War on Wrecks Taskforce

Interim Report

The Honourable Mark Bailey MP
Minister for Transport and Main Roads
GPO Box 2644
Brisbane Qld 4001

Dear Minister,

I am pleased to present the enclosed Interim report of the War on Wrecks Taskforce (The Taskforce).

The Taskforce has concluded its initial consultations and examinations into the issues and causal factors which contribute to boats being illegally dumped in Queensland's waterways.

The "War on Wrecks" is a Palaszczuk Government commitment to ensure that Queensland's waterways are safe and free of derelict vessels which pose a hazard to navigation, and to the environment, by allocating $20 million over four years to fund the removal of derelict vessels.

The Taskforce was established to oversee the program of works and to identify best practice in ensuring that all parties involved in a vessel's lifecycle meet their obligations from the first time a vessel is launched until its ultimate disposal.

This interim report and recommendations have been prepared in accordance with the Taskforce' terms of reference and includes eleven recommendations and a proposed program of work to address the causal factors identified by the Taskforce.

I am pleased to deliver this interim report and look forward to participating in the ongoing program to protect Queensland's pristine coastal environment.

Yours Sincerely

Kim Richards MP
Member for Redlands, Chair

Taskforce Chair's Foreword

Queensland has a wonderful climate and we are renowned for our outdoor lifestyle that allows people to enjoy recreation on our magnificent waterways. Our waterways are varied and include beaches, creeks, streams, rivers, lakes, wetlands and estuaries. These waterways are important to Queensland's economy, and for the many recreational benefits they provide.

In establishing the War on Wrecks (WoW) Taskforce the Palaszczuk Government has demonstrated its strong commitment to our magnificent waterways by targeting wrecked boats and their negligent owners, prioritising the worst derelict vessels and removing them from the state's waterways.

The WoW Taskforce has consulted with Queenslanders across the state on their ideas for building a stronger culture of responsible boat ownership and opportunities to be considered in waterways management issues to address the ongoing problem of derelict vessels.

Stakeholders resoundingly affirmed that a multi-pronged approach is required including removal of existing derelict vessels and implementing the range of strategies required to prevent vessels from becoming derelict in the first place. Prevention is much better than a cure and it is necessary to alter the behaviour of negligent vessel owners when it comes to ongoing maintenance and disposal of their vessels when they reach their use by date.

The Taskforce and key stakeholders have discussed and noted the existing complexity in legislation at both a State and Federal level and the need for further investigations into these. For long term cultural change to occur in responsible boat ownership we need to address the complex waterways and vessel management issues to improve individual accountability and responsible vessel ownership.

Everyone has an important role to play. Individuals, businesses, industry and government must work together to create sustainable solutions that deliver lasting improvements to recreational boat ownership in Queensland, while also protecting our environment from the impacts of illegal dumping of derelict vessels.

The WoW Taskforce looks forward to the future opportunity of continuing to build on the findings of this interim report and development of a framework that considers cultural and legislative change for a sustainable recreational boating future.

I would like to thank the Taskforce for their work over the past 6 months in delivering this Interim Report. We encourage all Queenslanders, business and industry representatives to continue to work with us and help create the best future for boa ownership in Queensland, while also protecting our precious environment and the unique lifestyle we all enjoy.

Kim Richards MP

Member for Redlands

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Executive Summary

The Palaszczuk Government is committed to ensuring Queensland's waterways are safe and free of derelict vessels which pose a hazard to navigation, and to the environment. To this end a $20 million fighting fund has been established to fund the removal of derelict ships, and a Taskforce created to identify best practice in ensuring that all parties involved a vessel's lifecycle meet their obligations from the time a vessel is first launched until its ultimate disposal.

During the six months which the Taskforce has been operating, 96 vessels have been removed through direct action taken by Government agencies and a further 33 vessels resolved without the need for them to be removed from the water. The Taskforce is pleased to note that a further 36 vessels have been removed by their owners – some in response to directions by the Government, and some due to public awareness activities undertaken by the Taskforce.

Recreational boating is a popular pastime in Queensland, with around 17 per cent of Queenslanders holding a Recreational Marine Drivers Licence, and around 5 per cent of Queenslanders owning at least one registered recreational vessel. This equates to approximately 256,435 vessels registered in Queensland[1][2], with this number increasing by approximately 23 per cent during the ten years 2005-2014[3]. Vessels do not last forever and ensuring vessels are disposed of appropriately as they reach the end of their life requires a wholistic, strategic approach. Developing a whole of life vessel strategy is important in Queensland given the ageing fleet and change of use from commercial vessels to recreational vessels.

In developing a whole of live management strategy, the Taskforce has considered the financial, social and environmental impacts and their effect on Queenslanders, and striven to ensure that the maximum environmental benefits are realised with the minimum regulatory burden. The taskforce has consulted widely with the boating public, industry and government stakeholders and identified that while regulatory improvements may necessarily impose additional costs upon boat owners, there must be a balance between additional costs and improved safety and environmental outcomes.

The Palaszczuk Government values and is committed to engaging with organisations with expertise to contribute towards successful environmental and safety outcomes. It is important that the whole of state is represented by advocates who will provide insights and benefits for all of Queensland. This report draws on the information and experience gathered during consultation sessions, analysis of published research and the experience that Taskforce members brought to their role.

The Taskforce considers that the interim report should be a starting point from which to inform the Queensland Government and the community on potential methods to improve the culture of responsible boat ownership, to reduce illegally dumped vessels and to provide a pathway for environmentally responsible disposal of end-of-life vessels.

A Responsible Boat Ownership strategy will address the dual priorities of preventing vessels from becoming derelict and ensuring adequate and sustainable funding is available to remove illegally dumped vessels where necessary. The Taskforce will also canvass a wider range of issues including appropriate management of moorings, live aboard vessels and marine infrastructure to improve the overall safety, cleanliness and amenity of Queensland's waterways.

The report makes eleven recommendations which provide a framework to develop a wholistic approach towards Responsible Boat Ownership, from time of manufacture until the boat's ultimate disposal.

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[1] *Full reference list available upon request*
[2] *Queensland Regulated Ship Census, June 2017, https://www.msq.qld.gov.au/About-us/Maritime-statistics-and-reports-library*
[3] *Recreational Vessels in Queensland: 2005 to 2014: A compendium of statistics: https://www.msq.qld.gov.au/About-us/Maritime-statistics-and-reports-library*

Recommendation 1: Taskforce tenure

The Taskforce recommends the Queensland Government:

- Extend the existing Taskforce tenure for ongoing oversight of potential legislative and policy reforms identified to support the recommendations made in this Interim Report.

- Provide the Chair of the Taskforce with scope to amend its membership to support the implementation of identified legislative and policy reforms related to the recommendations made in this Interim Report.

Recommendation 2: Culture change and education

The Taskforce recommends:

- The Queensland Government consider changing the way new and used boat dealers are regulated by adopting a regulatory model similar to the car sales industry, rather than as second-hand dealers.

- The Minster raise the proposed model of regulating the new and used boat sales industry as a discreet industry at the relevant national forum.

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Recommendation 3: Legislation

The Taskforce recommends:

- The Queensland Government undertake a review of legislation relating to the recommendations made in this Interim Report with a view to improving the efficiency and effectiveness of the delivery of safety and marine environmental outcomes.

- The Department of Transport and Main Roads, Maritime Safety Queensland branch lead this holistic review, having due regard to the legislative roles of other government agencies.

- The legislative review investigates the adequacy of regulatory levers which ensure compliance, and the investigation and prosecution of owners who illegally dump vessels.

Recommendation 4: Waterways Management

The Taskforce recommends:

- The Department of Transport and Main Roads, Maritime Safety Queensland branch undertake a review, consulting with other government departments, local councils and the Gold Coast Waterways Authority on the adequacy and effectiveness of existing waterway management approaches covering issues including (but not limited to);
    - anchoring practices including long term anchoring
    - unattended anchoring
    - liveaboard vessels
    - mooring management including short and long-term mooring permits
    - the adequacy of facilities including sewage pump-out facilities.

- The Department of Transport and Main Roads, Maritime Safety Queensland undertake a review consulting with local councils and the Gold Coast Waterways Authority on the effectiveness of these approaches and make further recommendations on who is best placed to manage specific local waterways issues.

- The Queensland Government build upon the current success of increased compliance activities to continue the positive results identified during the Taskforce' tenure

Recommendation 5: Vessel Identification

The Taskforce recommends:

- The Department of Transport and Main Roads, Maritime Safety Queensland branch investigate a vessel identification scheme which applies to all vessels, regardless of size, engine power, intended use, method of manufacture or registration requirements.
- The Minister propose to the Transport Infrastructure Council, that all States and Territories work towards adopting a consistent national hull identification scheme.

Recommendation 6: Registration

The Taskforce recommends the Department of Transport and Main Roads, Maritime Safety Queensland branch review which vessels require registration, and management of the register and registration process.

Recommendation 7: Licencing

The Taskforce recommends the Department of Transport and Main Roads:

- Review the adequacy of existing licencing requirements and whether current requirements ensure that operators understand what it means to be a Responsible Boat Owner.
- Review the current Boatsafe program to determine whether boat licences ensure operators are sufficiently proficient to operate all types of boats, or whether different licences or conditions on the licences should be required to operate certain vessel types and/or sizes, with a view to improve safety outcomes.

Recommendation 8: Safety inspections

The Taskforce recommends the Department of Transport and Main Roads, Maritime Safety Queensland branch investigate;

- Applying a risk based, ongoing safety inspection scheme to Queensland Regulated Ships to improve the quality and safety of the Queensland vessel fleet. Initially, this scheme may target point of sale, older vessels or vessels of a particular size and construction or be triggered by milestones such as vessel age or other periodic milestones.
- Applying a scheme to ensure that vessel modifications are appropriately carried out, and in the case of modifications which affect safety, are approved by an appropriately qualified and accredited person and fitted with an approved modification plate.
- Requiring home built, custom built or modified vessels to be inspected and approved by an appropriately qualified and accredited person and fitted with an Australian Builders Plate prior to registration.

Recommendation 9: Develop streamlined disposal options

The Taskforce recommends:

- The Queensland Government work with industry and local councils in Queensland to provide a program for disposing of derelict vessels based on best practice.
- The Queensland Government work with industry and local councils in Queensland initially to investigate programs such as;
    - relief from cartage and dump fees
    - facilitating annual unwanted vessel collection days, similar to local annual council kerb-side collection days
    - developing a grant scheme to assist local governments and not for profit organisations
    - permit unregistered trailers to be towed from home to point of disposal.
- The Department of Transport and Main Roads, Maritime Safety Queensland branch investigate, in consultation with the boating industry and other relevant government and non-government and government stakeholders, best practice options available to develop environmental and recyclability targets relating to vessel manufacturing.

Recommendation 10: Insurance

The Taskforce recommends the Department of Transport and Main Roads, Maritime Safety Queensland branch investigate:

- The adequacy of existing regulatory requirements for pollution insurance.
- The insurance implications of developing marinas and moorings in cyclone affected areas.

Recommendation 11: Sustainable Funding

The Taskforce recommends that while being mindful of the cost to Queenslanders, the Department of Transport and Main Roads, Maritime Safety Queensland branch investigate funding models to facilitate a long-term program to embed responsible boat ownership around the potential reforms recommended in this report.

Queensland War on Wrecks Taskforce

The War on Wrecks Taskforce (the Taskforce) was appointed by the Honourable Mark Bailey MP, Minster for Transport, on 27 July 2018. The Taskforce terms of reference require it to present an interim report with recommendations for a holistic response to reduce the incidence of derelict and illegally dumped vessels in Queensland's waterways.

The Taskforce brought together people with diverse expertise and knowledge and the ability to represent the views of a range of stakeholders. Members included Members of Parliament, Members of Local Council, representatives of the boating industry and recreational boating groups. The group brought significant experience in State and Local government processes and challenges, vessel management and operations and knowledge of recreational boating industry as well as the views of recreational boat users. The collective expertise was enhanced through the development of a technical working group who developed information papers to inform the Taskforce on specific challenges.

Taskforce Members were appointed for a period of 6 months to deliver an interim report to the Minister.

The Taskforce members are:

- Ms Kim Richards MP, Member for Redlands (Chair)
- Ms Julia Leu, Mayor, Douglas Shire (Deputy Chair)
- Ms Brittany Lauga MP, Member for Keppel
- Ms Cynthia Lui MP, Member for Cook
- Mr Hal Morris, CEO, Gold Coast Waterways Authority
- Mr Andrew Fielding, President (Queensland), Boating Industry Association
- Mr Des Thomson, Chairman Queensland Recreational Boating Council
- Mr Damien Head, A/Executive Director, Department of Environment and Science.

Support provided by:

- Mr Mike Stapleton, Deputy Director General, Transport and Main Roads (Advisor)
- Mr Glenn Hale, A/General Manager, Maritime Safety Queensland (Advisor)
- Ms Kirsten Dawson, Maritime Safety Queensland (Secretariat)
- Mr Paul Hubbert, Maritime Safety Queensland (Secretariat).

Technical Working Group:

- Peter Wilkins, Maritime Safety Queensland
- Gillian Leslie, Maritime Safety Queensland
- Richard Quincey, Great Barrier Reef Marine Park Authority
- Gordon Thiry, Queensland Police Service
- Peter Kleinig, Gold Coast Waterways Authority
- Robert MacDonald, Department of Agriculture, Forestry and Fisheries
- Matt Johnston, Australian Maritime Safety Authority
- David Murray, Department of Local Government, Racing and Community Affairs
- Mr Grant Stidiford, Department of Employment, Small Business and Training
- Stephanie Threlfall, Transport and Main Roads, Infrastructure Planning

Terms of Reference

A. The Taskforce will consider key issues and policy options in the development of recommendations to the Palaszczuk Government.

B. The Taskforce will extend their focus beyond derelict vessels to include matters such as waterways management, anchorages, buoy moorings and living aboard vessels, access to boating infrastructure, vessel disposal options, and visual amenity which continue to impact our environment and community.

C. Terms of Reference for the War on Wrecks Taskforce include the following:

    i. Undertaking state-wide community engagement and consultation, recognising the need for shared responsibility across government, business, media, non-government organisations, communities, families and individuals in seeking to achieve the long-term vision.

    ii. A review of the effectiveness of existing efforts to address waterway management and derelict vessels in Queensland.

    iii. Identify the causal factors that contribute to undesirable waterway management and vessel ownership behaviours.

    iv. Investigate best practice strategies that other national and international regulators have successfully implemented to address these factors.

    v. Identify new strategies and initiatives that can be successfully implemented in Queensland to address the issues and assess their impact.

    vi. To make recommendations to the Queensland Government by submitting an interim report within 6 months of formation of the Taskforce.

    vii. Consider options to improve levels of coordination and collaboration of existing efforts at the local, regional and state level.

    viii. To inform the development of a Responsible Boat Ownership Strategy.

    ix. To achieve a long-term vision where vessel owners are able to take responsibility for their vessels for the entire lifecycle of the vessel, and ensure all Queenslanders can enjoy safer, cleaner seas.

Wreck removal activities

Since the establishment of the Taskforce, Maritime Safety Queensland (MSQ), partner agencies and members of the public have identified further derelict and at-risk vessels. With the increased government funding, MSQ and partner agencies have been able to significantly increase compliance and removal efforts. While many of the vessels removed have been at the cost of the government, owners have also taken responsibility for removal or resolving a significant number of vessels.

Summary	Number of derelict vessels identified	Number of potential derelict vessels identified	Plan developed	Compliance Action Commenced	Contract to remove in progress	Estimated contract cost	Resolved - no further action	Removed by owner	Removed by MSQ or partner agency	Actual Cost Incurred
Brisbane Region	116	59	49	27	14	$ 291,306	18	23	40	$ 387,769
Gladstone Region	47	15	17	15	9	$ 640,000	3	4	11	$ 192,347
Mackay Region*	21	3	10	2	2	$ 228,681	3	2	24	$ 189,550
Townsville Region	26	5	19	10	6	$ 657,068	8	5	9	$ 121,813
Cairns Region (Except Douglas Shire)	27	5	4	2	2	$ 100,350	1	2	9	$ 286,500
Douglas Shire	14	1	13	13	13	$ 528,008	0		1	$ 3,461
Defender, MV Banks									2	$ 222,109
Cape York - drifting hull	1				1	$ 130,000				
TOTAL	252	88	112	69	47	$ 2,575,413	33	36	96	$1,403,549

* 11 Vessels removed under NDRAA scheme - Ex TC Debbie stranded vessels

Policy development and consultation

Taskforce meetings

Between August 2018 and February 2019, the Taskforce met five times to discuss issues relevant to its terms of reference, and to explore local challenges and community views, and to determine the recommendations for inclusion in this interim report. The Taskforce also consulted with selected stakeholders, researchers and experts, and considered a wide range of national and international research.

The Taskforce undertook an on-water inspection of illegally dumped and pre-derelict vessels in the lower Moreton Bay area to better understand the challenges and safety risks involved in acting to remove derelicts from the water, and to contextualise the maintenance challenges raised during consultation activities.

Public Consultation

The Taskforce consulted with the Queensland community by facilitating open community forums to garner the largest range of views, local challenges and solutions for inclusion. Four public consultation sessions occurred in Port Douglas, Yeppoon, Redlands and the Gold Coast. Each session was advertised in local and online publications and local stakeholder groups in each area were asked to send invitations to their members to ensure the widest range of representation possible. The Taskforce is grateful to all who attended and put forward their views, experiences and suggestions during these sessions, and to those who contributed their views by email. A separate informal taskforce meeting was held with Noosa Shire Council and local interest groups. All sessions uncovered a range of issues which impacted on vessel ownership and abandonment. The Taskforce incorporated all comments into a comprehensive mental model representing the way in which the community engages with boat ownership.

Submissions

The Taskforce received submissions from government agencies, industry and community members. All submissions were reviewed by Taskforce members and where appropriate comments have been included.

Policy context

During the post-war era the development of new and more durable boat building materials such as fibreglass led to innovations in boat design, along with cheaper manufacturing methods which made boating more accessible to the public. The use of these material and the volume of boats produced has led to an increasing number of boats reaching the end of their useful life and requiring disposal. Boat disposal methods and facilities have not kept up with demand, increasing the need for more affordable and easily accessible disposal facilities.

Like many products, as boats age their residual value falls and they come within the reach of a wider range of consumers. This fall in value is not accompanied by a reduction in disposal costs, leading to the situation where the final owner of a product with negligible value is solely responsible for its ultimate disposal. The significant expense of disposing of a product with little or no value encourages owners to illegally dump the vessel and walk away.

International

Disposing of end-of-life vessels has been identified in as a problem across the world. Countries with successful programs include Japan, the European Union and Nordic region, with emerging programs in Canada and the United States. Further detail may be found in the Appendices to this report.

Japan

The Japan Marine Industry Association has developed a recycling program which is not mandated but is encouraged through the values espoused in Corporate Social Responsibility and Extended Producer Responsibility principles. This program has seen over 6,000 boats recycled with relatively low levels (13 per cent) of waste, at an approximate cost of $690 for a boat under 6 metres in length, to approximately $2500 for a cabin vessel 10 metres in length.

European Union (EU)

Waste management within the EU is conducted in accordance with Directive 2006/12/EC of the European Parliament which provides the legislative framework for the handling and waste management in the Community. Directive 2006/12/EC has been applied to the nautical industry, and the waste generated throughout the lifecycle of a boat, especially at the end of the boat's life.

The BoatCycle project, which has been selected as a model for managing end of life recreational vessels in Spain and Italy, proposes the Ecological Life Cycle model for managing end of life vessels. The ELC product lifecycle, or 'Cradle to Grave' approach, to vessel economic and environmental values ensures that all parties in the product lifecycle contribute to its ultimate disposal.

Ideal flow in an efficient management system for out-of-use boats in Europe.

Nordic region

At the request of the Nordic Council of Ministers, during 2013 the University of Stockholm examined the challenges of disposing of end-of-life (EOL) plastic (fibreglass) boats in Finland, Sweden, Norway and Denmark. The project examined a range of issues including the recycling and reuse of materials, environmental impacts and possible problems with dumping.

Within these countries there are an estimated three million leisure boats, of which approximately 20 per cent are greater than 40 years old, foreshadowing an increased quantity of EOL boats requiring disposal as the age of the remaining fleet rises. While quantifying the rate of illegal dumping is hampered by a lack of registration requirements among Nordic countries, it has been established that boat dumping occurs both on land and at sea.

The project identified that none of the countries involved had implemented a nation-wide system of managing EOL boats or incentivising proper disposal practices which are therefore at the owner's discretion and expense. Likewise, none of the countries involved has an Extended Producer Responsibility (EPR) program which requires manufacturers to contribute towards the ultimate disposal of the products they manufacture. These contributions are modulated according to the reusability and recyclability of the product as stake.

EOL disposal is therefore split into two themes; disposing of current EOL boats and identifying and managing future EOL boats. Owners are responsible for disposing of the EOL boat and are prohibited from abandoning or dumping boats into the sea. Further, since it is illegal to litter outdoors, the owner is not allowed to place the boat anywhere where the public have access to or view of it including their personal property. However, it is legal for the boat to remain in a boatyard. Issues identified by the Nordic ELB project are similar to those found in other context including Queensland and the United States. Commonalities may be broadly categorised as:

- identification of vessels
- identification of owners
- incentivising owner responsibilities
- extended manufacturer responsibilities
- environmental issues when disposing of boats
- reuse / recycling opportunities
- managing ELB into the future.
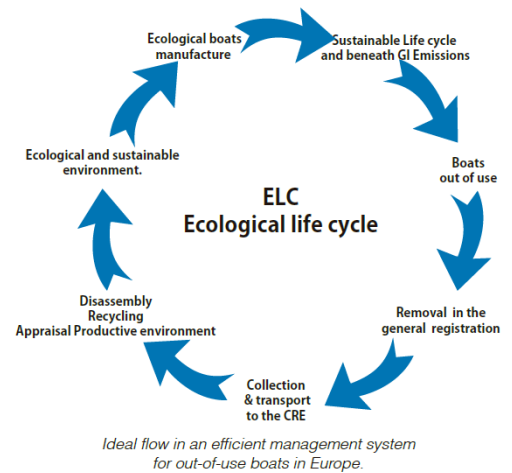
Most recently, the International council of Marine Industry Associations (ICOMIA) identified boat recycling as an item which prevents growth of the marine tourism market and presents significant environmental and waste disposal implications into the future[4]. ICOMIA have developed a stakeholder working group to address the issue of EOL boats and work collaboratively to develop solutions to the problem. ICOMIA have requested feedback from members in all countries to provide information on management strategies being implemented or considered in the relevant jurisdiction, to inform development of best practice in EOL boat management.

Canada

The Canadian Government has introduced legislation that would add additional pressure on shipowners to proactively deal with wrecked, illegally dumped or hazardous vessels in Canadian waters. *The Wrecked, Abandoned or Hazardous Vessels Act 2018*, currently being considered by the Canadian government will prohibit illegal dumping of vessels; strengthen owner responsibility and liability for hazardous vessels and wrecks, including costs for clean-up and removal; and will empower the Government of Canada to take proactive action on hazardous vessels before they become costlier to Canadians. The Act provides for sharing of responsibilities across organisations and delegates persons as "Receivers of Wrecks" who act as a custodian of a wreck in the absence of the rightful owner. In addition to introducing stronger legislation, the Canadian Government has introduced the Transport Canada's Abandoned Boats Program. It provides federal funding, in the form of grants and contributions, to assist in the assessment, removal and disposal of abandoned and/or wrecked boats that pose a hazard in Canadian waters.

United States of America

Where a vessel is illegally dumped and the owner cannot be found or is unable to remove the vessel, responsibility for vessel removal will often fall to the federal or state governments. Along with the various environmental agencies, four federal agencies play a role in managing and removing derelict vessels; The National Oceanic and Atmospheric Administration, US Army Corps of Engineers, US Coast Guard, Federal Emergency Management Agency, and Coastal state processes in the United States. Within the United States, 26 states are located adjacent to ocean or significant bodies of water navigable to larger trading vessels. Of these 26 states, 10 have an established Abandoned and Derelict Vessel (ADV) program, 24 have legislation specifically relating to ADVs, and 10 have funding allocated to removing and managing ADVs.

Australia

A workshop was help with representatives of Australian marine safety regulators. The situation in other States and Territories is similar to Queensland, with limited ongoing funding or programs specifically targeting illegally dumped and derelict vessels. Regulators showed interest and support for a holistic, nationally consistent approach toward as many of the causal and contributing factors such as vessel identification. Jurisdictions working through the Australian Recreational Boating Safety Council will continue to collectively discuss these matters.

Summary

While disposing of EOL vessels is an issue throughout the world, Queensland's large and remote coastline creates difficulties in developing a single disposal solution accessible to all boat owners. The Taskforce reviewed examples of EOL vessel disposal strategies which have been implanted in jurisdictions across the world to identify commonalities which may be applied to the Queensland context. The Taskforce has taken a broader view of factors which lead to vessels being illegally dumped by looking at the social, cultural and economic contributors to develop a wholistic strategy to reduce the incidence of illegally dumped vessels through developing appropriate consumer protection strategies, and by educating the boating community as to the challenges involved in maintaining larger vessels with complex maintenance requirements.

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[4] *See Appendix 9 – European Union Commission Staff Working Document on Nautical Tourism*

This interim report draws on the information provided during consultations, published research into the effectiveness of programs conducted in the international context, and the insights developed by through analysing the drivers behind illegally dumped vessels and how owners engage with boat ownership. The Taskforce has made eleven recommendations which should be viewed as the essential elements of a broader body of work to develop targeted policy positions to improve the culture of Responsible Boat Ownership tailored to the Queensland cultural context, to improve the way in which recreational boats are managed, and provide the boating public with the support, tools and regulatory protections to make fully informed purchasing decisions and improve the boat ownership experience.

Recommendation 1: Taskforce tenure

The Taskforce recommends the Queensland Government:

- Extend the existing Taskforce tenure for ongoing oversight of potential legislative and policy reforms identified to support the recommendations made in this Interim Report.

- Provide the Chair of the Taskforce with scope to amend its membership to support the implementation of identified legislative and policy reforms related to the recommendations made in this Interim Report.

Recreational boating in Queensland

The rate of personal involvement in waterway activities all over the world tends to increase continuously[5], with recreational boating one the most popular water based recreational activities[6]. Queensland has one of the highest levels of involvement in recreational boating in Australia, with 906,152 persons (or 18.1 per cent) of all Queensland residents holding a recreational marine licence.

As at 31 January 2019, 263,049 boats and 28,088 Personal Water Craft were registered in Queensland which equates to approximately 5.8 per cent of all Queensland residents owning at least one registered recreational boat or PWC.

Boat registration numbers remained at approximately 260,000 in the last 3 years. During the twelve months ending 30 June 2018, there were 16,796 boat registrations added to the register and 16,756 were removed from the register; while 19,448 were transferred from one registrant to another. Based on these figures Queensland's flotilla of registered boats has a decommissioning rate of approximately 6.7 per cent per annum. A problem highlighted by the decommissioning rate is that we are unaware of where the actual ships go or what happens with the ship.

Most boats (74 per cent) are no more than 5 metres in length. This percentage increases to 97 per cent for boats which are no more than 10 metres in length. Brisbane has the highest number of boats of all sizes, of the maritime regions. The most popular type of boat is the open runabout which accounts for around 66 per cent of recreational boats. Approximately 89 per cent of these boats are stored on a trailer, rather than being moored or otherwise accommodated.

Participation rate

At 31 January 2019, 906,152 people held a current marine license; around two licenses for every nine-people resident in Queensland who were 16 years of age or older. Twenty-one per cent of Recreational Marine Driver Licences (RMDL) holders had registered at least one recreational boat. The majority of RMDL holders were resident in the Brisbane Maritime Region followed by the Gladstone Maritime Region. Women account for 16 per cent of all RMDLs, and 4.3 per cent of registered recreational boats. Sixteen per cent of RMDLs had been issued to women, 5.5 per cent of whom had registered at least one of 8750 boats which accounts for 4.3 per cent of all the boats registered by licensees. The average age of RMDL holders who had registered a boat was 53 years. Ten per cent of these were more than 71 years of age, 10 per cent were less than 33 years of age and 50 per cent were between 43 and 63 years of age.

Age of Fleet

Estimating the age of all registered ships in Queensland is difficult as many registration records do not record the year of manufacture. However, available records indicate that 20 per cent of ships were manufactured before 1996, 44 per cent were manufactured between 1996 and 2010, while 16 per cent were manufactured within the last 8 years. Baby Boomers (people born between 1947 and 1966) registered 44 per cent of the boats and 30 per cent of the PWC on

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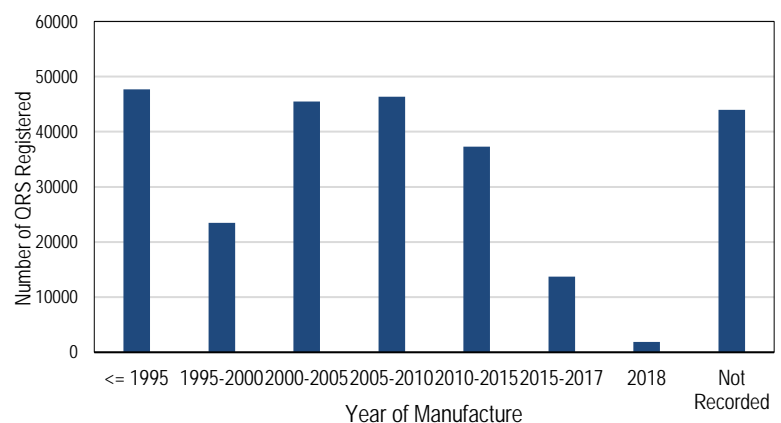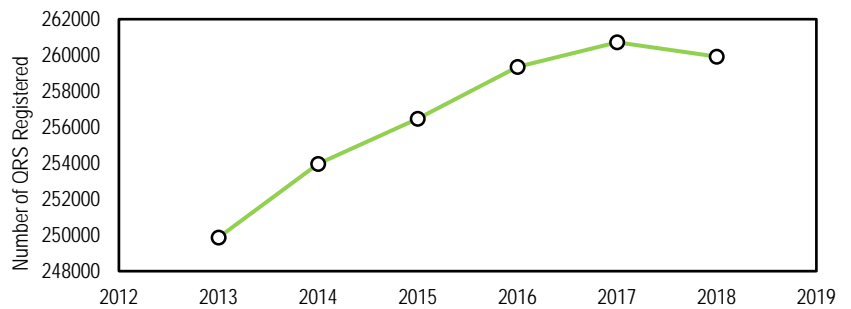
[5] *Tanrivermis (2000)*
[6] *Virk and Pikora (2010)*

the register. Generation X/Y (people born between 1967 and 1986) registered 37 per cent of the boats and 51 per cent of the PWC. The average ages of those registering a boat or a PWC were 53 years and 45 years respectively. Women registered 89 per cent of the boats and 84 per cent of the PWC on the register.

Hull material

Approximately 62 per cent of registered QRS were constructed with aluminium material, followed by fibre glass making up 33 per cent of the fleet. Other popular construction materials are plastic – 1.3 per cent, composite – 1.2 per cent, rubber - 0.95 per cent and wood – 0.9 per cent. The least popular construction material is ferro-cement which makes up 0.1 per cent of the fleet.

Cost of Registration

Registration fees vary depending on the length of the vessel. For all sizes, a flat fee of $22.15 is collected on top of registration on behalf of the Department of Agriculture, Fisheries and Forestry. Revenue received by the State from ship registrations is paid to the Consolidated Revenue Fund.

	FY2012-13 ($)	FY2013-14 ($)	FY2014-15 ($)	FY2015-16 ($)	FY2016-17 ($)	FY2017-18 ($)	Ship length	Registration fee	Concessional registration fee
Registration Fees - Recreational Ships	27,549,870	29,169,498	30,398,540	31,814,338	32,991,223	34,347,267	Up to and including 4.5m	$86.75	$43.40
Miscellaneous Maritime Registration Fees	563,291	606,570	628,738	670,530	683,194	695,935	4.51 - 6m	$192.90	$96.45
Total	**28,113,161**	**29,776,068**	**31,027,278**	**32,484,868**	**33,674,417**	**35,043,202**	6.01–10m	$334.70	$167.35
							10.01–15m	$501.90	$250.95
							15.01–20m	$627.35	$313.70
							20.01m and over	$795.15	$397.60

Compliance and wreck removal

When a vessel is identified as derelict or illegally dumped, MSQ determines the immediate risk to navigation and the environment and takes appropriate action for removal. MSQ reviews the prioritisation of derelict vessels or vessel clusters in each operational area to concentrate previously limited financial resources on each financial year. This is based on risk to navigation and/or environment. The agency works cooperatively with other government departments and local government to achieve the best safety outcomes for Queenslanders. When MSQ has exhausted all practical measures to identify owners and compel the owner to act, action is taken to remove the vessels. Over the past four years, MSQ has directly removed 86 derelicts or illegally dumped vessels at a cost of $4.1 million. This included four significant vessels - the Sattha, the Defender, Whitsunday Magic and MV Banks – each cost between $500,000 and $1,000,000 to dispose of.

Legislation

There is a range of Queensland and Commonwealth legislation administered by various agencies to deal with derelict vessels however, there will always be some vessel owners that will not respond to regulatory intervention or will simply abandon their vessel. It is generally these vessels that become derelict and there is a general expectation in the community that MSQ, as Queensland's maritime regulator, will act to remove the vessels. MSQ encourages owners to fulfil their responsibilities, however, there are times when direct action may need to be taken. This includes when vessels owners cannot be identified; do not have the finances to remove the vessel; or enforcement action (including court proceedings) has been ignored. The *Transport Operations (Marine Pollution) Act 1995* (TOMPA) and *Transport Operations (Marine Safety) Act 1994* (TOMSA) provide legislative powers for the management of derelict and illegally dumped vessels for Maritime Safety Queensland. Other Queensland legislation which may be used to manage derelict and illegally dumped vessels includes:

- *The Marine Parks Act 2004*
- *The Coastal Protection and Management Act 1995 and*
- *The Transport Infrastructure Act 1994.*

Public Expectations

While the public expects that owners take responsibility for their own vessels, the time taken in enforcing owner responsibility can be perceived as no visible action is taking place – an example is that of the Sweet Kate. Vessel removal can take time. Sweet Kate was a sailing vessel that ran aground at Burleigh Headland while trying to enter Tallebudgera Creek at dusk on 27 December 2018. The vessel was uninsured. The owner of the vessel was issued a Directions notice to remove the vessel by 17 January 2019. The owner advised MSQ he did not have financial resources to manage the removal on 17 January but was willing to work with MSQ, who subsequently arranged removal on 18 January 2019. While the vessel was removed within 4 weeks, the incident attracted media criticism as the actions being taken were not readily visible.

"Not a hazard" says Maritime Safety of a yacht stuck at Burleigh Headland. Picture: STEVE HOLLAND

OWNER IN NO RUSH TO GET YACHT

NICHOLAS MCELROY

THE owner of a sailboat that wrecked on rocks at Burleigh Headland three weeks ago is yet to remove the eyesore.

Three men had to abandon the boat on December 27 after it had engine trouble.

The boat's owner had reportedly only taken possession six weeks earlier and had not insured the vessel.

Maritime Safety Queensland said the boat was not of environmental concern and its owner was working to get rid of it.

The department did not answer questions about when the boat will be removed or if its owner will face any penalties.

"We are working with the owner of a small sailboat which ran aground at Tallebudgera Creek late last month to ensure they meet their responsibilities," it said.

"The vessel is being closely monitored by our marine officers and poses no imminent hazard."

Responsible Boat Ownership

Marine safety regulators have a high level of knowledge regarding vessel management and maintenance however the same cannot be said of all recreational boat owners. These knowledge differences may lead to assumptions being made regarding how recreational boat owners understand their responsibilities regarding boat ownership with these underlying assumptions forming the basis of culture. As behaviour is strongly influenced by underlying cultural assumptions, behavioural change may be affected through influencing these assumptions. Cultural dissonance or differences in underlying cultural beliefs, is likely to lead to regulators developing interventions which do not provide the desired outcome, therefore it is important to match interventions with the underlying culture of those being regulated. As little is known about the culture of recreational boat owners, research is required to identify the core assumptions which underpin ownership behaviours and expectations. However, initial efforts should be targeted towards developing a culture of responsible boat ownership whereby boat owners value maintenance and appropriate purchasing decisions to the same extent as other aspects of boat ownership.

Safe vessel operations, and appropriate maintenance and vessel disposal practices require a shared understanding. To ensure vessel operations are undertaken safely all vessel operators should share similar behavioural norms and expectations relating to vessel disposal. For vessel interactions to be predictable, boat operators need to develop shared underlying assumptions of safety and the value placed on certain behaviours and interactions (shared unconscious beliefs), shared espoused values (what we say we do), and shared visible artefacts including the way in which the operations of vessels interact with each other. It is these three layers of thought and behaviour which form the basis of a cultural model (Schein 1990). The culture of recreational boating develops through the shared agreement into which boat operators enter, including by undertaking a ritual such as obtaining a marine licence and becoming a 'mariner'.

Developing a culture of Responsible Boat Ownership is the most effective means to ensure sustainable, long term behavioural change. Positive examples of behavioural improvements may be seen in the road environment, in the context of seatbelt use and drink driving; where once these behaviours were acceptable they are now socially inappropriate and therefore discouraged. The Taskforce therefore recommends development of a culture of Responsible Boat Ownership, incorporating all participants in a boat's lifecycle, as an essential component of future reforms.

Recommendation 2: Culture change and education

The Taskforce recommends:

- The Queensland Government consider changing the way new and used boat dealers are regulated by adopting a regulatory model similar to the car sales industry, rather than as second-hand dealers.

- The Minster raise the proposed model of regulating the new and used boat sales industry as a discreet industry at the relevant national forum.

- the Minster raise the proposed model of regulating the new and used boat sales industry as a discreet industry at the relevant national forum.

Root causes

Introduction and methodology

The War on Wrecks Taskforce has utilised a range of sources to identify factors contributing towards illegally dumped vessels, including utilising a working group of government and industry participants, and conducted public consultation to identify perceptions of responsible boat ownership. To interpret the data gathered and identify the root causes that need to be addressed, the Taskforce conducted a root cause analysis of the hypothetical question: "*Why was this boat illegally dumped in Dickson Inlet?*".

The process begins with a problem statement and asks the question 'why' of each problem which in this case is interpreted to mean 'Why is this relevant to the problem statement?' Issues which contribute to the problem statement were identified and form the basis of this analysis. Issues were identified through analysing the results of the Taskforce' public consultation program which were contextualised to suit the problem statement. For example, while public consultation identified vessel identification as a factor, in the context of this analysis identification is more broadly related to enforcement and cost recovery processes. Seven issues were chosen for analysis:

- Why did the owner purchase a boat they could not maintain?
- Why does the owner not want to dispose of the boat?
- Why did the government respond reactively when boat reached a crisis point?
- Why did the government bear the full cost of disposing of the boat?
- Why does the government only remove a small proportion of illegally dumped boats?
- Why was this boat illegally dumped? Why are boats regularly illegally dumped in remote waterways?

Where the undesirable outcome is likely to have been prevented had the factor been removed, the cause is a Root Cause. Alternatively, where the undesirable outcome would not have been prevented had the factor been removed, the cause is a Contributing Cause. Root causes were identified utilising the '5 why's?' methodology which drills down into the cause and effect relationship underpinning a problem, in this case 'Why was a boat illegally dumped in Dickson Inlet?'. For ease of analysis a causal map has been developed and included in the Appendices to this report, with a smaller version reproduced overleaf. The causal map shows pathways towards vessels becoming derelict and illegally dumped, and interrelations between factors.

Results

The factors identified during this analysis fall into two categories, root causes and contributing factors. These factors are listed below however as many are discussed in detail in other sections of this paper, or in briefing papers in the accompanying appendices, only a brief explanation of each factor is provided in this section. The factors identified include:

Root causes

- Recreational boat sales are under-regulated
- No ongoing inspections of recreational boats
- Market driven insurance model does not meet policy intent
- Lack of owner responsibility / corporate social responsibility / extended producer responsibility programs and
- Lack of affordable, subsidised disposal options.

Contributing factors

- Cultural understanding and regulatory approach towards recreational boating
- Lack of national boat identification system
- Legislative restrictions.

War on Wrecks Taskforce

Root cause analysis of the hypothetical question – *'Why was this boat illegally dumped in Dickson Inlet?'*

Legend: Issues → Why? → First factor → Why? → Second factor → Why? → Third factor → Why? → Fourth factor → Why? → **Root Cause** / *Contributor*

Why did the owner purchase a boat they could not maintain?

- The purchaser did not understand the true cost of boat ownership → No information was provided to outline the general or specific running costs
- The purchaser did not understand the boat's true condition → No inspection or conditions reports required
- No experience with larger, complicated machinery → No engineering licencing required for larger machinery

→ *Purchaser not matched to an appropriate product* → **Recreational boat sales are insufficiently regulated**

Why does the owner not *want* to dispose of the boat

- Boat is meaningful to owner
  - Symbol of self-image (*investment of time, money, emotion, sentiment*) → Owner had unrealistic expectations
  - Boat symbolises desired lifestyle → Boat ownership viewed as a socio-cultural artefact
  - Alternative lifestyle choice / cheap housing / Last resort housing → Owner may experience social disengagement through government intervention

→ *Purchaser not matched to an appropriate product*
→ Seaworthiness standards and support networks do not empower some liveaboard owners

Culture and values surrounding Responsible Boat Ownership

Maritime regulators risk-based focus on commercial industry

Why did the government respond reactively, when boat reached a crisis point?

- Government did not know when boat's condition deteriorated → Deterioration can be predicted → Regular inspections may identify emerging maintenance issues → No standard covers condition or maintenance

→ **No ongoing inspections of recreational boats**

Why did the government bear the full cost of disposing of the boat?

- Owner does not contribute to disposal costs
  - Unable to compel owner to pay → Court processes inefficient/ineffective at recovering costs → Inherent jurisdiction of the court
  - Unable to identify owner → Vessel does not have any identifiers
  - Boats can be sold to unsuspecting new owner to avoid responsibility → No system to track ownership where vessel unregistered
- Owner has insufficient funds to dispose of boat
  - Owner accepted obligation they could not fulfil → *Purchaser not matched to an appropriate product*
  - Limited affordable disposal options → Disposal relies on the private market
- Disposal funding limited with no ongoing allocations → Industry and owners do not contribute to boat removal
- Derelict boats are not insured against abandonment → Terms and conditions of privately supplied insurance → Insurers maximise profit by managing risk → Limited regulation of boat manufacture / import

Legislation review

Lack of national boat Identification system

Market driven Insurance model not appropriate

Lack of owner / corporate social / extended producer responsibility programs

Why was this boat illegally dumped?

- Condition too bad to repair → Not worth spending money on poor quality boat → Boat worth less than maintenance and repair costs → Cheaper to illegally dump than to remove
- No disposal facilities available nearby
  - Facilities too expensive → Facilities need to make money and limit risk
  - Boat cannot be moved to disposal site due to condition → No affordable method to take boat to disposal facility

No subsidised disposal options

Why are boats regularly dumped illegally in remote waterways?

- Lack of anchoring restrictions in many waterways means that long term anchoring is free and easily accessible
  - As boats deteriorate they are moved away from regulatory oversight
  - Cost of storage often exceeds boats value
- Ensuring that boats are stored appropriately will provide opportunity to intervene prior to the boat becoming derelict
- Government and local community need to manage how and where boats are stored in Queensland's waterways

Limited coordination of waterway management and standardised anchoring rules

Boats are not required to have a 'home base' where the vessel is moored.

Why does the government only remove a small proportion of illegally dumped boats?

- Funding allocated to high risk wrecks in navigable channels / pollution discharges
  - Government unwilling to subsidise recalcitrant owners → Owners 'should' know and fulfil their obligation → Owner cannot afford to dispose of boat
  - Funding linked to specific legislative responsibilities → Legislation does not specifically cover derelicts → No source of sustainable funding to address derelict and illegally dumped boats

Root Causes

Recreational boat sales are under-regulated.

Many boats are illegally dumped simply because the consumer purchased a boat they did not have the skills or finances to run and maintain, or where its true condition was not known at the time of purchase. Vehicle sales are regulated to ensure consumers can choose a vehicle which is safe and in the case of a new vehicle, where the ongoing running and maintenance costs are known to a reasonable degree of accuracy. Recreational vessel sales are starkly different, with little or no information provided to consumers, save for new marine engines which generally have a documented service schedule.

The sale of recreational boats is subject to relatively little regulatory oversight. Persons involved in the sale of new vessels are not required to hold any licence or certification, while second hand vessels are treated in the same way as

This steel yacht was purchased for $2000 online from Newcastle and sailed to Brisbane by the owner who intended to restore the yacht. The yacht was removed from the water and stored on the hardstand at the Redland City Marina. The owner did not have the funds to continue the restoration and as a result his father began to pay storage fees.

The owner's father estimated he had outlaid over $10,000 in the past two years to store the ship. Ultimately the owner accepted that he could not restore the vessel and agreed to scrap the vessel. He was extremely grateful that Redland City Marina was able to organise the scrapping and transport of the boat to the scrap yard on his behalf. He commented "there should be laws about buying boats like that so cheaply - they had no idea how much it was going to cost to fix it up".

used goods such as furniture, with the seller required to hold a second-hand dealers licence. Conversely the sale of new and used road vehicles is a *regulated industry.* Certain industries are subjected to specific regulations which are administered by the Office of Fair Trading. These industries are subject to specific legislation which ensures participants are trained and accredited, subject to ethical and behavioural limitations and a system of audits. These regulations are intended to improve the protections available to consumers and purchasers of regulated products. Regulated industries include:

- property sales
- motor vehicle sales
- security
- tattooing
- auction
- second-hand dealing and pawnbroking
- debt collection
- inbound tour operators
- personal services including introduction and dating agencies, fitness and funeral industries.

Relevant examples of consumer protections mandated by industry regulations may be found in the motor sales industry. For example: *New vehicles* are required to display an efficiency rating which predicts the vehicle's rate of fuel consumption, the manufacturer provides a service schedule which permits the purchaser to predict the vehicle's running costs, and fixed rate servicing and warranty provisions are clearly spelled out. *Used vehicles* must display a safety certificate which attests to the vehicle's overall condition based on a set standard to ensure that vehicles on our roads are safe, while second hand vehicle sales persons are required to hold appropriate accreditation. Purchasers of second hand motor vehicles are protected by statutory warranties over and above statutory consumer protections.

Boat sales are not a specifically regulated industry however the Office of Fair Trading advises that used boats and trailers are second hand items, therefore used boat dealers are required to hold a second-hand dealer's licence. Consultation revealed a high level of uncertainty within the boat sales industry, with some participants of the view that where boats and trailers are sold on consignment, they are not captured by the *Second-Hand Dealers and Pawnbrokers Act 2003*, therefore dealers are not required to hold any form of industry licencing.

This misunderstanding notwithstanding, treating boat sales in the same way as second-hand property dealers does not address the intricacies and pitfalls of boat ownership. The root cause analysis shows that the pathway towards illegally

dumped vessels often begins with the sale of a boat to a purchaser who is not aware of the nature of the product being bought, or of the boat's condition, and as a result takes on an obligation which the purchaser is unable to manage.

Unregulated boat sales are a significant contributor to illegally dumped vessels. While reputable boat dealers will advise a potential purchaser to obtain a pre-purchase inspection this is ultimately at the buyer's discretion. However, the Taskforce is aware of numerous instances where boats are sold for nominal amounts to 'a bloke at the pub', with no documentary evidence available, creating problems with identifying the current owner. Conversely, the availability of online trading platforms makes it easy to purchase a large ship with little or no information. The Taskforce considers that if accurate and effective information was provided to a prospective purchaser prior to sale, it is likely than purchasers would better understand the ongoing costs and maintenance requirements and make a fully informed purchasing decision. While not an exhaustive list, the type of information which may assist consumers may include:

- condition report (structural, mechanical survey)

- electrical safety report

- gas safety report

- structural maintenance required and expected cost (1-year, 3-year, 5-year)

- mechanical replacement schedule (engine, winches, sails, rigging and so on)

- expected fuel consumption / hour

- storage requirements and limitations.

Boat sales are not subject to the same, or indeed any, protections such as statutory warranties, cooling off periods, or vehicle lemon laws. While many vessel sales involve amounts far in excess of the majority of vehicle sales, consumers are not provided with statutory protections. Developing a culture of Responsible Boat Ownership, including by better regulating boat sales, is addressed in **Recommendation 2**.

No ongoing inspections of recreational boats

Maritime safety has a traditional risk-based approach placing the greatest regulatory effort on commercial vessels as these posed the greatest risk to personal safety. To mitigate these safety risks, a strong inspection regime is imposed on commercial boats. Conversely, recreational boating is managed though performance-based legislation which imposed general safety obligations on owners to maintain their boat in a seaworthy state. While this approach is generally effective on most of the recreational fleet, it does not allow scope to proactively manage the older, poorly maintained portion of the recreational fleet.

Intervening at an early stage in the boat's lifecycle, before the boat is illegally dumped or sinks is cheaper and more effective than after the boat reaches crisis point. Implementing a risk-based approach where vessels are proactively inspected throughout their lifecycle with frequency of inspections potentially based on their age, hull material or an ongoing risk assessment rating will facilitate early intervention where boats pose a risk of becoming derelict or illegally dumped. Ongoing vessel inspections are considered in **Recommendation 8**.

Market driven insurance model does not meet policy intent

Vessels over 15 metres in length are required to hold an insurance policy sufficient to pay for the cost of cleaning up the discharge of a pollutant, and for removal of a wreck. This requirement was introduced to '*address the growing number of larger abandoned ships that cost the State substantial amounts for the clean-up of pollutant discharges and the cost of removal of such ships in difficult salvage situations* '.

Unlike mandatory and regulated programs such as Compulsory Third-Party insurance for vehicles, pollution and wreck removal insurance is based on the availability of policies on the open market and therefore subject to restrictions and limitations which reduce the programs' effectiveness. One general restriction is that for the policy to remain in place a ship must be kept in a seaworthy condition. Vessels are generally abandoned when they become economically unviable to operate and cannot be sold. These vessels rarely hold an insurance policy. Further, abandoned ships are rarely maintained in a seaworthy condition, therefore where a policy is in place it is extremely unlikely that an insurer would honour the policy. The market drives insurance model only addresses situations where a boat is insured, and maintained appropriately, and experiences and unexpected incident which leads to the boat sinking ad/or discharging a pollutant.

The current insurance model does not, and cannot, address derelict and illegally dumped boats as these are unlikely to hold and insurance policy, and those that do are unlikely to meet the pre-conditions required to maintain the policy. An alternative funding source is required to enable appropriate boat disposal programs to be incentivised. The effectiveness of pollution and wreck removal insurance is considered in **Recommendation 10**.

Lack of owner responsibility / corporate social responsibility / extended producer responsibility programs

The only entity within a boat's lifecycle who contributes towards the boat's final disposal is the entity who owns it at the time it reaches its end of life (EOL) point. Boats lose value as they age, and their condition deteriorates, however the cost of disposal is not factored into the boat's sale price. As a result, the owner of a low value EOL boat is often the least able to afford its final disposal. Many manufacturing industries have identified that responsibility for the final disposal of a product should not be pushed on to governments, and the initial produce value should include a contribution towards disposing of the product at the end of the produce lifecycle. Applying a similar process to boats is likely to provide a sustainable funding stream whereby the boating industry contributes towards disposing of boats at the end of their product life. The cultural issues surrounding extended producer responsibility and corporate social responsibility are addressed in **Recommendation 2**.

Lack of affordable, subsidised disposal options

Depending on the boat's location, size and condition, the disposal process is likely to be expensive and difficult and, in many cases, (particularly in the case of larger vessels) disposal costs greatly outweigh a boat's value. Where the expense of disposal exceeds the risk of prosecution if boat ownership can be proven, owners have a financial incentive to simply abandon their boat. Changing this value equation is likely to reduce the incidence of owners abandoning boats. This may be achieved through developing a suite of appropriate incentives for owners to dispose of their boats. While not exhaustive, incentives may include placing a value on boats by implementing schemes such as buy-backs, turn ins, or grants to subsidise boat disposal. Streamlined disposal options are addressed in **Recommendation 9**.

Contributory causes

Cultural understanding and regulatory approach towards recreational boating

In July 2017, the Australian Maritime Safety Authority took over full service delivery responsibilities for regulating all commercial operations, with Maritime Safety Queensland retaining responsibility for recreational operators. Prior to this shift, Maritime Safety Queensland applied a risk-based approach towards allocation of regulatory effort which placed the greatest amount of regulatory effort on high risk, commercial operations. Similar regulatory models were applied to both commercial and recreational operations, albeit with less stringent requirements applied to recreational operators.

The success of the current regulatory model is predicated on the assumption that identical cultural beliefs are shared among commercial and recreational operators, an assumption which does not acknowledge cultural differences between operator types, including differences in education, training and experience. The model assumes that where a recreational operator purchases a large vessel, in poor condition, and fails to conduct an adequate level of maintenance they are making an *informed, wilful decision* to abandon the boat, and ought to be punished.

The root cause analysis concludes that contrary to assumptions implicit in the current regulatory model, the pathway towards abandonment begins at the point of purchase. Purchasers are not provided with adequate information regarding the extent of maintenance required to maintain the boat, the skills and resources required to maintain and repair the boat, and the operating costs should the boat be used. Purchasers with limited previous knowledge and experience in managing and maintaining a large vessel are more likely to not understand the extent of the undertaking they are accepting at the point of purchase, and are more likely to make an emotional, uninformed purchasing decision. The burden of significant and expensive maintenance then snowballs to the point where the vessel can no longer be managed, and ultimately leads to the boat being illegally dumped. The actual root cause of illegal boat dumping differs significantly from the *'informed, wilful decision'* process assumed by the current regulatory model.

Reframing the way in which recreational operators are regulated will address the cultural root causes of illegally dumped vessels. Reframing begins by accepting that cultural values underpin behavioural decisions, and that groups which develop differently are very likely to develop differing shared cultural values and beliefs. Reframing challenges the assumption that recreational and commercial operators are sufficiently uniform for current, risk based regulatory levers to deliver effective maritime safety outcomes.

The Taskforce has developed the concept of '**Responsible Boat Ownership'** as a model to reframe cultural values among recreational boat owners through developing a culture of responsible boat ownership whereby boat owners value maintenance and appropriate purchasing decisions to the same extent as other aspects of boat ownership. Responsible Boat Ownership applies to all those involved in a boat's lifecycle, from manufacturers who adopt environmental targets and provide accurate information in relation to expected running costs, salespersons matching purchasers to an appropriate boat and providing accurate condition reports and information prior to sale, and development of effective governance arrangements including ongoing inspection and appropriate mooring/storage arrangements. The Responsible Boat Ownership cultural model may be operationalised through delivering an effective, ongoing education campaign administered by Maritime Safety Queensland. Developing a culture of Responsible Boat Ownership is addressed in **Recommendation 2**.

Lack of national boat identification system

Identifying boats and tracking ownerships is a significant barrier to compliance and enforcement processes. Implementing a national boat identification system similar to that applied to vehicles, is likely to address a wide range of issues including; Identifying and tracking ownership, linking boats with an appropriate storage location, tracking boats throughout their lifecycle, and hindering property crime and boat rebirthing options. As registration data is limited once a boat is removed from the register, therefore it is often not possible to build a picture of a boat's entire lifecycle. Developing a national identification program would facilitate a wholistic picture of each boat's lifecycle and facilitate early intervention regardless of changes in registration. Nationally consistent vessel identification is addressed in **Recommendation 5**.

Coordination of waterway management

This analysis considered the effect of waterway management and anchoring restrictions. Anchoring restrictions apply to limited areas however most Queensland waterways are unregulated. Some waters are subject to anchoring restrictions through Marine Parks or similar limitations, while others are subject to waterways management plans or Commonwealth limitations. In some cases, multiple restrictions apply to the same waters, creating confusion as to which requirements take precedence. Waters which are not subject to any anchoring limitations allow boats to be left at anchor permanently and are often in remote waterways out of the public eye. Waterway management and anchoring was raised during public consultation, where long-term anchoring was not considered an appropriate storage solution.

Imposing restrictions such as requiring all non-trailerable vessels to be linked to specific locations such as a marina berth or mooring, would enable better visibility and monitoring of boats, and develop the ability to limit pollution hazards of live-aboard boats through requiring those boats to be located near sewage and rubbish disposal facilities. The review identified the need for improved coordination and information sharing among waterway managers and compliance agencies, as well as the need for improved processes to have boats removed prior to them becoming derelict, and the need for improved waterside infrastructure and facilities. Coordination and consistency of waterway management is addressed in **Recommendation 4.**

Legislative Restrictions

A range of gaps have been identified within the current suite of maritime legislation, including compliance and enforcement issues, national boating identification systems, cost recovery processes and the consumer protections and insurance gaps identified elsewhere in this report. Legislative reforms are addressed in **Recommendation 3**.

Summary

Boat ownership can, for many owners, fulfil a romantic dream – escape, relaxation, status. However, in some cases, the "bargain" picked up on gumtree may in fact become the next illegally dumped vessel in the mangroves. There are some emerging themes that may exacerbate the growing problem with derelict vessels including:

- Purchasing behaviour where people buy vessels without a full understanding of the responsibilities and costs associated with owning a vessel.

- Lack of extended product responsibility or product lifecycle programs whereby vessel owners have not considered how to dispose of their vessel when it reaches the end of its useful life.

- Lack of coordinates waterway management programs with limited restrictions on unattended anchoring – vessels.

- Lack of low-cost disposal options and difficulty in accessing disposal opportunities. Physical barriers include remote areas with no local landfill/recycling facility; no ship-lift facility near-by, while social and economic barriers are present in the majority of larger EOL vessels.

- Unviable commercial vessels being subsequently registered as recreational vessels.

- National Regulator viewing sunken commercial vessels as a State responsibility.

Causal and contributing factors identified during this analysis inform the recommendations contained in this report, supplemented by issues identified during consultation and Taskforce research.

Consultation outcomes

Public forums were held in Port Douglas, Yeppoon, Southport and Redlands. These were well attended by interested members of the public, with 94 participants attending, 78 per cent of whom were male and 22 per cent female. In addition, local members of parliament and local councils and local interest groups attended and provided valuable feedback. Additionally, a meeting was held in Noosa attended by the Taskforce Chair and departmental representative to discuss matters specifically relevant to those waterways with the local member, mayor and local stakeholder group. Specifically, the proposed Noosa River Management Plan was discussed.

Public forums were facilitated by adopting a guided conversation model, ensuring all relevant issues were fully explored. Comments were thematically analysed and used to develop a Mental Model of the way in which participants engage with boat ownership throughout the boat's lifecycle, the factors which contribute towards illegally dumped vessels and public expectations and attitudes towards government regulation. The resultant mental model was used to identify opportunities for improvement and components of a proposed 'Future State'.

Industry consultation

Club Marine

Club Marine is a large provider of boat insurance for Australian boating sector and has been in existence for 50 years. As a reputable insurer, the National Relationships State Manager was approached to discuss insurance of vessels. In general terms, an insurer will consider the following in determining insurance risk of a vessel – hull type and construction material usage; age of vessel (20 years is "tipping point" where cost of maintenance outweighs value of vessel); location of vessel (for example - warmer waters have a greater impact on timber vessels than in colder waters); permanent "home" (in water at a marina, hard stand, mooring (swing or fore and aft)) and maintenance regime.

Matters raised included – appropriateness of seaworthiness certification; vessel identification; control of hulk disposal post insurance write-off; data sharing (not common in boating industry); challenge of access to ship-yards (distance between facilities on the Queensland coast); management of moorings/mooring contractors; ease of access to water for boaties; education; and licencing.

Marine Surveyors Association

The Marine Surveyors' Association Inc (MSA) was originally formed in the early 1990's as "Small Ships Surveyors Association Inc," to assist vessel owners and operators, as well as marine surveyors, throughout Australia. Members of the association were invited to discuss in general terms, seaworthiness and safety inspections. Matters raised included – lack of regulation - seaworthiness of recreational vessels is driven by insurance industry; vessel inspection versus survey; cost of a survey versus cost of an inspection; accreditation system; lack of written-off register; vessels on moorings in general terms are not as well maintained as vessels in marinas.

Boating Industry Association

The Boating Industry Association (BIA) – represents the recreational and light commercial marine industry, promoting safe, recreational boating. The BIA is represented on the Taskforce by Andrew Fielding, Chair of the Queensland State Council. The BIA advocates for a national vessel identification system.

Queensland Recreational Boating Council

The Queensland Recreational Boating Council (QRBC) is the peak recreational boating organisation for Queensland with representatives from clubs, government and associated agencies meeting monthly. The QRBC is represented on the Taskforce by Des Thompson.

Australian Recreational Boating Safety Council

An ARBSC workshop was held during January 2019 dedicated to the issue of derelict vessels and the Taskforce' activities. The intent of the meeting was to share issues raised through the course the Taskforce's deliberations and discuss possible strategies that could be considered across other jurisdictions. It was clear that marine safety regulators across Australia face similar issues in dealing with derelict and illegally dumped vessels and expressed interest in reviewing the Taskforce' recommendations and working together to develop holistic solutions.

Submissions – Social Media

A "War on Wrecks" mail box was created within TMR and information about the Taskforce was included on the front page of the Maritime Safety Queensland web-site as well as on the TMR Facebook site. As well as reporting the location of derelict vessels, the public also submitted ideas and suggestions which were discussed at Taskforce meetings. This feedback covered a range of topics including – mandatory insurance; registration of vessels; donation of vessels; creation of dive sites; licencing; limitations on unattended anchoring; visual amenity of poorly maintained vessels. Details of emails received and comments on social media posts are included in the appendices to this report. A summary of relevant themes is as follows:

- All vessels need to be identified. This applies to all vessels, including smaller paddle powered craft.

- Vessels should be registered. Several possible registration triggers were discussed, and all received support.

- Seaworthiness is subjective and there needs to be set standards applicable to recreational vessels.

- Vessels should be inspected periodically throughout their lifecycle; however, affordability was a significant barrier. Out of water inspections were not supported due to the financial impost.

- Licencing was considered the point at which people are introduced to the recreational marine culture, therefore all boat operators should be licenced. There was support for a review of licencing requirements with respect to larger vessels and those with complex machinery.

- The cost of boat disposal should be shared throughout the product's lifecycle.

- Boat sales should be better regulated, with restrictions placed around informal, low cost sales.

- Insurance is not meeting the original policy intent. The benefits of pollution/wreck removal and CTP insurance should be further considered.

- Recyclability and environmental targets should be considered.

- Disposal opportunities should be incentivised to overcome barriers and reduce abandonment.

- Developing a culture of Responsible Boat Ownership was supported. This should include an educational component to educate owners on the complexities of boat maintenance and how to manage a boat at the end of its life.

- Boats should not be permitted to remain at anchor as a permanent storage method. Boats should be linked to a secure place of storage.

- Current compliance and enforcement methods may not be ideal and should be reviewed.

- Local communities and councils should be more involved in waterway management to harness community knowledge and resources.

Legislative context

There are a number of statutory instruments that provide government departments and statutory bodies with powers, which depending on the circumstances, may be exercised in relation to managing vessels in Queensland's coastal waters, and/or 'derelict' or abandoned vessels.

An overview of the instrument a power which may be utilised is provided in the table below. It should be noted however, that the ability to exercise these powers is contingent upon the facts of the specific situation or scenario. For example, the location of the vessel – whether the vessel is accessible from shore at low tide or not; whether the vessel is illegally moored in a designated marine park or in defined waters under legislation; or if the vessel is deemed to be abandoned or contravening a notice or port activity; whether the owner is known or unknown. Wherever possible, compliance partners and entities work collaboratively, utilising the available powers or functions of the agency that will produce the swiftest, most cost effective and appropriate response to the situation in the circumstance. The snapshot of legislation provided below does not go into the details of the many challenges faced in exercising the powers in an operational environment, and does not canvass real or personal property laws which also apply:

Statute	Overview	Administering authority
Transport Operations (Marine Safety) Act 1994 ('TOMSA')	Powers are conferred on a harbour master to give directions to the owner of a ship that is lost, abandoned or stranded to ensure safety. The HM may also direct a person responsible for something that is obstructing, or may obstruct, navigation to remove it. A shipping inspector may declare a ship to be unseaworthy and direct the owner or master to remove the ship from Queensland waters in a way approved by the shipping inspector. A shipping inspector may also seize and remove abandoned property in prescribed circumstances.	Maritime Safety Queensland (MSQ), a branch of the Department of Transport and Main Roads (DTMR), has the function under TOMSA to monitor and manage unseaworthy, abandoned, stranded, sunk or wrecked ships to ensure marine safety in Queensland waters. In many cases where the person responsible fails to comply with a direction, the expenses incurred in carrying out the direction can be recovered from the person as a debt through court interventions.
Transport Operations (Marine Pollution) Act 1995 ('TOMPA')	Where a ship has discharged, or is likely to discharge, pollutant into coastal waters, an authorised officer may by written notice require the owner or master to take specified reasonable action and not to operate the ship, other than in a way approved by the authorised officer, until the authorised officer is satisfied on reasonable grounds that the ship is not likely to discharge pollutant into coastal waters. This Act deals with the discharge of pollutants into coastal waters happening from ships or because of transfer operations involving ships. If a pollutant is discharged into coastal waters from another source, other environmental laws may apply (for example, the *Environmental Protection Act 1994*).	MSQ is empowered to deal with the discharge of ship-sourced pollutants into coastal waters under TOMPA.
Transport Infrastructure Act 1994 ('TIA')	A port authority or port lessor has power under TIA to control by port notice the movement or mooring of ships at its port facilities, or where the movement or mooring may affect the port's operation. An authorised officer under TIA may give a direction to a person in the port area if reasonably necessary to ensure the safety or security of the port area; or to prevent a person's activities or conduct from affecting the port's operation. An authorised officer may, under certain circumstances, take steps necessary and reasonable to have a contravening property moved or to treat it as abandoned. A port authority or port operator may seize and dispose of property abandoned at its port facilities under certain circumstances.	DTMR
Transport Infrastructure (Waterways Management) Regulation 2012 ('TIWMR')	The TIMWR draws on a range of marine safety, marine pollution and waterways management legislation to ensure the waterways are safe, sustainable and efficiently managed. It provides for the management of on-water activities to be undertaken in certain places such as mooring and anchoring of watercraft, time periods to remain in one place or locality and recreational activities in the use of the waterway (for example, water-skiing or personal watercraft use).	In regulated waters of the Gold Coast, the Gold Coast Waterways Authority (GCWA) is empowered to take prescribed action in relation to anchored, moored or grounded watercraft in accordance with TI(WM)R. The chief executive of DTMR holds similar powers in relation to Sunshine Coast waters.

Statute	Overview	Administering authority
Transport Infrastructure (Public Marine Facilities) Regulation 2012	This regulation enables the state to continue to administer public marine facilities such as boat harbours, boat ramps and pontoons. The TI(PMF)R includes provision for the management, use and safety at public marine facilities; control of activities and approvals and fees in state-managed boat harbours. It provides for the appointment of Authorised Officers and provides for their powers and penalties for non-compliance and misuse of public marine facilities. The regulation contains some provisions for the movement of illegally moored ships or if owner/person in charge is unable or unwilling to move it and safety is compromised; enables the disposal of abandoned property, subject to taking reasonable steps to locate the owner and recovery of costs to the department.	DTMR
Marine Parks Act 2004	The Act provides powers where an inspector reasonably believes urgent action is needed to deal with an emergency involving a marine park and a serious risk to the park's environment or use and non-use values or risk to injury or property, the inspector may give a person in control of a vessel in the park a direction regulating or prohibiting the mooring or use of the vessel or requiring the removal of the vessel from the park. An inspector may also give a person responsible for an abandoned, stranded, sunk or wrecked property in the park a direction requiring the person to, amongst other things, take stated reasonable action for securing the property's safety, or removing or salvaging the property. This Act provides for the conservation of the marine environment. This, in part, it is achieved through subordinate legislation (such as the *Marine Parks (Moreton Bay) Zoning Plan 2008)* providing for the declaration of marine parks, and establishment of zones and designated areas for the sustainable use and enjoyment while conserving the marine environment.	Department of Environment and Science (National Parks and Wildlife Service)
Navigation Act 2012 (Cth)	The Australian Maritime Safety Authority (AMSA) has the power under the *Navigation Act 2012* to deal with wrecks (namely vessels that are wrecked, derelict, stranded, sunk or abandoned or that have foundered) and historic wrecks under prescribed circumstances.	AMSA may require, by written notice, the legal owner of a wreck of a regulated Australian vessel (wherever it is situated) or foreign vessel (situated in the territorial sea of Australia) to remove or mark the wreck. AMSA may also mark, remove, destroy or sink a wreck of a regulated Australian vessel (situated in the exclusive economic zone or territorial sea of Australia) or foreign vessel (situated in the territorial sea of Australia) in certain situations, including where AMSA considers it necessary for the purposes of saving human life, securing the safe navigation of vessels or protecting the marine environment.
Great Barrier Reef Marine Park Act 1975 (Cth)	The boundaries of the Great Barrier Reef Marine Park are defined and run from the low water mark of Queensland (see ss30 and 31 of the *Great Barrier Reef Marine Park Act 1975* and *Great Barrier Reef (Declaration of Amalgamated Marine Park Area) Proclamation 2004*). The *Great Barrier Reef Intergovernmental Agreement 2015* provides that the Commonwealth and Queensland governments are committed, amongst other things, to '*maintain complementarity and improve the efficiency and effectiveness of relevant Commonwealth and Queensland management arrangements, in particular: marine park legislation and associated regulations…*' in order to achieve the objective of ensuring an integrated and collaborative approach by the Commonwealth and Queensland to the management of marine and land environments within and adjacent to the Great Barrier Reef World Heritage Area.	The Great Barrier Reef Marine Park Authority (GBRMPA) administers these laws. Where GBRMPA is satisfied that circumstances exist amounting to an emergency that poses a serious risk to the environment in the Marine Park, the Authority may make: (a) a direction regulating or prohibiting the entry or use of a vessel, in the Marine Park; (b) a direction that a person remove a vessel from the Marine Park; (c) a direction that a person responsible for abandoned, stranded, sunk or wrecked property take any action reasonably necessary to avoid, mitigate or eliminate risk arising from the presence of the property in the Marine Park.

Statute	Overview	Administering authority
Gold Coast Waterways Authority Act 2002	This Act establishes the Gold Coast Waterways Authority as a statutory body and provides powers for the GCWA to manage the Gold Coast waterways through: • planning and facilitating the development of Gold Coast waterways over the long term that is sustainable and considers the impact of development on the environment; • improves and maintains navigational access to the Gold Coast waterways; and • promote and manage the sustainable use of Gold Coast waterways for marine industries, tourism and recreation.	The GCWA is empowered to ensure the effective and efficient management of water traffic and public marine facilities and the use of the Gold Coast's waterways and perform functions conferred on the GCWA under TIA, TOMPA and TOMSA. GCWA control or conduct activities by displaying or publishing a notice (waterways notices). The Act also empowers the GCWA to deal with contravening or abandoned property (as defined under the GCWA Act). Notably the powers of the authority do not affect a function or obligation of a local government to deal with abandoned property under another law. Where abandoned property or contravening property is lost, stranded or abandoned or is moored or left in an area in contravention of a waterways notice, the GCWA are empowered to move the property or take steps as reasonably necessary to have the property moved. Reasonable steps to find the owner of abandoned property must be made unless the property is of insufficient value (as defined) or is impracticable for the authority to keep it having regard to its nature and condition. In finding the owner of the property the GCWA must give the owner a written notice within 28 days setting out certain details and advising the property may be sold if it is not recovered. If the authority has not located the owner of the property in 28 days – the authority must publish a notice in a locally circulated newspaper advising the property may be sold.

The community consultation has indicated members of the public are often confused which government entity or statutory body they should be dealing with to report derelict vessels; vessels that have broken free of moorings, improper anchorage and/or or drifting vessels and consistently reported dealing with numerous agencies in relation to the same vessel.

> ## Recommendation 3: Legislation
>
> The Taskforce recommends:
>
> • The Queensland Government undertake a review of legislation relating to the recommendations made in this Interim Report with a view to improving the efficiency and effectiveness of the delivery of safety and marine environmental outcomes.
>
> • The Department of Transport and Main Roads, Maritime Safety Queensland branch lead this holistic review, having due regard to the legislative roles of other government agencies.

Waterway management

With the high cost of housing, there has been an increase of people living aboard vessels in Queensland waterways. While legal, this activity does result in several matters that are a concern to the public, such as sewage disposal, access to boating infrastructure and visual amenity issues. Vessels are being rented or bought as a cheaper principal place of residence to avoid high house prices and rents. They may not be required to be registered as they may not have powered motors.

Maritime Safety Queensland is responsible for the management and control of buoy moorings in Queensland waters, except for Gold Coast waters. The Gold Coast Waterways Authority is responsible for buoy moorings in Gold Coast waterways.

There is a range of Queensland and Commonwealth legislation administered by various agencies to deal with derelict vessels, however, there will always be vessel owners that will not respond to regulatory intervention or will simply abandon their vessel. It is generally these vessels that become derelict and there is a general expectation in the community that MSQ, as Queensland's maritime regulator, will act to remove the vessels. MSQ encourages owners to fulfil their responsibilities, however, there are times when direct action may need to be taken. A coordinated approach to mooring management and consistent anchoring restrictions is likely to improve the efficiency and effectiveness of waterway management throughout the State.

Issues

Waterways Management

Ownership/tenure and responsibility of the waterway or land can be unclear and often there are no costs associated with mooring and anchoring a vessel in these locations, which means no governing body is overseeing the waterway. A number of local, state, and Commonwealth authorities have some form of jurisdiction over the waterways and the land adjacent to the waterways. Improved coordination of waterway usage is likely to provide an opportunity to establish mooring fees thereby increasing revenue that could be used to manage derelict vessels and provide a mechanism for removing vessels from moorings that have not paid their mooring fees for a period could also be established.

Moorings

Buoy moorings are an accepted means of securing ships, providing an alternative to berthing at a marina or anchoring. A buoy mooring is attached to or deposited on the seabed and the vessel attached for mooring a ship. Increasing demand has led to several areas having reached their capacity for buoy moorings. As demand is high, mooring authority owners occasionally purchase cheap "mooring minder vessels", such as the example shown. The community broadly supported more buoy moorings to be provided as these are a more secure storage method than anchoring. This was accompanied by support for greater shoreside infrastructure such as sewage pump out stations in areas where liveaboards were permitted.

Timber putt putt mooring minder classic 20ft half cabin cruiser

$900

Live-aboards

Pollution from liveaboard ships has long been a major issue in the marine industry. Major sources of pollution are sewage, wash (grey) water and garbage. Others to a lesser extent include chemical waste like oils, fuel, grease, paint, and cleaning chemicals. This problem is exacerbated in non-registered liveaboard vessels who may not be aware or comply with standard waste management conventions that minimise water pollution. Liveaboard vessels are more likely to end up as derelict vessels when they reach their end-of-life. Considering the economic motivations for living on board, it is unlikely that occupants are prepared or able to afford the high cost of disposing these vessels properly when it becomes too expensive to maintain.

Compliance

The overarching feedback from field officers is that it is difficult to prove that a suspected vessel is being lived on. This means that the support of the community and those living aboard will be required to make reliable estimates. In rolling out a fact-finding program, it will be important to consider incentives to motivate those living aboard to cooperate. The current measure in place is through a liveaboard registration which is not a strong enough incentive, in fact it can be viewed as a disincentive given the perceived regulation and loss of freedom

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Recommendation 4: Waterways Management

- The Department of Transport and Main Roads, Maritime Safety Queensland branch undertake a review, consulting other government departments, local councils and the Gold Coast Waterways Authority on the adequacy and effectiveness of existing waterway management approaches covering issues including (but not limited to);

    o anchoring practices including long term anchoring

    o unattended anchoring

    o liveaboard vessels

    o mooring management including short and long-term mooring permits

    o the adequacy of facilities including sewage pump-out facilities.

- The Department of Transport and Main Roads, Maritime Safety Queensland undertake a review consulting with local councils and the Gold Coast Waterways Authority on the effectiveness of these approaches and make further recommendations on who is best placed to manage specific local waterways issues.

Vessel identification

Ships which are illegally dumped, wrecked or unseaworthy are derelict, and pose an ongoing, and increasing, hazard to the environment and to navigation. Derelict ships may also pose visual and amenity issues and raise public liability concerns. Maritime Safety Queensland, as Queensland's marine regulator, has authority to become involved in the management of ships, including when they reach their end of life point, at which time the ship may pose a significant safety and/or pollution risk. MSQ works cooperatively with other government departments and local governments to achieve the best safety outcomes for Queenslanders, however when MSQ has exhausted all practical measures to identify owners and avenues to compel the owner to take action, at times the government may still be required to take action to remove and deal with the ship.

Current situation

A Hull Identification Number (HIN) is a unique series of characters and numbers assigned to a ship. They are permanent and usually issued by the manufacturer. They are fitted in two places on the hull, in a conspicuous place and an inconspicuous place. One of these places is likely to be on the Australian Builders Plate. HINs are a useful identification tool that can assist as an anti-theft deterrent and in the recovery of stolen ships.

In Queensland, not all ships are required by law to be registered, and those ships that are required to be registered, are not obliged to have, nor display, a HIN. While each registration applicant, when completing the application form is asked to provide the HIN recorded for their ship, there is no mandatory requirement or system generated requirement to ensure the HIN field to be completed by the applicant or the Customer Service Centre (CSC) operator.

If the customer does not complete this section the CSC operator uses the registration system to generate what is referred to as a Serial Identification Number (SIN). This number meets the requirements for the construction of a HIN (14 characters, not including spaces or dashes). The customer is asked to record this number on the ship in a conspicuous place and an inconspicuous place the same way as a HIN. However, there is no supporting validation or verification process to ensure this has occurred, as may happen for a vehicle with a vehicle identification number (VIN), and validation through a Safety Certificate inspection point.

Australian Jurisdictions

Queensland is not unique in not prescribing a HIN registration. The requirements for ships to have HINs and registration requirements vary significantly across Australian jurisdictions and internationally. Several jurisdictions provide exemptions from requirements based on certain circumstances and/or criterion. Importantly, not all ships have or are required to have a HIN (as discussed above). Additionally, some ships, while still regulated on the water, are exempt from registration requirements and laws regarding registration do not apply to all water craft. The following 'Exemptions List' specifies a list of conditions or criterion that in effect, exclude certain ships from registration requirements under Queensland's marine safety laws. These conditions/criteria can be categorised into two broad categories – the first, encapsulates where registration in another jurisdiction or at a Commonwealth level is recognised and the second, covers the type or purpose of the vessel that may be eligible for an exemption from registration. The captured list is a broad range of these conditions from which the unique requirements for each jurisdiction is taken, these include:

Alternatives to Hull Identification Numbers

Boatcode

The New South Wales (NSW) government and the Boating Industry Association (BIA) have for many years implemented and operated a system known as the Boatcode system. This system is managed by the NSW government's Department of Roads and Maritime, Maritime Division and utilises authorised stations and personnel similar to that of TMR's Approved Inspection Stations operate and inspect vehicles for verification. The numbering system is implemented to deter vessel theft and assist in the recovery of stolen vessels.

Boating Industry Association – SmartHIN Program

Historically, MSQ has received requests periodically to implement a Boatcode or similar system in Queensland. Requests are mainly received from the Queensland Police Service, insurance companies and the BIA. From a policy perspective, consideration of such a system has some merit in assisting tracking ships and ship parts. However, considering the costs to community and the department in implementing a system of this scale, SmartHIN or a similar system has not been progressed to date.

In addition to supporting industry with knowledge of boat registration numbers, the key attribute of SmartHIN is to provide a secure database of vessels and their characteristics, as defined by the manufacturer. This not only supports efforts to confirm the identity of a vessel at point of registration or following a theft, but also confirms safety data related to the ABP should the vessel be involved in an incident. The BIA maintain approximately 85 per cent of recreational boats built in Australia are built in Queensland.

More recently, the BIA approached TMR's MSQ branch to discuss some technological solutions that may assist with the adoption of the system in Queensland. Essentially, the BIA advised they are progressing development of an IT Cloud based system that would be available to all regulators through a range of security measures. The development of this IT system is well underway in its development and has involved NSW Maritime directly to help them to replicate the Boatcode system and do away with the triplicate paper certificates used.

The BIA SmartHIN program will provide a secure cloud-based database that registering authorities could access to check the ships HIN status and verify it was an authentic HIN and that it did not have outstanding queries against it. This will help to close the loop for those opportunistic boat thieves that benefit from a disconnect between the states' registers and record keeping systems to 'rebirth' boats for resale.

Australian Builders Plate

All ships built after September 2006 are required by law to be fitted with the Australian Builder Plate (ABP). The ABP is a national initiative to make boating safer by providing vital information about the capacity (ie. number of people / volume or mass), capability and limitations of ships. The ABP has a prescribed range of templates within which a space is available for a HIN to be recorded. Ships built prior the 2006 are not required to have an ABP.

Personal Properties and Securities Register

The Commonwealth's Personal Properties and Security Register (PPSR) is another option available to assist in ship tracking. Its principal purpose is to provide information as to whether a boat may be recorded as stolen and if there are any registered financial encumbrances registered against the boat. This is a federal government initiative aimed primarily at vehicles which has been extended to include boats and personal watercraft. This program supports the use of HINs and a controlled registration system for them. More information is available at: https://www.ppsr.gov.au/hin-hull-identification-number

Unique Vessel Identifiers for Domestic Commercial Vessels

The Australian Maritime Safety Authority (AMSA) requires that all domestic commercial vessels (DCVs) must have and display a unique vessel identifier under Marine Order 502. A DCV is a vessel used for a commercial, governmental or research activity, or on inland waters or on a waterway on private property within Australia. The unique vessel identifier is issued by AMSA following receipt of an application. It is also issued during application for a certificate of survey or another vessel permission (if it was not previously allocated).

The unique identifier stays with the vessel over the span of its life, even if the vessel changes ownership and is used for[7]:

- identification by the National Regulator when the vessel is being operated
- identification by marine safety inspectors, other vessel operators and the public where a vessel may be operated in a dangerous manner
- to assist with search and rescue purposes
- to assist with recovery if a vessel is lost or stolen.

Secondary benefits

Boat theft and rebirthing

During November 2012 Queensland's Crime and Misconduct Commission (CMC) released a paper which discussed 'Organised Property Crime in Queensland'. Within this paper was a discussion of boat theft and rebirthing. The CMC did not consider rebirthing to be a widespread issue, however the monetary value of the rebirthing industry was relatively high. The lack of prevalence when compared to other property crimes may explain the lack of national attention given to boat identification in the period 2012 – 2018. While this is not the Taskforce's primary responsibility, the current work towards better boat identification may provide an opportunity to have a positive impact on rebirthing rates. An extract of the report states:

The term 'boat theft and rebirthing' here relates to a wide range of recreational marine craft, including dinghies, luxury vessels and personal watercraft ('jet skis'). As with thefts of motor vehicles and heavy equipment, recreational boat thefts can be short-term or profit-motivated. Again, organised offending is most likely to involve profit-motivated thefts, as well as boat rebirthing. Nature and extent of organised crime involvement Police and insurers believe that organised groups are responsible for most boat thefts in Queensland. This is based on estimates that 75 % of stolen craft are not recovered (suggesting they are being rebirthed), and that the circumstances of many thefts indicate substantial planning and targeting. For example, some offenders were said to be researching targeted boats to determine the best times to steal them.

The CMC's analysis indicates that, despite the significant involvement of organised groups in boat thefts, this organised activity is not widespread in Queensland. Rather, to date it appears that a few networks have been responsible for a relatively large number of thefts. This is illustrated in the first case example on page 3, as well as one case involving a well-organised syndicate on the Gold Coast. This syndicate was responsible for the theft and rebirthing of four luxury vessels (valued between $65 000 and $140 000), two dinghies and three boat trailers, as well as a backhoe worth about $150 000 (QPS 2010b).

Organised boat theft and rebirthing occurs predominantly in the south-east corner of Queensland, especially on the Gold Coast. This probably reflects the relatively large number of boats in the region,[8] and the fact that it is perceived to be easier to transport stolen boats interstate from south-east Queensland. Stakeholders advised that many boats stolen in Queensland are eventually located interstate, especially in New South Wales. Nevertheless, there have also been occasional spikes in thefts in coastal regional centres such as the Rockhampton district and Mackay.[9] This suggests that, although organised thieves are likely to focus on the south-east corner of the state, anywhere that there is a relative concentration of recreational boats might be seen as an attractive target.

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[7] *https://www.amsa.gov.au/vessels-operators/domestic-commercial-vessels/unique-vessel-identifiers*

[8] *As at 31 May 2012, over 50 % of all 241 118 recreational vessels registered in Queensland were located in the south-east (Marine Queensland 2012). The local authority with the largest number of registered vessels (n = 26 952) is the Gold Coast City Council (Marine Queensland 2012).*
[9] *Consultation with a major national insurer.*

Significance of the issue

There are no consistent signs of an increasing problem with organised boat theft and rebirthing in Queensland. Although it has been suggested that the incidence of boat theft and rebirthing has increased alongside increasing barriers to vehicle theft and rebirthing,[10] and although some groups are known to have targeted boats in response to these barriers (as in the first example on page 3), quantitative data did not clearly support this.[11] However, this type of theft is ripe for exploitation by OCGs in Queensland. The state has Australia's highest rate of boat ownership, the offences are profitable, and there are deficiencies in the registration system nationally.

Contributing factors

Queensland OCGs may be attracted to boat theft and rebirthing by the profits involved. For example, the luxury vessels seized in the case described above were worth up to $140 000, while even relatively cheap aluminium boats can fetch between $15 000 and $40 000. Other key contributing factors to organised boat theft and rebirthing in Queensland are weaknesses in boat security, and in boat identification and registration practices:

- *Some boats are made vulnerable to theft by being left on the street or easily accessible in the owner's front yard.*

- *Some security measures on boats can be defeated with only a basic level of specialist knowledge and skills.*

- *In Queensland, boats do not need to be physically inspected before registration and can be registered without a Hull Identification Number (HIN).[12]*

- *Australia does not have a national boat registration system. The lack of national consistency makes it easier for offenders to dispose of stolen boats in other jurisdictions.[13]*

Together, these factors allow organised groups to sell or trade stolen and rebirthed boats to unsuspecting members of the public. Police combating organised boat theft and rebirthing in Queensland also face challenges similar to those associated with motor vehicle and heavy equipment thefts.[14]

Summary

The Taskforce recognised that identifying vessels is an essential component of any management program, with the benefits of identification extending to a range of wider activities including improved search and rescue outcomes, deterring vessel theft and rebirthing activities, facilitating cross-border vessel condition management and improving consumer protections such as ensuring accurate inclusion in the PPSR. The issue of vessel identification was raised at each consultation forum, where participants expressed significant support for indelible hull identification numbers to be fitted to all vessels, including smaller passive craft such as canoes. Vessel identification may be achieved in a number of ways including:

- **Example 1:** introduce a mandatory requirement for all ships and watercraft in Queensland to have a HIN, and for the department to no longer issue a SIN. While practically, this may seem like a simple policy and procedural change, there are some impediments to implementation such as imposing on customers that have purchased a ship without a HIN a burden to fit one.

- **Example 2:** Require that all boat dealers, ship yards and builders on contact with a ship that is not fitted with a HIN for them to be responsible for fitting one. This could use the existing SIN system if needed. A cost to the department would be the creation and dissemination of the HIN plates.

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[10] *Consultations with QPS officers. See also Club Marine (2010) and Stolz (2011).*
[11] *CMC analysis of unofficial QPRIME (Queensland Police Records and Information Management Exchange) statistics on motorised boat thefts and boat theft claims from a major national insurer.*
[12] *HINs are unique (but not mandatory) identification numbers for boats.*
[13] *See Club Marine (2010) and Ausfish (2010).*
[14] *As with vehicle theft, it is often very difficult to prove that an offender was involved in stealing a seized boat or received it from someone else knowing it was stolen; as with heavy equipment theft, police officers often lack specialist knowledge required for effective investigations (e.g. an understanding of vessel specifications and the meaning of HINs).*

- **Example 3:** A more regimented approach to the ABP and the consistency of its legislative application to the industry. The existing requirement for ABP only applies to ships built after 2006. Using a mechanism of this nature would allow not only the HIN challenge to be addressed but also seaworthiness, capacity and flotation requirements, through each registration touch point. Whether it be a new registration, on renewal or transfer, the Queensland fleet based on current analysis, would have been through any of these three gates within six years of implementation. This system would require the inspection of the ship, which would lead itself to an Approved Inspection Station style of system, as we have for vehicles already.

These three examples are designed to provide insight into the range of methods available and do not provide an exhaustive list of options. As the benefits of mandatory vessel identification extend to the national level, identification methods should be uniformly applied in all jurisdictions. Further policy development and inter-agency consultation is necessary to determine the most appropriate method agreeable to all states and territories.

Recommendation 5: Vessel Identification

The Taskforce recommends the Minister propose to the Transport Infrastructure Council, that all States and Territories work towards adopting a consistent hull identification scheme to all vessels, regardless of size, intended use or registration requirements.

Registration and Licencing

Registration

The *Transport Operations (Marine Safety) Act 1994* (TOMSA), is Queensland's primary marine safety statute. The act provides that one of the primary means by which safety is ensured is by requiring certain ships to hold registration. All ships are required to be registered if they are powered by an engine with an output greater than three kilowatts. Registration is an important touchpoint that facilitates a wide range of governance programs including identifying vessel owners and contributes towards safety outcomes, as regulators have an accurate picture of what vessels are operating in Queensland waters. Further, registration may be used as a touchpoint to require certain conditions to be met, including seaworthiness inspections at the time a vessel is transferred, or to apply an inspection program to individual vessels.

An estimated 100,000 recreational ships in Queensland are not required to be registered or are exempt from registration. The most relevant exclusion involves ships that are not powered or powered with an engine of less than 3kW. An example is pictured - this 14-metre catamaran is capable, when fitted with sails, of exceeding 20 knots and carrying more than 15 passengers. As the catamaran is not fitted with an engine it is not required to hold registration and may be operated by a person who is not the holder of a marine licence.

The Taskforce has identified that using engine output as the sole trigger for registration provides for similar vessels to be regulated differently depending on the engine fitted. For example, the Taskforce identified two houseboats of similar size, one of which was fitted with an engine and subject to registration, and one where the engine had been removed and which was therefore not required to be registered. Each of these houseboats are stored permanently at anchor in the Gold Coast Broadwater. These houseboats are subject to anchoring restrictions and must be moved two nautical miles from their place of anchoring on a regular basis. This is achieved quite simply by the powered houseboat, while the non-powered houseboat is either towed by a small powered dinghy or simply allowed to drift with the tide. This example highlights several issues surrounding the safety of unpowered vessels which are not capable of moving in an emergency situation, as well as the disparity in applying registration laws to two vessels which are almost identical.

Registration was discussed during consultation and the Taskforce proposed that registration may be triggered by issues other than engine power, such as vessel length. This proposal received strong, universal support from participants, many of whom advocated requiring all vessels to be registered to some extent, down to passive craft such as canoes and kayaks. The Taskforce has established that the current triggers are not satisfactory, and as there are many potential triggers which may be applied, further policy work should be undertaken to identify the most beneficial registration model.

Licencing

In Queensland, licencing requirements are triggered by a vessel's engine output, with a Recreational Marine Drivers Licence (RMDL) required to operate a vessel powered by an engine which exceeds 4.5 kilowatts. No licence is required to operate a ship which is not fitted with an engine or is fitted with an engine smaller than 4.5 kilowatts. No operational restrictions are applied, therefore the holder of an RMDL is permitted to operate a vessel of any size and powered by any engine.

The Taskforce identified examples where these licencing requirements do not ensure a sufficient level of knowledge and skill to safely operate a recreational ship, including where people have purchased ex-commercial ships fitted with very complicated machinery which is considered too complex for an untrained person to operate. Pictured is an example of a 39-metre ship which was recreationally registered and therefore able to be operated by the holder of an RMDL. The ship proved to be too complex and expensive to maintain and was left at anchor to decay prior to being removed and disposed of by Maritime Safety Queensland at considerable expense.

The current licencing program permits a licence holder to operate any recreational vessel in Queensland waters, however may not ensure the holder possesses the required level of skill and knowledge to safely operate and maintain larger, more complex vessels. During the consultation phase the Taskforce received support for a review of licencing requirements, and whether higher level licences are required for larger and more complex vessels.

In addition to the practicalities of operating complex vessels, licencing is the touchpoint at which a person is introduced to recreational boating culture and the recreational boating community. For a culture of Responsible Boat Ownership to be implemented it is necessary to leverage this touchpoint and develop suitable underlying beliefs and values.

Commercial vessels

Registration and licencing requirements are applied to commercial vessels in a different manner, with commercial operators required to undertake a higher level of training and gain experience before progressing to a higher-level licence. More stringent licencing requirements apply based on the size of the vessel, as larger vessels require a different skill set to operate safely. Similarly, commercial operators must also hold an engineering qualification to lawfully operate commercial vessels powered by larger engines which are generally more complex and require a higher level of skill.

Commercial boat operators are required to undertake an 'apprenticeship' whereby the new entrant into the marine industry serves a period of sea time as well as undertakes formal training before they are issued a marine Certificate of Competency. During the sea time component, commercial mariners are expected to learn not only how to perform certain tasks such as navigating, operating or maintaining a vessel, but also become navigators, masters, engineers and so on. In undertaking the process of becoming a fully-fledged member of the maritime community, participants are likely to develop distinct work-based ways of operating both systems, as well as operating with others in the maritime community. In this way commercial operators develop a shared culture where certain behaviours are encouraged, such as ensuring vessels are appropriately maintained.

Pathway towards illegal dumping

While a commercial vessel is in service, its operation is regulated under national laws. However, when most commercial vessels 'go out of service' or are unfit to continue operating commercially, or are just no longer wanted by the owner, they will often be sold, with the new owner seeking to register the vessel as a QRS. While there is a departmental policy and procedure in place aimed at capturing the registration of a previously used/registered commercial vessel, and laws to enable conditions to be placed on the vessel's recreational use (such as additional licensing competency or safety equipment), the process and assessment relies upon the disclosure of information from the applicant at the initial registration stage. While there is no one system that captures or tracks vessel ownership throughout a vessel's life, it is most likely that these vessels, often in poor condition or no longer fit for their original intended purpose, are more likely to come back into Queensland's registration system and become a 'derelict' vessel. An example is shown of a vessel in Tasmania currently for sale which poses a significant risk of becoming derelict in the near future.

For Sale - Minesweeper. As is, where is.

46m long 40 beds **will need to be towed** no fuel or oil on board. Engines were running when it came to Tasmania and have been run since.

Current Price: **$6,300**

Application to recreational model

In analysing factors which contribute towards illegal vessel dumping, the Taskforce has identified that many recreational operators do not have the skill or knowledge to appropriately maintain a larger vessel, particularly those which were built as complex, commercial vessels. This is mainly due to ex-commercial vessels being relatively cheap to purchase as they reach the end of their economic life. If masters or owners of boats of a certain size or fitted with certain machinery were required to hold a higher-level of licensing or engineering qualification similar to the commercial process, it would be less likely that a person would so readily purchase large, complex vessels without the knowledge of what is required to safety operate and maintain the vessel.

An example of an ex-commercial vessel seeking recreational registration is the landing craft below, which is currently being assessed by Maritime Safety Queensland. While this ship is clearly too complex to be managed by a recreationally licenced operator, if the ship is not intended to be operated commercially then it may inadvertently fall into the category of recreational use.

The current registration and licencing scheme contains several limitations which provide unforeseen consequences, such as the examples discussed. The Taskforce recommends that a full review of the legislation be undertaken to ensure that registration and licencing provisions remain fit for purpose. In addition, applying a model similar to the commercial version to the recreational world will provide new entrants to the recreational marine community with an introduction into the shared underlying beliefs and expectations of others, thereby ensuring the new mariner develops behaviours consistent with the desired Responsible Boat Ownership culture.

Recommendation 6: Registration

The Taskforce recommends the Department of Transport and Main Roads, Maritime Safety Queensland branch review the adequacy of existing vessel registration requirements while mindful of costs to Queenslanders.

Recommendation 7: Licencing

The Taskforce recommends the Department of Transport and Main Roads, Maritime Safety Queensland branch review the adequacy of existing licencing requirements and whether current requirements ensure that operators are sufficiently proficient to operate all types of boats, or whether different licences or conditions on the licences should be required to operate certain vessel types and/or sizes, with a view to improve safety outcomes.

Lifecycle management and vessel inspections

Estimating the age of all registered ships in Queensland is difficult as 18 per cent of registrations did not record the year of manufacture. However, available records indicate that 20 per cent of ships were manufactured before 1996, 44 per cent were manufactured between 1996 and 2010, while 16 per cent were manufactured within the last 8 years. Anecdotal evidence suggests that vessels at 20 years old require significant maintenance and are on the downward trajectory of useful life.

Government regulators generally apply a risk-based approach towards regulatory effort, and commercial vessels form the highest risk to public safety, regulators have traditionally imposed a strong inspection regime on commercial boats. Recreational boats do not pose the same level of risk and due to limited government resources recreational boating is managed though performance-based legislation which imposes general safety obligations on owners to maintain their boat in a seaworthy state.

This approach does not provide scope to proactively manage the older, poorly maintained portion of the recreational fleet; particularly where boats are complicated or larger and require specialist knowledge and skills to maintain appropriately. Implementing a risk-based approach where vessels are proactively monitored (inspected) based on their age, hull material, and ongoing risk assessment rating based on inspection reports, will provide the ability for regulators to identify and intervene where boats are likely to pose a risk of becoming derelict or illegally dumped. Experience has shown that intervening at an early stage and before a boat is illegally dumped or sinks is cheaper and more effective than after the boat reaches crisis point.

Recommendation 8: Safety inspections

The Taskforce recommends the Department of Transport and Main Roads, Maritime Safety Queensland branch investigate applying a risk based, ongoing safety inspection scheme to Queensland Regulated Ships to improve the quality and safety of the Queensland vessel fleet. Initially, this scheme may target older vessels or vessels of a particular size and construction.

Vessel Disposal

Disposing of derelict ships presents a range of potential hazards and challenges, with each ship requiring an individual assessment and management approach. However, the hazards likely to be encountered are often predictable and require similar management actions to be taken. Issues such as the ship's location pose challenges to accessibility required to move it from its location to a place where it may be dismantled and removed onto the land and transported from the place of dismantling to a suitable waste disposal facility. Large ships may require specialised equipment such as ship lifts or cranes to remove a ship from the water. However, given the inherent structural weaknesses of derelict ships, this process is fraught with danger.

Marine craft do not last forever, and regardless of how well a vessel is built at some stage the vessel will reach the end of its viable life. Vessel lifespan is influenced by several factors including construction quality, hull material, maintenance, and economic viability. It is estimated that the structural life of Fibre Reinforced Polymers (FRP) vessel is in the region of 50 years, with much less certainty in relation to its economically viable lifespan. What is certain is that disposing of End of Life (EOL) vessels is an ongoing issue for Queensland and indeed across the world.

Estimating the age of Queensland's recreational fleet presents some difficulty as 20 per cent of boats were registered without the year of manufacture being recorded. Nevertheless, the records indicate that 20 per cent of ships were manufactured before 1996, 44 per cent were manufactured between 1996 and 2010, while 16 per cent were manufactured within the last eight years. The average age of a boat is 16.9 years and the median age is 13 years. To put this into perspective, 48,410 boats registered in Queensland are over 23 years old. While age is not of itself a determinative factor in the dereliction of vessel, programs which effectively manage an ageing fleet progressing to EOL, and which facilitate the disposal of EOL boats, are likely to produce immediate improvements in marine safety, and a reduction in pollution resulting from illegally dumped ships.

Since Fibre Reinforced Polymers (FRP) became commercially available to manufacturers in the 1950's, the market for recreational craft has grown dramatically. While aluminium construction has remained popular in Australia, a large proportion of vessels utilise FRP in one form or another as the dominant construction material, a trend which is particularly common in the smaller vessel market. Vessels constructed from more traditional materials such as wood or steel are becoming less common. Many of these FRP ships are over 40 years of age and are reaching the end of their expected lifespan.

Waste Disposal

Disposing of waste generated from dismantling a ship presents a range of challenges including how to manage large, heavy pieces of debris, hazardous and contaminated waste, and pollutants such as contaminated bilge water, oil, fuels and chemicals. From a wider perspective, waste facilities may be able to accept some, but not all, components of a ship, requiring multiple disposal points with the associated transport issues. Issues surrounding product lifecycle from cradle to grave, extended manufacturer responsibility and funding the disposal of ships present a range of potential governance and policy issues which need to be considered. A brief review of waste disposal facilities indicates that there are sufficient disposal options once ships have been dismantled, however many locations may be required to dispose of various waste products.

Barriers to accessing appropriate disposal include a lack of boat lifting facilities in many areas, and the limited recycling value in derelict vessels as their materials such as fibreglass and ferro cement are not recyclable, the current scrap value for metal is low, and vessels may contain pollutants such as fuel, lubricants, garbage as well as harmful substances such as asbestos.

Waste disposal creates significant environmental challenges, particularly where waste is disposed of in landfill. Queensland is working towards becoming a zero-waste society to the greatest extent possible, and to achieve this goal the Queensland Government has released a Draft Waste Management and Resource Recovery Strategy for public consultation. The Draft Strategy proposes a range of ambitious targets, by reducing household waste by 2025 to 25 per cent with 75 per cent to be recycled, and no more than 10 per cent of waste sent to landfill. To support the transition to a zero-waste society, the Queensland Government proposes to take the following key actions:

- work with councils to raise awareness about recycling options available locally

- deliver information and education programs that support waste avoidance, repurposing, reuse, recycling, and litter and illegal dumping prevention

- support councils to improve waste and recycling collection services and tackle problem wastes

- set minimum recycled-content standards for products

- work with businesses to reduce excessive packaging and make packaging waste recyclable

- make government purchasing decisions that avoid waste and support products containing recycled materials

- support research into new uses and markets for recycled materials

- support infrastructure investment in locations to help improve community access to recycling

The Draft Strategy proposes ambitious waste reduction targets between 2025 and 2050. The number of boats including those manufactured from FRP likely to reach their EOL is likely to affect these targets and requires further research to identify environmentally friendly disposal and recycling methods. To support the Draft Strategy, the Taskforce has engaged Griffith University to conduct research into how best to manage waste generated from EOL boat disposal.

Limitations and concerns

Size of vessel

While smaller vessels may be dumped relatively easily, larger vessels require specialised removal techniques and facilities including salvage barges and heavy lift capabilities to lift the ship from its initial place, heavy lift facilities to remove the ship from the water, and a storage facility suitable to house the ship while it is broken up and disposed of. When dealing with ships that are fragile or broken and submerged, or where their location dictates, it is often more efficient to break up ships in situ rather than transporting them intact. An example of this approach involved the 'Marachai', a 12m ferro-cement yacht grounded on the beach at Coochiemudlo Island, which was dismantled using machinery and loaded into bins on trucks than to relocate the yacht to a suitable location for removal.

Hazardous materials

Derelict vessels often contain liquid pollutants which must be removed and disposed of appropriately, and include fuel, oil and oily water mixtures. Bilges invariably contain oil which has leaked from engines and associated fittings, and water which seeps into the bilge of an unattended vessel through seawater or rainwater ingress becomes contaminated with these oils and therefore become pollutants. Contaminated water and fuels can pose a significant expense; for example, more than 8,000 litres of contaminated water were removed from the derelict vessel 'Sattha' prior to disposal. Pollutants including fuel, oil and oily water mixtures must be disposed of appropriately and local landfill sites may not have the facility to accept these pollutants. Boatyards commonly deal with these pollutants, however are private enterprises and as such will charge a disposal fee. In the past, MSQ has paid approximately $1 per litre to dispose of pollutants, including oily water.

OH&S limitations

Where vessels are removed by specialist contractors, these issues are managed by the contractor however where government departments remove vessels, a rigorous assessment process must be undertaken to protect staff from potential hazards. Potential hazards are diverse and may include accessibility, dangerous fauna, material failure, hazardous materials, risk of vessel sinking while personnel are on board, and a large range of similar concerns.

Hull material

Boats are constructed from a range of materials, many of which requires specific disposal methods. Materials such as aluminium and steel may have recycling value while other such as Fibre Reinforced Polymers (FRP) have recycling potential (*depending on the availability of appropriate technology*) or may simply be disposed of in landfill. Where FRP is completely polymerised (*that is, it does not contain unreacted resins*), it is generally considered non-hazardous and may be disposed of as landfill. International research into disposal of FRP vessels has identified environmental hazards inherent to the material. As FRP hulls age they degrade into plastic micro-particles which disperse into the environment and bio-accumulate in marine life, therefore removing illegally dumped FRP hulls from Queensland's waterways is likely to provide positive long term environmental benefits. Recycling and reuse options are very limited.

Boat yards and lifting facilities

While the majority of smaller boats can be removed from the water onto a trailer, larger boats which cannot be easily removed onto the land require specialist equipment and facilities, including specialist as lifting machinery and access to a suitable storage area while the boat is dismantled. A brief environmental scan has identified facilities suitable for removing boats in the majority of areas, with a number of notable gaps including far north Queensland. A list of boatyards and similar facilities is included at Appendix 3. Room exists at a number of MSQ bases for smaller vessels to be removed from the water and dismantled of necessary. MSQ has recently removed a larger (35m) ship from far north Queensland by engaging towing contractor to tow the ship to a suitable facility near Karumba where it was removed from the water and scrapped. While removing a ship of this size is unusual, similar access issues may arise in the future.

Transporting boats to lifting facilities

Boat transport is a significant issue, given that derelict ships are often unable to be moved under their own power and requires specialist knowledge to be safely towed whilst in the water. While the size of boat is related to the difficulty involved, even relatively small boats may be too difficult for a recreational operator to undertake. Where this situation occurs, owners must engage commercial operators at potentially high cost. Where the towed vessels are in very poor condition the cost increases, as the operator must consider the risk of the tow sinking in a navigable channel, which must be cleared as soon as possible. In the case of derelict vessels, it is often more attractive to bring the hull to a place accessible to the land where machinery can dismantle the remains, prior to transporting the waste by road to a waste disposal facility. The cost of towage, lifting and truck transport on many occasions run into the tens of thousands of dollars. Potential savings may be available where vessels can be dismantled in situ and disposed of directly, eliminating towage costs and associated risk.

Accessing dismantling facilities

There are limited cost-effective options available for vessel owners to dispose of their vessels. Unlike cars, there are no 'wreckers' that cater for vessels. There are facilities to remove larger ships from the water in urban centres however facilities are very limited in more remote areas such as North Queensland. As lifting facilities are privately run enterprises, they may require assurances that storage and lifting costs will be paid. Issues identified by marina and ship yard operators include:

- shipyards are reluctant to remove vessels from the water without insurance, and the cost of using these facilities are often too expensive for the average derelict vessel owner

- dependant on the type of vessel the cost to break it up can be prohibitive for the typical derelict vessel owner

- disposal fees at waste and recycling centres / rubbish tips can be costly

- distance between ship-yards on Queensland coast.

Transporting smaller boats

Experience shows that smaller boats which are capable of being transported by trailer are generally not disposed of at sea, rather are left on land to degrade. Many of these boats are sold to unsuspecting owners, posing significant risks to safety including having old, unreliable engines and rot in wooden structural members masked by a layer of fibreglass. While these smaller vessels are not the primary focus of this paper, facilitating the disposal of these boats will remove a group of dangerous boats from the available fleet, improving the quality and safety of boats in Queensland waters. Disposing of smaller boats poses similar challenges to those involving larger ships, albeit on a smaller scale. Boats may be stored on a trailer or on land without a trailer which based on anecdotal reports, are often unregistered and in poor condition. If transport issues were overcome by, for example, facilitating removal by tow trucks, or permitting one-way transport of unregistered trailers to the disposal location, removing these smaller boats from the fleet will lead to a younger, safer fleet.

Sustainable disposal

Boats in Queensland are constructed form a limited range of materials, generally limited to wood, steel, aluminium, ferro-cement or Fibre Reinforced Plastics (FRP). Uncontaminated wood may be sustainably disposed of in landfill, while aluminium and steel have recycling value. Ferro-cement may be ground and on sold as road-base or similar material, however the cost of this process is unknown. Disposing of FRP sustainability is more problematic due to the dust and fibres released when ground or shredded, while incineration requires strict controls to minimise toxic emissions. Generally, FRP is cut into manageable pieces and disposed of in landfill. As FRP is not biodegradable and land fill disposal introduces long term flow on effects such as introducing micro-plastics into the environment, consideration should be given to whether landfill is an acceptable long-term disposal solution.

Recyclability of component parts

Recycling, upcycling or reuse of boat parts is a viable, if somewhat limited option, with many boat parts made of materials which hold a recycling of intrinsic value. The value of components is dependent on each individual ship however a broad breakdown of ship parts and the recycling value of components is included at appendix 2. While this option may require further consideration due to the labour required to dismantle and recycle boat parts, there may be scope for private individuals and companies such as used boat part sellers, and persons wishing to re-sell boat parts for decorative use, to participate at some point in the disposal process.

Alternative uses

Alternative uses such as upcycling may be considered, depending on the individual circumstances of each vessel. Where the ship is suitable, consideration may be given to donating ships to use as playground equipment, or as dive and fish attracting wrecks. Each of these options requires closer consideration given the health and safety considerations of the former, and the expense and pollution issues of the latter.

However, while an extremely small number of vessels may be suitable for these types of use, the vast majority of abandoned boats present significant health and safety risks which are expensive to correct, and the final product is unlikely to be as appropriate as a purpose made piece of equipment; therefore, this is not a realistic management option.

Sale of vessels

Ships which may be repaired and re-enter the recreational fleet may be sold to a person or organisation with the capacity to restore the ship, however this option should only be used where the ship is suitable, and the owner has a proper understanding of precisely what the ship requires. If this option is to be used, consideration should be given to requiring certain undertakings to be provided prior to re-registration, such as having the ship inspected by a certified surveyor.

Policy options

Incentivising disposal options

Depending on the boat's location, size and condition, the disposal process is likely to be expensive and difficult and, in many cases, (particularly in the case of larger vessels) disposal costs greatly outweigh a boat's value. Where the expense of disposal exceeds the risk of prosecution if boat ownership can be proven, owners have a financial incentive to simply abandon their boat. Changing this value equation is likely to reduce the incidence of owners abandoning boats. This may be achieved through developing a suite of appropriate incentives for owners to dispose of their boats. While not exhaustive, incentives may include;

Placing a value on boats by implementing a buy-back or turn in scheme

Contributing towards financial barriers by assisting owners to access disposal facilities. This may be achieved by providing physical assistance (towing to a disposal facility for example), or by engaging with boat lift operators and provide boat lifting insurance which an owner may not be able to obtain.

Recommendation 9: Develop streamlined disposal options

The Taskforce recommends:

- The Queensland Government work with industry and local councils in Queensland to provide a program for disposing of derelict vessels based on best practice.

- The Queensland Government work with industry and local councils in Queensland initially to investigate programs such as;

  o relief from cartage and dump fees

  o facilitating annual unwanted vessel collection days, similar to local annual council kerb-side collection days

  o developing a grant scheme to assist local governments and not for profit organisations

  o permit unregistered trailers to be towed from home to point of disposal.

- The Department of Transport and Main Roads, Maritime Safety Queensland branch investigate, in consultation with the boating industry and other relevant government and non-government and government stakeholders, best practice options available to develop environmental and recyclability targets relating to vessel manufacturing.

Insurance

All boats that are more than 15 metres in length must hold a policy of insurance which provides cover to specified amounts for the clean-up of pollutants, and the removal of wrecks (section 62 *Transport Operations (Marine Pollution) Regulation 2018* 'pollution insurance'). Boats which do not exceed 15 metres in length are currently not required to hold pollution, or indeed any other kind of insurance. In extreme cases, vessel owners have "altered" vessels to avoid insurance obligations.

History

In 2002 legislation (the Transport Legislation Amendment Act 2002) introduced the requirement for the owner of a boat over 35 metres in length to have an insurance policy in place sufficient to pay for the clean-up costs of a pollutant discharged into Queensland's coastal waters, and to pay for the costs of salvage or removal of the ship from coastal waters if the ship is illegally dumped or wrecked. This requirement was expanded in 2006 through the Maritime and Other Legislation Amendment Bill 2006 through reducing the length threshold effectively applying the requirement to all ships more than 15 metres in length overall. This change sought to address the growing number of larger illegally dumped ships which imposed significant costs to the State to the clean-up the discharge of pollutants and in the removal of such ships, often under difficult salvage situations.

The Roper Therese was a trawler operating north of Yeppoon that grounded on the shore of Byfield National Park. The ship was insured however the policy was contingent upon the vessel being operated in accordance with all relevant laws.

The insurer determined that the owner's fisheries licence had been suspended (possibly due to non-payment by the due date) therefore the ship was not being operated in accordance with all relevant laws. As a result, the ship's insurer declined the owner's claim. MSQ removed pollutants from the ship while the insurance issue was being decided however due to the remote location and expense of removing the ship, once the insurer declined the claim the ship was left in situ.

A system was introduced whereby the owners of vessels were unable to obtain insurance *(such as those of ferro-cement construction*) who could apply for an exemption to the insurance requirement if certain conditions were met. These exemptions are not intended to be issued as of right and may include such conditions as reasonable, such as limiting the amount of pollutants kept on board or by requiring a risk management plan to be developed.

Policy objectives

The policy objective of pollution insurance is to address the growing number of *larger illegally dumped ships* that cost the State substantial amounts for the clean-up of pollutant discharges and the cost of removal of such ships in difficult salvage situations. This is operationalised by ensuring that owners of large vessels have sufficient insurance to ensure that clean up and salvage costs incurred by the State are recoverable.

Issues

The case studies attached to this briefing highlight examples of where the pollution insurance regime has not provided the protection envisaged by the original policy. The Roper Therese and Haba IV case studies highlight how insurance claims may be refused as a result of failing to strictly comply with essential terms and conditions of the policy. Given these limitations the pollution clean-up/wreck removal insurance legislation cannot and does not meet the policy objective of addressing the growing number of larger illegally dumped ships that cost the State substantial amounts.

Evidence of Insurance

When a vessel over 15 metres in length is first registered as a recreational vessel, evidence of insurance is required to be presented. At registration renewal, self-declaration that insurance is current is accepted. It is only when asked, that a vessel owner is required to produce evidence of insurance and this is dependent on compliance activities.

Seaworthiness

Unlike vehicles, recreational vessels are not subject to safety inspections on transfer of ownership or at any time during a vessels life. One general restriction included in marine insurance policies is that for the policy to remain in place a ship must be kept in a seaworthy condition. Insurance companies may require a seaworthiness certificate or inspection report to provide insurance. This means the focus of the assessment of seaworthiness is insurance driven rather than safety driven.

Vessels are generally illegally dumped when they become economically unviable to operate and cannot be on-sold. These vessels rarely hold an insurance policy and are rarely maintained in a seaworthy condition. Therefore, where a policy is in place, it is extremely unlikely that an insurer would honour the policy. If a vessel owner is uninterested, unwilling or unable to afford insurance, there is no obligation for the owner to even consider obtaining a safety inspection of the boat.

The current market driven insurance requirement is intended to pay for the cost of removing derelict boats, however due to the inherent nature of illegally dumped and derelict boats, the current model does not meet the initial

Haba V was a 35-metre aluminium catamaran which operated from Port Douglas, and ferried tourists on day trips to the Great Barrier Reef. The vessel was approximately five years old and sank while alongside its berth. The investigation revealed that the vessel was poorly maintained with water entering the hull through several unrepaired cracks and corrosion holes. Ultimately a corrosion hole failed, allowing water to enter the engine room, which flooded and sank.

The vessel was insured however an initial assessment indicated that the sinking was due to a lack of maintenance, therefore the insurer disallowed the insurance claim. Further, the vessel's financier appointed an administrator over the company's bank accounts and all assets including the ship, preventing the owner from taking any action to remove the vessel; although as the owner did not have the financial means to remove the vessel this decision had not affected the outcome.

It took a great deal of strong negotiation before the insurer agreed to raise the ship and remove her from Queensland waters. MSQ were of the view that a thorough inspection needed to be undertaken to identify the cause of the sinking. This argument was ultimately accepted, and the insurer removed the ship to a place on land.

intended policy outcome. While pollution and wreck removal insurance may assist where an unexpected incident occurs and requires a sunken vessel to be raised, it cannot address derelict boats. An alternative funding source is required to enable appropriate boat disposal to be incentivised.

CTP insurance

All vehicles registered to drive in Australia are required to hold a Compulsory Third Party Personal Injury (CTP-PI) insurance policy which provides the driver with cover for any legal liability for injury or death resulting from an accident for which the driver is responsible. This CTP-PI does not cover for example, damage to vehicles or property, or the towing of vehicles from the indecent location. CTP-PI insurance is administered through the vehicle registration process.

Boats are not provided with Compulsory Third Party (CTP) coverage. For a boat owner to be covered for legal liability of this sort, the owner must obtain an insurance policy which providers such cover. Queensland experiences a significant number of reported and unreported injuries each year resulting from marine incidents however it is not known how many of these persons are protected by insurance policies. Likewise, it is not possible to quantify the potential benefit to injured parties should a CTP program be implemented. However, the case of *Hume v Patterson* [2013] NSWSC 1203 is a stark example of what may go wrong during boating activities and highlights the importance of CTP insurance.

During 2007 an 18-year-old man was wake skating on the Tweed River, northern New South Wales, when he fell off the wake skate. Unknown to him the driver had taken the ski boat into shallow water, and as he fell off his head struck the sea bed, breaking his neck and causing permanent tetraplegia. As the boat was covered by a comprehensive insurance policy, the injured man brought a claim against the policy to cover the essential and life changing treatment and long-term care he required throughout his life. The insurer resisted the claim on the basis that water skiing is inherently dangerous and the injured man accepted the risk, and the matter ultimately reached the New South Wales Supreme Court. The court held that the driver was negligent in taking the boat into shallow water as the injury would not have occurred if he fell in deep water. As the driver was at fault, he was indemnified by the comprehensive insurance policy and the insurer paid the damages claim.

While no amount of money can compensate an active 18-year-old who has suffered a catastrophic spinal injury, the damages may at least improve his quality of life. In this case the boat was covered by a comprehensive insurance policy that indemnified the boat's driver. If this policy were not in place the driver would be personally liable for the damages which were ultimately awarded. CTP will not provide the coverage necessary to address derelict and illegally dumped vessels, however does provide financial protection to injured persons. Further consideration of the wider benefits of CTP insurance should form part of an overall legislative review.

Recommendation 10: Insurance

The Taskforce recommends the Department of Transport and Main Roads, Maritime Safety Queensland branch investigate:

- The adequacy of existing regulatory requirements for pollution insurance.
- The insurance implications of developing marinas and moorings in cyclone affected areas.

Sustainable funding

The Queensland Government has allocated $20 million funding for the next four years to address this issue, however, there is no on-going financial allocation to meet the unpredictable and often substantial costs of removing and disposing of derelict vessels.

Following this four-year period, it is estimated that around $1million in ongoing annual funding will be required to implement intervention strategies aimed at enabling the vessel owner to dispose of unwanted vessels and to remove any future derelict vessels.

This cost is an estimate only and can vary due to the level of demand for assistance in disposal of unwanted vessels. An ongoing funding source is needed to manage the above intervention strategies and to remove derelict vessels where owners do not respond to the intervention process.

Recommendation 11: Sustainable Funding

The Taskforce recommends that while being mindful of the cost to Queenslanders, the Department of Transport and Main Roads, Maritime Safety Queensland branch investigate funding models to facilitate a long-term program to embed responsible boat ownership around the potential reforms recommended.