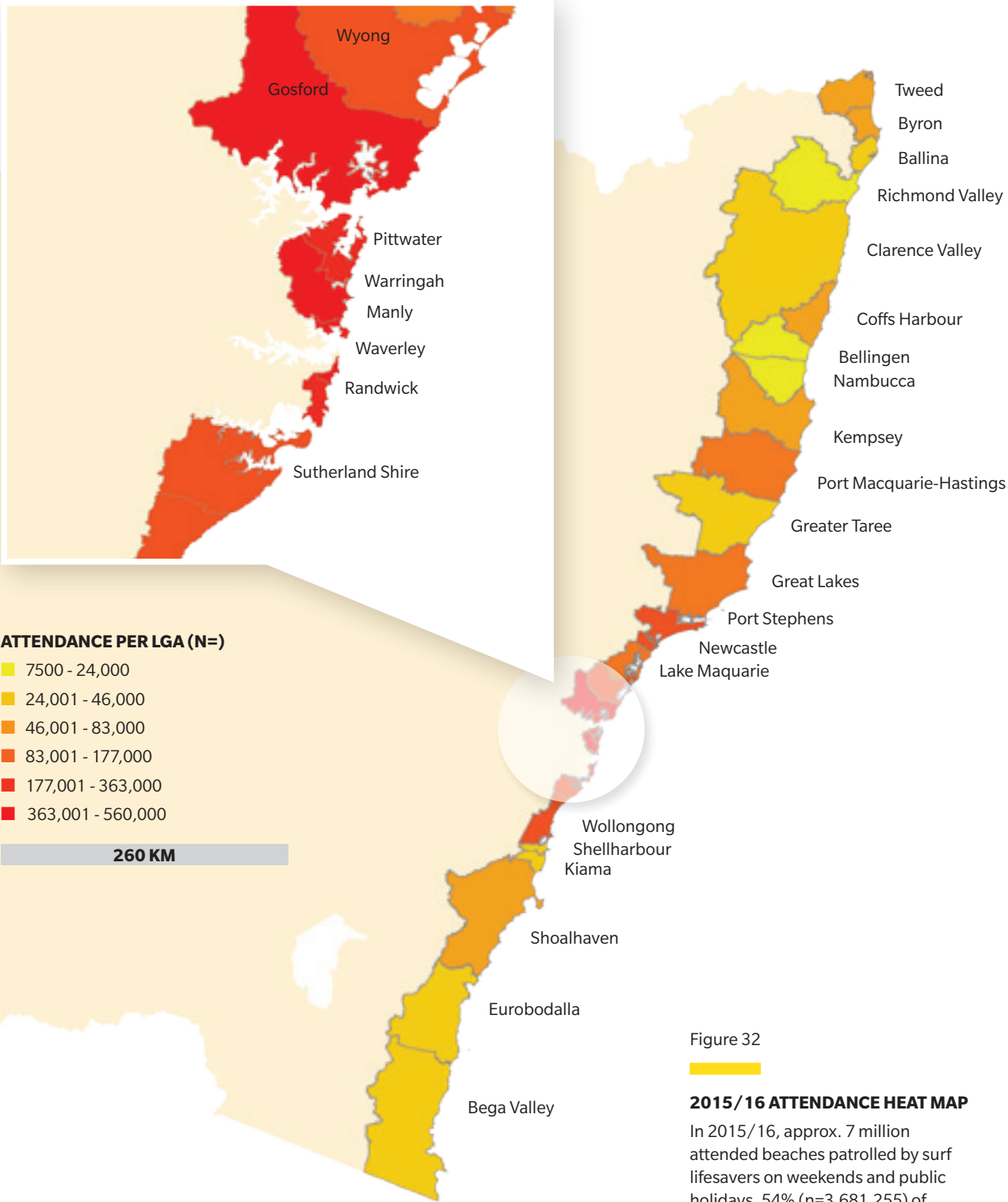


Figure 32

**2015/16 ATTENDANCE HEAT MAP**

In 2015/16, approx. 7 million attended beaches patrolled by surf lifesavers on weekends and public holidays. 54% (n=3,681,255) of attendance occurred within the Sydney Metropolitan area.



# REFERENCES

## Methodology

Contained within Surf Life Saving NSWs' *Coastal Safety Report 2016* is information obtained by Surf Life Saving's internal database, SurfGuard, the Incident Report Database (IRD), the SurfCom Management System, Surf Life Saving Australia and by monitoring media reports. This information has been verified with the National Coronial Information System (NCIS).

While all care has been taken to ensure that statistical information included within this report is accurate, please note that data may be amended over time following the outcome of coronial investigations, which are ongoing at time of print.

Data illustrated in figures may not always add up to 100% due to rounding. Some Local Government Areas amalgamated on 1 July 2016. Names and boundaries are accurate for the reporting period (1 July 2015 - 30 June 2016).

## Capability and rescue analysis

SurfGuard, the IRD and SurfCom Management System are web-based applications making up part of a suite of applications that enable members, clubs, branches and SLSNSW to enter and access Surf Life Saving data including operational (including rescues and first aids), capability (including assets and services) education and administrative information.

## Drowning data analysis

SLSNSW collects incident data from SurfGuard, the IRD, the SurfCom Management System, Surf Life Saving Australia, the National Coronial Information System (NCIS) and by monitoring media reports for drowning death incidents. This information is verified and compiled for analysis by SLSNSW's Lifesaving Department. The following variables are used to match drowning death cases from more than one data source: incident date; location; age; sex; and incident description. The NCIS is considered the 'gold standard' when there is a discrepancy in the detail collected from different data sources. Deaths are excluded if they are reported as 'intentional deaths', they are inland/ocean locations drowning, or drowning/immersion is not a primary cause of death.

## Drowning data limitations

As part of the NCIS process, some cases are amended prior to their closure, resulting in changes to the classification of cases in our datasets. Therefore, the number of coastal drowning deaths published in this report may be different from annual totals previously reported within other reports (e.g. SLISA). In an effort to produce a timely report on our current year's data we acknowledge that these figures will change. Each year, the changes that occur in the previous year's report will be made transparent.

## Suggested citation

Surf Life Saving New South Wales (2016) New South Wales Coastal Safety Report 2016. SLSNSW: Sydney.

## References

Australian Water Safety Council (2016) Australian Water Safety Strategy Consultation Draft 2016-20. Australian Water Safety Council, Sydney

International Life Saving Federation (2015). ILS Drowning Prevention Strategies 2015. Retrieved from [http://www.ilsf.org/sites/ilsf.org/files/filefield/20151028\\_FINAL\\_Drowning\\_Prevention\\_Strategies\\_ILS\\_Board\\_V01\\_0.pdf](http://www.ilsf.org/sites/ilsf.org/files/filefield/20151028_FINAL_Drowning_Prevention_Strategies_ILS_Board_V01_0.pdf) on 01/06/2016

Forbes, C (2015). Inquest into the deaths of Myassar Ayoub, Donald White, Zheng Wang, Sung Su Cho, Greg Walter Reardon, Huiqing Hua, Ding Ding Zhang, Young Whan Kim & Jesse Jack Howes (Rock Fishing related deaths) 2 July 2015. Coroners Court New South Wales. Retrieved from <http://www.coroners.justice.nsw.gov.au/Documents/Rock%20fishing%20Findings.pdf> on 01/06/2016

New Zealand, Ministry for the Environment (1991). Resource Management Act 1991. Retrieved from [http://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html?search=ts\\_act\\_Resource+Management+Act\\_resel&p=1&sr=1](http://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html?search=ts_act_Resource+Management+Act_resel&p=1&sr=1) on 30/10/2015

Short, AD (2003). Australia Beach Systems—The morphodynamics of wave through tide-dominated beachdune systems. *Journal of Coastal Research* SI 35, 7–20

Surf Life Saving Australia (2015) National Coastal Safety Report 2015. SLISA: Sydney

Surf Life Saving New South Wales (2015) 108th Annual Report 2014-15. Surf Life Saving New South Wales, Sydney

Surf Life Saving New South Wales (2015) The Value of Surf Life Saving NSW to the community. Surf Life Saving New South Wales, Sydney

# GLOSSARY

**Advanced resuscitation techniques:**

A certification providing the skills and knowledge required to use specialised equipment in the provision of resuscitation in line with the Australian Resuscitation Council (ARC) guidelines.

**ALS:** Australian Lifeguard Service.

**Provide first aid:** A certification providing the skills and knowledge required to provide a first aid response to a casualty.

**Aquatic environment:** Areas such as coastal and inland beach and waterways, swimming pools and their facilities, and other bodies of water, slurry and other agricultural and industrial liquids storage.

**Attempting a rescue:** An effort to retrieve a person in distress and deliver them to a place of safety.

**AWSC:** Australian Water Safety Council—also Australian Water Safety Conference.

**AWSS:** Australian Water Safety Strategy.

**Bay:** A body of water partially enclosed by land but with a wide mouth, affording access to the sea.

**Beach:** A beach is a wave-deposited accumulation of sediment – usually sand, but ranging in size up to boulders – deposited between the upper swash limit and wave base.

**Blackspots:** An area with a concentration of coastal/ocean incidents and a high probability/risk of ongoing reoccurrence.

**Boating:** Individuals using either a powered vessel or sailing boat for pleasure and/or fishing.

**Coastal:** The foreshore, seabed, coastal water and air space above a large body of water (harbour/bay/inlet), including areas up to 3NM offshore and of which the landward boundary is the line of mean high water, except that where that line crosses a river/inlet, the landward boundary at that point shall be the point upstream that is calculated by multiplying the width of the river/inlet mouth by 5. (Adopted from the Resource Management Amendment Act 1993-New Zealand).

**Coastal death:** Where the location of the death is on the coast, in the ocean up to 3NM offshore or inland up to five times the width of the inlet/river. A fatality arising from various circumstances (e.g. boating, fall, shark attack, rock fishing, drowning, medical, diving).

**Coastal drowning death:** Where the location of the drowning is on the coast, in the ocean up to 3NM offshore or inland up to five times the width of the inlet/river.

**COD:** Cause of death.

**Crude drowning rate:** The crude drowning rate is a comparative rate of drowning deaths to the size of the population in that area.

**Cultural And Linguistic Diversity (CALD):** Refers to individuals that identify as having a specific cultural or linguistic affiliation by virtue of their place of birth, ancestry, ethnic origin, religion, preferred language, language(s) spoken at home, or because of their parents' identification on a similar basis. This definition of CALD does not include individuals who identify as Aboriginal and/or Torres Strait Islander.

**Dangerous surf warning:** An alert issued by the Bureau of Meteorology indicating that surf conditions in an area are unsafe for coastal activities. The warnings are calculated based on wave height, swell direction and swell period and must exceed the pre-determined limitations to be in effect.

**Drowning:** The process of experiencing respiratory impairment from submersion/immersion in liquid; outcomes are classified as death, morbidity and no morbidity. (WHO, 2005)

**Drowning death:** A fatality arising from the process of respiratory impairment as a result of submersion/immersion in liquid.

**Duty Officer:** A person that represents the organisation at a coordination centre or site control point (forward command). Maintains communications with and conveys directions/requests to surf lifesaving services, and provides advice on the status, capabilities, actions and requirements.

**Emergency response:** An action taken by an SLS entity in response to a call for assistance from an emergency management organisation.

**Falls (trips/slips):** An event, which results in a person coming to rest inadvertently on the ground or other lower level.

**First aid:** Immediate or emergency assistance given on the spot to people suffering from illness or injury.

**Fishing:** The act of attempting to catch fish.

**Foreign ethnicity:** Individuals who identify with a cultural group other than Australian based on heritage, language or shared customs. This identification is extrapolated from reported data such as the individuals' country of birth and the main language spoken at home.

**Hazard:** The source of potential harm.

**HRS:** Helicopter rescue service.

**ILS:** International Life Saving Federation.

**Inland:** An area that is beyond the line of mean high water or beyond a landward distance of 5 times the width of the coastal inlet/river mouth.

**Inland drowning death:** A fatality arising from the impairment of respiratory function as a result of immersion in liquid, where the location of the drowning death is not considered coastal but occurs in an inland body of water such as a river, lake, creek or dam.

**International:** An individual who is confirmed to reside overseas and/or is a temporary visitor to Australia.

**IRB:** Inflatable Rescue Boat.

**IRD:** Incident Reporting Database.

**Jetty:** A man-made structure that projects out into water from land.

**JRB:** Jet Rescue Boat.

**Jump(ing):** The activity of launching off a cliff, rock platform, pier, jetty. AKA tombstoning (UK/Europe/North America).

**Lake:** An inland body of water surrounded by land.

**Leisure activity:** An activity commenced on land such as play, walking, jogging or cycling.

**Lifeguard:** An individual that undertakes patrols at a beach or another aquatic environment. This is typically a salaried member, qualified in public safety and aquatic rescue.

**Lifejacket:** A buoyant or inflatable garment or device designed to keep a person afloat in water and increase their likelihood of survival.

**Lifesaving service:** A coordinated group that exists to provide aquatic safety services to the public. This includes Surf Life Saving Clubs, Lifeguards, SurfCom, Rescue Water Craft, Rigid Hull Inflatable Boats, Jet Rescue Boats, Offshore Rescue Boats, Helicopters and 4WD units.

**Local Government Area (LGA):** Also known as local councils, LGAs include cities, towns, shires, municipalities or boroughs. Note some amalgamations occurred on 1 July 2016.

**Marina:** A boat basin offering dockage and other service for small craft.

**NCIS:** National Coronial Information System.

**Non-fatal drowning (no morbidity):** Drowning is the process of experiencing respiratory impairment from submersion/immersion in liquid; outcomes are classified as morbidity and no morbidity.

**Ocean drowning death:** Where the location of the drowning death is in the ocean further than 3NM offshore but no further than 12NM.

**Offshore:** Beyond the surf zone.

**Open ocean:** The seabed, water and air space above the water between 3NM and 12NM (the Australian territorial waters limit) offshore.

**ORB:** Offshore Rescue Boat.

**Other:** An uncommon known activity not otherwise listed (e.g. paragliding, aircraft crash, fall from pier).

**Patrol:** Service undertaken to monitor activities in/around an aquatic environment and respond accordingly through either preventative actions or rescue operations.

**Patrolled location:** A location supervised by a surf lifesaving service.

**Preventative action:** Direct action taken to reduce or eliminate the probability of a specific rescue, first aid or other

reportable incident from happening in the future. Where intervention by a surf lifesaving resource averts a person/s from getting into a potentially life-threatening situation.

**Rescue:** Retrieving a person in distress, delivering them to a place of safety and the application of first aid and basic life support as may be required.

**Resuscitation:** Preservation or restoration of life by establishing and maintaining a person's airway, breathing and circulation.

**Rip current:** A seaward flowing current of water moving through a surf zone.

**River:** A natural stream of water flowing into an ocean or bay.

**Rock/cliff:** A rock platform that may or may not have a high steep face.

**Rock/cliff related:** An activity besides fishing that is performed on a rock platform or off a groyne.

**Rock fishing:** The act of attempting to catch fish from a coastal rock platform.

**Rock-fishing death:** A fatality arising from various circumstances occurring (e.g. wave motion, loss of footing) where the victim was participating in fishing activities on a rocky coast immediately prior to or during the incident.

**RWC:** Rescue Water Craft - sometimes called a Personal Water Craft.

**Scuba diving:** Engaging in recreational or commercial scuba diving.

**SERS:** Surf Emergency Response System.

**Service season and hours:** Vary between branches due to climatic factors but in the context of this report, the season is for the period July 2015 to June 2016.

**Snorkelling:** Swimming with a snorkel and face mask.

**Suicide:** The act of deliberately killing oneself.

**Support operations:** Rapid response rescue units, not affiliated to any specific Surf Life Saving Club.

**Surf lifesaver:** An individual that undertakes patrols at a beach or another aquatic environment. This is typically a non-salaried member, qualified in public safety and aquatic rescue.

**SurfCom:** SLS radio communications centre which assists in managing the communications of surf lifesaving operations and data collection.

**SurfCom Management System:** Surf Life Saving web-based system used to log operational information about Surf Life Saving assets and incidents.

**SurfGuard:** Surf Life Saving database for membership information and operational statistics.

**Surf Life Saving Club:** An SLS affiliated non for profit organisation which has volunteer members who provide coastal safety services to the community.

**Swimming:** To move through water by moving the body or parts of the body.

**Sydney Metropolitan Area:** Local Government Areas bordered by the Hawkesbury River to the north, the Royal National Park to the south and Lower Blue Mountains to the west.

**Territorial Sea:** The seaward limits of Australia's maritime zones, from the coastline to 12NM from the low tide line.

**Total Service Plan:** An assessment of current and future surf lifesaving resources, trends, national blackspots and coastal safety issues combined with evidenced-based mitigation strategies to address these issues.

**Undetermined:** Cases that are not associated with a closed coroner's report on NCIS are often left 'undetermined' until an official cause of death has been determined. Some examples are cases where bodies have been found washed up on the beach, reports of individuals struggling in coastal environments are made and the bodies are not found/ missing persons reports are not made, or a suspected heart attack in a coastal environment rather than death due to immersion. These deaths will all be followed up on and the incident category updated once coroner determinations are made accessible.

**Wading:** To walk through water while partially immersed.

**Watercraft:** A piece of non-powered recreational equipment used in the water. Examples include surfboards, stand-up paddle boards, boogie boards, windsurfers or kayaks.

# COASTAL DROWNING 2015/16 SNAPSHOT

53

COASTAL  
DROWNING DEATHS



92%

MALE



30%

SWIMMING / WADING



19%

ROCK FISHING



66%



ARE AT LEAST 5KM FROM  
A LIFESAVING SERVICE AT  
TIME OF DROWNING DEATH

735

EMERGENCY  
CALLOUT  
ACTIVATIONS



6,672

RESCUES  
COMPLETED



848,014

VOLUNTEER  
HOURS



270,000

STUDENTS REACHED  
THROUGH 22 YEARS OF  
BEACH TO BUSH PROGRAM

46:1



FOR EVERY \$1 INVESTED,  
\$46 IS RETURNED  
(2014/15)