

## 3.0 Queensland fatal marine incident trends

This section provides an analysis of fatal marine incidents in Queensland for 2005 in terms of past trends, and comparative trends in both population and registered vessel numbers.

### 3.1 Marine incident fatality trends

In 2005, ten of the 633 reported marine incidents resulted in loss of 12 lives - the same number of people who died in marine incidents in 2004. The 2005 fatality outcome is marginally over-represented when compared with the previous four-year average of 10.25 fatalities per year.

Figure 7 shows Queensland's marine fatalities per million of population and per 100,000 registered vessels for the past seven years. In the absence of more specific exposure data, these represent surrogate but objective measures of exposure for marine fatalities. Fatality rates relative to both vessels on register and total population have flattened in 2005 following a rise in 2004. The rise in 2004 was against recent downward trends.

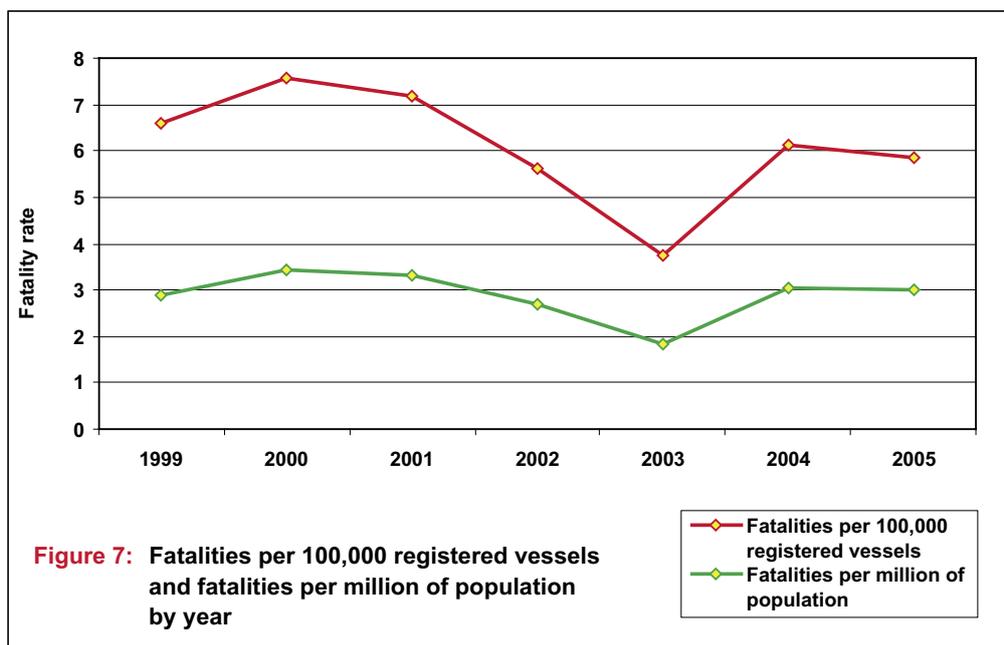


Figure 8 compares trends in Queensland marine fatalities with both vessel registration and population trends since 1997 (index 1997 = 100). Despite a higher number of marine incident fatalities in 2004 and 2005 (12, compared with 7 in 2003), the annual fatality trend since 1997 is flat-lining. Over the same period, Queensland's vessel registration numbers have grown by more than 51.3 per cent and the State's population has increased by more than 18.6 per cent.

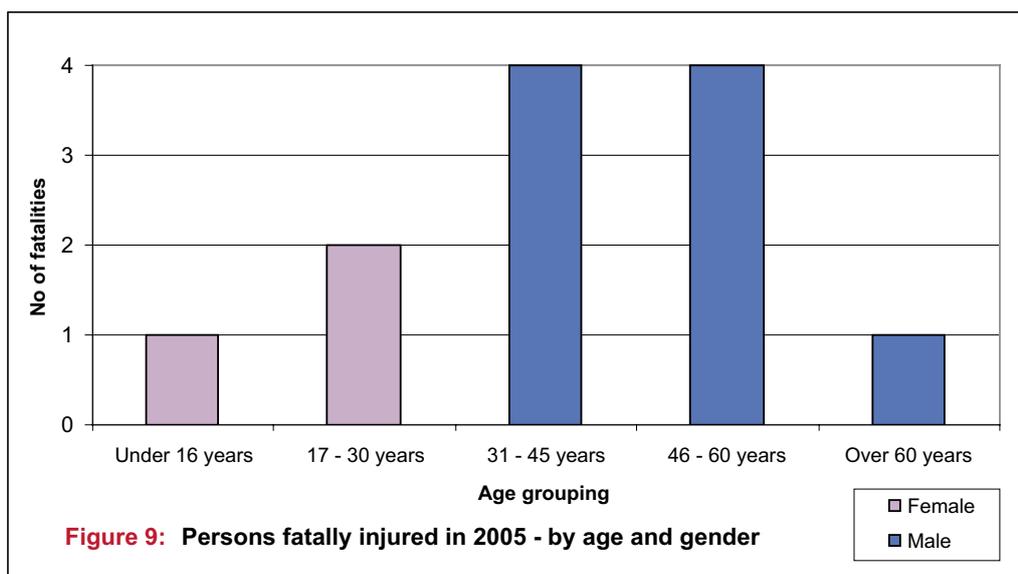
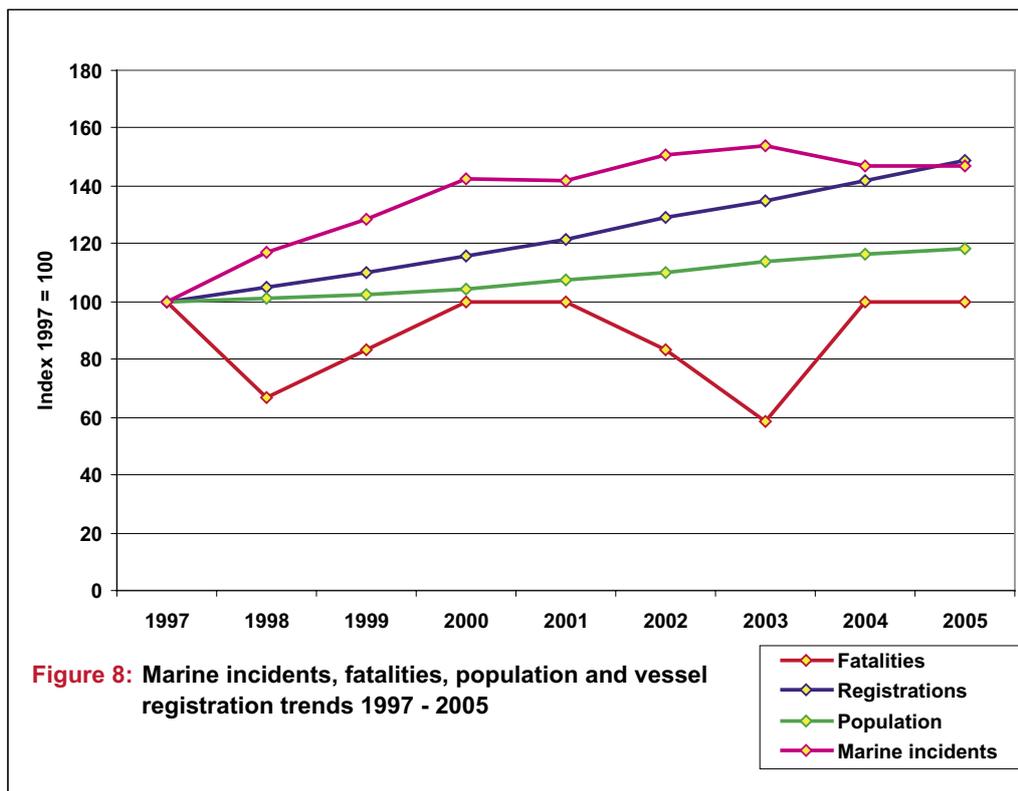
### 3.2 Profile of persons fatally injured

Of the 12 persons fatally injured in incidents in 2005, nine were males and three were females. Eight of the deceased were the masters of the vessels involved and the remaining four were passengers. Figure 9 profiles the age and gender of the deceased. 75 per cent of those fatally injured were over 31 years of age and all were male. The three recorded female fatalities including a female child were all under 30 years of age.

### 3.3 Marine fatalities by vessel types

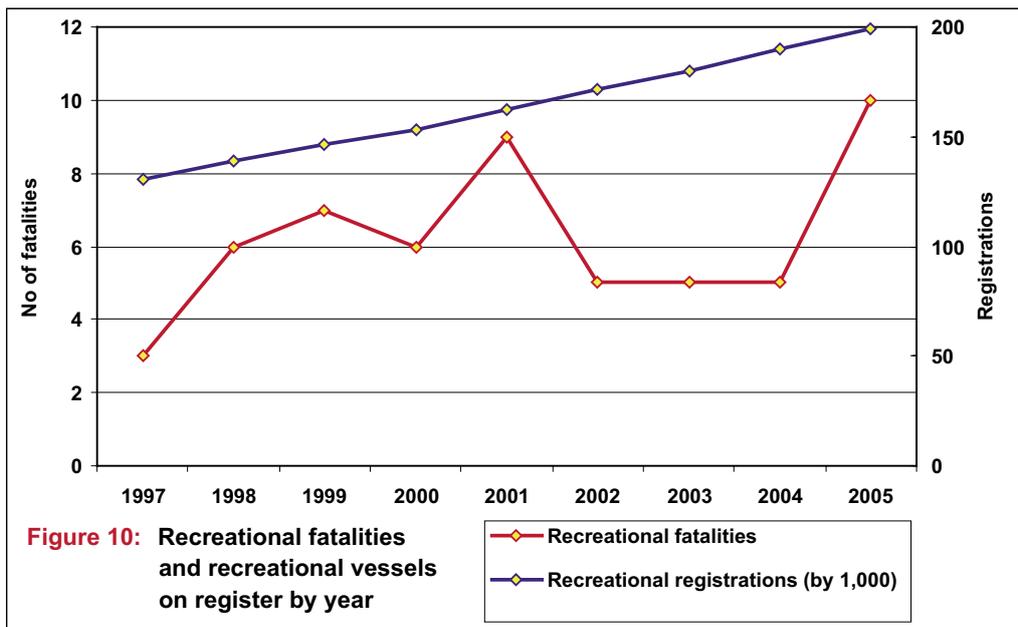
In Figures 10 and 11, marine incident fatality numbers are broken down according to the two major vessel registration categories—recreational and commercial.

Figure 10 shows that 10 fatalities resulted from marine incidents involving recreational vessels in 2005—double the number recorded in 2004 and significantly above the previous four-year average

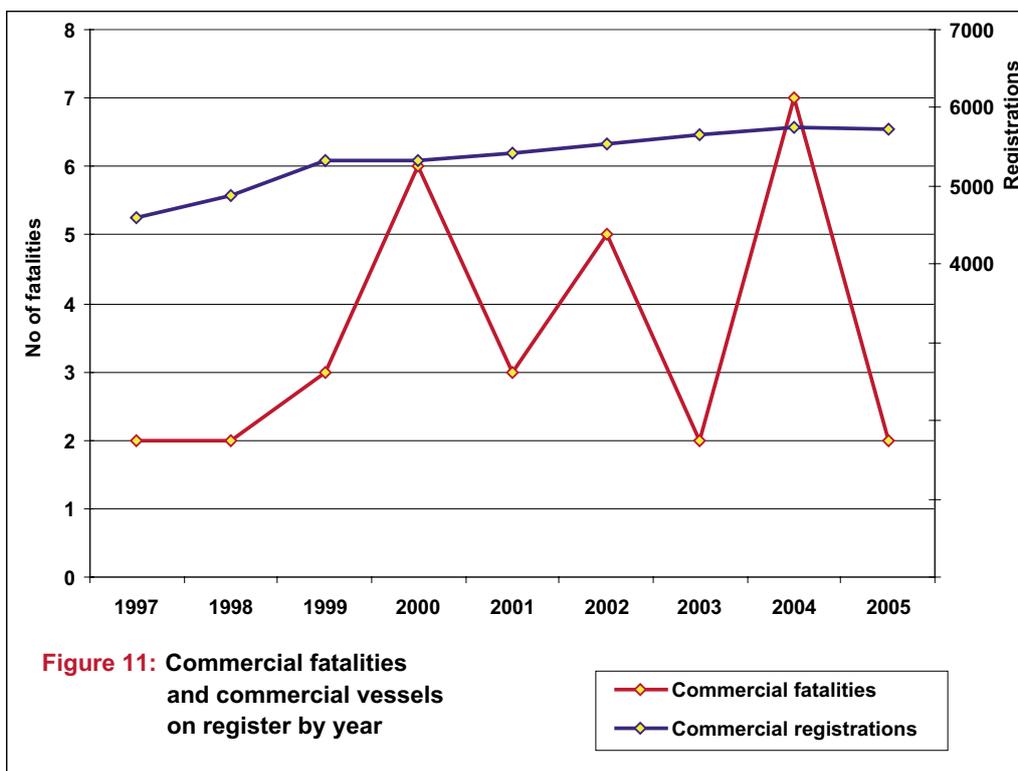


of 6 recreational fatalities per annum. This compares with growth in registered recreational vessel numbers in 2005 of 4.90 per cent and more than 52 per cent over the period 1997 to 2005. The fatality rate per 100,000 registered recreational vessels has risen significantly in 2005—from a previous four-year average fatality rate of 3.45 deaths per 100,000 registered recreational vessels to 5 deaths per 100,000 registered recreational vessels in 2005.

The growth trend in the number of commercially registered vessels is shown in Figure 11. There has been an increase in the number of commercially registered vessels of approximately 24.5 per cent over the period 1997 to 2005. Figure 11 shows there were only two fatalities resulting from marine incidents involving commercial vessels in 2005. This represents a significant decrease from the seven commercial vessel fatalities recorded in 2004 and is well below the average of 4.25 commercial vessel fatalities per year for the previous four-year period. Both of the recorded commercial vessel fatalities in 2005 resulted from incidents involving commercial fishing vessels.



**Figure 10: Recreational fatalities and recreational vessels on register by year**



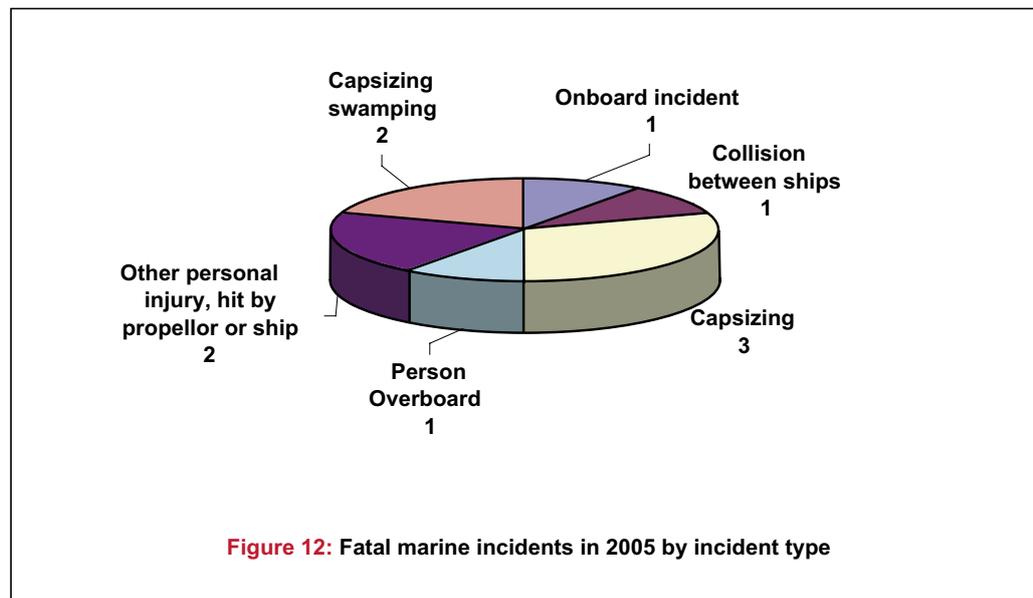
**Figure 11: Commercial fatalities and commercial vessels on register by year**

Of the 10 recorded fatal incidents, three involved recreational speedboats, two involved recreational jet skis, two involved commercial fishing ships and the remaining three incidents involved a recreational motorboat, a recreational sailboat and a recreational row boat respectively. The involvement of jet skis in fatal and in serious injury incidents was a feature of the reported marine incidents in 2005. The involvement of jet skis in marine incidents is examined in more detail later in this report.

### 3.4 Marine fatalities by incident types

Looking at marine fatality incidents by their incident type, six of the incidents resulted in people in the water. Of these six incidents, five were capsizing incidents and one involved a person overboard. Eight persons died in these six incidents alone. This highlights the potentially severe outcomes from

incidents involving persons overboard or in the water, particularly if they are not wearing life jackets. Figure 12 shows the 10 fatal incidents according to their incident type.



### 3.5 Marine fatality incidents by location

In terms of fatal incident location, five of the fatal incidents occurred in smooth water limits, two in partially smooth water limits, and three in offshore waters.

### 3.6 Out-of-scope marine fatalities

For a number of years Maritime Safety Queensland has captured data on incidents which occur in the marine environment but are outside the scope of marine incidents as defined in the Act. They include fatality incidents where the death is attributable to natural causes, where the incidents fall directly within the scope of Queensland workplace health and safety or other Commonwealth legislation, or where the incident is not clearly connected with or attributable to the operation of a vessel.

As part of its marine incident case management system, Maritime Safety Queensland monitors these incidents to ensure that any remedial action, including possible legislative changes, is taken. The data also enables the presentation of a fuller picture of safety in the marine environment.

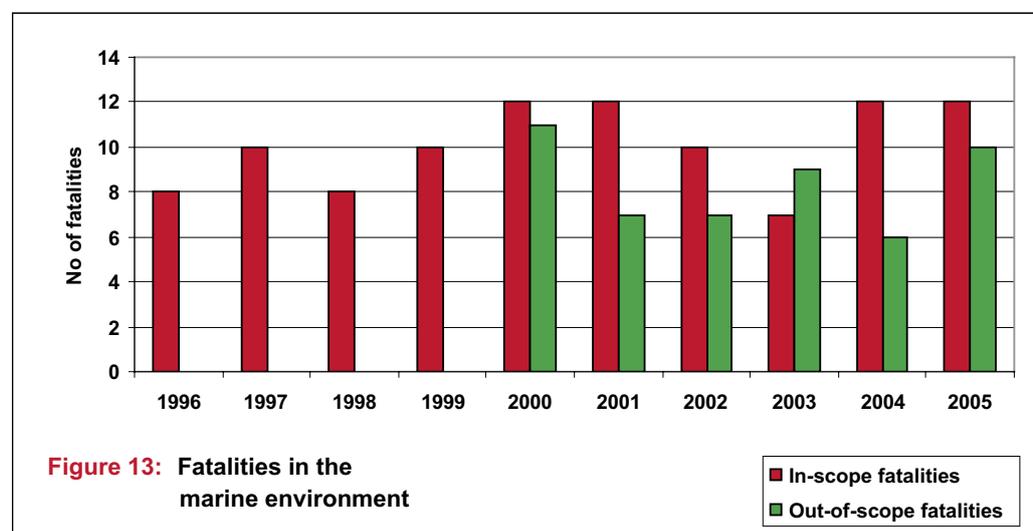


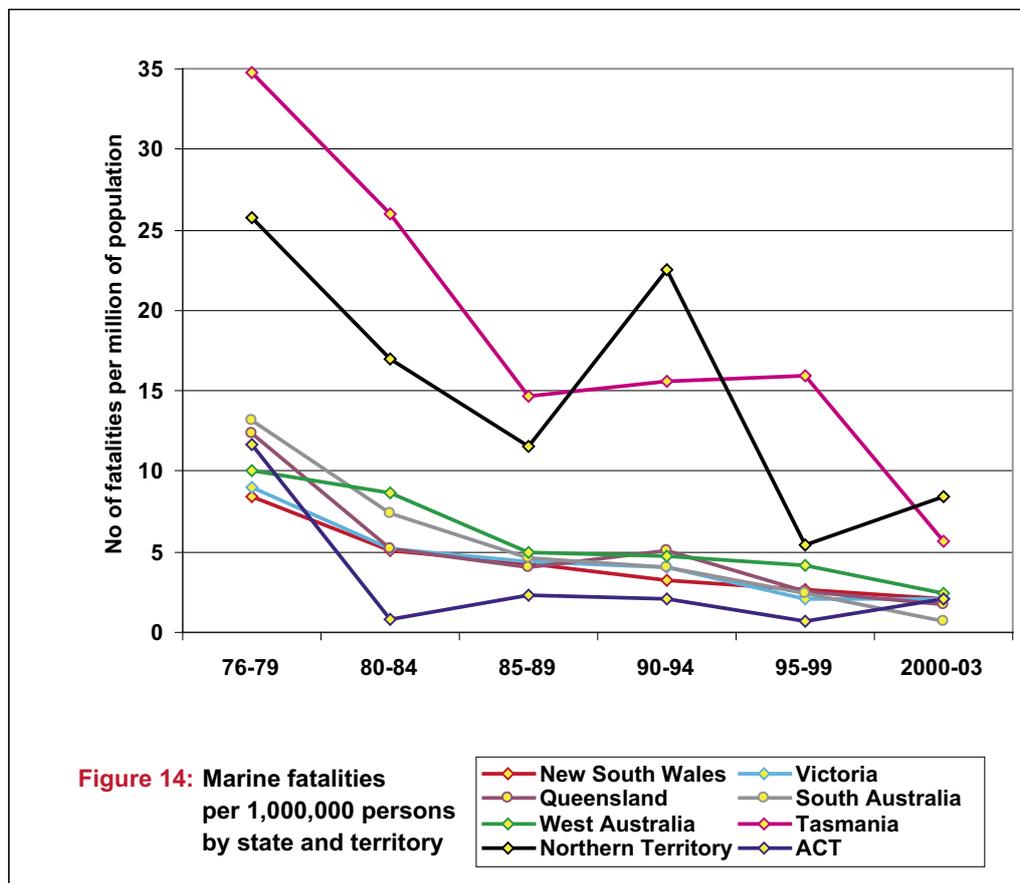
Figure 13 shows the number of fatalities resulting from both in-scope and out-of-scope incidents in the marine environment for the period 2000 to 2005. Queensland's combined marine fatalities, including out-of-scope fatalities, were 23 in 2000, 19 in 2001, 17 in 2002, 16 in 2003, 18 in 2004 and 22 in 2005. Out-of-scope marine fatality data was not recorded by Maritime Safety Queensland prior to 2000.

The 2005 fatalities classified as out-of-scope included the loss of:

- Five persons including four adults and one child missing onboard a Commonwealth immigration vessel on a voyage between Badu and Sabai Islands in the Torres Strait. While this incident is out-of-scope, the wider issue of boating safety in the Torres Strait is examined in more detail later in this report.
- Two male persons who suffered heart attacks while onboard commercial passenger vessels.
- Three male persons who appear to have suffered heart attacks while fishing unaccompanied—one remains missing and is presumed dead.

### 3.7 Marine fatality trends – Queensland in relation to Australia

To provide a broader view of Queensland's relative maritime safety performance, the 2005 review includes a comparison of Queensland's maritime fatality involvement per million of population with that of other Australian states and territories—based on Australian Bureau of Statistics (ABS) coroners' report data. While the ABS scope and definitions of water transport-related deaths may vary slightly from those used by Maritime Safety Queensland for fatal marine incidents, the ABS data allows a nationwide comparison from a common point of reference. For example, the ABS data may include water transport deaths that do not meet the 'marine incident' definition which relates specifically to the operation of a vessel. ABS data also is based on the year that coroners' reports are registered, rather than the year in which an incident may have occurred. Reconciling Maritime Safety Queensland's fatality numbers with the ABS data is therefore not possible.



The ABS data does however resolve issues of comparability between individual jurisdictions' maritime incident data collections and definitions. Figure 14 shows that over the past 25 years, all states and territories in Australia have shown a marked improvement in maritime fatality rates per million of population. Table 1 in the Appendix provides comparative interstate water transport death rates for the period 1976 to 2004.

During the period 1994 to 1999, the data shows that the Queensland maritime fatality rate per capita exhibited both an absolute and a relative decrease compared with other jurisdictions. From ranking sixth of the eight jurisdictions in the 1990-94 period, Queensland's ranking improved to fourth over the period 1995-99. In the period 2000 to 2004, Queensland ranked third in Australia with a maritime fatality rate of 1.83 per one million of population. This represents a fall of nearly 30 per cent over the previous five-year average of 2.59 fatalities per million of population. Comparatively, the maritime fatality rate per million of population for all of Australia for 2000 to 2004 was 2.03. Coronial data for the 2005 calendar year was not available from the ABS at the time of printing this report.

Over the last three decades numerous marine safety initiatives have been introduced both nationally and in Queensland, including:

- Compulsory boating safety equipment (1976)
- Introduction of annual recreational boating safety education campaigns (1978)
- Formal training courses for commercial marine licensing (1980)
- Voluntary training courses for recreational boating (1985)
- On-water random breath testing (1989)
- Introduction of electronic positioning radio beacons (EPIRBs) (1992)
- Introduction of formal recreational boat licence training option (1993)
- Positive flotation for vessels (1996)
- Introduction of boating weather service (1998)
- Introduction of on-water speed detection devices (1999)
- Know, Know, Know Your Boat education campaign (2000)
- Boat Smart education campaign (2003-2004)
- Commencement of major commercial boating industry 'safety culture' program (2004)
- Torres Strait Boating and Alcohol Program (2004)
- Extended recreational boat licensing requirements for displacement hull vessels (2005)
- A jet ski management plan including the introduction of mandatory jet ski licensing requirements (2005)
- Full implementation of the BoatSafe training and assessment scheme for recreational boat licensing (2005)
- Commencement of the *Transport Operations (Marine Safety—Examining and Training Program Approvals (Recreational Ships and Personal Watercraft)) Standard 2005*

A number of specific boating safety initiatives are being progressed in Queensland in 2006. These include:

- Full implementation of the jet ski licensing requirements from 1 January 2006
- Remake of a number of Marine Safety Standards
- Introduction of the Australian Builder's Plate for recreational vessels from 1 July 2006
- Enhanced training standards for commercial and recreational marine training providers
- Rule changes concerning the wearing of life jackets

### **3.8 Full implementation of the jet ski licensing requirements from 1 January 2006**

Following a major review of jet ski operations in Queensland in 2004 and in recognition of the increasing involvement of jet skis in marine incidents, the government in late 2004 announced the implementation of a jet ski management plan. The plan included a range of initiatives aimed at addressing and improving jet ski safety, noise and amenity concerns. From a safety perspective, mandatory jet ski licensing requirements became effective on 1 January 2006. The BoatSafe competency-based training and assessment scheme for recreational boat licensing in Queensland introduced in July 2004, now incorporates a mandatory jet ski training and assessment module to facilitate jet ski training and licensing in Queensland.

### **3.9 Remake of Transport Operations (Marine Safety) Standards**

Four new standards came into effect on 1 March 2006. The standards replaced interim standards that expired on 28 February 2006. The standards include:

- Accreditation Standard which sets out revised requirements to qualify for accreditation as a ship builder, ship designer or marine surveyor.
- Designing and Building Commercial Ships Standard which sets out the required outcomes for designing and building commercial and fishing ships and provides for prescriptive and performance based approaches to meet the outcomes and gives greater flexibility in the application of the Australian Transport Council endorsed parts of the National Standard for Commercial Vessels.
- Miscellaneous Equipment Standard for Commercial Ships which sets out the outcomes to be achieved by the miscellaneous equipment with which a commercial ship or fishing ship should be equipped and provides for prescriptive and performance based approaches to meet these outcomes.
- Miscellaneous Equipment Standard for Recreational Ships which provides guidance on how to satisfy the general safety obligation that a recreational ship be appropriately equipped whether or not that ship is required to be registered.

### **3.10 Introduction of the Australian Builder's Plate for recreational vessels**

From 1 July 2006, all new recreational vessels manufactured in or imported into Australia will by law be required to show an Australian Builder's Plate (ABP). The main aim of the ABP is to provide information to vessel users on a vessel's capability and capacity, to encourage safer boating. The introduction of the ABP will necessitate builders applying minimum safety standards to key elements in the design of recreational vessels. The new ABP requirements are not retrospective.

### **3.11 Rule changes concerning the wearing of lifejackets**

From 1 April 2006 regulation changes made lifejacket wearing compulsory in certain high-risk situations. The first group affected are children under the age of 12 years when travelling in an open vessel under 4.8 metres in length that is ordinarily required to be equipped with lifejackets. The second group includes all vessel occupants of the same group of vessels when those vessels are crossing any one of eight designated coastal bar entrances in Queensland. A wider review of lifejacket wearing requirements is being undertaken and will include a formal public consultation process later in 2006.