

Maritime Safety Plan 2017–2021



As at the end of June 2017, four confirmed recreational boating fatalities were recorded and that is approximately 70 per cent down on the long-term average.

2016-17 had the lowest number of recorded fatalities in 40 years.



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Minister's foreword

In NSW, we have some of the finest navigable waterways in Australia. Each year more than 2 million people head out on the water, on boats or other watercraft to enjoy the sun, catch a few fish or to spend time with family and friends.

This relationship to our waterways makes NSW a wonderful place to live. Additionally, the maritime industry continues to grow and is an important employer that provides significant benefit to the NSW economy.

Over the past five years, the NSW Government has invested more than \$500 million in delivering services and infrastructure to the NSW maritime community. Great results have been achieved over the past few years which have increased safety on the water. This includes raising the lifejacket wear rate from 9 per cent in 2007 to 45 per cent in 2015-16.

The recreational boating fatality rate is trending downward, driven by a strong reduction in drowning related fatalities. In 2017 we are heading towards the best safety result in at least 40 years. However, despite the great results water activity is not without its risks.

One life lost on NSW waterways is one too many. That is why the NSW Government is committed to increasing safety on our waterways.

As a priority, the NSW Government is working to reduce trauma on our waterways across the State. The Maritime Safety Plan forms a key part of this important Government objective. While NSW has made significant progress in reducing drowning fatalities on boats, more needs to be done on issues such as lifejackets, alcohol and helping people make informed decisions about weather conditions.

Greater focus is now also on non-drowning fatalities - which sadly we are still seeing no reduction in and the associated issues of speed, keeping a proper lookout and judgement. Finally, this plan sets out a comprehensive list of initiatives which aim to reduce fatalities and serious injuries by 30 per cent and lay the foundation for the drive towards the long term target of zero fatalities on the water.



The Hon. Melinda Pavey
Minister for Roads,
Maritime and Freight

Introduction

NSW has 2,140 kilometres of coastline and 12,000 square kilometres of navigable waterways ranging from coastal waters and estuaries to rivers, lakes and dams.

Around six million NSW residents live within 50 kilometres of the coast and this figure is expected to rise as population increases and participation in water activities becomes more accessible.

Each year an estimated two million people, or 25 per cent of the NSW population, take part in recreational boating and watercraft activity.

At 30 June 2017 there were nearly 240,000 recreationally registered vessels in NSW and an estimated 150,000 additional unregistered vessels like rowing dinghies, off-the-beach sailing craft, canoes and kayaks. There are 460,000 general boat driving licence holders in NSW and an additional 58,000 personal watercraft (PWC) driving licence holders; and several thousand holders of commercial Certificates of Competency who are automatically deemed to hold a recreational boat and a PWC driving licence.

General boat licences and registrations continue to grow at approximately 2 per cent per year while PWC licences and registration grows at around 10 per cent per year. Meanwhile various paddle sports continue to grow in popularity as more people take to the water.

Add to that some 10,000 commercial vessels, 16 million annual ferry journeys, more than 6000 annual water based freight movements, and 336 annual cruise ship visits to Sydney Harbour and it is not surprising that NSW has some very busy waterways. While commercial vessels standards and crewing are regulated under the National Law for Domestic Commercial Vessels, NSW retains the responsibility for safe navigation of all vessels in NSW under the *Marine Safety Act*.

As the NSW population continues to increase, the number of craft on our waterways will also grow.

Recreational and commercial activities contribute an estimated \$2.7 billion to the State's economy, and employs an estimated 8000 people.

Recreational boating brings economic and social benefits to the NSW community. The social benefits of boating include health and wellbeing benefits of physical exercise, on-water enjoyment, socialising with family and friends, competitive sports such as kayaking and yacht racing.

Commercial vessels contribute significant benefits to the NSW economy. Small and medium commercial vessels (including fishing and charter vessels) can be found throughout NSW and provide employment and enjoyment opportunities to residents and tourists alike.

NSW hosts some of the most popular ports in Australia for large commercial vessels and cruise ships. These large trading vessels move vital goods and materials, and cruise ships bring passengers eager to experience the best of NSW.

Current funding

Over the past five years, the NSW Government has invested more than \$500 million in delivering services and infrastructure to the NSW maritime community. This has included \$30 million invested in wharfs and maritime infrastructure through the Transport Access Program. More than \$50 million in procurement of new inner harbour ferries. \$135 million in new cruise facilities and infrastructure over the past few years to ensure Sydney can continue to cater for and attract cruise ships from around the world. A record \$29 million was allocated to boating safety, access and infrastructure improvements and customer reforms through the Waterways Fund. NSW is also now into year 3 of the 5-year \$70 million NSW Boating Now program.

Ongoing funding for this plan

Boat registration, driver licence, mooring fees along with maritime property revenue are paid into the Waterways Fund. This fund was set up to support the maritime public. Commitments and initiatives contained in the Future Transport 2056 Maritime Safety Plan will be funded from the Waterways Fund.

A new Maritime Investment Strategy is being developed for approval of the Minister for Roads, Maritime and Freight on how the Waterways Fund will support evidence-based initiatives in this plan.

In 2016-17, NSW recorded the best boating safety results regarding loss of life in at least 40 years. As at the end of June 2017, four confirmed recreational boating fatalities were recorded and that is approximately 70 per cent down on the long-term average.

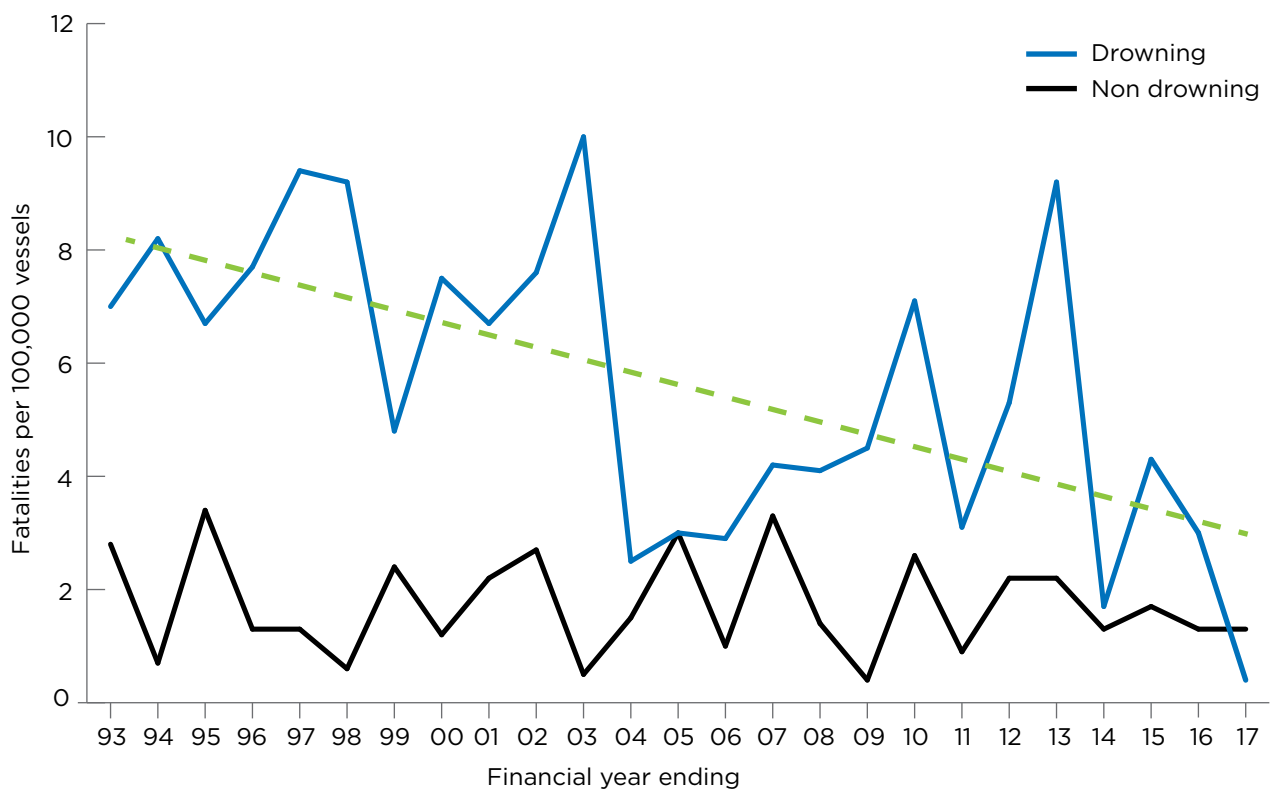
There has been a significant, long-term decline in the number of recreational boating fatalities caused by drowning. The evidence supports that improved lifejacket wear rates are helping to reduce recreational boating fatalities.

Unfortunately, there has been no change in the corresponding non-drowning fatality rate. Non-drowning fatalities refer to incidents where the cause of death was, for example, from incidents including speed, collision or injury trauma.

2016-17 had the lowest number of recorded fatalities in 40 years.



Long term trends in drowning and non-drowning fatality rates for recreational boating incidents



Objective

Maritime Safety Plan objective and the vision for NSW waterways.

Our Maritime Safety Objective

The Maritime Safety Plan sets the strategic direction in maritime safety over the next four years.

The objective of this plan is to continue the downward trend in the drowning fatality rate – and to further reduce the rate of fatalities and serious injuries on NSW waterways by 30 per cent by the end of 2021 at 2014 levels.

Our Maritime Safety Vision

Our longer term vision is to achieve zero fatalities and zero serious injuries by 2056.

Outcomes and long term vision

Towards Zero

In 2056 there will be zero fatalities and serious injuries on NSW navigable waterways.

This plan will continue the journey to zero. By countering the main causal factors and precisely targeting the significant issues, we can bring the numbers of fatalities and serious injuries down. The initiatives found in this plan are designed with this vision of an accessible and safe waterway with zero boating fatalities recorded.

This plan recognises that through innovation and the pursuit of continual improvements in safety and infrastructure statewide, there is an opportunity to further reduce trauma and enhance quality of life for the maritime public.

**30% reduction
of fatalities
and serious
injuries by 2021**

**ZERO number
of fatalities
by 2056**



Operating environment

Even though significant advances have been made in maritime safety in recent years, the operating environment continues to change. This plan demonstrates our determination to adapt and keep pace with change to further reduce fatalities and serious injuries on our waterways.

Guiding principles

Delivering a safe maritime system

The NSW Government has set a clear target to reduce maritime fatalities by 30 per cent by 2021, and a longer term aspirational vision of zero deaths and serious injuries on NSW waters in support of Future Transport 2056.

Safety is fundamental

Safety is essential to recreational, commercial and trading vessels use of the waterways. Each element of the maritime Safe Systems approach must be geared and designed towards achieving safer people, safer vessels and safer waterways.

Cooperation and partnership can deliver our goals

Closer coordination and collaboration between maritime safety partners is fundamental in working towards the Future Transport 2056 vision of zero trauma on our waterways.

Future Transport 2056 identifies a number of critical drivers...

Increased use of technology

New technologies, mobile apps, Automatic Identification Systems and charting tools are emerging and being adopted by the boating public and maritime stakeholders to assist with access, enjoyment and safety. Research by Transport for NSW suggests people who participate in water activities are generally considered to be a technically-proficient group and the increased adoption of technology offers new opportunities in support of maritime safety.

A changing environment

The Maritime Safety Plan supports the NSW Government's campaign to prevent drowning in water-based activities and the vision for a healthy and accessible marine estate that supports sustainable infrastructure and enables social and economic benefits for the community. This plan supports the Transport for NSW Future Transport 2056 which sets out a 40 year vision for transport in NSW.

Future Transport 2056 identifies a number of critical drivers that are affecting the transport operating environment now and will have an influence into the future.

The impact of these factors on maritime activities has been considered and used to inform the development of the plan.



The economy

Over the past decade the NSW economy has experienced unprecedented levels of growth. This has led to an increase in the number of people investing in watercraft and water activities. This in turn increases the risk of incidents on the water.

Population growth

NSW continues to experience rapid population growth with the population of NSW expected to reach 11.2 million by 2056. Population growth leads to a corresponding increase in the number of people using our waterways and increased traffic volumes. This increases the potential for traffic congestion and the risk of incidents.

Ageing population

As our population ages we will continue to see an increase in the proportion of retirees who have more time for leisure activities, including boating. The changing age profile of the boating population requires us to adopt specific responses, including improved accessibility of waterways and targeted education and planning around the issues that face older boaters.

Diversification of activities

In recent years innovation in vessel design and new types of water activities have lowered the financial barriers to getting on the water, and increased public accessibility to the waterways.

One of the key growth areas is the use of paddle craft. This category ranges from individual activities such as kayaking and stand-up paddle boarding, to club based activities such as dragon boat racing and outrigger canoeing. These vessels typically have a narrower range of safe operating conditions than traditional powered or sailing vessels and have limited storage, which requires exemptions from the usual safety equipment requirements for traditional vessels.

Another key growth area relates to powered vessel 'thrill-based' activities such as wakeboarding and PWC riding. These activities bring their own particular safety risks related to vessel handling, speed, collisions and towing.

As the economy grows it is expected that more large trading vessels will visit NSW ports. Similarly, the cruise ship industry in NSW continues to grow with more and larger cruise ships choosing to visit NSW. These additional large vessel movements will further add to the diversification of activities and the complexities of managing safe navigation on the waterways.

As water activities diversify and new activities emerge within the context of an overall increase in the use of the NSW waterways, the potential for conflict and safety risks is heightened. Potential risks need to be anticipated and mitigated so we can maintain safe access for all.

Participation in maritime activities is growing and providing significant opportunities for leisure and business. As convenient access continues to increase, greater numbers of people will be able to explore and enjoy all that NSW waterways have to offer.

This plan will facilitate growth through coordinating maritime safety and infrastructure programs to underpin a safe and enjoyable experience for a range of interests and activities whilst enhancing quality of life and benefits to the economy.

This plan focuses on Transport for NSW responsibilities related to recreational boating, commercial vessels and port governance, maritime infrastructure, and marine pollution response.

Consideration has been given to what we can do over the life of the plan to prepare for the introduction of technology that may completely change the landscape. Transport for NSW is working to design the transport system of the future through Future Transport 2056. This plan is part of the Future Transport 2056 vision for NSW.

This plan is enabled by and delivers on the responsibility of the following legislation:

- *Marine Safety Act 1998* (NSW)
- *Ports and Maritime Administration Act 1995* (NSW)
- *Protection of the Environment Operations Act 1997* (NSW)
- *Marine Pollution Act 2012* (NSW)





**Over the past
10 years there
have been 117 fatal
incidents on state
waters resulting in
132 fatalities**

Waterway trauma in NSW


Despite recent success in maritime safety, trauma still occurs on the waterways. This section provides information on the issues that are contributing to trauma and why specific issues are important and need to be countered through the initiatives in this plan.

In the last 10 years in addition to the 117 recreational fatal incidents there have been 15 fatal incidents involving just commercial vessels and a further two fatal incidents involving both a commercial and a recreational vessel.

Seven of the commercial vessel incidents (46.7 per cent) were of the type “fall overboard”, while both of the fatal incidents involving both vessel categories involved a collision between the two vessels. Most commercial vessel fatal incidents (75 per cent) related to vessels greater than 8 metres in length.

Among these, the most common incident types were capsizing (34.2 per cent), fall overboard (28.2 per cent) and injury – towing incident (9.4 per cent). The main incident causes were weather conditions (12.8 per cent), excessive speed (9.4 per cent), hazardous waters (6 per cent), lack of judgement (7.7 per cent), excess alcohol (6 per cent) and no proper lookout (5.1 per cent). 54.7 per cent of these incidents occurred while a vessel was underway, 9.4 per cent occurred during a towing activity and 10.3 per cent occurred while the vessel was anchored, moored or berthed.

Open runabouts were the primary vessel for exactly half of all recreational fatal incidents, followed by cabin runabouts (8.7 per cent) and canoes/ kayaks (7.9 per cent). Nearly half (47.6 per cent) of all recreational fatal incidents involved a vessel less than 4.8 metres of length. Of the recreational vessel fatal incidents recorded over the last 10 years, 59.5 per cent occurred during the middle of the day and afternoon, 46.8 per cent occurred on a weekend, 63.5 per cent occurred during the warmer months of October to March and 73 per cent occurred on what were presumably sheltered waters – i.e. rivers, lakes, estuaries and bays. Among the 144 fatalities recorded over the 10 year period, 86.8 per cent were male.



8 out of 10 people who drown when boating, are not wearing a lifejacket

47.9 per cent of fatal incidents primarily occur in open runabouts while 23.1 per cent of fatal incidents primarily involve vessels less than 4.8 metres

The average for fatalities in NSW is **15.1 per year**

The long term average for serious injuries is **70.3 per year**

Lifejacket wear rate in **2016-2017 was 45 per cent**

The number of confirmed boating fatalities for 2016-17 was four and the **lowest in at least 40 years**

On average, each year there are **227 incidents on the waterways**

62 per cent of fatalities involve boaters aged 30-69. 70 years-plus accounted for a further 20.6 per cent and is growing



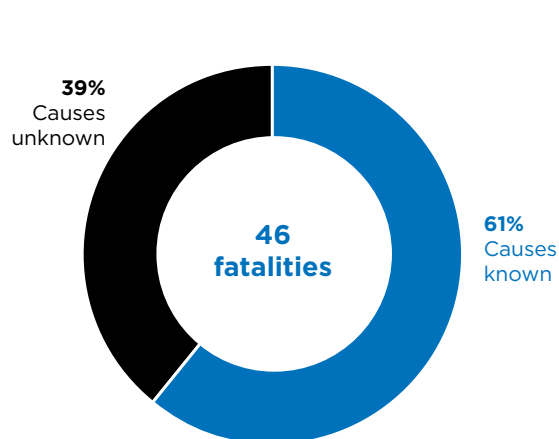
**Lifejacket wear rates
are up 400% since 2007
– the best safety record
for fatalities in 40 years**



Priority safety issues

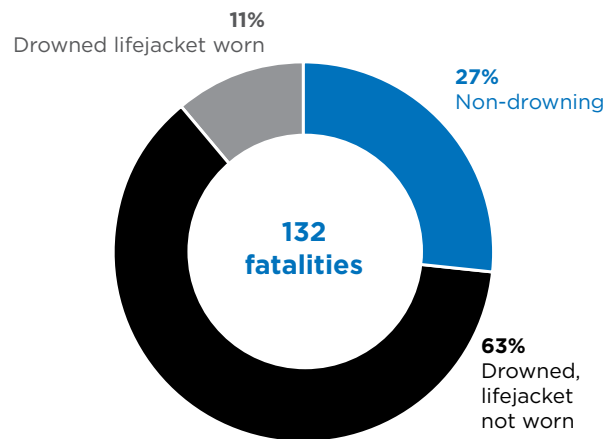
Seven behaviours and three activities have been identified as priority safety issues as they are statistically significant incident causes.

Statistics are from the last 10 years



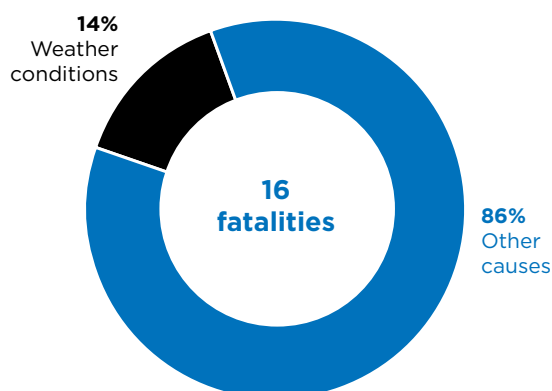
Multiple cause

- 39 per cent of fatal incidents or 46 fatalities were of unknown or multiple causes



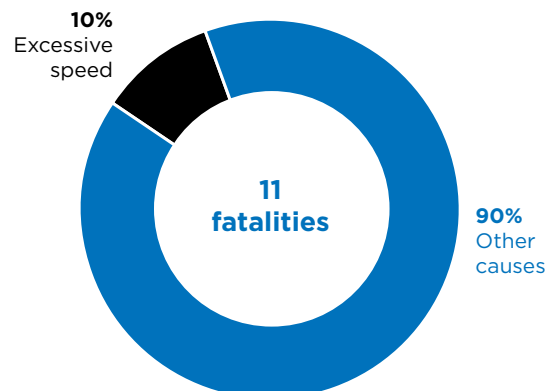
Lifejackets

- 73 per cent of fatalities over the last 10 years have involved a person drowning
- Of those who drowned, 82 per cent were not wearing a lifejacket



Weather conditions

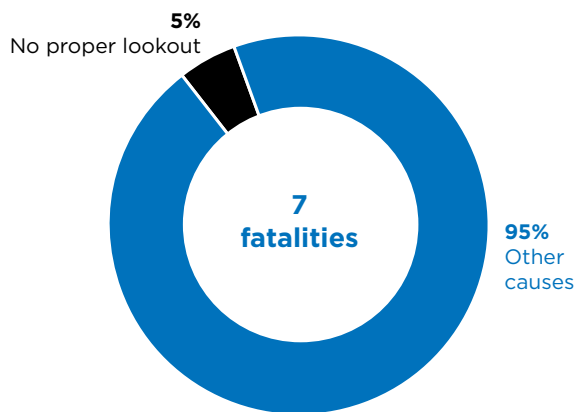
- Weather conditions were recorded as the greatest primary cause of fatal incidents among recreational boaters at 14 per cent



Excessive speed

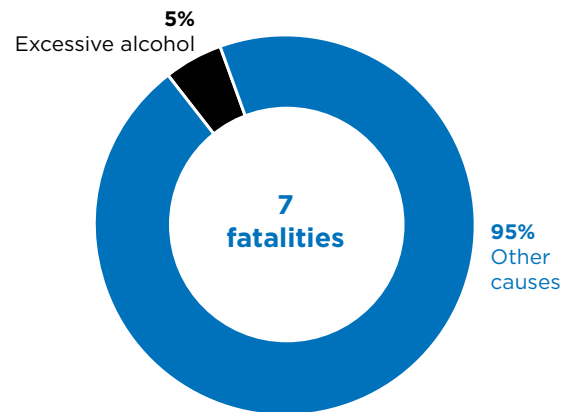
- Excessive speed was involved in 10 per cent of fatalities

Statistics are from the last 10 years



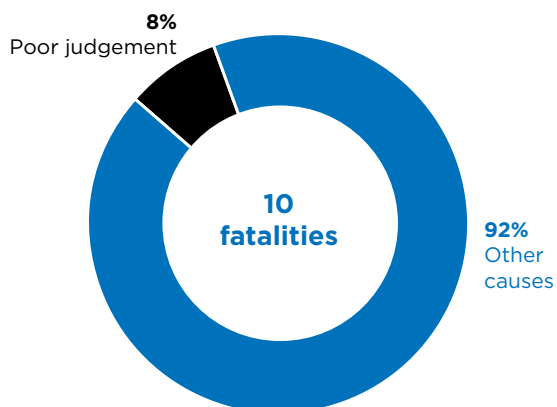
No proper lookout

- 5 per cent of fatalities were attributed to failure to keep a proper lookout



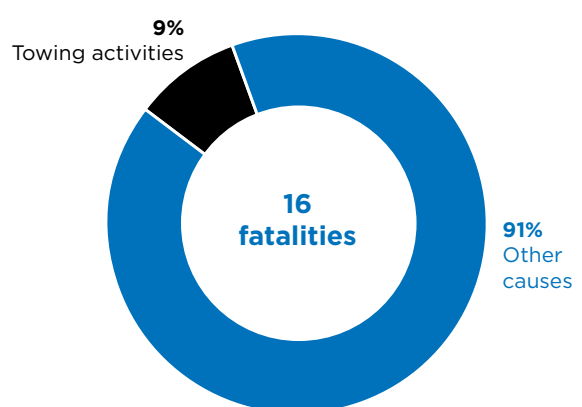
Excess alcohol

- 5 per cent of fatalities involved alcohol. Although this figure was believed to be significantly under reported



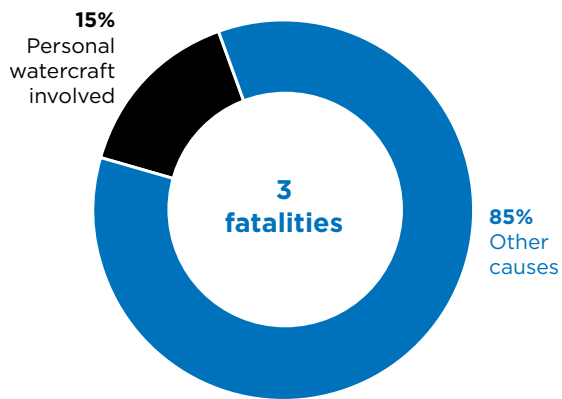
Poor judgement

- 8 per cent of fatalities involved the operator demonstrating poor judgement



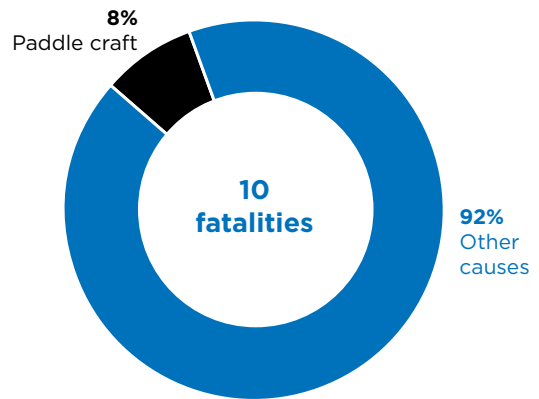
Towing activities

- Towing activities were involved in 9 per cent of fatalities



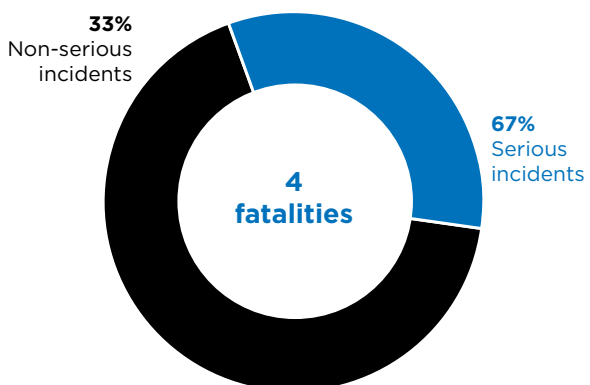
Personal watercraft

- Personal watercraft were involved in 2.6 per cent of fatalities and 15.7 per cent of serious injuries



Paddle safe

- 8 per cent of all incidents involved paddle craft, the third highest vessel type



Cold water

- 67 per cent of incidents which occurred in cold water resulted in a fatality or serious injury compared to 24 per cent in other waterways

Preventing and managing risk – adopting a Safe Systems approach

NSW is adopting the internationally recognised Safe Systems approach to transport safety. This plan adapts the Safe Systems approach to the maritime environment and introduces it to the NSW waterways for the first time.

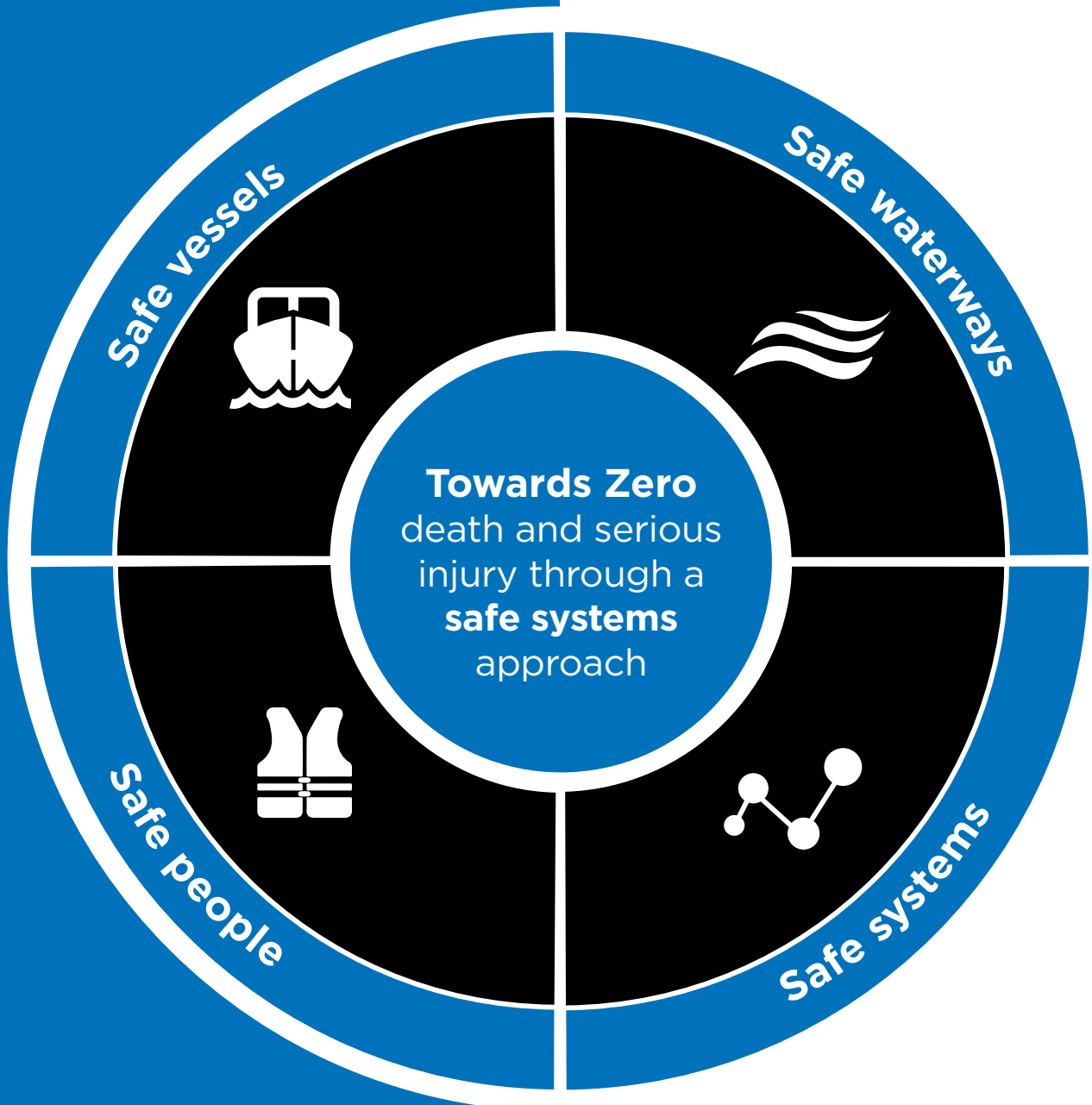
This plan incorporates a new maritime safety approach in NSW to risk mitigation, prevention and safety management; an approach called Safe Systems. Safe Systems is an internationally recognised and adopted methodology to reduce trauma.

Safe Systems focuses on understanding and countering issues that cause trauma on the water and takes a holistic view of the interacting elements. The elements include safe people, safe vessels and safe waterways.

A new approach to the prevention and management of risk.

Safe Systems is guided by four principles:

- **People make mistakes:** some boating incidents are inevitable.
- **People are vulnerable:** human bodies have a limited ability to withstand crash forces, submersion and exposure to weather conditions.
- **Safety is a shared responsibility:** system designers and the maritime public share responsibility for managing boating incidents.
- **All parts of the system must be strengthened:** including vessel design, safety equipment, infrastructure, access points, communication and aids to navigation. If one part fails, other parts will still protect the people involved.





Safety approach to our waterways

Safe people

Safer people focuses on the people in the system, including the choices they make and the behaviour they demonstrate.

People have different skills, experience, motivations and outlooks and these factors combine to influence how they behave on the water.

Of the known causes, human error is responsible for 33 per cent of fatalities.

Safe vessels

Safer vessels considers how vessels, safety equipment and vessel activity can reduce the risk of serious incidents occurring, or how best to support people following an incident.

Of the known causes, vessels and equipment are responsible for 10.5 per cent of fatality incidents.

Safe waterways

Safer waterways considers the physical environment and infrastructure that is in place to provide safety, access and storage on and beside waterways.

Of the known causes 26.5 per cent of fatality incidents are attributed to operating conditions on the waterway.



Improving the waterways

Maritime initiatives contained in this section are intended to address specific safety issues and reduce the number of fatalities and serious injuries while also increasing access, quality of life and the sustainability of the waterways.

Committed initiatives are those which are underway or about to begin and build upon the success of previous activities. There are also a number of initiatives that may improve maritime safety however these require a more detailed assessment about their effectiveness. These are termed initiatives to investigate.

Safe people

Committed actions

- Deliver a behaviour change program, including resource materials, to address the issue of wear, care and service of lifejackets – underway, delivered during the 2017-18 boating season
- Deliver a behaviour change program, including resource materials to increase appreciation of the risks across all priority safety issues – initiated, program will be ongoing
- Deliver the Old4New lifejacket mobile van project to promote the wear and care of lifejackets, and the servicing of inflatable models – scheduled for the 2017-18 boating season
- Annual education and compliance campaign program to be designed in collaboration between CMS and RMS that supports a response to the evidence-based priority safety issues identified in this plan – initiated, ongoing
- Support increased on-water testing to enforce substance abuse in collaboration with NSW Police Marine Area Command – program under development, to be initially implemented during the 2017-18 boating season
- Increase enforcement of speed zones and appropriate operation of vessels to speed related trauma – program under development, to be initially implemented during the 2017-18 boating season
- Review speed risk mitigation conditions for aquatic licences to ensure they are appropriate for the activity and encouraging safety outcomes for participants – initiated, outcomes delivered by 2017-18 boating season
- Develop a boating safety strategy with and for Indigenous people, who are over-represented in drowning statistics, to promote boating safety in NSW Indigenous communities – initiated, expected to be implemented in 2018
- Consider developing age appropriate safety and information campaigns to more effectively communicate safety messages and reduce the risks associated with particular demographics – underway
- Work with industry to reinforce the PWC behavioural code of conduct to reduce conflict between PWC and other types of activities – initiated, ongoing

- Deliver an enhanced enforcement program in areas of known PWC non-compliance to enforce marine safety legislation and reduce the risk of fatalities and serious injuries – program underdevelopment, to be initially implemented during the 2017-18 boating season
- Investigate partnering with registered training organisations and tow-sport organisations to provide towing specific training courses on the specific risks of towing activities and how to mitigate those – yet to begin, expected to be implemented by the start of the 2018-19 boating season
- Provide education about the effect of high speed turns on those being towed to improve their ability to recognise and respond – yet to begin, expected to be implemented by the start of the 2018-19 boating season
- Deliver an education package aimed at addressing wash from large semi-displacement vessels and towing activities to inform boaters of the environmental impacts and effect on other activities – yet to begin, expected to be implemented by the start of the 2018-19 boating season
- Promote good towing behaviour and courtesy to other users, and competent recovery of a fallen person – yet to begin, expected to be implemented by the start of the 2018-19 boating season.



Initiatives to investigate by 2021

What the evidence suggests

People are the most important element of the system. Human behaviour is also one of the main causes and contributors to fatalities and serious injuries.

Whether it is a decision to speed, choosing not to wear a lifejacket, making a poor decision or being overwhelmed with the situation, these are common factors in human behaviour.

The most effective way to change risky or negative behaviour is through education, awareness and compliance enforcement. Small alterations in behaviour can deliver significant benefits in safety.

- ▶ Consider simplifying mandatory lifejacket requirements for certain vessels and activities so laws are easier to understand and adopt in order to increase the lifejacket wear rate
- ▶ Consider emerging national and international research into Stand Up Paddle boards (SUP) to assess safety and risk mitigation measures
- ▶ Review the list of designated alpine waters where lifejacket wear is mandatory and recommend any modifications to that list. This will look to include other areas outside the traditional Alpine region which may have similar cold water effect concerns. This will reduce the heightened risk of drowning in cold water areas
- ▶ Work with the Australian Standards Committee CS 060 and with industry to encourage innovation and improvement in lifejacket form and function to increase wearability which will lead to an increase in wear rates
- ▶ Review theoretical boat driver licence assessment for opportunities to improve content or the process to increase safety awareness and lower the risks of incidents for inexperienced boaters or PWC riders
- ▶ Review practical driver licence assessment for opportunities to improve the skills and experience for new licence holders in order to lower the risks for inexperienced PWC riders or boaters
- ▶ Review licensing requirements for yachts operating under power and large cruisers to identify risks and whether changes can improve the safe operation of these vessels and reduce their involvement in incidents
- ▶ Investigate mandatory practical training courses so new PWC riders would have practical skills and awareness of on-water safety to reduce the number of incidents associated with inexperienced riders
- ▶ Consider increasing penalties for those operating a vessel under the influence of alcohol or drugs to address the heightened risks of incidents caused by excessive alcohol or drug use
- ▶ Establish data sharing capability between NSW Police, NSW Health, CMS, RMS and Royal Life Saving Society in relation to alcohol incidents in order to present a consistent message, coordinate education and compliance activity effectively and efficiently to reduce the number of incidents caused by excessive alcohol consumption
- ▶ Investigate hand-held speed detection technology to support compliance and allow for easier detection of speeding offences
- ▶ Investigate increasing training requirement for on-water decision-making in the licensing system to address incidents caused by poor judgement
- ▶ Consider the level of mandatory lifejacket requirements on alpine lakes to address drowning levels in cold water where the person is wearing a lifejacket
- ▶ Investigate how to engage with interstate PWC riders and inform them of the requirements of NSW legislation to reduce incidents involving interstate riders
- ▶ Consider increased penalties for dangerous behaviour and repeat offenders on the water.

**People are the most
important element
of the safe systems
approach**



Safe vessels

Committed actions

- Work with industry to gather sales information data to determine the number of paddle craft on the water to gain a greater understanding of the numbers of paddlers – initiated, completed by June 2018
- Work with the Australian Recreational Boating Safety Committee to investigate introduction of an Australian vessel assessment program as part of the Australian Builder Plate to examine the safety features and manufacturers' claims to buoyancy and survivability to verify the vessels are as safe as claimed – ongoing
- Work with the Australian Recreational Boating Safety Committee to review the need for greater buoyancy levels for newly built vessels under the Australian Builders Plate standard – ongoing.
- Review the safety equipment requirements in alpine waters to possibly include thermal blankets and other cold water-specific aids in order to reduce the risks of hypothermia and cold exposure
- Consider the requirements for emergency position indicator radio beacon (EPIRB) or personal locator beacons on alpine waters to reduce search and rescue times
- Investigate providing hire and drive businesses with a standard safety package that they can communicate to their customers reducing the risks associated with inexperienced users
- Consider a standard paddle craft identification sticker to assist with safety, and search and rescue in the event that the craft is found adrift without a person on board

Initiatives to investigate by 2021

What the evidence suggests:

The increasing number of new technologies being introduced in other forms of transport provide a guide to important maritime safety opportunities.

Vessels built to remain afloat and which incorporate identification and collision avoidance systems will increase the safety of those onboard.

As innovation and technology continues to flow through to the maritime sector, there will be significant opportunities to increase the safety of vessels and that includes the safety and navigation equipment available.

- Consider expanding requirements for all paddlers to display white light at night to increase their visibility and avoid collisions
- Consider requiring PWC to be certified annually as mechanically fit and safe for use ensuring modified vessels are identified and rectified before they become a safety or amenity issue
- Consider limiting the power and speed of learner PWC riders to assist them to learn on more forgiving craft and increasing experience on easier to control craft, reducing the risks associated with high speed vessels and inexperienced/learner riders

- › In consultation with tow-racing stakeholders, develop enhanced safety measures for high speed competition to lower the number of fatalities and serious injuries
- › Investigate a national system for confirming the legal ownership of a PWC for sale in order to protect buyers from purchasing a stolen PWC
- › Work with industry to create a national standard on wake creating vessels to reduce the impact that they have on the environment and other people
- › Initiative – facilitate new technology to improve maritime safety and efficiency
- › Explore ways to encourage high visibility clothing and craft to increase visibility and avoid collisions.

Review the operational visibility requirements for PWC hull identification numbers to make it easier for compliance officers to identify PWC involved in dangerous behaviour.



Safe waterways

Committed actions

- Ensure all navigation aids are accurately mapped on charts, especially following major weather events – initiated, completed by 2017-18 boating season
- Work with the Bureau of Meteorology (BOM) to investigate adaption of wind and wave information for specific alpine lake areas to deliver more useful information about the conditions on and beneath the water to assist boaters make more informed decisions about conditions – underway
- Review the Boating Now program and recommend a new five year boating infrastructure program – underway, round two of Boating
- Conduct a review of mooring policy, operational delivery and technologies to improve efficiency and minimise environmental impact – underway
- Collaborate with key stakeholder in development of an overarching strategy to support maritime infrastructure in priority areas in NSW – initiated
- Develop and implement erosion management plans for priority locations – identification of key areas has started
- Carry out an audit of all maritime regulatory signs in NSW recording their location, type and serviceability to ensure that necessary signs are in place, that they are effective in messaging and are quickly able to be replaced if damaged – completed by October 2019
- Conduct an audit of navigation aids, recording their location, type and serviceability to ensure that necessary infrastructure is in place and is quickly able to be replaced if damaged – completed by October 2019
- Collaborate with stakeholders to develop a strategy to eliminate black and grey water pollution from vessels in NSW waterways to improve water quality and reduce pollution – underway, completed by end of 2018
- Finalise the result of the maritime compliance camera trial and consider an expansion of the camera network to address dangerous and non-compliant behaviour – underway, evaluation expected to be completed in late 2017.

Initiatives to investigate by 2021

What the evidence suggests

Waterways are dynamic environments with ever-changing conditions, and each and every waterway is different.

The combination of tides, currents, wind and waves creates change; change in the boating conditions, the shape and position of shoals, potential submerged hazards and much more.

Improvements to infrastructure will increase amenity and support improved safety and access outcomes.

- Review the position and placement of navigation marks and signs on waterways with a view to minimising areas with blind spots or visual overloads to better assist boaters navigate safety hazards and maintain a proper lookout
- Conduct a review of speed zones across NSW to ensure they continue to serve their intended purpose of maintaining a safe speed for the conditions and are coordinated with other measures such as no wash zones



- › Investigate making real-time water temperature data available on key alpine waterways to better inform people of the risk of boating at that location
- › Consider assessing all NSW waterways for their suitability to host wake and towing activities and map the suitability in order to reduce user conflict and unsafe interactions
- › Consider developing a state-wide vessel wash management strategy to address safety and environmental issues
- › Identify waterways affected by vessel wash and develop local management plans that will protect and rehabilitate the area
- › Consider methods to strengthen areas affected by wash to protect them from any further safety or environmental issues
- › Investigate using variable messaging signs at select sites to provide real time information on emerging trends and safety issues that may be present at that location in order to inform decision making
- › Review the number and type of signs in coordination with other agencies, such as NSW Department of Primary Industries and local councils, to ensure that signage on particular waterways is considered in a holistic manner and does not provide a distraction or detract from essential safety messages
- › Consider adding additional identification features or lighting for navigation aids to be better seen at night in high activity areas to facilitate better navigation and avoid collisions
- › Work with emergency services to establish a catalogue of emergency aircraft landing areas along priority waterways to reduce the reaction time to a serious incident
- › Work with emergency services to assign boating infrastructure in priority waterways with unique identification markers which can be used in an emergency to allow for the fastest possible response
- › Work with telecommunication providers to identify black spot network coverage areas and communicate these to boaters so that they are aware they may require additional communication devices to assist them to plan for being outside of network coverage.

Investigate the opportunity to deliver a new strategic approach to support improved infrastructure for NSW.

Safe systems

Committed actions

The 'system' refers to the structure and supporting elements that enable maritime safety. System elements such as data, research, education and partnerships, enable safety in the other components of the Safer Systems approach.

The single most important requirement of Safe Systems is data. Data is used to establish the evidence base which allows for precise targeting of the causal factors and risks that contribute to fatalities and serious injuries.

- Support the development of an integrated boating safety mobile application to support safe activity and provide a convenient way for boaters to access safety information – under development
- Collaborate with Centre for Road Safety (CRS) and NSW Health to capture hospital data. Investigate accessing hospital data from hospitals on the other side of the Qld and Victorian borders in order to address gaps in data collection and allow for the better targeting of safety initiatives to reduce fatalities and serious injuries – initiated
- Formalise a coordination group involving all government maritime safety compliance partners to deliver efficient and effective on-water compliance enforcement activities state-wide to assist in reducing incidents – will be established in the 2017-18 boating season
- Develop and report an annual compliance and education plan between maritime safety agencies to support the reduction of fatal and serious injuries – expected completion 2018

- Introduce an Enhanced Enforcement Program with Marine Area Command (NSW Police) to respond to anti-social and dangerous behaviour (eg. alcohol and drug use) on State waters to reduce key risks that are contributing to fatal and serious injury incidents – underway
- Complete transition of domestic commercial vessel services to the Australian Maritime Safety Authority (AMSA) – expected to be completed 2018
- Review of the *Marine Pollution Act 2012* to ensure it remains suitable for the management of pollution on the waterways – initiated, completed 2017-18
- Assist the BOM in understanding the type of weather information that is useful to boaters and develop a package tailored to these needs so that boaters are provided with the most up to date and essential information that will assist them make a decision and lower the risks being caught by surprise in a dangerous weather situation – initiated, completed start of the 2018 boating season.

The single most important requirement of Safe Systems is data. Data informs the evidence which leads to targeted actions.

Initiatives to investigate by 2021

What the evidence suggests:

When looking at maritime safety the most vital element in determining the key priority areas is data and information.

The Safe Systems approach relies on accurate and comprehensive data that allows for precision targeting and the application of counter measures to address safety and infrastructure issues.

- Investigate data system management improvements, including the capturing, storing and sharing of data to support improved understanding of the risks and assist in precisely identifying targeted mitigations in response to trauma on NSW waters
- Explore additional avenues to communicate weather information to boaters apart from the traditional channels to ensure that boaters are receiving up to date and accurate information wherever they are and are able to make informed decisions
- Examine further ways to disseminate information at regular intervals at a localised level which will be useful and easier for boaters to digest to make decisions regarding maritime safety
- Review the requirements for safety equipment for all vessels regardless of waterway location to remove confusion and enhance the safety of all vessels
- Develop a plan in collaboration with the Office of Transport Safety Investigations to continue compliance and investigation responsibilities under the Maritime Safety Act to reduce fatal and serious injuries in commercial vessel activities.





Outcomes

Safety outcomes

The initiatives, both committed and under investigation, are designed to make NSW waterways safe, sustainable and enjoyable.

Safety on the water and the reduction of fatalities and serious injuries are the primary goals of this plan.

While safety is paramount it is also important that the waterway remains a place of enjoyment and relaxation that is accessible and inclusive for all people and activities that are safe and responsible. The waterways are there to be shared and this plan outlines the foundations for improving the ability for all to work, live and play on or near the water.

This plan recognises the need for a sustainable waterway that can be passed on to future generations to support and enhance the quality of life, the environment and the economic benefit. This can be done by looking at our activities and mitigating risks to the environment and people.

Finally, this plan is the beginning of a long-term commitment as part of Future Transport 2056 to reduce fatalities and enhance the experience for the public on our waterways.

Measuring the outcomes

The performance of this plan will be measured year on year with the release of an annual statistical report on boating incidents. This report will provide a key annual indication about the number of fatalities and serious injuries on NSW waterways.

A progress report will also be published in 2019 at the half-way mark of this plan and will detail the progress of the committed initiatives as well as outline the results of the initiatives which have been considered and investigated. The report will outline the decisions taken on each of the initiatives to be investigated.

Throughout the life of this plan, the Transport for NSW maritime cluster which includes Roads and Maritime Services, Centre for Maritime Safety, Freight Industry and Economic Innovation teams will provide regular progress reports to the Minister for Roads, Maritime and Freight and the Maritime Advisory Council. The Transport for NSW maritime cluster will provide each council meeting with an update on how the plan is progressing in reaching the objectives, and a status on the initiatives. The Maritime Advisory Council will also provide direction and assist in responding to any shifts or trends that result from or emerge during this plan.

Consultation on initiatives, particularly those being investigated, will continue through the maritime advisory hierarchy consisting of the:

- Recreational Vessel Advisory Group which considers all recreational boating and watercraft activity matters across the state,
- Maritime Property Advisory Group, which considers maritime property issues,
- Commercial Vessel Advisory Group which considers matters concerning commercial vessel operation around the state, and
- Regional Boating Advisory Groups, which are groups of local experts which consider regional issues.

Ultimately, the Transport for NSW maritime cluster will be accountable for delivering this plan to the Minister for Roads, Maritime and Freight and to the NSW maritime public.

Consultation with the community and stakeholders

Maritime safety in NSW benefits from an integrated advisory group structure, interconnected maritime safety agencies and over 50 maritime safety partners from industry, federal, state and international government and community groups, and associations.

Collaboration and consultation has been an important feature in the development of this plan. This plan is an evolution of the Maritime Policy Agenda of 2012. In that time, consultation has been frequent and consistent, which a number of highly experienced advisory groups contributing their expertise to maritime infrastructure and safety.

Numerous agencies and organisations exist to encourage and enhance maritime infrastructure and safety. Each brings a different focus, perspective, expertise and methodology to reaching their goals and it is important that these are captured and understood for greater whole-of-system cohesion.

In developing this plan, the Centre for Maritime Safety has sought the expertise and input of key boating and waterway activity industry associations and representative organisations. Ten workshops were held with more than 50 organisations invited. The experts at these workshops helped formulate and assess the effectiveness of many of the initiatives found in this plan.

In 2015, Transport for NSW undertook an extensive round of public consultations to inform the development of 11 Regional Boating Plans. This exercise gathered a wealth of information and has formed the foundations of our understanding of the maritime public's view. This information is constantly being updated as views change and progress continues.

These consultation activities have led to a plan which has benefitted from wide consultation, in-depth evidentiary analysis, including input from an independent social scientist and practical expertise provided from those who possess significant knowledge and ownership of boating and water activities in NSW.

Maritime safety in NSW is a responsibility that is shared between a number of government agencies, private organisations and individuals.



Various maritime agencies and water safety bodies contribute to maritime safety, including:

- › Transport for NSW
- › Roads and Maritime Services
- › NSW Police
- › Marine Rescue NSW
- › Surf Life Saving
- › Australian Water Safety Council
- › Department of Primary Industries (Fisheries)
- › Royal Life Saving Society
- › Maritime Advisory Council
- › Recreational Vessels Advisory Group
- › Maritime Property Advisory Group
- › Commercial Vessels Advisory Group
- › Australian Recreational Boating Safety Committee
- › Maritime Agencies Forum
- › Maritime Senior Officials Group
- › Port Authority of NSW
- › Paddle NSW
- › Australian and New Zealand Safe Boating Education Group
- › Liquor and Gaming NSW
- › NSW Health
- › Bureau of Meteorology
- › Bombardier Recreational Products
- › Recreational Fishing Alliance
- › Commercial Vessel Association
- › Australian Rowing Association
- › Wakeboard NSW
- › Australian Jetski Association
- › Australian Power Boat Association
- › Australian Sailing
- › Rowing NSW
- › Scuba Clubs Association of NSW
- › Boating Industry Association
- › Boats Owners Association (BOA)
- › Marine Teachers Association of NSW
- › Department of Justice

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