

War on Wrecks Taskforce

Interim Report - APPENDICES

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Appendix 1 – Map of derelict vessels in Queensland

Appendix 1



Appendix 2 – Root Cause Analysis

War on Wrecks taskforce

Root Cause Analysis – Vessel Abandonment

Background

The War on Wrecks taskforce has been tasked with identifying the causes of vessel abandonment and address the growing number of derelict vessels in Queensland's waters. To date the taskforce has utilised a range of sources to identify factors contributing towards vessel abandonment, 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, Maritime Safety Queensland has conducted a brief root cause analysis to guide future taskforce deliberations. A root cause analysis is a method of problem solving which identifies contributing factors and the root cause of a problem. A factor is a **root cause if an undesirable outcome is prevented when the factor is removed from the process**. This is contrasted with *contributing factors* which while they may exacerbate a problem, when removed from a process the undesirable outcome is not prevented.

Root causes may belong to many organisational levels such as governmental, social and geographical levels. Root causes are identified through the investigator's cultural lens, the subjective nature of which may not identify root causes evident to others. To overcome this limitation the analysis has been prepared by Maritime Safety Queensland and results provided to the technical working group for peer review prior to presenting this report to the War on Wrecks taskforce.

Methodology

This analysis utilises the '5 why's?' methodology which drills down into the cause and effect relationship underpinning a problem, in this case 'Why was a boat abandoned 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's 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;

1. Why did the owner purchase a boat they could not maintain?
2. Why does the owner not want to dispose of the boat?
3. Why did the government respond reactively when boat reached a crisis point?
4. Why did the government bear the full cost of disposing of the boat?
5. Why does the government only remove a small proportion of abandoned boats?
6. Why was this boat abandoned? Why are boats regularly abandoned in remote waterways?

Presentation

Given the interrelated nature of many factors which contribute to vessel abandonment, the results are depicted on a flow chart style table to permits multiple cause branches to be displayed. The chart is arranged into 6 columns, with the **Issue** listed on the left-hand column, and each subsequent column listing a possible answer as to 'Why' this is relevant to the problem statement. Final causes are listed on the right-hand column and were analysed to determine whether an undesirable outcome is prevented when the factor is removed from the process.

Where the undesirable outcome (vessel abandonment) 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**.

Results

Root Causes

Recreational boat sales are under-regulated.

Many boats are abandoned simply because the consumer purchased a boat they did not have the skills or finances to run and maintain the boat, or where its true condition was not known at the time of purchase. 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 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 highly regulated.

- *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.

These regulations are imposed 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 no similar information provided to consumers, except for new marine engines which are sold with a servicing schedule. If information was required to be 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

No system in place to monitor recreational boats

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 through 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 abandoned. Experience has shown that intervening at an early stage and before a boat is abandoned or sinks is cheaper and more effective than after the boat reaches crisis point.

Disposal options are not incentivised

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.

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.

Culture and values surrounding Responsible Boat Ownership

Marine safety regulators have a high level of knowledge regarding vessel management and maintenance however the same cannot be said of 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.

Contributory factors

Maritime regulators traditionally focus on commercial industry

Following on from the root causes listed above, maritime safety regulators have traditionally focused on commercial shipping at the expense of recreational boats. This is known to regulators who are in the process of reframing their activities towards recreational boating.

Legislative gap

A range of gaps have been identified within the current suite of maritime legislation, including compliance and enforcement issues, national boating identification systems, and cost recovery processes. The full extent of legislative amendments which are required is not yet known and will become clearer as the taskforce progresses.

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. Registration data is limited as once a boat is removed from the register the record is lost. Where a boat is re-registered it becomes a new entity, therefore it is often not possible to build a picture of a boat's entire lifecycle.
- Hindering property crime and boat rebirthing options

Market driven Insurance model not appropriate

The current market driven insurance designed to pay for the cost of removing derelict boats does not meet the initial policy outcome. While the insurance program will 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 (*see extended producer responsibility*).

Technical Working Group comments:

QPWS:

The implementation of a single agency/authority for the management of vessels (at the beginning, during and end of life cycles) regardless of jurisdiction and location would contribute greatly towards achieving clear delivery of programs and action to address prevention, implement regulation, implement incentives and take compliance action when required. At the moment management and governance of vessels is fragmented, this situation almost encourages and fosters the unseaworthiness, abandonment and irresponsible ownership of derelict vessels. Incentives/fostering boat recycling/appropriate disposal should be developed and encouraged.

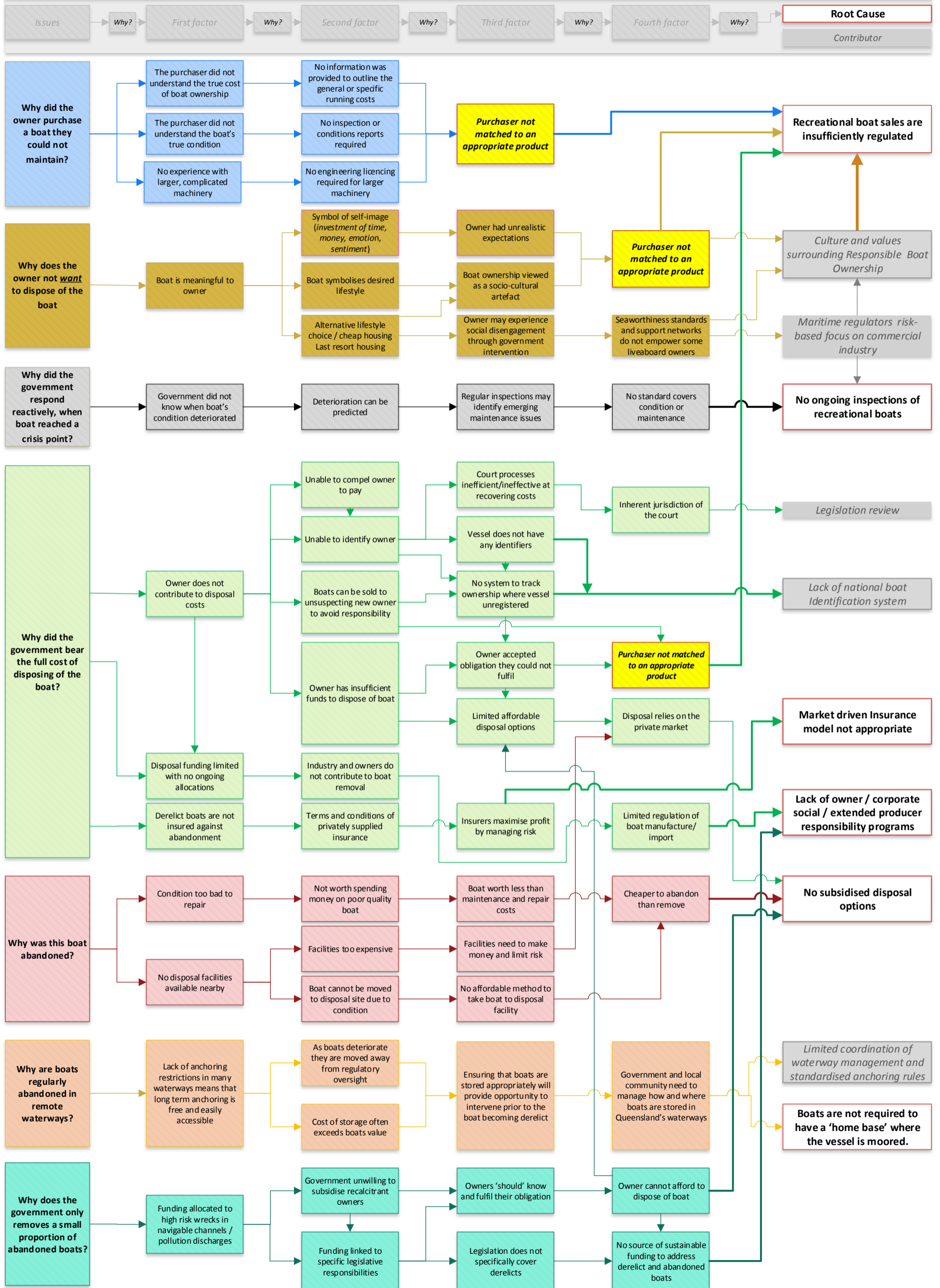
The statement that regulators have historically focused on commercial industry - a contributing factor here may be the assumption that commercial operators have a vested financial interest in keeping their vessel operational or have capacity to pay fines/or pay cost recovery if a matter moves into the enforcement realm, whereas recreational users may not i.e. if a recreational boat owner can't afford to pay a fine for not maintaining their vessel, then it is unlikely they can afford to pay cost recovery incurred by the State for removing the offending vessel and restoration of environment – i.e. you can't recoup monetary fines or costs from people that don't have the funds to maintain responsible vessel ownership in the first place.

AMSA:

For the Issue 'Why does the owner not want to dispose of the boat' are additional considerations (1) cost and (2) lack of knowledge on how to dispose and (3) penalties are insufficient to motivate them to act? Cost would likely be a significant factor in abandonment.

War on Wrecks Taskforce

Root cause analysis of the hypothetical question – ‘Why was this boat abandoned in Dickson Inlet?’



Appendix 3 – Consultation Results – Mental Model



War on Wrecks Taskforce

Community Consultation Research Report

Executive Summary

Customer Consultation Report

The War on Wrecks taskforce sought to explore innovative and holistic intervention programs to reduce the number of boats abandoned in Queensland's waterways on the back of a significant funding allocation to remove vessels and promote responsible boat ownership.

The taskforce conducted qualitative research into the way in which the boating community engaged with boat ownership, identifying drivers behind ownership behaviours and public expectations of government regulation.

The program of work identified the root causes of boat abandonment, and opportunities to develop intervention programs which address key factors contributing to vessel abandonment in Queensland

Consultation purpose

Research goals

The War on Wrecks taskforce sought to:

- Explore the alignment between boat ownership, customer needs and their current experiences relating to abandonment.
- Identify attitudes, cultural and infrastructure barriers to responsible ownership and end of life boat disposal.
- Understand what customers expect of government intervention and the way in which government acts to develop a culture of responsible ownership.

The study realised a mental model of the way in which customers think about boat ownership, providing the taskforce a perspective on how to identify gaps and explore opportunities to improve governance of boating and boat ownership.



Research methods

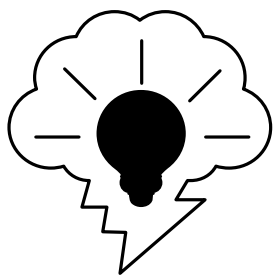
Focus Group Discussion

Qualitative research methods

Focus groups involve selected participants who participate in a guided discussion intended to elicit beliefs, experiences and perceptions surrounding certain activities, in an environment that is non-threatening and receptive.

The taskforce utilised local community resources to provide an environment where participants felt welcome, encouraging participation.

After data was collected during the focus group discussions, the data was collated and analysed to identify themes which inform insights, opportunities and potential interventions.



Brainstorm



Theme



Idea

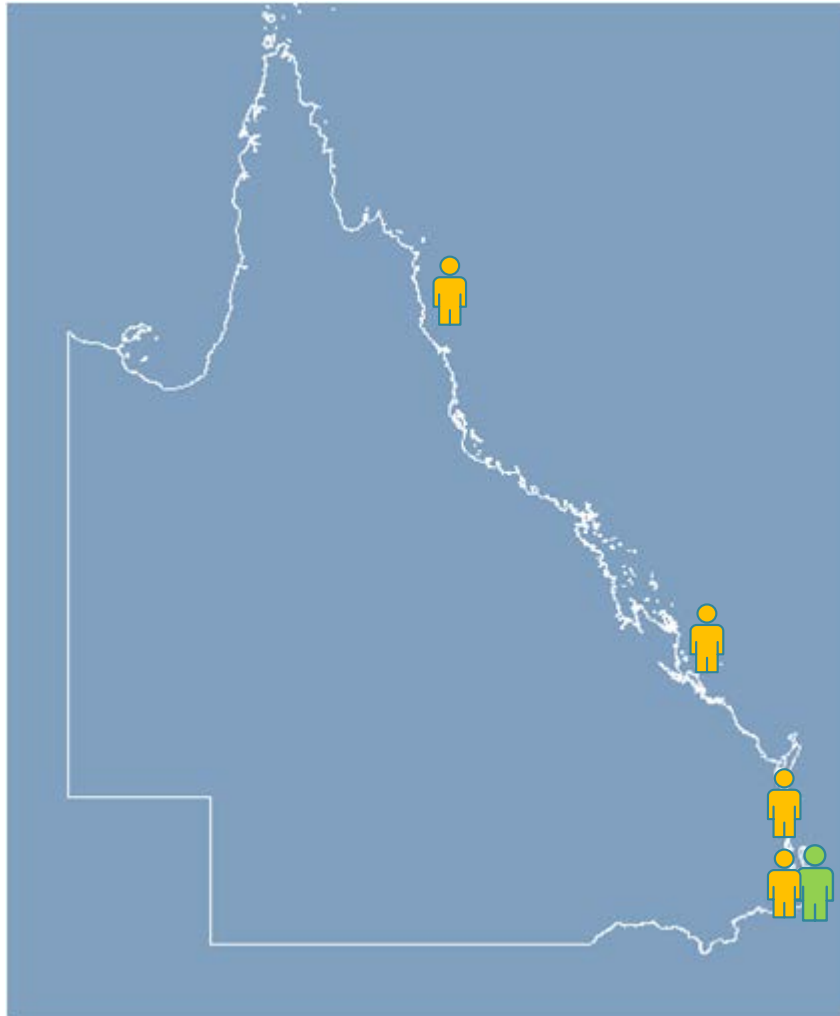


Opportunity



Who Participated?

Focus Group Discussion



The taskforce conducted qualitative research to better understand the way in which Queensland's boating community engaged with boat ownership, and the range of issues which impact on responsible boat ownership.

Focus group discussions were held in Port Douglas, Yeppoon and Southport, involving 66 participants. Of the 94 participants, approximately 78% were male and 22% female.

These meetings obtained sufficient data to reach 'idea saturation point', where the same themes were recurring and no new insights were provided by additional group discussion.

Additional insights were gathered through comments sent to the War on Wrecks email inbox.



Insights and Opportunities

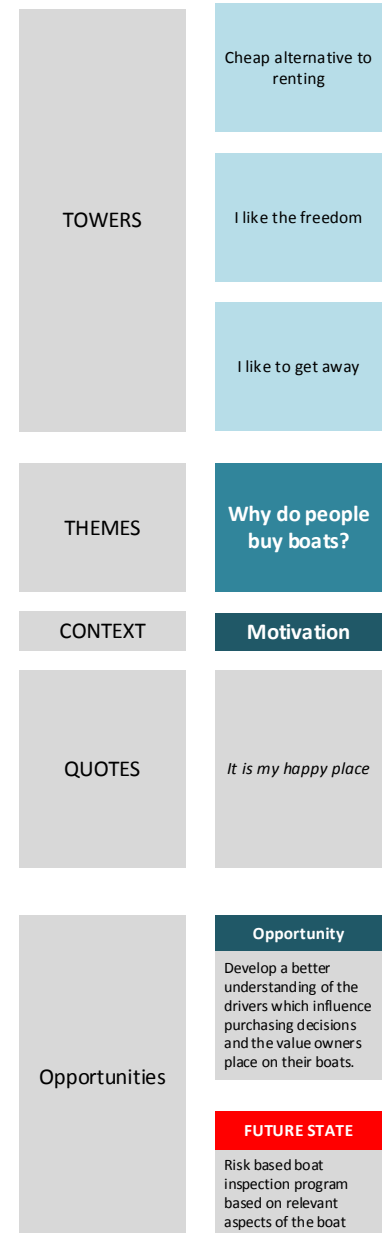
7 December 2018

Analysis

Mental Model

Insights gathered during focus group discussions were arranged into a **mental model**.

A mental model is a diagram that represents an understanding of the way in which customers think – in this case about responsible boat ownership and disposal, as well as expectations of government regulation.



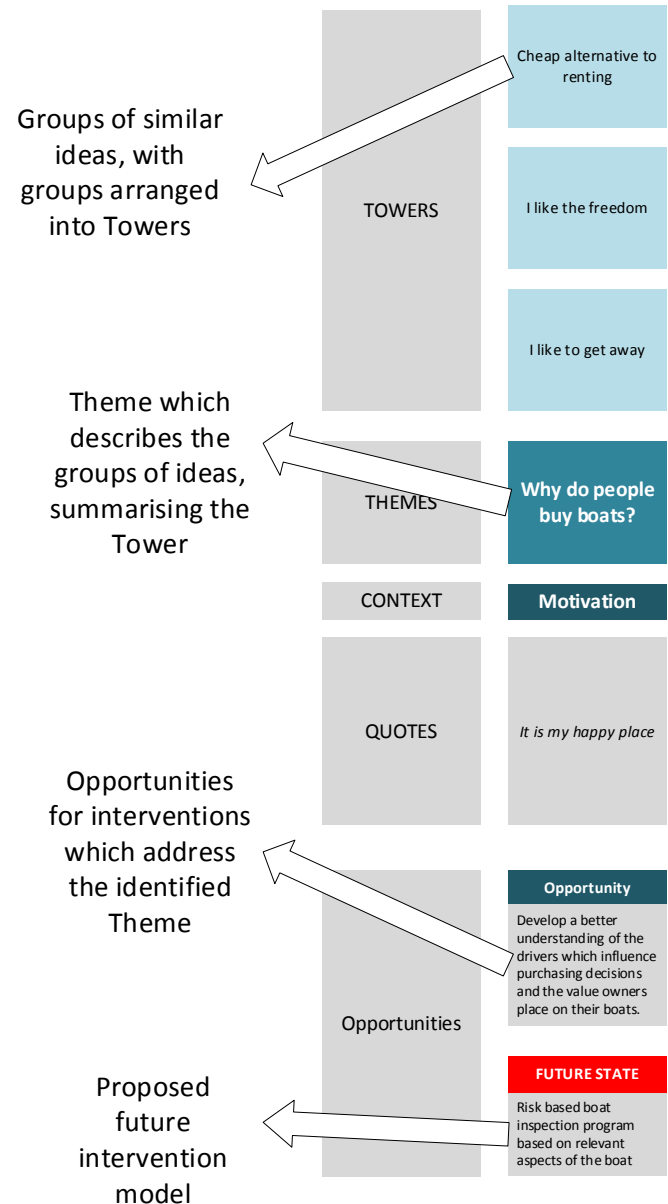
Analysis

Mental Model

The model is a chart of '**Towers**' made of rectangular blocks which represent groups of related ideas and verbal clues which were gathered during focus group discussions.

These 'Towers' of themed ideas are grouped into '**Themes**' which summarise the idea towers.

Underneath the mental model are **Opportunities** to implement changes or obtain further information, and a proposed **Future State**, which describes a potential regulatory model which may address the challenges identified.



How to use the mental model

Building a mental model of the way in which customers engage with boat ownership provides taskforce members with a perspective on how to identify gaps and explore opportunities to better serve customer and support a culture of responsible boat ownership

Queensland Government

War on Wrecks Taskforce Mental Model

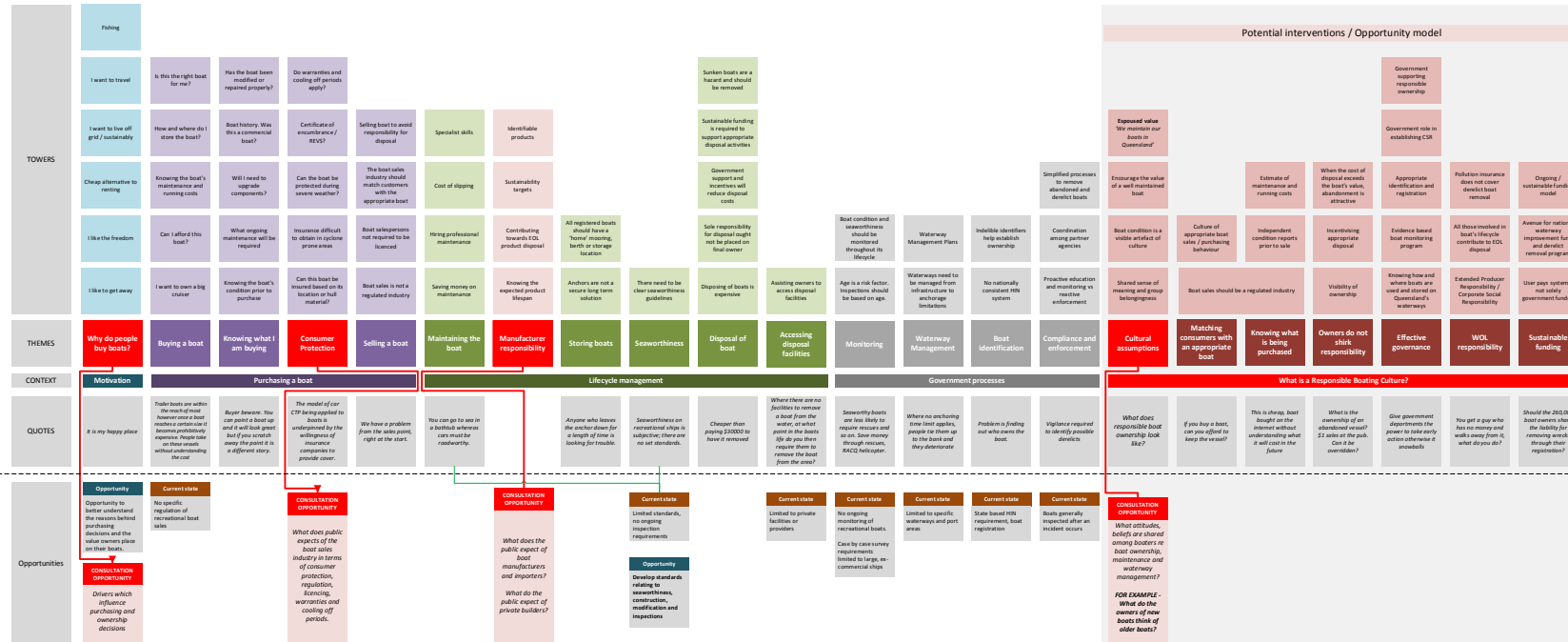
OVERVIEW
The War on Wrecks taskforce has consulted with the boating public to better understand mental models and processes relating to boat purchasing, sales, ownership, abandonment and government regulation. Consultation was undertaken in the form of focus group discussion guided by the Chair of the War on Wrecks taskforce.

The results of public consultation have been thematically analysed and presented as a mental model that represents an understanding of the way in which the boating community engage with a boat throughout its lifecycle, and public expectations of regulation.

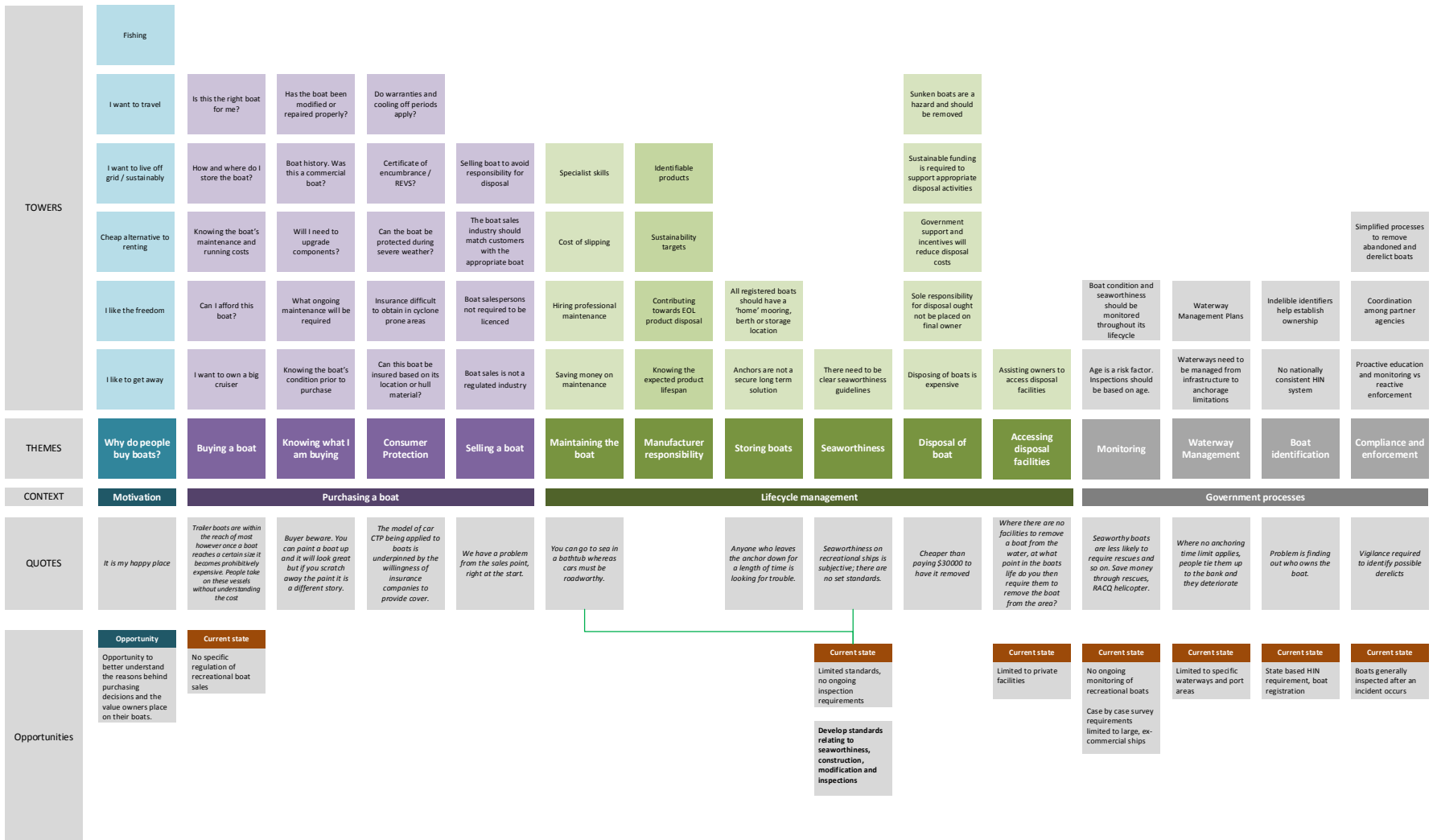
PARTICIPANTS
The taskforce engaged with a 3000 members of the boating community including boat owners and operators, commercial representatives and community groups.

Iterative sessions were conducted in Port Douglas, Yeppoon, the Sunshine Coast, Brisbane and the Gold Coast, with the results of each session used to guide subsequent sessions.

Of the 3000 participants, 300% were male and 300% female.



Current State



Insights

Purchasing and selling behaviour - Regulating the boat sales industry and requiring certain information to be provided to consumers will improve the level of consumer protection currently available, enable purchasers to understand what they are purchasing, the costs involved, and empower consumers to choose the correct boat for their circumstances. Participants supported introducing a requirement to provide accurate information to prospective purchasers on the boat's condition and its expected running and maintenance costs, prior to the sale proceeding.

Lifecycle management - Sharing the cost of product disposal throughout all entities involved in the product's life will improve opportunities for appropriate disposal and reduce the imposition placed on the final owner who is least able to fund appropriate disposal.

Responsible Boat Ownership - Adopting a cultural perspective provides a holistic conceptual model for improving the way in which the boating community approaches boat ownership, through developing a strong belief and value system which influences appropriate behaviours.

Education– Participants identified that many boat owners are unaware of how to maintain a large boat. Participants supported further education of owners wishing to own a large boat. Potential to develop model based on the commercial engineering certificate model.

Waterway Management – Participants 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. Participants requested provision of improved infrastructure and facilities.

Insights

Registration - Customers were of the view that all vessels should be registered in order to ensure owners are held accountable for boat disposal. Further, regardless of whether boats were registered, customers agreed that hulls should be identifiable, with the identification system being implemented on a nationally consistent manner. Deficiencies were identified in current registration processes.

Insurance – Customers identified significant deficiencies in the current insurance market, and the manner in which compulsory insurance is administered. While customers did not exhibit a thorough understanding of the CTP scheme, there was general agreement for a compulsory, government-driven insurance scheme.

Seaworthiness – A number of participants had marine industry experience, and viewed the way in which recreational boat conditions are managed as inferior to the commercial survey regime. Participants agreed that seaworthiness standards should be applied to recreational boats, and ongoing inspections or monitoring ought to occur throughout the boat's life.

Disposal – Participants identified the lack of disposal facilities as a significant barrier to responsible boat disposal. Given the way in which vessels deteriorate as they age, and the lack of affordable disposal options, in many cases abandonment is the only realistic way an owner can dispose of a boat. Infrastructure and funding solutions should be considered.

Compliance – Current regulatory tools were viewed as ineffective and reactive, leading to boats becoming expensive derelicts. Interventions should be early and proactive, prior to boats becoming derelict.

Thank you

TOWERS

Fishing

Do I have the skills to operate this boat?

I want to travel

I want to live off grid / sustainably

Cheep alternative to renting

I like the freedom

I like to get away

Has the boat been modified or repaired properly?

Boat history. Was this a commercial boat?

Will I need to upgrade components?

What ongoing maintenance will be required

Knowing the boat's condition prior to purchase

Knowing what I am buying

Consumer Protection

Selling a boat

Do warranties and cooling off periods apply?

Certificate of encumbrance / REVS?

Can the boat be protected during severe weather?

Insurance difficult to obtain in cyclone prone areas

Can this boat be insured based on its location or hull material?

Liveaboard boat management/ sewage management

Specialist skills

High cost of slipping pushes people out of boat ownership

Hiring professional maintenance

Saving money on maintenance

Maintaining boats

Identifiable products

Sustainability targets

Contributing towards EOL product disposal

Knowing the expected product lifespan

Manufacturer responsibility

Selling boat to avoid responsibility for disposal

The boat sales industry should match customers with the appropriate boat

No specific licencing requirements for boat sales

Boat sales is not a regulated industry

Sunken boats are a hazard and should be removed

Sustainable funding is required to support appropriate disposal activities

Government support and incentives will reduce disposal costs

All those involved in a boat's lifecycle should share disposal costs

Disposing of boats is expensive

Disposal of boat

All boats must be seaworthy regardless of whether they are being used

Boats must be fitted with engines to be seaworthy

There need to be clear seaworthiness guidelines

Seaworthiness

Provision of facilities for liveaboards

All registered boats should have a 'home' mooring, berth or storage location

Andchors are not a secure long term solution

Storing boats

Man inspect be aff

Boat con show mor through life

Age is a inspect be base

Mon

Assisting owners to access disposal facilities

Accessing disposal facilities

THEMES

Why do people buy boats?

Buying a boat

Selling a boat

Storing boats

Disposal of boat

CONTEXT

Motivation

Purchasing a boat

Maintaining boats

Seaworthiness

Accessing disposal facilities

It is my happy place

Trailer boats are within the reach of most however once a boat reaches a certain size it becomes prohibitively expensive. People take on these vessels without understanding the cost

Buyer beware. You can paint a boat up and it will look great but if you scratch away the paint it is a different story.

The model of car CTP being applied to boats is underpinned by the willingness of insurance companies to provide cover.

You can go to sea in a bathtub whereas cars must be roadworthy.

Anyone who leaves the anchor down for a length of time is looking for trouble.

Seaworthiness on recreational ships is subjective; there are no set standards.

Where there are no facilities to remove a boat from the water, at what point in the boats life do you then require them to remove the boat from the area?

Cheaper than paying \$30000 to have it removed

Disposal of boat

Opportunities

Opportunity

Develop a better understanding of the drivers which influence purchasing decisions and the value owners place on their boats.

FUTURE STATE

Regular owner surveys to understand purchasing drivers and measure the culture surrounding responsible boat ownership, to monitor the progress of culture change activities

FUTURE STATE

Purchasers must be given sufficient information at the point of sale to support an informed purchasing decision. Required information includes:

- Condition report (current condition)
- Inspection history (historical condition)
- Expected maintenance costs
- Average running costs
- Storage requirements
- Recommended crewing levels

Current state

Limited regulation of boat sales, no licence for new boat sales. Second hand dealer licence required for used boat sales

FUTURE STATE

Boat sales should be better regulated. Model may include;

- Licensing
- Information notices
- Cooling off periods

Current state

No extra knowledge or certification required for boats with high engine power, large or complicated machinery

FUTURE STATE

Mandatory engineering qualifications for owners/operators of certain boats, Similar to the current commercial licencing system (Marine Engine Driver)

Current state

Limited construction standards. No ongoing responsibility (other than statutory warranty provisions)

FUTURE STATE

Develop ongoing CSR / EPR programs to ensure the boat manufacturing and importing industry contributes to the ultimate disposal of their products

Current state

Anchoring restrictions apply to limited waterway management areas

FUTURE STATE

On water storage restrictions to apply to boats owned by Queensland residents. All boats linked to a specific storage location. Permanent anchoring not an appropriate storage solution

Current state

Limited standards apply to recreational boats. No ongoing inspection requirements

FUTURE STATE

Develop minimum construction standard applicable to all boats at all times while on the water

Current state

Disposal is limited to private facilities or providers. Appropriate facilities are not available in all areas. If boats cannot be safely transported to an appropriate facility, owners have few options other than abandonment.

FUTURE STATE

Sufficient arrangements in place to dispose of EOL boats in all areas

Disposal options accessible to owners and actively supported by stakeholders (assisting owners, providing information via internet and soon)

Current state

No ongoing of recreat

TOUC

Initial and registration touchpoint into monitoring

FUTURE STATE

Risk based inspection based on aspects of

Intervention / Opportunity model – culture development

Government supporting responsible ownership	Government role in establishing CSR	Pollution insurance does not cover derelict boat removal	Ongoing / sustainable funding model	Operating a large boat requires different skills than operating a small boat	Boats should be inspected throughout their lifecycle
Appropriate identification and registration	Evidence based boat monitoring program	All those involved in boat's lifecycle contribute to EOL disposal	Avenue for national waterway improvement fund and derelict removal program	Maintaining large boats takes extra skills	Inspection
Knowing how and where boats are used and stored on Queensland's waterways	Extended Producer Responsibility / Corporate Social Responsibility	User pays system – not solely government funded			
Effective governance	WOL responsibility	Sustainable funding			
Owners do not shirk responsibility	Knowing what is being purchased	Matching consumers with an appropriate boat			
Cultural assumptions	Cultural assumptions	Cultural assumptions			

Responsible Boating Culture

What does responsible boat ownership look like?	It's crazy that if you own an automobile on the road and you sell it you need a Roadworthy Certificate but you can sell a boat without one.	What is the ownership of an abandoned vessel? \$1 sales at the pub. Can it be overridden?	Give government departments the power to take early action otherwise it snowballs	Should the 260,000 boat owners share the liability for removing wrecks through their registration?	Random seaworthiness checks? Do police pull you over if you are driving an old car?
TOUCHPOINT	TOUCHPOINT	TOUCHPOINT	TOUCHPOINT	TOUCHPOINT	TOUCHPOINT
CONSIDERATION	CONSIDERATION	CONSIDERATION	CONSIDERATION	CONSIDERATION	CONSIDERATION
FUTURE STATE	FUTURE STATE	FUTURE STATE	FUTURE STATE	FUTURE STATE	FUTURE STATE

Government processes

Where no anchoring time limit applies, people tie them up to the bank and they deteriorate	Problem is finding out who owns the boat.	Vigilance required to identify possible derelicts	Current state	Current state	Current state
FUTURE STATE	FUTURE STATE	FUTURE STATE	FUTURE STATE	FUTURE STATE	FUTURE STATE

Appendix 4 – Approved Briefings and supporting material

Attachment A – Background Briefing



War on Wrecks Taskforce

Background Briefing

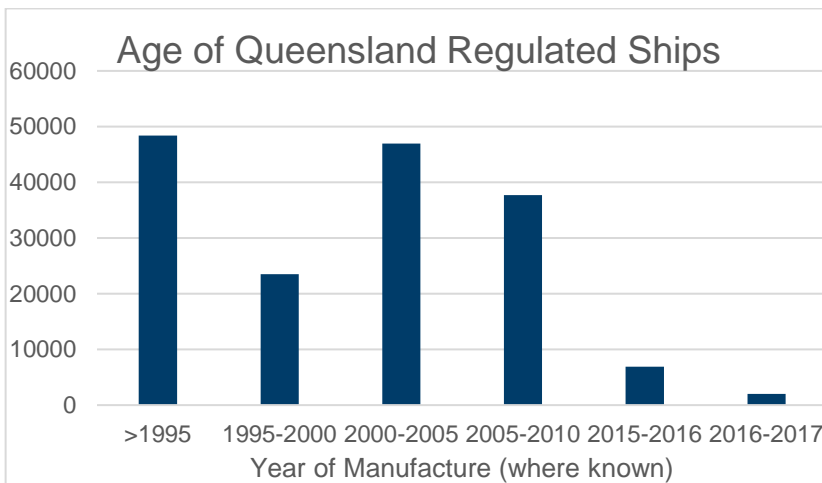
1. Introduction

This background briefing forms a high level information paper and for a greater amount of detail the reader should refer to papers presented at the War on Wrecks taskforce meeting 1-2018.

2. Scope of the problem

As at 31 May 2018 there are approximately 260,000 registered recreational ships and approximately 15,000 commercial ships operating in Queensland waters. In addition, there are assumed to be 100,000 recreational ships in Queensland that are not required to be registered.

Estimating the age of the flotilla presents some difficulty as 20 per cent of ships were registered without the year of manufacture being recorded. An estimated 100,000 ships are not required to be registered, so no data is available for this sector of the fleet. Nevertheless, records indicate that 25 per cent of ships were manufactured before 1996, 55 per cent were manufactured between 1996 and 2010 leaving 20 per cent that were manufactured within the last 7 years. The average age of a ship is 16.9 years and the median age is 13 years.



Queensland recreational ships are regulated by the department through the *Transport Operations (Marine Safety) Act 1994* (TOMSA) and associated regulations, and the *Transport Operations (Marine Pollution) Act 1995* (TOMPA) and associated regulations. The suite of marine safety legislation is largely performance based, thus the primary means by which safety is ensured is the imposition of a 'general safety obligation' placed on owners, operators and builders who are required to ensure ships are built and maintained in a safe and seaworthy manner.

Recreational ships are registered and administered by the department under TOMSA, which requires all ships—including personal watercraft (PWC)—with an engine of 3kW to be registered when they are in Queensland waters.

An estimated 100,000 recreational ships are operating in Queensland waters and are not required to be registered, based on their size of engine fitted to the ship. For example, the ship depicted is a 14m sailing catamaran, capable of speeds of 25 knots which is not required to be, and is not registered, as it is not fitted with an engine. Engine power notwithstanding, the ship poses the same risk of becoming derelict as a powered (and registered) ship.



2.1.1.1 Useful ship life

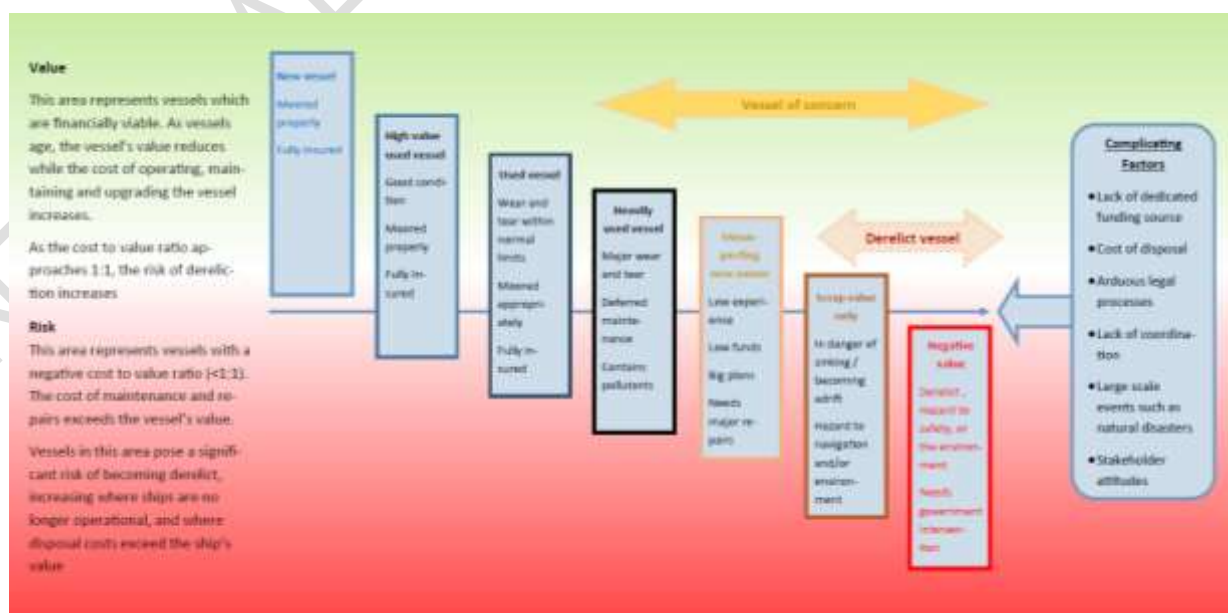
Ships reach the end of their useful life for a number of reasons including requiring maintenance which costs more than the vessel's value, requiring repairs and upgrades which exceed the ship's value, becoming obsolete through shifts in the economic and trading environment, and through natural disasters such as cyclones.

Disposing of ships, in particular larger ships which cannot be removed from the water on a trailer, is costly and potentially difficult given the environmental regulations surrounding disposal of materials present in ships including oils, acids, garbage and hazardous material such as asbestos. Given the expense and difficulty of disposal compared to the low value of a ship which has reached the end of its useful life, disposing of a ship through abandonment can be an attractive option.

Recreational ships are not subject to safety inspections on transfer of ownership or at any time during a ship's life. Emerging themes that may exacerbate the growing problem with derelict ships include;

- some members of the public are buying ships without a full understanding of the responsibilities and costs associated with owning a ship
- ship owners have not considered how to dispose of their ship when it reaches the end of its useful life
- ships are not included in the assets of deceased estates, leaving ships left in waterways without owners
- unviable commercial ships are subsequently registered as recreational ships

The ship lifecycle is depicted in the diagram below, which highlights the issues relevant to engaging with vessels prior to the point at which they enter the 'risk' zone.



2.1.1.2 Pre-derelict ships

During the 2016/17 financial year, 17,054 ships were de-registered in Queensland, which equates to a decommissioning rate of approximately 6.8% per annum. Data held by MSQ cannot determine how many of these ships were simply abandoned however given the number of de-registered ships it can be assumed that a significant number of these ships have reached the end of their useful life. In addition, approximately 11,800 commercial ships are currently operated in Queensland waters, and it is very common for unviable commercial ships to be subsequently registered as recreational ships, increasing the pool of ships which affect Queensland's coastline and waterways.

3. Managing derelict ships

Ships which are abandoned, wrecked or unseaworthy ships are considered to be derelict, and pose an ongoing and increasing hazard to the environment and to navigation. Further, they may be a visual amenity issue and a public liability issue. The number of ships classified as 'derelict' is subject to changes depending on how ships are classified, ships removed by MSQ over time, ships removed by owners over time, and ships which fall into disrepair and become derelict. As at July 2018 there were approximately 276 derelict ships along the Queensland coast with the majority depicted on Map C1-64 (see map C1-64).

Local government, the general public and local media are becoming increasingly vocal in wanting derelict ships removed from Queensland waterways. Whilst the onus is on the ship owners to properly maintain their ships and have them either repaired or removed from the water should they become derelict or a wreck there is a general expectation in the community that the government will act to remove the ships.

3.1.1.1 Maritime Safety Queensland involvement

Maritime Safety Queensland has the authority to become involved in the management of ships once they reach their end of life point, at which time the ship becomes a significant safety and/or pollution risk. MSQ works cooperatively with other government departments and local government to achieve the best safety outcomes for Queenslanders, however when MSQ has exhausted all practical measures to identify owners and compel the owner to take action, the government takes action to remove the ships.

When a ship is identified as derelict or abandoned, MSQ determines the immediate risk to navigation and the environment and takes appropriate action for removal. MSQ continually reviews the prioritisation of derelict ships or ship clusters in each operational area to concentrate resources on each financial year. Prioritisation is based on risk to navigation and/or environment.



	2014/15	2015/16	2016/17	2017/18	Total
Number of ships removed	32	2	16	36	86
Cost	\$466,429	\$54,013	\$1,442,034	\$2,144,671	\$4,107,148

The cost of removing these ships can be considerable with previous ship removals ranging from \$10,000 - \$950,000. MSQ has spent significant funds and time disposing of large derelict ships such as the Saththa, the Defender, Whitsunday Magic and numerous smaller ships. Over the last four years, 86 derelict ships were removed at a cost of around \$4.1 million.

3.1.1.2 The Legal Framework

There is a range of Queensland and Commonwealth legislation administered by various agencies to deal with derelict vessels, however, there will always be a number of 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.

4. Ship condition

There are no standards for seaworthiness for recreationally-registered ships, other than the '*general safety obligation*' which requires owner to ensure a ship is safe before it is operated. Given the comparatively low level of maritime knowledge exhibited by recreational operators when compared to commercial operators, and the lack of prescriptive standards, there are difficulties in determining the point at which a ship is not 'safe' until an incident occurs, unless the ship is overtly unsafe.

Recreational ships do not require seaworthy certificates on initial purchase or transfer of ownership or at any other stage of their life-cycle. There is no requirement for unregistered ships to be maintained to a particular 'seaworthiness' standard.

4.1.1.1 Ex Commercial Ships

Ships that are no longer commercially viable and are no longer maintained to the commercial standard are often converted to recreational registration and sold, thereby removing any requirement to maintain the ship to a particular standard. These ships are often fitted with complex machinery which requires a high level of skill to operate and maintain. These ships often become commercially unviable due to the high cost of maintenance, with the vessel's condition reaching a critical stage where it can no longer remain registered. These ships require significant resources – both financial and time – to bring them back to a safe operational state. The high cost of maintenance is often significantly underestimated by those acquiring the ship, who is then faced with the high cost of disposing of a negatively valued asset. Abandonment is often an attractive option, and MSQ has removed a number of ships which fall into this category. A number of case studies are included in **Appendix 2** (see *Whitsunday Magic, Defender*).

4.1.1.2 Ship Ownership Identification

The inability to identify the owner of a derelict or abandoned ship is a major impediment to its removal and increases the cost imposition to the state. Not all recreational ships are required to be registered. Identification of owners in this case relies on community knowledge and other sources of investigative intelligence, such as previous law enforcement involvement with the ship and owner.

Appendix 1 - Case studies

Sattha



The *Sattha* was a 39m steel cargo ship at anchor near Horn Island in Torres Strait. It was originally commercially registered, but transferred to recreational registration.

The *Sattha Uniana* came to the attention of MSQ when it grounded on Inset Reef about 600 kilometres north of Cairns in July 2009. The ship was subsequently refloated by the crew and taken to anchor near Horn Island in Torres Strait. The owner of the ship did not comply with a court order to remove the ship from Queensland Waters.

In 2011 the owner was convicted of two offences – operating an unsafe ship, and failing to obtain wreck removal and pollution clean-up insurance contrary to the Queensland Transport Operations (Marine Pollution) Act 1995. In 2013 the court issued a new order requiring the owner remove the ship from Queensland waters. The owner did not comply.

In 2014, the ship's anchor chain parted and it drifted onto Madge Reef in Thursday Island Harbour, within port limits. MSQ engaged a contractor to safely refloat the vessel and moor it near Horn Island at a cost of \$12K. The ship contained approximately 16,000 litres of liquid marine pollutants (diesel fuel and lubricating oil) and other harmful substances such as lead and paint. It also contained small amounts of asbestos and a considerable amount of garbage. In 2015 MSQ concluded that a discharge of pollutants was imminent and took action to remove all pollutants and stabilise the mooring arrangement at a cost of \$226K.

In 2017 MSQ took action to remove the *Sattha* from Queensland waters. The vessel was towed to Skardon River and broken up at a cost of \$475K. In total MSQ spent \$790K in the management of the *Sattha*.

Whitsunday Magic



The *Whitsunday Magic* was a 34 metre steel ship aground adjacent to Pigeon Island, Airlie Beach. A storm caused the ship to drag anchor until she grounded on a muddy sea bed. The vessel was originally insured; however the insurers considered the policy void due to the ship's poor condition.

The owner was issued a direction which required him to remove the ship from Queensland Waters by 6 April 2013, however no action was taken to comply and he was subsequently prosecuted.

The *Whitsunday Magic* was a public safety risk as it could be accessed by foot at low tide. The vessel is the source of many complaints from both local government and the general public.

Black Pearl



The Black Pearl is a 20.7m twin masted motor sailing originally of steel construction, built in Russia during the cold war era and was believed to have been used as a commercial fishing ship. At some point the ship sunk in the Dnieper / Dnipro River near the City of Kiev in Ukraine. In 1990 the ship was raised and repaired by encapsulating the hull and deck in a layer of cement. The ship was then sailed to New Zealand and eventually Australia where it was issued a Hull Identification Number and registered as a recreational ship by NSW Roads and Maritime Services.

The ship was relocated to the Brisbane River approximately 2 years ago and is currently un-occupied and at anchor without any means to alert its owner to an emergency – anchor dragging / flooding.

The ship is in poor condition and is not seaworthy. The propulsion system is in disrepair. The anchor winch is in poor condition and not in a safe operational condition. The ships original steel components have been covered in a layer of cement. It has not been possible to access the covered steel structure of the ship since the early 1990's. The mast and rigging are in poor condition. The decks leak – rain, water and other moisture is further deteriorating the steel structure below and is entering the bilge. There does not appear to be an operational pumping equipment on board capable to combat an ingress of water. The A/C and D/C electrical system is in poor condition and may pose a hazard to persons on board if energised. The ship currently has 1000 litres of diesel and 60 litres of oil on board.

INTERNAL CONSIDERATION ONLY

Attachment B – Regulatory Approach

War on Wrecks Regulatory Approach to Managing Ship Removal

Legislative Powers

Maritime Safety Queensland (MSQ) has three options available under the *Transport Operations (Marine Safety) Act 1994* (TOMSA) to deal with unseaworthy or derelict vessels:

- Harbour master direction to a person about an obstruction (s91)
- Shipping inspector notice declaring a ship is unseaworthy, must not be operated and must be removed from Queensland Waters (s172AA)
- Shipping inspector power to seize and remove abandoned property including a ship or part of a ship (s175A)

A fourth option outside of the TOMSA, Settlement Agreement and Deed of Release, may also be used in very limited circumstances to transfer ownership of the ship to TMR to facilitate disposal.

S91 – Direction to a person about an obstruction

This is the preferred option to be exercised when dealing with derelict vessels. It allows MSQ to carry out the direction if the person responsible does not comply and provides direct cost recovery options through civil action or upon successful prosecution.

Key Information	Benefits	Limitations
<p>A harbour master may direct a person responsible for something that is obstructing, or may obstruct, navigation to remove it.</p> <p>The direction may specify how, when and to where the thing must be moved.</p>	<ul style="list-style-type: none"> • This is a broad power and applies in any situation where a vessel, whether it be afloat or sunk, is obstructing navigable waters, including for small craft. • Cost recovery action can be initiated through civil action or upon successful prosecution of the owner for failing to comply with the harbour master direction. • If a vessel is lost, stranded or abandoned the registered owner prior to the vessel being lost, stranded or abandoned is taken to be the owner for the purposes of any harbour master direction. • Harbour master may carry out the direction if a person contravenes a direction given under s91. 	<ul style="list-style-type: none"> • Direction can only be used if the harbour master reasonably considers it necessary to give the direction to ensure safety. • The ship must currently be obstructing navigation or may obstruct navigation. • If the harbour master carries out the direction there is no provision to assess the value of the ship and either dispose of the ship or sell at public auction. Once removed from the water MSQ may become responsible for storage of the vessel until an enforcement order can be obtained. A risk assessment of the ship's worth should be undertaken before carrying out any action.

S172AA – Shipping inspector may declare that a ship is unseaworthy and must not be operated

This power is used to proactively manage unseaworthy ships before they become a wreck.

Key Information	Benefits	Limitations
<p>If a shipping inspector reasonably believes a ship is unseaworthy they can, by written notice, declare that a ship is unseaworthy and must not be operated, other than in a way approved by the shipping inspector.</p> <p>The shipping inspector may also direct the owner or master of the ship to remove the ship from Queensland waters in a way approved by the shipping inspector.</p>	<ul style="list-style-type: none"> • This is a proactive power which allows shipping inspectors to deal with unseaworthy ships before they become a wreck. • The ship does not need to be an obstruction to navigation, the key criteria is seaworthiness. • It is far more cost effective to remove and repair ships before they sink. • Cost recovery may be available through an enforcement order. 	<ul style="list-style-type: none"> • Vessel must be afloat. • There is no mechanism for MSQ to carry out the direction if the owner or master does not comply. To remove and deal with the ship MSQ will need to seek an enforcement order in the District Court or seek an order upon successful prosecution. • If the identity of the owner or master is not known, the ship is taken to be abandoned and any action should be taken under s175A.

S175A – Removing abandoned property

The abandoned property process can be used to quickly and efficiently deal with wrecks and hulks, however, it provides only limited cost recovery options and no enforcement action against owners and masters.

Key Information	Benefits	Limitations
<p>If a shipping inspector reasonably believes a ship, part of a ship or other property is abandoned they may seize and remove the property to a place the inspector decides is appropriate.</p> <p>Before seizing and removing the abandoned property the inspector must attach an intention to seize and remove notice to the property (if practical) and publish the notice in the local newspaper, providing 28 days notice.</p>	<ul style="list-style-type: none"> • If the property is a hazard to ships or navigation or may cause damage to the environment the shipping inspector may immediately seize and remove the property. • Having regard to the abandoned property's value and condition, the shipping inspector may sell it by public auction or destroy it if no one claims the property. Proceeds of the sale of abandoned property are applied as follows: <ul style="list-style-type: none"> ○ In payment of the expense of the sale. ○ In payment of costs in seizing, removing and storing the abandoned property. ○ In payment of the balance to the owner. 	<ul style="list-style-type: none"> • If the property is disposed of there is no cost recovery mechanism. • There is no enforcement action available – owners may not be held accountable. • If the owner claims the property other powers or legislation will need to be used to remove the vessel.

	<ul style="list-style-type: none"> • If the proceeds of the sale are insufficient to cover the costs incurred in selling, seizing, removing and storing the property the shortfall is a debt to the State. • The ship does not need to be a hazard to navigation. • Abandoned property can be removed from Queensland waters and land adjacent to Queensland waters, including mud flats and banks of rivers. 	
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Deed of release and settlement

A deed of release and settlement is a formal document that contains the agreement between parties, generally to settle a dispute. When ships are transferred to the Department in this method there is no cost recovery or enforcement options.

Key Information	Benefits	Limitations
All interests and title to a ship is transferred from the owner to the Department. MSQ will then salvage and dispose of the vessel.	<ul style="list-style-type: none"> • Generally used following natural disasters where there is no culpability or public interest in taking compliance action against owners whose ship has been lost or stranded. • Minimal legal costs and the matter can be dealt with quickly. 	<ul style="list-style-type: none"> • MSQ will incur all costs associated with removal and disposal of the vessel. These are not recoverable. • No direct enforcement action available – owners may not be held accountable.

Note – other State or Commonwealth legislation may be used in certain circumstance to effect removal of ships:

- *Gold Coast Waterways Authority Act 2012*
- *Marine Parks Act 2004*
- *Great Barrier Reef Marine Park Act (Cth) 1975*
- *Marine Safety (Domestic Commercial Vessels) National Law Act 2012*

Attachment C – Legislative Briefing

Quick Facts

- Each entity has a defined area of responsibility.
- Entity's statutory powers are aligned with their responsibilities.
- The exercising of powers is contingent upon the facts of each case
- While a provision or power may exist in a statute, it is the practical challenges in exercising that power due to circumstances of the individual case / scenario that creates issues.

War on Wrecks Taskforce Issue Brief

This Issues Brief provides a snapshot of the existing legislation and powers that may apply to a 'derelict vessel' and/or vessel management across government. It identifies a power conferred in statute that may be exercised. However, it should be noted that constraints or limitations in exercising those powers will exist.

This is not a comprehensive list, but rather is aimed at providing a snapshot of the statutory instruments and powers as they exist across the entities that deal with vessels.

What is the issue?

There are a number of statutory instruments that provide government departments and statutory bodies with powers which depending on the circumstances, can be exercised in managing vessels and/or abandoned vessels. This brief provides an overview of the existence of a power which may be utilised (see Attachment A). However, the ability to exercise these powers is contingent upon the facts of the 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 marine park or in defined waters; or if the vessel is abandoned or contravening a notice or port activity; whether the owner is known or unknown. Wherever possible, compliance partners and agencies work collaboratively, utilising the powers or functions of the agency that produce the swiftest, most cost effective and appropriate response available in the given circumstances.

This snapshot does not go into the details of the challenges faced in exercising the powers in an operational environment. For a detailed understanding of these challenges, each entity may need to provide examples or case studies.

Legislation

1. Transport Operations (Marine Safety) Act 1994

Maritime Safety Queensland (MSQ) has the function under TOMSA to monitor and manage unseaworthy, abandoned, stranded, sunk or wrecked ships to ensure marine safety in Queensland waters.

Specifically, a harbour master has the power, where a harbour master believed it is necessary to ensure safety to give directions to the owner of a ship that is lost, abandoned or stranded. A harbour master 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.

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.

2. Transport Operations (Marine Pollution) Act 1995

MSQ is empowered to deal with the discharge of ship-sourced pollutants into coastal waters under 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*).

3. Transport Infrastructure Act 1994

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 of a port authority or port lessor may give a direction to a person in the port area if giving the direction is 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.

3.1 Transport Infrastructure (Waterways Management) Regulation 2012

In regulated waters of the Gold Coast, the Gold Coast Waterways Authority is empowered to take prescribed action in relation to anchored, moored or grounded watercraft in accordance with TI(WM)R. The chief executive of TMR holds similar powers in relation to Sunshine Coast waters.

3.2 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.

4. Marine Parks Act 2004

Where an inspector reasonably believes emergency or urgent action is needed (this is not a common situation) 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.

Where a matter is not urgent (this is the most common situation when dealing with abandoned derelict vessels),

If the owner of the vessel is known, an inspector may give a person responsible for an abandoned, stranded, sunk or wrecked property in the marine park a compliance notice requiring the person to, amongst other things, take stated reasonable action for securing the property's safety, or removing or salvaging the property. If the owner does not comply with the compliance notice within a reasonable timeframe (28 days is considered a reasonable timeframe) an infringement notice may be served, if owner remains noncompliant litigation action including court enforcement orders may apply.

Where the owner is unknown, an inspector may seize and remove abandoned property in prescribed circumstances including by attaching a removal notice to the vessel and publishing the notice (fees apply) in a newspaper circulating throughout the state, giving the owner a stated reasonable timeframe to remove (28 days is considered a reasonable timeframe). If the property is unclaimed after the stated reasonable timeframe, the inspector may seize and remove the vessel, and having regard for its value, sell at public auction, destroy or otherwise dispose of it. If the item has perceived value, the item is required to be valued and stored for a reasonable timeframe (28 days) before disposal.

If the perceived abandoned property is claimed during the removal notice process, a person responsible for the property may apply for a review of the decision to give notice under the Marine Parks Act 2004. If the decision stands, the person may apply to the Queensland Civil and Administrative Tribunal for a stay of the decision. If the decision still stands, a compliance notice may be served to the known owner giving a stated reasonable timeframe (28 days) to remove the vessel. If the owner does not comply with the compliance notice, an infringement notice may be served, if the owner still remains noncompliant, litigation action including court enforcement orders may apply.

A court enforcement order made against a person can require cost recovery and the person to rehabilitate or restore the area affected.

5. Navigation Act 2012 (Cth)

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.

Specifically, AMSA may require, by written notice, the legal owner of a wreck of a regulated Australian vessel (ie a vessel that may operate on overseas voyages and that is not a recreational vessel) wherever it is situated or a foreign vessel wherever it is situated or a 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.

6. 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.

Where the Great Barrier Reef Marine Park Authority 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.

7. 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.

Attachment A

Agency	Instrument	Limits	Issue Notice	Power to seize	Power to move	Power to sell or dispose	Recovery of costs	Who Authorised ?
Maritime Safety Queensland established as the marine safety regulator under the <i>Maritime Safety Queensland Act 2002</i>	<i>Transport Operations (Marine Safety) Act 1994 (TOMSA) and Transport Operations (Marine Safety) Regulation 2016 (TOMSR)</i>	RHM powers attach to pilotage areas / powers conferred in relation to 'Registered' vessels; & where considered a 'obstruction to navigation and it is necessary to give the direction to ensure safety'	28 day notice for or publish may be required. Other directions immediate or in reasonable period to comply.	✓	✓	✓	(provisions in statute relating to recovery of cost in carrying out direction & court for debt – but difficult to exercise – owner known/offence or no offence) ✓	RHM Shipping Inspector
	<i>Transport Operations (Marine Pollution) Act 1995 (TOMPA) and Transport Operations (Marine Pollution) Regulation 2018</i>	Ships while in coastal waters (as defined)	RHM Directions (general or specific)	✓	✓	✓	(provisions in statute to recover costs - action to recover discharge expenses) ✓	RHM Authorised Officers' powers if discharge occurred / likely to occur & in emergency
Port Authorities/Port Lessors	<i>Transport Infrastructure Act 1994 (TIA)</i>	Port area and port operations	subject to display or publish port notice	✓	✓	✓	✓	Port Authority / Authorised Officers
Port Authority / Port Lessor / State Boat Harbours	<i>Transport Infrastructure Act 1994 (TIA)</i>	s.275 TIA (includes manage & operate effective & efficient port facilities; keep appropriate levels of safety and security in the provision and operation of the facilities and services)	[ss.282 & 282A): Port notice to control activities Publish on at least 2 occasions	✗	✓ (affect port operation)	✗	✗	Port authority or port lessor
	<i>Transport Infrastructure Waterways Management Regulation 2010</i>	Sets prohibition on activities in particular regulated waters (Gold Coast/Sunshine Coast waters as defined)	Defined waters specify restrictions, approval for some activities and time periods	✗	✗	✗	✗	
	<i>Transport Infrastructure (Public Marine Facilities) Regulation 2010</i>	control activities eg remove illegally moored ship/abandoned property from a State managed boat harbour subject to some conditions	regulatory notice must be erected or displayed (generally). For illegal or abandoned & unclaimed property – 1 mth period	✓	✓	✓	✓ (can be recovered as a debt to state)	Authorised officer under TIA
Local Government	<i>Local Government Act 2009</i> head of power to make local laws about seizing and disposing of personal property.	<u>If a Council Bi-Law has been made and provides for it</u>		✓	✓	✓	✓	Council
	<i>Transport Operations (Marine Safety) Act 1994 (TOMSA) and Transport Operations (Marine Safety) Regulation 2016 (TOMSR)</i>	Provision for Government Entity (Local Gov't) to propose a marine zone	Marine Zones generally restrict the operation of ships in an area or prohibit particular activities – for example, use of personal watercraft operating in a certain area or limit water-skiing or wave jumping activities.					

Agency	Instrument	Limits	Issue Notice	Power to seize	Power to move	Power to sell or dispose	Recovery of costs	Who Authorised ?
	<i>Transport Infrastructure Act 1994 (TIA) and Transport Infrastructure (Public Marine Facilities) Regulation 2010</i>	Councils usually appointed as Manager responsible for public marine facilities.	Public facilities – Authorised Officer gives direction and warning of offence	•	•	•		Authorised Officer (under TIA)
Gold Coast Waterways Authority established under <i>Gold Coast Waterways Authority Act 2012</i>	<i>Gold Coast Waterways Authority Act 2012</i>	confined to waterways management & for defined Gold Coast waters	abandoned property 28 day notice to owner or publish	✓	✓	✓	✓ (statute provides for cost recovery & order of reimbursement)	GCWA
	<i>Transport Operations (Marine Safety) Act 1994 (TOMSA) and Transport Operations (Marine Safety) Regulation 2016 (TOMSR)</i>	confined to waterways management & for defined Gold Coast waters	28 day notice to owner or publish	✗	✗	✗	✗	✗
	<i>Transport Infrastructure Act 1994 (TIA)</i>	defined regulated Gold Coast waters	28 day notice to owner or publish	✗	direction	✗	✗	If manager of public marine facility
Compliance Partners								
Department of Environment and Science Queensland Parks and Wildlife Service (QPWS)	<i>Environment Protection Act 1994</i>			✗	✓	✗		Authorised Officers
	<i>Coastal Protection and Management Act 1995</i>			✓	✓	✓		Authorised Officers under CPMA Act
	<i>Marine Parks Act 2004</i>	Waters only within declared state marine parks	Required to provide a reasonable timeframe (28 days is considered a reasonable timeframe) or if emergency or urgent (serious risk to environment, injury or illness to person, safety of persons property)	✓	✓	✓		Authorised Officers under MPA
Department of Fisheries Queensland Boating and Fisheries Patrol	<i>Transport Operations (Marine Safety) Act 1994 (TOMSA) and Transport Operations (Marine Safety) Regulation 2016 (TOMSR) & Transport Operations (Marine Pollution) Act 1995 & Transport Operations (Marine Pollution) Regulation 2018.</i>	If abandoned property – tend to work with MSQ and other compliance partners to resolve.		✓	✓	✓		Appointed Shipping Inspectors & Authorised Officers
Queensland Police Service (QPS)	<i>Transport Operations (Marine Safety) Act 1994 (TOMSA) and Transport Operations (Marine Safety) Regulation 2016 (TOMSR)</i>	If abandoned property – tend to work with MSQ and other compliance partners to resolve.		✓	✓	✓	State can recover as a debt & costs of carrying out a direction	police officers are appointed as Shipping Inspectors under marine legislation
	<i>Police Powers and Responsibilities Act 2002</i>	QPS powers Generally intervene when emergency situation or criminal matter						

Agency	Instrument	Limits	Issue Notice	Power to seize	Power to move	Power to sell or dispose	Recovery of costs	Who Authorised ?
Australian Marine Safety Authority (AMSA)	<i>Navigation Act 2012</i>	AMSA authorised to deal with RAV/foreign vessel wrecks / salvage in Territorial Sea & EEZ	Notice to be issued	(detain)	direction	court process	court process	Inspectors appointed under Nav. Act.
	<i>Marine Safety (Domestic Commercial Vessel) National Law Act 2012</i>	AMSA regulator for all DCVs (survey, operation and competency) *MSIs can detain a DCV under s101 eg for breach of general safety duties, need to maintain the vessel. As this is DCVs-only the power is limited. Therefore a 'partial tick'. **Sections 132 and 133 provide for the disposal of detained vessels, on just cause. Again, a 'partial tick'.		✓ (*detain DCVs)	✓	✓ (**detained vessels)	*	appointed Inspectors
Great Barrier Reef Marine Park Authority (GBRMPA)	<i>Great Barrier Reef Marine Park Authority Act</i>				✓			Inspector issues direction
SEQ Water	<i>Transport Operations (Marine Safety) Act 1994 (TOMSA) and Transport Operations (Marine Safety) Regulation 2016 (TOMSR) & Transport Operations (Marine Pollution) Act 1995 & Transport Operations (Marine Pollution) Regulation 2018</i>				✓	✓		Appointed as Shipping Inspectors & Authorised Officers

Attachment D – Compliance process



Compliance Processes for Derelict Vessels

Background Briefing

1. Introduction

Ships which are abandoned, wrecked or unseaworthy are considered to be derelict. Maritime Safety Queensland (MSQ) has the authority to become involved in the management of derelict vessels that pose an ongoing and increasing hazard to safety, the environment and to navigation. Any action taken by MSQ is done so under the overarching principle that it is the responsibility of vessel owners to maintain their vessels and have their vessels either repaired or removed from the water, at no cost to the community, should they become derelict

2. Removing derelict vessels

2.1.1.1 Identification of derelict vessels

New derelict vessels are identified through marine incident reporting, on water patrols conducted by MSQ and our compliance partners and information from the public and volunteer rescue groups.

Existing derelict vessels are recorded and tracked in the geographic information system, Collector. There are currently 325 derelict vessels in the system.

2.1.1.2 Initial actions to remove a derelict vessel

A marine officer starts collecting all the relevant information in relation to the vessel and the circumstances which has caused it to become derelict. The information is collated in an investigation case in MSQ's intelligence and case management system, the Maritime Safety Intelligence Database (MSID). Identifying an owner at this stage is critical to ensuring the person responsible for the vessel is held accountable for removal of the vessel and any associated costs. Whilst registration details, when available, are a good indicator towards ownership, they are not of themselves proof of ownership and further enquiries are required. The *Transport Operations (Marine Safety) Act 1994* (TOMSA) provides a broad definition of owner to include a person who exercises, or purports to exercise, powers of the owner and operates the ship or causes or allows it to be operated by someone else. To identify owners officers will use details from the Department's licence and registration system, intelligence from the Queensland Police Service, Queensland Boating and Fisheries Patrol, Marine Parks, Great Barrier Reef Marine Park Authority, local Councils and volunteer rescue groups. Information may also be obtained from other ship owners, marinas and local residents. If an owner is identified MSQ will liaise with the owner regarding their intentions with the vessel and the need to remove it from Queensland waters. If all enquiries fail to establish an owner then the ship will be dealt with as abandoned property.

Once all the known information relevant to the vessel is gathered a Derelict Vessel Action Plan is created. The plan outlines the situation and known facts, the outcome sought, stakeholders, compliance options, cost recovery considerations, risk assessment and the estimated cost of all associated actions. The plan is approved by the Area Manager and referred to the Compliance Unit for review and approval. The Compliance Unit review the plan to ensure the preferred action is lawful and uses the most appropriate legislative powers for the particular situation. Once approved the region begin carrying out the compliance plan.

2.1.1.3 Enacting the compliance action plan

In most cases enforcement action to remove a vessel will be initiated through a TOMSA direction or notice (see appendix 1):

- Harbour master direction to a person about an obstruction (s91)
- Shipping inspector notice declaring a ship is unseaworthy, must not be operated and must be removed from Queensland waters (s172AA)

- Shipping inspector power to seize and remove abandoned property including a ship or part of a ship (s175A)

The enforcement action provides clear direction to the owner or person responsible for the obstruction (if known), on the actions required and provides further enforcement and cost recovery options should the person not comply. The process and compliance actions for each type of notice is different, as are the remedies available to MSQ should the person not comply. It should be noted that in many instances if the vessel is not abandoned property, MSQ does not have the legislative authority to simply remove the vessel and dispose of it. To actually dispose of the vessel if the owner can't or won't, court orders may be required through prosecution of the owner for failing to comply with the notice or separately under an enforcement order obtained from the District Court. Prosecutions often take many months before they are finalised and whilst enforcement orders can be obtained fairly quickly the time required to draft the application and supporting material is considerable and outside counsel is required to represent MSQ in the matter.

The derelict vessel action plan for the *Black Pearl* provides a good example of the complex criminal and civil processes required to deal with a derelict vessel.

2.1.1.4 Black Pearl



The Black Pearl is a 20.7m twin masted motor sailing originally of steel construction, built in Russia during the cold war era and was believed to have been used as a commercial fishing ship. At some point the ship sunk in the Dnieper / Dnipro River near the City of Kiev in Ukraine. In 1990 the ship was raised and repaired by encapsulating the hull and deck in a layer of cement. The ship was then sailed to New Zealand and eventually Australia where it was issued a Hull Identification Number and registered as a recreational ship by NSW Roads and Maritime Services.

The ship was relocated to the Brisbane River approximately 2 years ago and is currently un-occupied and at anchor without any means to alert its owner to an emergency – anchor dragging / flooding.

The ship is in poor condition and is not seaworthy. The propulsion system is in disrepair. The anchor winch is in poor condition and not in a safe operational condition. The ships original steel components have been covered in a layer of cement. It has not been possible to access the covered steel structure of the ship since the early 1990's. The mast and rigging are in poor condition. The decks leak – rain, water and other moisture is further deteriorating the steel structure below and is entering the bilge. There does not appear to be an operational pumping equipment on board capable to combat an ingress of water. The A/C and D/C electrical system is in poor condition and may pose a hazard to persons on board if energised. The ship currently has 1000 litres of diesel and 60 litres of oil on board.

MSQ has issued the owner a s172AA Shipping Inspector direction requiring the vessel to be removed from Queensland Waters under an approved towing and slipping plan by 13 August 2018. The owner has not complied with the direction, although the vessel was moved on the 28 August 2018 under an approved towing plan to a slipway on the Brisbane river. The owner is in dispute with the slipway on payment and insurance terms to have the vessel removed from the water and questions remain regarding the owner's ability to fund the removal and necessary refit. As Brisbane's annual storm season approaches it is imperative that the vessel is removed before a significant rain event causes it to flood and sink.

At this point MSQ has 2 options available to intervene and remove the vessel whilst still keeping the owner accountable:

- Prosecute the owner for failing to comply with the Shipping Inspector's direction and seek a court order, upon prosecution, for the owner to remove and dispose of the vessel..
- Seek an enforcement order under Part 13A, Division 2 of TOMSA. A District Court may make an enforcement order if the court is satisfied a notice offence has been committed, for example not complying with a Shipping Inspectors direction, or unless an enforcement order is made, will be committed.

Seeking court orders through prosecution may take many months and will not have the vessel out of the water before storm season, which is the key risk the Harbour Master wants addressed. Additionally, we can't assume that a magistrate will grant an order that we seek. In the past, if an alternative administrative scheme is available in an Act, the court will defer to the executive to exercise its powers, rather than using the justice system to achieve the same goal. To resolve the situation and have the vessel removed from Queensland waters the Compliance Unit, with specialist assistance from TMR Legal, are drafting an Originating Application seeking enforcement orders under s183E of TOMSA from the District Court (example at appendix 2). This is a very time consuming and resource intensive process. Successfully obtaining the orders is just the start of the process with much more work involved for the Compliance Unit and Brisbane Region to ensure the orders are carried out and cost recovery pursued. For reference and to provide some context to the length of time this process can take, in the *Sattha* matter MSQ sought and obtained similar enforcement orders in March 2017. The vessel was removed and disposal completed in July 2017. MSQ is still to return to the court to prove our costs and outlays.

The delay in pursuing prosecution and cost recovery is predominately due to resources and the need to support other emergent compliance issues. Once the vessel is out of the water resources are soon reassigned to the next issue. With the expected increase of derelict vessel removals under the WoW program the management and resourcing of the associated criminal and civil legal proceedings has yet to be fully considered.

3. Prosecution and Cost Recovery

3.1.1.1 Prosecution

MSQ has 2 years after the commission of an offence or 2 years after the offence comes to the complainant's knowledge but within 3 years after the commission of the offence, in which time to start a summary proceedings in the Magistrates Court. The TMR Prosecutions Services Unit act on behalf of MSQ in prosecuting non-indictable offences against the TOMSA.

Following the removal of a derelict vessel our attention turns to the associated criminal and/or civil proceedings. All breaches of the TOMSA are pursued by MSQ and our compliance partners, whether it be the failure to carry required safety equipment or remove an obstruction to navigation. The sanction applied is a risk based determination, evaluating the culpability of the offender against the risk or harm to safety and the environment (appendix 3). The Manager, Compliance in consultation with the relevant Region determines if a matter should be forwarded for prosecution in accordance with the Prosecution Services Unit, Prosecutions Guidelines.

If a person is convicted of an offence against the TOMSA the court may make an order, in addition to a penalty imposed under the *Penalties and Sentences Act 1992*. On application by the prosecution the court may order 1 or more of the following:

- to conduct a stated advertising or education campaign to promote compliance with this Act;
- to make a stated private apology or publish a stated public apology to persons affected by the contravention;
- to operate a stated ship in a particular way, including putting a stated procedure or system in place for or on the ship to ensure compliance with this Act;
- to repair, modify or replace a stated ship or part of a ship, or repair, modify, install or replace stated machinery or equipment on a stated ship, to ensure compliance with this Act;
- to start or stop a stated activity in relation to a stated ship;
- not to own or operate any ship unless the general manager has given written consent for the ownership or operation; or
- to comply with another order the court considers appropriate.

These orders carry a substantial penalty if contravened (3500 penalty units or 2 years imprisonment), and may be more appropriate and effective when dealing with owners of derelict vessels than monetary penalties.

3.1.1.2 Cost recovery

Cost recovery associated with removing, storing and disposing derelict vessels is considered in every Derelict Vessel Action Plan before action is begun. Whilst cost recovery is pursued in all circumstances where available, in practice very little is ever recovered by the State. Owners in this situation are often impecunious and do not have the means to maintain their vessel, leading to it becoming derelict. Where financial checks and other intelligence indicate an owner holds physical assets and/or other financial assets, cost recovery will be pursued to the full extent provided under the TOMSA.

Cost recovery options differ depending on the compliance action taken to resolve the issue:

- Harbour master direction to a person about an obstruction (s91)

If a harbour master carries out a direction a person has failed to comply with, the expense incurred may be recovered as a debt by the State in a court of competent jurisdiction. It should be noted that obtaining a court order for the costs incurred by the State is just the start of the process and further enforcement hearings and costs may be necessary to recover the debt.

A second option available for cost recovery when a harbour master carries out a direction a person has failed to comply with, is via a court order when the person is prosecuted. Upon application by the prosecution the court may order the defendant to pay to the State the amount the State could have recovered as a debt in the process above.

- Shipping inspector notice declaring a ship is unseaworthy, must not be operated and must be removed from Queensland Waters (s172AA)

There is no option available for a shipping inspector to carry out the notice if the person does not comply. To have the vessel removed from the water and recover costs, enforcement orders must be obtained under s183E of the TOMSA (example appendix 2). The orders sought will deal with the removal and disposal of the vessel and associated costs. Again, any order for costs are just the start of the process and further enforcement hearings and costs may be necessary to recover the debt.

- Shipping inspector power to seize and remove abandoned property including a ship or part of a ship (s175A)

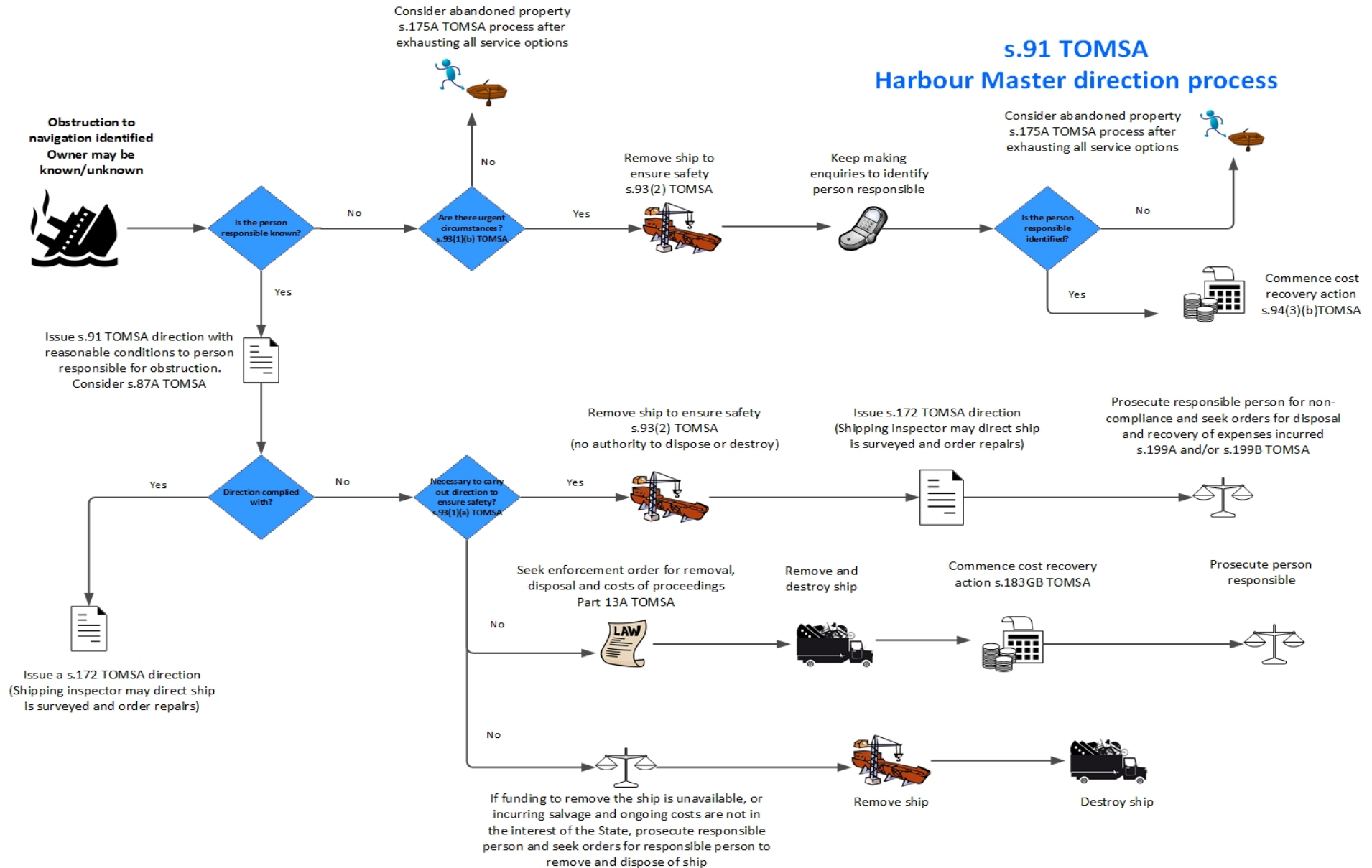
Cost recovery associated with seizing and removing abandoned property is limited to the situation in which the shipping inspector sells the property by public auction. The proceeds from the sale are applied as follows:

- firstly, in payment of the expenses of the sale,
- secondly, in payment of the costs of seizing, removing and storing the abandoned property and the seizure notice,
- thirdly, in payment of the balance to the owner of the abandoned property, or if the owner cannot be found, to the consolidated fund.

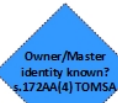
If the proceeds of the sale are insufficient to cover the costs incurred by the shipping inspector the remaining amount is a debt payable to the State.

Appendix 1

s.91 TOMSA Harbour Master direction process



Shipping Inspector declares that a ship is unseaworthy and must not be operated and/or must be removed from QLD waters s.172AA(1) TOMSA

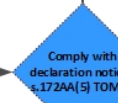


Yes

Attach declaration notice to ship s.172AA(2) and s.172AA(5) TOMSA



Give Owner/Master a copy of the declaration notice s.172AA(4) TOMSA



Yes

Issue a s.172 TOMSA direction (Shipping inspector may direct ship is surveyed and order repairs)



No

No



Yes

Seek enforcement order for removal, disposal and costs of proceedings Part 13A TOMSA



Remove ship



Destroy ship



Commence cost recovery action s.183GB TOMSA



Prosecute Owner/Master



Prosecute Owner/Master for s.172AA TOMSA and seek orders for owner to remove and dispose of ship



Remove ship



Destroy ship



Stop process. Commence abandoned property (s.175A TOMSA) process



s.172AA TOMSA process Ship is unseaworthy and must not be operated

s.175A TOMSA

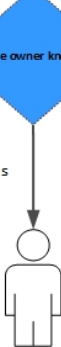
Abandoned property process

DEFINITION NOTE: s.175A TOMSA
abandoned property means a ship, part of a ship, or other property, that is abandoned, lost or stranded in Queensland waters or on land adjacent to Queensland waters.

Potential abandoned property identified
 s.175A(8) TOMSA
 Owner may be known/unknown



It is the responsibility of vessel owners to maintain their vessels and have their vessels either repaired or removed from the water, at no cost to the community, should they become derelict



Attach seizure notice
 s.175A(3)(a) and s.175A(4)TOMSA



No

Yes

Seize the ship and immediately remove
 s.175A(4A) TOMSA



Publish seizure notice in local newspaper
 s.175A(3)(b) and s.175A(4B) TOMSA



Wait 28 days
 s.175A(4)(d) TOMSA



Property claimed?
 s.175A(5)(a)TOMSA



Stop abandoned property process
 Commence s.91 TOMSA or s.172AA
 TOMSA process if applicable

Yes

No



Consult with Maritime
 Services and assess the value
 of the abandoned property

Does the property
 have value?
 s.175A(5) TOMSA

Yes

No



Sell at public auction
 s.175A(5) TOMSA

Use proceeds to recoup cost
 of sale, seizure and removal
 s.175A(6) TOMSA



Outstanding balance?
 s.175A(7) TOMSA

Yes

No

Civil debt (further proceedings)
 against owner/master
 s.175A(7) TOMSA



No further cost
 recovery action
 required



No cost recovery action
 taken



Destroy ship

Appendix 2

Draft enforcement orders for the Black Pearl matter.

ORIGINATING APPLICATION

To the respondent:

TAKE NOTICE that under part 13A of the *Transport Operations (Marine Safety) Act 1994* (the Marine Safety Act) the applicant is applying to the court for the following orders.

1. Enforcement orders under s. 183E of the Marine Safety Act ordering the respondent to:
 1.
 - (a) Remove the 'Black Pearl' from Queensland waters, within 14 days of the order of the Court, in the following way:
 - (i) Submit a written towing and slipping plan taking into account safety and environmental factors to Maritime Safety Queensland for approval by the Brisbane Regional Harbour Master within one week of the order of the District Court; and
 - (ii) Carry out the removal in accordance with the towing and slipping plan as approved by the Brisbane Regional Harbour Master;
 - (b) Within 7 days of the order of the Court, give to the State of Queensland, a security bond in the amount of \$XXX in the form of a bank guarantee from an Australian bank registered under the *Banking Act 1959* (Cth), and to be effective for the earlier of :
 - (i) the period of 12 months, from the date on which the order is made by the Court, and irrevocable during that time; or
 - (ii) the period until the applicant notifies the Court that the 'Black Pearl' has been removed from Queensland waters.
2. Further enforcement orders under s. 183E of the Marine Safety Act that:
 - (a) If the respondent does not comply with orders made in terms of 1(a) that the applicant may determine to either cause the 'Black Pearl' to be:
 - (i) removed from Queensland waters; or
 - (ii) broken up, and remove the broken up parts, and dispose of those parts as the applicant sees fit.

(b) If the applicant undertakes an action described in paragraph (2)(a), that the security bond ordered by the Court to be given by the respondent to the State be forfeited to the State for any costs incurred on behalf of the applicant in undertaking those actions.

(c) If the applicant removes the ship under paragraph (2)(a)(i), the applicant may refuse to release the ship to the respondent until he pays the applicant the costs incurred on behalf of the applicant for removal of the ship and any debris from it, and the costs of storing the ship.

2.

(d) If the applicant removes the ship under paragraph (2)(a)(i), and within 60 days of that removal, the respondent does not pay the applicant the costs incurred by the applicant described in paragraph (2)(c):

3.

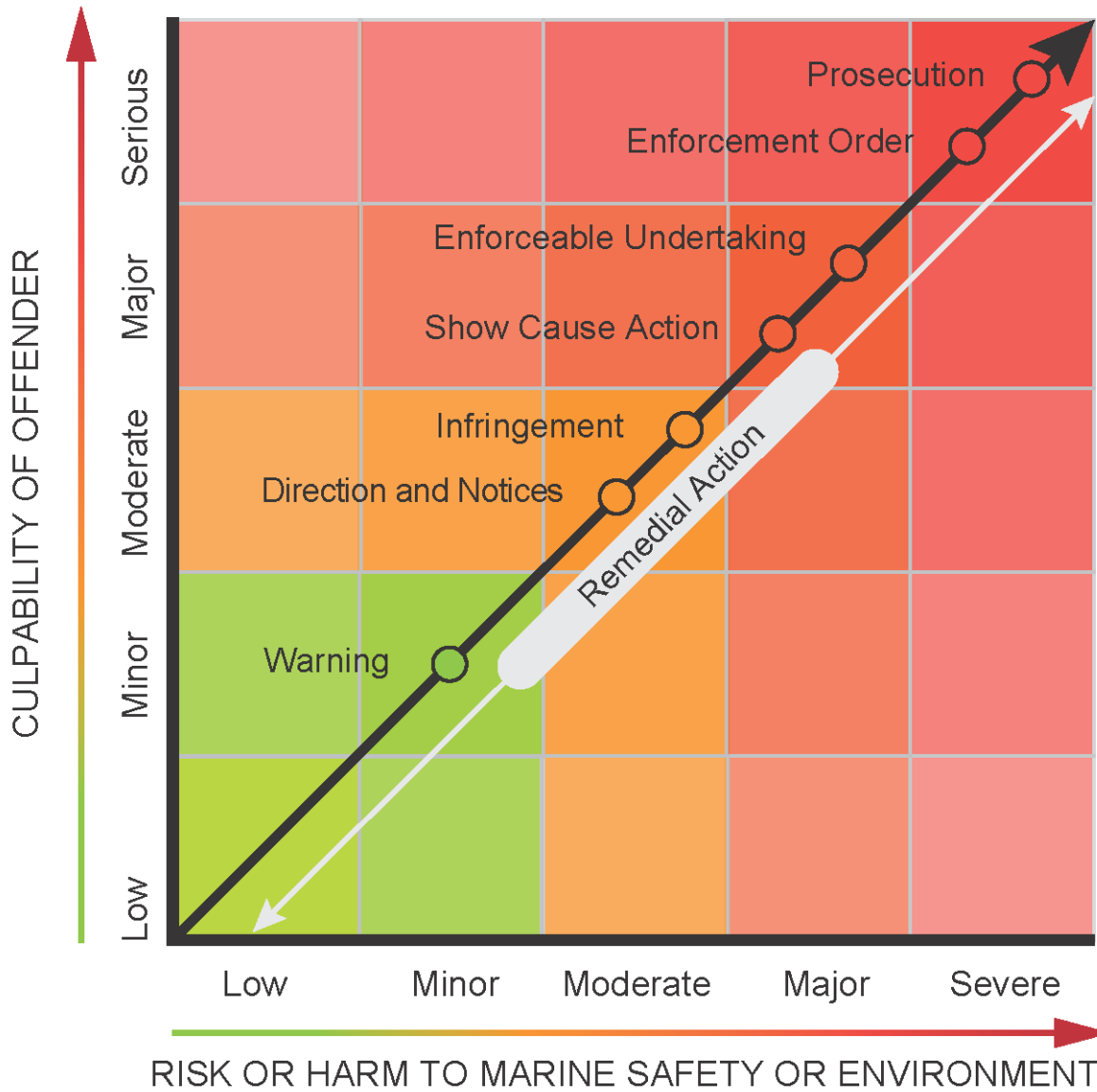
- (i) the ship is forfeited to the State, for sale or disposal as the applicant sees fit;
- (ii) with any money realised from such sale or disposal to be first applied against the costs incurred by the applicant described in paragraph (2)(c), and any remaining money be given to the respondent.

3. An order that the respondent pay the applicant's costs of this proceeding.

4. Any other order that the Court deems necessary.

Appendix 3

MSQ Enforcement Response (draft)



INTERIA

ONLY

Attachment E – Disposal issues

War on Wrecks taskforce

Background Briefing Disposal Options and Challenges

14 September 2018

Executive summary

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 predictable and require similar management actions. Issues such as the location of ships presents challenges such as accessing the ship, moving 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 in order to remove a ship from the water, however given the inherent structural weaknesses of derelict ships, this process is fraught with danger.

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. From a holistic perspective, 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 options to be considered.

A brief review of waste disposal facilities indicates that there are sufficient disposal options once ships have been dismantled, however multiple locations may be required to dispose of various waste products. There also appear to be sufficient facilities to remove larger ships from the water, however as many of these facilities are privately run enterprises, they may require assurances that storage and lifting costs will be paid.

A range of alternative disposal options have been briefly contemplated, including recycling, re-selling and donating for alternative purposes such as playground equipment, and while each option raises challenges to be overcome it may be appropriate to develop a suite of disposal options and processes which apply to each to facilitate access to these options.

This paper is intended to generate further discussion between agencies, and is not a definitive analysis of all disposal methods or options.

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DRAFT

Background

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.

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 a number of factors including construction quality, hull material, maintenance, and economic viability. It is estimated that the structural life of an 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% of boats were registered without the year of manufacture being recorded. Nevertheless, the extant records indicate that 25% of boats were manufactured before 1996, 55% were manufactured between 1996 and 2010 leaving 20% that were manufactured within the last 7 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.

Programs which effectively manage an ageing fleet and which facilitate the disposal of EOL boats are likely to produce immediate improvements in marine safety, and a reduction in pollution resulting from abandoned ships.

While the primary focus of this paper is to analyse a range of issues surrounding the disposal of larger ships, given the benefits of managing the fleet as a whole, this paper will be expanded to include facilitating the disposal of smaller boats, which in general means boats which can be transported by trailer. Themes to be addressed include;

1. Waste disposal, dumping and limitations
2. Recyclability of component parts
3. Alternative uses
4. Sale of vessels

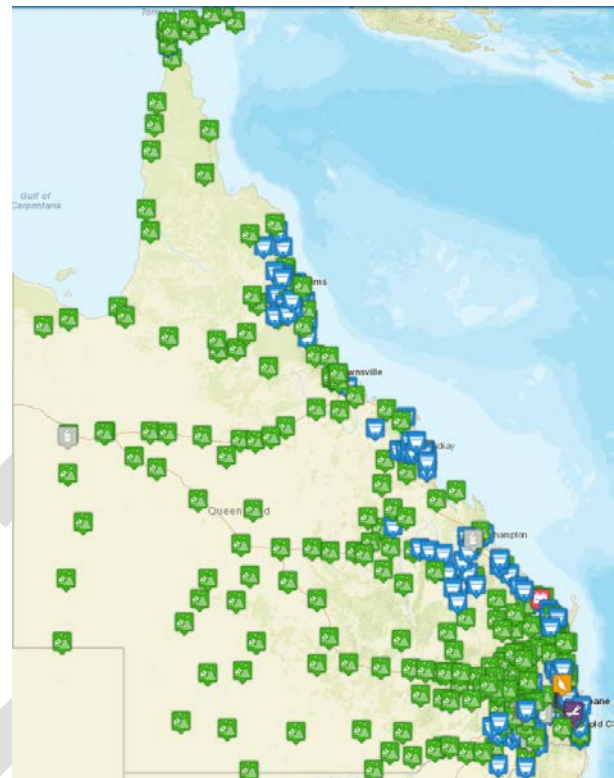
Waste disposal, dumping and limitations

There are 338 public waste disposal facilities in Queensland which are able to accept boats and boat components, however the majority of these are well away from coastal areas. Waste disposal facilities take a variety of forms and may include landfill sites, recycling sites, waste transfer sites, or a range of similar site types. Appendix 2 comprises a table of the location and type of each of the 388 facilities.

A brief review of the facility map¹ (see right) shows facilities near the majority of coastal centres across the state. Coverage gaps exist in a number of places, notably far north Queensland, however given that derelict vessels generally aggregate around major centres, it appears that sufficient landfill sites exist to accept the bulk of vessels to be removed. Despite the range of disposal sites available, a variety of factors limit the manner in which individual ships may be disposed of.

Limitations include;

- 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. Ships contain a range of materials which need specialised disposal methods including oils and fuel, paints (*including anti-fouling paints*), acids, refrigerants and asbestos. It will be necessary to assess vessels individually to identify hazardous materials and follow local disposal requirements.
- 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



¹ <https://www.qld.gov.au/environment/pollution/management/waste/recycling/facilities>

in marine life, therefore removing abandoned FRP hulls from Queensland's waterways is likely to provide positive long term environmental benefits. Recycling and reuse options are very limited.

- Reuse and recycling. Many boat parts have an inherent material value and may be reused or recycled. Appendix 2 lists the constituent parts of a boat, the potential environmental hazards involved in each part and whether it may be recycled or reused.

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 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 if 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 take into account 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.

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.

Hull material disposal

Boats in Queensland are constructed from 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 may initial 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.

International examples of recycling programs have effectively managed FRP waste in different ways;

- 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%) 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.
- Europe adopts the Boatcycle program which applied a product lifecycle 'Cradle to Grave' analytical approach to vessel economic and environmental values. The program analysed processes involved in disposing of a range of boat constructions including power, sail and inflatable boats. The program used a process similar to Queensland;
 - Remove contaminants such as contaminated liquids, fuel, oil, acids, chemical and batteries
 - Remove external metal items for reuse or recycling
 - Use machinery to reduce the remaining boat to smaller fragments
 - Remove material such as wiring, foams, engines and so on from the rubble created
 - Separate material types for disposal or recycling
 - Dispose of the bulk waste material (generally FRP) as landfill

The program identified the need for alternative disposal methods as this presented health and safety hazards, used scarce landfill space and incurs landfill costs. As a result the program investigated a range of recycling pathways, and identified that fibreglass can be recovered and reused with minimal energy use. It is not known if this process is viable in Queensland.

- A number of Nordic countries have identified boat recycling as a major issue, with FRP being the most prominent building material, used in approximately 95% of boats. Finland and Sweden recycle approximately 3500 boats annually. The Nordic project which involved Sweden, Norway, Finland and Denmark identifies a range of barriers requiring policy interventions including;
 - The lack of registration and vessel identification makes it difficult for regulators to compel owners to dispose of boats appropriately, and does not provide any barrier to dumping EOL boats.
 - The lack of national EOL disposal systems means that owners have difficulty accessing disposal facilities, therefore often abandon small boats on land.
 - The lack of extended producer liability or scrapping bonuses, coupled with high recycling costs proves a disincentive to recycling and encourages abandonment.
 - A lack of clear responsibility between different agencies as to who is responsible for EOL boats, in water and on land, prevents agencies from taking the initiative to develop practical disposal solutions.

- As no organised EOL disposal system exists, the most frequent small boat disposal methods are abandonment, burning or dumping in lakes and the sea.

Hazardous material considerations

Liquid pollutants

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 in excess of 8,000 litres of contaminated water was removed from the derelict vessel 'Satttha' 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.

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

A number of potential alternative uses 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.

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.

Opportunities for further research

While this paper is limited to discussing potential disposal options, a number of relevant issues and projects were identified during the research phase. Should the taskforce wish to expand the activities to be undertaken during this process, consideration may be given to the following issues;

- **Extended Producer Responsibility.** International research in the field of end of life boats has identified that boat manufacturers are not required to contribute towards the ultimate disposal of the products they manufacture. Research into extended producer responsibility with respect to end of life boats, and into the role of government in shaping corporate social responsibility provide the framework by which an extended producer responsibility system may be developed.
- **Product lifecycle.** A number of similar manufacturing processes utilise a product lifecycle approach to identify
- **Recycling / reuse targets.** Potential target for inclusion of recycled material in vessel components, such as requiring a certain percentage of recycled/reclaimed fibreglass to be used in keel/stringer construction.
- **Best Management Practices.** A number of international jurisdictions have developed a range of 'Best Management Principles' to which local strategies dealing with end of life ship management processes must adhere. There may be scope to develop a high level governmental set of principles which guide local and state level practices and strategies.

Appendix 1 – Pollutants and recycling of boat components

Boat Part	Material	Pollutant	Reusable/Recyclable
Hull	Anti-fouling paints and gelcoat	TBT, copper, irgarol, diuron, lead, zineb, zinc	No. All pollutants are toxic and in need of removal before the plastic hull is disposed of
	Plastic composite		No commercial technology available, low energy yield
	Thermoplastic	Pigments containing Cd and lead for colour stabilisation	Limited depending on levels
	Wood	PCB from paints and jointing materials	No material containing PCB (<i>polychlorinated biphenyl</i>) should be recycled
	Zinc anodes	Zinc, Cd	Zinc anodes are often contaminated with Cd
	Deck		For energy (burning) if wood
	Fenders	Lead in PVC plastic	No
Superstructure	Sandwich construction	CFC and HCFC gases	No
	Mast		Metal – yes Wood – for energy
	Sail		Plastic – possibly Textile – yes Plastic – yes
	Rope		Natural material – no Stainless steel wire – yes
	Windows	PCB in sealing	No
Furnishings	Textiles	Flame retardants	
	Wood	White paint mat contain lead	For energy if no lead
	Paint	White paint may include lead	No
	Toilet		Reusable
	Oven and stove		Both
	Engine parts	PAH	Yes
Motor	Starter motor		Both
	Battery	Acids and lead	Yes
	Iron parts from motor		Yes
	Oil	PAHs	Recycle
Electronics	Propeller		Yes
	Plastic	Flame retardants	Perhaps

Appendix 2 – Boatyards and similar facilities

Area	Location / description	Opportunities / Limitation
Gold Coast	Southport – small travel lift	Readily accessible by truck. Private facility – will require some guarantee that storage costs will be paid
	Paddock next door to MSQ office	Mobile crane access or winch up boat ramp – move into paddock – break up and into skip bins. Limitation – grass, probable environmental barriers. Highly visible to the public. Government managed site – OH&S challenges.
	Runaway Bay – small travel lift	Readily accessible by truck. Private facility – will require some guarantee that storage costs will be paid
	Coomera River	Some distance from Broadwater – towing challenge. Access to boatyards and facilities. Private facility – will require some guarantee that storage costs will be paid. easy access for trucks
	Horizon Shores	Travel lift and easy access. Readily accessible by truck. Private facility – will require some guarantee that storage costs will be paid
	Steiglitz – Rudy MAAS Marina – slipway	Readily accessible by truck. Private facility – will require some guarantee that storage costs will be paid
Brisbane	Noosa Slipway, Noosaville	30 tonne slipway, max length 50 ft, 4 hard stand storage spaces up to 35 feet (3 currently occupied) easy access for trucks and cranes (hardstand rate approximately \$500 / month for 35 ft.
	Lawries Marina, Orana Street, Buddina	5.1m beam, 44 tonne travel lift, max length 55 ft, limited long term hard stand storage up to 55 ft, require 3rd party insurance prior to any lift or storage, easy truck and crane access (hardstand rate \$2.1 / ft / day)
	Spinnaker Sound	4.87 beam, 17 tonne Travel Lift , up to 8 m hard stand storage, easy access for trucks and cranes
	Claytons Towing	Storage of vessels of any length and for any period of time available, large capacity to store vessels at Nambour and Maleny holding yards. Long distance from coastline
	Scarborough Marina	35 tonne travel lift, good access for truck and crane.
	Cabbage Tree Creek Marina	Small slipway with limited road access
	BSE	2500t/100m capacity slipway
	Rivergate marina	75t & 300t travel lifts
	The Yard	65t, 300t & 600t travel lifts on 2 sites with good access
	MSQ Pinkenba	Drag out/crane out capacity with potential for some storage prior to disposal
	East Coast Marina –	Travel lift and forklift with reasonable access. Within TMR managed Boat Harbour and not a preferred option for removal of vessels from outside the Boat Harbour facility
	Moreton Bay Trailer Boat Club	35t travel lift Within TMR managed Boat Harbour and not a preferred option for removal of vessels from outside the Boat Harbour facility
	Redland City Marina – 40t/55ft slipping.	*Note that this facility is at the head of Eprapah Ck so access is tide dependent for anything but small vessels but has extensive storage space and good road access
	Pelican Slipway Weinam Creek	Small vessels only and limited access
Gladstone	Yeppoon - Rosslyn Bay Marina	Small slipway (privately owned)
	Rockhampton / Port Alma	TMR boat ramps along the Fitzroy River and Pt Alma– smaller craft could be taken and off loaded onto trucks or skip bins
	Private slipway (Fitzroy River)	Tidal access – easy access for vehicles
	Gladstone marina	Large travel lift with good access however requires transit through Gladstone harbour, a very busy trading port.

	Auckland Creek	2 x private slipways. Narrow creek with height limitations
	Other options for the region are Access by barge and pick up with excavator and put in skip, off load at a ramp or wharf facility and remove to waste transfer station	
Mackay	Mackay Marina	Private facility. Able to accommodate small and large vessels up to 65 Tonnes. Good access.
	Mackay Harbour Slipway	Private facility. Able to accommodate larger vessels (tug boat size), good access.
	Barnes Creek Slipway	Private facility. Able to accommodate smaller vessels such as yachts. Access limited by tide.
Airlie Beach	Hawkes Boatyard Travelift	Private facility. Able to accommodate small and large vessels up to 50 Tonnes. Good access.
	Edges Boatyard Travelift	Private facility. Able to accommodate small and large vessels up to 40 Tonnes. Access limited by tide, gravel road to boatyard.
Townsville	Bowen	Small slipway, restricted access. Some capacity to extract vessels from beach in the `Duckpond`. MSQ has experienced issues in the past with disposal at Bowen dump – one vessel had to be taken to Proserpine.
	Between Bowen and Townsville – limited access via a plethora of public boat ramps. Potential to remove boats via truck and mobile crane	
	Townsville – Ross Haven Slipway – large capacity	Private facility - operators are often unwilling to accept degraded vessels unless guaranteed payment via MSQ. Owners have in the past been directed to remove vessel, and then not been able to get approval for the removal through the slipway, which requires minimum \$10,000 deposit.
	Ross Ck slipway	Unsuitable for derelict vessel removal.
	Norship slipway, Cardwell – large capacity	Private facility. This facility has experienced issues in the past where owners have left derelict ships in the boatyard for extended periods and refused to pay, therefore they will not readily accept vessel where there is a risk of non-payment. Shipyard will remove vessels for MSQ and have done so in the past, together with management of pollutants.
Cairns	Norship boatyard	100 and 400 ton travel lift easy access by truck Private facility
	Cairns Cruising Yacht Squadron	80 Ton travel lift good truck access Private facility
	MSQ boat ramp and yard	A number of vessel up to 50 ft. have been pulled up and destroyed by Down to earth demolition. Government facility - OH&S challenges
	Coconut slipway	Small slipway with truck access and land for crane and excavator access. Private facility
	Cairns has a number of landfill sites that can accept large pieces of debris	
Port Douglas	Port Douglas slipway	small slipway
	Maranos vacant land possible to locate crane and excavators to remove vessels	
	Mossman dump able to accept a limited amount of vessel waste	
Innisfail	Flying fish point slipway	Small 80 ton travel lift good access for trucks also land available for cranes and excavators to access vessels
	Innisfail dump can accept a limited amount of vessel waste	

Appendix 3 – Waste Disposal locations (Queensland)

<https://environment.ehp.qld.gov.au/waste-facilities/>

Location	Facility Type	Location	Facility type
Adavale Landfill	Landfill	Kuranda Transfer Station	Transfer station
Admax Processing - Virginia	Metal recycling	Kynuna Landfill	Landfill
AJK Contracting - Mackay	Construction and demolition recycling, Organic processing	Laidley Transfer Station	Transfer station
Alex Fraser, Nudgee	Construction and demolition recycling	Lakeland Landfill	Transfer station
Allora Waste Transfer Station	Transfer station	Lakes Creek Road Landfill	Landfill
Almaden Landfill	Landfill	Laura Landfill	Landfill
Alpha Refuse Disposal Site	Landfill	Lemura Sand Co Pty Ltd	Landfill
Alton Downs Waste Management Facility	Transfer station	Leyburn Waste Transfer Station	Transfer station
AMR RECYCLERS - Coopers Plains	Metal recycling	Lochlees Landfill	Landfill
Aramara Landfill	Landfill	Lockhart River Tip	Landfill
Atherton Transfer Station, Landfill & Recycling Centre	Landfill	Logan Village Transfer Station	Transfer station
Augathella Landfill	Landfill	Longreach Landfill	Landfill
Aurukun Tip	Landfill	Lowmead Transfer Station	Transfer station
Avondale Waste Management Facility	Landfill	Macalister Waste Disposal Facility	Landfill
Ayton Landfill	Transfer station	Magnetic Island Landfill	Landfill
Babinda Transfer Station	Transfer station	Malanda Transfer Station	Transfer station
Banana Transfer Station	Transfer station	Mapleton Transfer Station	Transfer station
Baralaba Transfer Station	Transfer station	Mapoon Waste Facility	Landfill
Barcaldine Waste Landfill	Landfill	Mareeba Landfill	Landfill
Bassett Barks - Mt Beerwah	Organic processing	Marlyn Compost - Norwell	Organic processing
Bat Rec - Wacol	Battery recycling	Mary Valley Waste Transfer Station	Transfer station
Bauple Transfer Station	Transfer station	Maryborough Landfill	Landfill
Bayersville Green Waste facility	Transfer station	Maryvale Waste Transfer Station	Transfer station
Bedourie Landfill	Landfill	McCahills Earthmoving and Supplies Pty Ltd - Stuart	Organic processing
Beerwah Resource Recovery Centre	Transfer station	McKinlay Landfill	Landfill
Bell Waste Disposal Facility	Landfill	Meadowvale Waste Management Facility	Transfer station
Bells Creek Waste Transfer Station	Transfer station	Meandarra Waste Disposal Facility	Landfill
Benaraby Regional Landfill	Landfill	Medalfield - Kamerunga	Landfill
Beutel Oughtred & Sons - Toowoomba	Construction and demolition recycling	Merrimac Transfer Station	Transfer station
Biggenden Waste Management Facility	Landfill	Middlemount Landfill	Landfill
Biloela Transfer Station	Transfer station	Miles Waste Disposal Facility	Landfill

Biloela Trap Gully Landfill	Landfill	Millaa Millaa Transfer Station	Transfer station
Birdsville Landfill	Landfill	Millmerran Waste Facility	Landfill
Birkdale Waste Transfer Station	Transfer station	Mitchell Refuse Site	Landfill
Blackall Landfill	Landfill	Molecra Technologies - Loganholme	Tyre recycling
Blackbutt Transfer Station	Transfer station	Molendinar Landfill	Landfill
Blackwater Landfill	Landfill	Monto Waste Management Facility	Landfill
Bluff Transfer Station	Transfer station	Moranbah Resource Recovery Centre	Landfill
BMI Nudgee Road - Hendra	Transfer station	Moreton Bay Recycling - Narangba	Construction and demolition recycling
Bogantungan Landfill	Landfill	Morven Landfill	Landfill
Bollon Landfill	Landfill	Mount Carbine Transfer Station	Transfer station
Boonooroo Landfill	Landfill	Mount Molloy Transfer Station	Transfer station
Booyal Transfer Station	Transfer station	Mount Morgan Transfer Station	Transfer station
Bororen Transfer Station	Transfer station	Moura Transfer Station and Landfill	Transfer station
Bouldercombe Transfer Station	Transfer station	Mt Garnet Transfer Station	Transfer station
Boulia Rubbish Tip	Landfill	Mt Isa Landfill	Landfill
Bowen Landfill	Landfill	Mt Isa Metal Recyclers - Duchess Road	Metal recycling
Brigooda Waste Facility	Landfill	Mt Perry Waste Management Facility	Landfill
Bringalily Skip Bin Site	Transfer station	Mt Surprise Landfill	Landfill
Browns Plains Smart Tip	Landfill	Mudgeeraba Transfer Station	Transfer station
Buderim Resource Recovery Centre Syd Lingard Drive, Buderim 4556	Transfer station	Munduberra Waste Management Facility	Landfill
Bundaberg Waste Management Facility	Landfill	Murgon Waste Facility	Landfill
Bungunya	Landfill	Murphys Creek Transfer Station	Transfer station
Bunya Landfill	Landfill	Mutchilba Transfer Station	Transfer station
Burketown Waste Disposal Facility	Landfill	Muttaborra Refuse Disposal Site	Landfill
Burra Burri Waste Disposal Facility	Landfill	Nambour Resource and Recovery Centre/Landfill	Landfill
Burrum Heads Transfer Station	Transfer station	Nanango Waste Facility	Landfill
Buxton Transfer Station	Transfer station	Nebo Waste Facility	Landfill
Caboolture Landfill	Landfill	Nelia Landfill	Landfill
Cairns Mulch	Organic processing	Newell Beach Transfer Station & Landfill	Landfill
Calliope Transfer Station	Transfer station	Nikenbah Transfer Station	Transfer station
Caloundra Landfill and Resource Recovery Centre	Landfill	Noccundra Landfill	Landfill
Cannonvale Transfer Station	Transfer station	Normanton Waste Disposal Facility	Landfill
Capella Landfill	Landfill	North Stradbroke Island Transfer Station	Transfer station
Carbrook Transfer Station	Transfer station	Northern Peninsula Area Regional Council Landfill	Landfill
Cardwell Waste Transfer Station	Transfer station	Northern Sands Pty Ltd	Landfill
Cawarral Waste Management Facility	Transfer station	Nudgee Transfer Station	Transfer station
Caylamax Recycling - Brendale	Construction and demolition recycling	Oakey Waste Facility	Landfill

Cecil Plains Keyed Landfill	Landfill	Olgivie Constructions - Blue River Landscape Supplies	Organic processing
Central Waste Management Facility	Landfill	ONESTEEL Recycling - Hemmant	Metal recycling
Chandler Transfer Station	Transfer station	Otterburn Rural Transfer Station	Transfer station
Charleville Landfill	Landfill	Paget Waste Management Centre	Transfer station
Cherbourg Rubbish Tip	Landfill	Palm Island Transfer Station	Landfill
Childers Waste Management Facility	Landfill	Peninsula Metal Recycling - Redcliffe	Metal recycling
Chillagoe Landfill	Landfill	Pentland Landfill	Landfill
Chinchilla Waste Disposal Facility	Landfill	Phoenix Power Recyclers - Yatala	Organic processing
Chip Tyre - New Chum	Tyre recycling	Pinkenba Waste Transfer Station	Construction and demolition recycling
Clermont Resource Recovery Centre	Landfill	Pittsworth Waste Facility	Landfill
Clifton Waste Facility	Landfill	Planet Paints - Toowoomba	Paint recycling
Cloncurry Regulated Waste Facility	Landfill	Porpura Council Landfill	Landfill
Cloncurry Waste Facility	Landfill	Portsmith Transfer Station	Transfer station
Cloyna Waste Facility	Landfill	Prairie Landfill	Landfill
Coen Landfill	Landfill	Pratten Waste Transfer Station	Transfer station
Collinsville Transfer Station	Transfer station	Proston Waste Facility	Landfill
Condamine Waste Disposal Facility	Landfill	Queensland Metal Recyclers - North Rockhampton	Metal recycling
Cooktown Landfill	Transfer station	Queensland Metal Recyclers - Yatala	Metal recycling
Cooyar Keyed Landfill	Landfill	Quilpie Landfill	Landfill
Cordalba Transfer Station	Transfer station	Qunaba Waste Management Facility	Landfill
Cracow Landfill	Landfill	Rainbow Beach Waste Management Facility	Landfill
Crows Nest Waste Facility	Landfill	Ravensbourne Waste Facility	Landfill
Croydon Waste Facility	Landfill	Ravenshoe Transfer Station	Transfer station
Crushcon Burleigh	Construction and demolition recycling	Ravenswood Landfill	Landfill
Cunnamulla Landfill	Landfill	Recycling Developments - Yatala	Construction and demolition recycling
Currumbin Transfer Station	Transfer station	Redcliffe Transfer Station	Transfer station
Dajarra Waste Facility	Landfill	Redland Bay Transfer Station	Transfer station
Dakabin Landfill	Landfill	Reedy Creek	Landfill
Dalby Waste Disposal Facility	Landfill	Reedy Creek Landfill	Landfill
Dalveen Landfill	Landfill	Resource Recoveries and Recycling - Mt Cotton	Construction and demolition recycling
Dimbulah Transfer Station	Transfer station	Retrac Waste - Arundel	Transfer station
Dingo Transfer Station	Transfer station	Richmond Waste Disposal Facility	Landfill
Dirranbandi Landfill	Landfill	Riverview Waste Transfer Station	Transfer station
Doomadgee Waste Disposal Facility	Landfill	Rolleston Landfill	Landfill

Drillham Waste Disposal Facility	Landfill	Roma Waste Facility	Landfill
Duaranga Transfer Station	Transfer station	Rosedale Transfer Station	Transfer station
Dulacca Waste Disposal Facility	Landfill	Rosewood Waste Transfer Station	Transfer station
Durong Waste Facility	Landfill	Rural Residential No. 2 Skip Bin Site	Transfer station
Dysart Landfill	Landfill	Sapphire Rubyvale Landfill	Landfill
Eidsvold Waste Management Facility	Landfill	Sarina Rural Transfer Station	Transfer station
Einasleigh Landfill	Landfill	Seaforth Rural Transfer Station	Transfer station
Emu Creek Keyed Landfill	Landfill	Smithfield Transfer Station	Transfer station
Emu Park Waste Management Facility	Transfer station	South Kolan Transfer Station	Transfer station
Eromanga Landfill	Landfill	Southside Waste Management Facility	Landfill
Esk Refuse and Recycling Centre and Landfill	Landfill	Springsure Landfill	Landfill
Eumundi Road Landfill	Landfill	St George Landfill	Landfill
Eungella Transfer Station	Transfer station	St Lawrence Resource Recovery Centre	Landfill
Evan's Landing Landfill	Landfill	Stamford Landfill	Landfill
Evergreen Top Dressing and Sand	Landfill	Stange Bay Waste Management Facility	Landfill
Evergreen Waste Facility	Landfill	Stanthorpe Waste Management Facility	Landfill
Ferny Grove Transfer Station	Transfer station	Stapylton Green Energy - Stapylton Transfer Station	Transfer station
Finch Hatton Transfer Station	Transfer station	Stapylton Landfill	Landfill
Forest Springs Waste Transfer Station	Transfer station	Stonehenge Refuse Tip	Landfill
Forsayth Landfill	Landfill	Stoters Hill Waste Transfer Station and Landfill	Landfill
Gargett Rural Transfer Station	Transfer station	Stuart Waste Disposal	Landfill
Gatton Landfill	Landfill	Stubley Street Landfill	Landfill
Gayndah Waste Management Facility	Landfill	Sunstate Recyclers - Laidley	Metal recycling
Georgetown Landfill	Landfill	Surat Refuse Site	Landfill
Giru Transfer Station	Transfer station	Tall Ingots - Yeerongpilly	Metal recycling
Gladstone Transfer Station	Transfer station	Talwood Landfill	Landfill
Glenden Landfill	Landfill	Tambo Landfill	Landfill
Glenmorgan Waste Disposal Facility	Landfill	Tara Waste Disposal Facility	Landfill
Gold Coast Resource Recovery	Battery recycling	Taroom Landfill	Landfill
Goombungee Waste Facility	Landfill	Texas Transfer Station	Transfer station
Goomeri Waste Management Facility	Landfill	Thallon Landfill	Landfill
Goondiwindi	Landfill	Thangool Transfer Station	Transfer station
Gordonvale Transfer Station	Transfer station	Thargomindah Landfill and Transfer Station	Landfill
Gracemere Landfill	Landfill	The New Magnetic Island Waste Facility	Landfill
Grantham Transfer Station	Transfer station	Theodore Landfill	Transfer station
Granville Landfill	Landfill	Tieri Landfill	Transfer station
Greenbank Transfer Station	Transfer station	Tin Can Bay Waste Management Facility	Landfill
Greenmount Waste Facility	Landfill	Tinana Landfill	Landfill
Greenvale Landfill	Landfill	Tirroan Waste Management Facility	Landfill
Greymare Waste Transfer Station	Transfer station	Toobeah	Landfill
Gunalda Waste Management Facility	Landfill	Toogoom Landfill	Landfill
Gympie Landfill	Landfill	Toowoomba Waste Management Centre (Bedford Street)	Landfill
Haggarty Group - West Ipswich	Metal recycling	Torrens Creek Landfill	Landfill

Hay Point Rural Transfer Station	Transfer station	Torres SC - Thursday Island Transfer Station	Transfer station
HBH Recycling - Coomera	Construction and demolition recycling	Transpacific Cleanaway - Hervey Bay MRF	Transfer station
Hebel Landfill	Landfill	Transpacific Resource Recycling - Willawong	Construction and demolition recycling
Helensvale Transfer Station 70 Helensvale Road, Helensvale 4212	Transfer station	Transpacific Technical Services - Toowoomba	Transfer station
Helidon Transfer Station	Transfer station	TSIRC - Badu Island Community Council Tip	Landfill
Herberton Transfer Station	Transfer station	TSIRC - Boigu Community Council Tip	Landfill
Hervey Range Landfill and Transfer Station	Landfill	TSIRC - Dauan Community Council Tip	Landfill
Hivesville Waste Facility	Landfill	TSIRC - Erub Community Council Tip	Landfill
Hope Vale Landfill	Landfill	TSIRC - Hammond Community Council Tip	Landfill
Howard Transfer Station	Transfer station	TSIRC - Kubin Community Council Tip	Landfill
Hughenden Landfill	Landfill	TSIRC - Mabuia Island Community Tip	Landfill
Hungerford Landfill	Landfill	TSIRC - Masig Community Council Tip	Landfill
Inglewood Landfill	Landfill	TSIRC - Mer Community Council Tip	Landfill
Injune Refuse Site	Landfill	TSIRC - Poruma Community Council Tip	Landfill
Innot Hot Springs Transfer Station & Landfill	Landfill	TSIRC - Saibai Community Council Tip	Landfill
Irvinebank Transfer Station	Transfer station	TSIRC - St Pauls Community Council Tip	Landfill
Isisford Landfill	Landfill	TSIRC - Ugar Community Council Tig	Landfill
Jackson Refuse Site	Landfill	TSIRC - Warraber Community Council Tip	Landfill
Jacobs Well Transfer Station	Transfer station	TSIRC - Yam Community Council Tip	Landfill
Jambin Transfer Station	Transfer station	Tully Landfill / Tully Transfer Station	Landfill
Jandowae Waste Disposal Facility	Landfill	Turallin Skip Bin Site	Transfer station
Jensen Landfill and Transfer Station	Landfill	V Resource - Loganholme	Battery recycling
Jericho Refuse Disposal Site	Landfill	Wallangarra Waste Transfer Station	Transfer station
J.J. Richards - Gladstone	Transfer station	Wallumbilla Refuse Site	Landfill
J.J. Richards - Mackay	Transfer station	Wandoan Waste Disposal Facility	Landfill
J.J. Richards - North End	Transfer station	Warra Waste Disposal Facility	Landfill
J.J. Richards - Townsville	Transfer station	Warrens Hill Waste Management Facility	Landfill
J.J. Richards - Wacol	Transfer station	Warwick Central Waste Management Facility	Landfill
Jondaryan Waste Management Centre	Landfill	Warwick Scrap Metal and Recycling	Metal recycling
Julatten Transfer Station	Transfer station	Wide Bay Capricorn Battery Recyclers - Bundaberg North	Battery recycling
Julia Creek Recycling and Waste Management Facility	Landfill	Willawong Transfer Station	Transfer station
Jundah Refuse Tip	Landfill	Willows Landfill	Landfill
Kaimkillenbun Waste Disposal	Landfill	Windorah Refuse Tip	Landfill
Karara Waste Transfer Station	Transfer station	Winton Landfill	Landfill
Karumba Waste Facility	Landfill	Withcott Transfer Station	Transfer station
Kelsey Creek Landfill	Landfill	Witta Resource Recovery Centre	Transfer station

Kenilworth Transfer Station	Transfer station	Wondai Waste Facility	Landfill
Narangba Resource Recovery Centre	Construction and demolition recycling, Transfer station	Woodgate Waste Transfer	Transfer station
Kilkivan Waste Management	Landfill	Woorabinda Aboriginal S/C	Landfill
Killaloe Landfill	Landfill	Wowan Landfill	Transfer station
Killarney Waste Transfer	Transfer station	Yandina Transfer Station	Transfer station
Kingaroy Waste Facility	Landfill	Yangan Landfill	Landfill
Kirknie Road Landfill	Landfill	Yaraka Landfill	Landfill
Kleinton Waste Facility	Landfill	Yarrabah Transfer Station	Landfill
Kogan Waste Disposal	Landfill	Yarraman Waste Facility	Landfill
Kolijo Rural Transfer Station	Transfer station	Yelarbon Landfill	Landfill
Koumala Transfer Station	Transfer station	Yengarie Transfer Station	Transfer station
Koyanyama Refuse Tip	Landfill	Yeppoon Landfill	Landfill
Kumbia Waste Facility	Landfill	Yungaburra Transfer Station	Transfer station

Draft Waste Management and Resource Recovery Strategy



Minister's foreword

Queensland is waging a war on waste.

Waste and what we do with it is a major concern for our state as the impacts of waste continue to put at risk our enviable lifestyle and environment.

Queensland is a growing and dynamic state, now home to more than five million people, however we are a poor performer in waste recovery and littering compared to other Australian states and territories.

Our vision is for Queensland to become a zero-waste society, where waste is avoided, and the waste we do produce is reused and recycled.

Not managing our waste better is a lost opportunity for not only our environment and our communities, but also our economy.

The Queensland Government's new Draft Waste Management and Resource Recovery Strategy (draft Waste Strategy) aims to minimise the waste we create, maximise the value of the resources we use, cut greenhouse gas emissions and leave our environment in a better condition for generations to come.

To achieve this, we must move away from our current 'take, make, use, dispose' approach, and move to a more circular economy where we keep resources in use for longer while extracting the maximum value from them.

Everyone has an important role to play. Individuals, businesses, industry and government must work together to create sustainable solutions that deliver lasting economic benefits to Queensland, while also protecting our environment from the impacts of littering and illegal dumping.

We also want to see strategic investment in diverse and innovative resource recovery technologies and markets to produce high-value products and generate economic benefits for the state. To help realise this vision, the draft Waste Strategy is underpinned by a levy on waste going to landfill, which will commence on 1 July 2019.

The levy will not only align Queensland with other states and territories, but it will encourage sustainable alternatives to landfill. It will also provide vital funding for infrastructure investment, research and development into new technologies and demonstration projects that bolster our recycling and resource recovery industries.

To kick-start the transition, the Queensland Government is investing \$100 million over the next three years for new and expanded resource recovery facilities in Queensland—tailored to our unique regional waste management challenges.

This investment will be complemented by a suite of education and support programs funded under the Queensland Government's commitment to devote over 70 percent of levy proceeds to resource recovery and other programs that reduce the impact of waste and protect our environment and our local communities. This is an unprecedented commitment in Australia, which will be a huge catalyst to drive co-investment through the private sector.

This investment will also help build resilience to international policy decisions and market fluctuations like China's ban on the import of highly contaminated recyclable material, which has affected the commercial viability of kerbside recycling in Queensland.

Queensland has already taken some huge steps in better managing waste with the ban on the supply of single-use lightweight plastic bags and the introduction of the hugely popular container refund scheme, Containers for Change.

These two changes have shown that Queenslanders have an outstanding willingness to change how we manage waste and we want to keep building on this momentum.

We want to create a brighter future for Queensland—one where we are creating less waste going to landfill, and instead converting this waste into new, more sustainable products and materials and create the jobs and new industries of the future.

I encourage all Queenslanders, business and industry representatives to have their say on the draft Waste Strategy and help us create the best future for resource recovery in Queensland, while also protecting our precious environment and the unique lifestyle we all enjoy.

Leeanne Enoch MP

**Minister for Environment and the Great Barrier Reef
Minister for Science and Minister for the Arts**



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Introduction

The draft Waste Management and Resource Recovery Strategy for Queensland (the draft Strategy) presents a plan for a better way of managing waste in Queensland. It will provide benefits in the form of economic growth and jobs by recovering more materials and gaining more value from those recovered materials.

There is significant potential for economic growth in the waste management and resource recovery sector in Queensland. For every 10,000 tonnes of waste that goes to landfill, it is estimated that fewer than three jobs are supported, but where that waste is reused or recycled, it is estimated that there are more than nine jobs created¹. We can all do more to extract more value from our waste and protect the environment through reducing waste generated, improving recovery facilities and reducing litter. The Queensland Government intends to take the lead in growing the Queensland recycling and resource recovery sector.

Background

In 2017–18, Queensland produced nearly 11 million tonnes of waste, with the increase in waste generated over the last decade outstripping population growth by 19 per cent. This extra growth can be partly explained by increased consumption and partly attributed to the growing volume of interstate waste transported to Queensland for disposal due to low landfill gate prices and the absence of a waste levy.

In 2017–18, the amount of resources recovered or recycled was 4.9 million tonnes, or around 45 per cent of waste generated. This is below the national average of resource recovery performance across all Australian jurisdictions, and well below those states with the highest recycling rates. Over the past 10 years the amount of waste being sent to landfill in Queensland has increased while the recycling rate has remained steady. Local governments also continue to clean up significant amounts of littered and illegally dumped waste at a cost of over \$18 million each year.

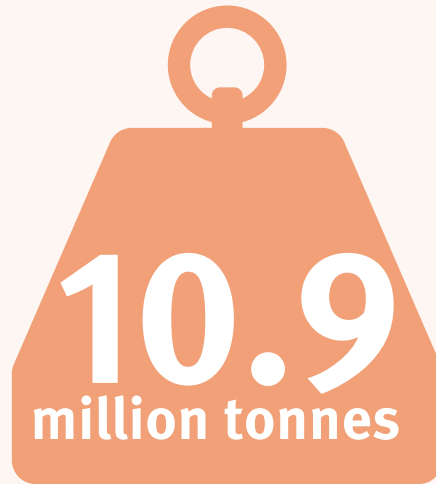
The Queensland Government is working with the Commonwealth Government and other states and territories to update the National Waste Policy to guide the actions for states and territories to build resilience to international market fluctuations and drive improved recovery. For example, to provide a solution to the ban on the import of recycled material with higher levels of contamination into China which has affected the commercial viability of kerbside recycling in Queensland.

An absence of policy certainty and strategic direction has inhibited investment in the recycling and resource industry in Queensland. In particular, insufficient investment in recycling and resource recovery infrastructure has restricted Queensland's ability to improve waste recovery performance. Diminishing landfill capacity is placing increasing pressure on the resource recovery sector to separate and process materials in lieu of disposal; and an important export market for recyclable mixed plastic materials and paper/cardboard has been restricted. As a result, improved on-shore reprocessing capacity will be needed to contend with a growing stock of recyclable materials.

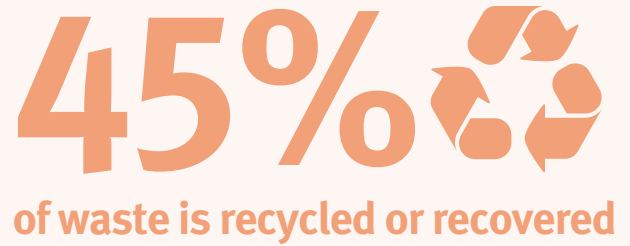
¹ Deloitte Access Economics, *Employment in waste management and recycling*, 2009.

Snapshot of waste in Queensland

In 2017–2018 ...



of headline wastes reported



Local governments sent
340,000 tonnes



of paper and packaging to recyclers



of mixed domestic waste picked up by
weekly council kerbside collection

Organic processors converted
1.4 million tonnes



into products such as soil,
potting mixes and mulches

It cost local governments

\$18.4m

to deal with **6,000**
tonnes



of illegally disposed of waste



37%
increase

in the annual amount
of waste from

interstate sources
sent to Queensland waste facilities

The need for change

These challenges have brought about a clear need for the Queensland Government, local governments, and the waste management and resource recovery sector to help households, communities, businesses and industry to reduce waste generation and to seek more value from recovered resources.

The waste management and resource recovery sector is well established in Queensland, and well placed to expand operations to further reprocess and recycle material. This transition will be supported by the strategy and a policy and regulatory framework that is designed to facilitate sustainable waste management practices.

The next decade will bring significant change in the way waste is managed, but will also provide opportunities for growth in employment and expansion in the sector.

Foundation measures

The Queensland Government has already implemented a number of initiatives to reduce waste generation, increase resource recovery and eliminate littering including:

- the introduction of a ban on the supply of single-use lightweight plastic shopping bags from 1 July 2018
- the introduction of a Container Refund Scheme to improve recycling of beverage containers from 1 November 2018
- regulatory reform of the regulated waste and environmentally relevant activity frameworks
- the development of strategic partnerships to improve the management of organic wastes
- the development of the Litter and Illegal Dumping: A Plan for Queensland
- the development of a Plastic Pollution Reduction Plan
- the introduction of a waste disposal levy commencing 1 July 2019
- the development of a \$100 million Resource Recovery Industry Development Program
- the announcement of a \$5 million Waste to Bioenergy Fund.

These policy measures provide an important foundation to help Queenslanders reduce waste, gain more value from recovered materials and dispose of materials only where no beneficial use remains inherent in the product. The development and implementation of a new strategic waste management and resource recovery framework will help Queensland benefit from the associated economic and employment opportunities. A progressive, stable policy and regulatory framework is required to underpin industry confidence to invest in the state's resource recovery economy.

The Transforming Queensland's Recycling and Waste Industry—Directions Paper was released for public consultation in June 2018 and feedback from this has helped shape this Strategy. The Strategy's policy direction is also guided by principles set out in the *Queensland Waste Reduction and Recycling Act 2011* and *Environmental Protection Act 1994*, and national policies and strategies.

Strategy overview

The Strategy presents a strategic plan for a better way of managing waste in Queensland, by harnessing the potential value of resources that have traditionally been discarded. The Strategy's three strategic priorities will guide the transition to a more circular economy, reduce the amount of waste disposed of to landfill, or illegally, and provide a more sustainable source of end-of-life products and materials to create new products.

The Strategy will be accompanied by a series of action plans that detail the implementation of the strategic priorities, including timeframes and responsibilities.

Implementation of the Strategy will be led by the Department of Environment and Science (DES) in partnership with the Department of State Development, Manufacturing, Infrastructure and Planning. It will ensure a whole-of-government approach that will help grow the waste recovery sector, attract industry investment and support jobs growth.

Vision

Queensland will become a zero-waste society, where waste is avoided, reused and recycled to the greatest extent possible. Strategic investment in diverse and innovative resource recovery technologies and markets will produce high-value products and generate economic benefits for the state.

Identifying waste as a potential resource provides opportunities for both the economy and the environment. Materials that would otherwise have been sent to landfill can be reprocessed and remanufactured into new products.

The disposal of waste into landfill creates environmental problems for Queensland. Landfills emit additional greenhouse gas emissions (particularly from organic waste) and the need for long-term management of contaminated land can cause a cost burden. Odour and noise emissions from waste facilities can lead to potential land-use conflicts.

Providing an incentive to recover and recycle material can help protect the natural environment and conserve natural resources that would otherwise have been used in new product manufacture.

Ambitious stretch targets, supported by nearer-term interim targets have been developed to support the Strategy's vision.

Targets for 2050

- 25% reduction in household waste
- 10% of all wastes going to landfill
- 75% recycling rates across all waste types

By reducing the amount of waste that goes to landfill, and subsequent greenhouse gas emissions, the Strategy will also directly contribute to the goals of the Queensland Climate Transition Strategy including to:

- achieve zero net emissions by 2050
- reduce emissions by at least 30 per cent below 2005 levels by 2030 (interim target).

The deployment of certain types of energy recovery technology may also contribute to achieving the goal of powering Queensland with 50 per cent renewable energy by 2030.

The Strategy's focus on gaining more value by recycling and recovering materials aligns with the Queensland Government's Advance Queensland initiative to foster innovation and position the state as an attractive destination for investments in new ideas. It will help create a commercial environment that supports investment in new, innovative and expanding businesses.

The collective challenge for households, communities, business, industry and government is to reduce the amount of waste created in the first instance; maintain, reuse and repair products to extend their lives; and maximise the value of materials before energy can be recovered or they must be discarded. The waste hierarchy, enshrined in the *Waste Reduction and Recycling Act 2011*, provides an enduring framework which sets out guidance for managing waste (Figure 1).

What does zero-waste mean? The only waste that goes to landfill is waste for which there is no alternative environmentally, socially or economically viable solution.



Moving towards a circular economy for waste

The global economy is transforming towards a more circular model. Queensland's economy is predominantly linear, which means that things are typically made from virgin raw materials, used and then thrown away as part of a 'take-make-use-dispose system'. The majority of these end-of-life products end up in landfill.

In contrast, a circular economy is one in which products and materials keep circulating within the economy at their highest value for as long as possible, through reuse, recycling, remanufacturing, delivering products as services, and sharing (Figure 2).

The waste sector is well placed to take advantage of a transition to the circular economy. A more circular model encourages improved resource efficiency, and can protect businesses from fluctuating and sometimes volatile commodity prices. The circular economy can also provide a more stable operating environment for manufacturers, retailers and consumers.

Businesses operating under the circular economy model create opportunities for new revenue streams and markets and product lines, which help to further economic growth. The process forms a productive cycle that involves collecting discarded materials, sorting and separating them into material types, reprocessing specific materials to become clean feedstock for the manufacture of new products, and the subsequent purchase and use of the new products by consumers.

The circular economy has been shown to have significant benefits through additional revenue opportunities and new jobs in the areas of reuse, remanufacturing and materials innovation.

Creating market demand

Sustained growth of the waste management and resource recovery sector is predicated on the growth of markets for recycled produce, which in turn is dependent on demand. Market demand for products with recycled content will drive increased commercial investment in resource recovery and reprocessing technologies. The circular economy must therefore be driven by the purchasing behaviour of consumers and investment by the resource recovery and manufacturing sectors.

The Queensland Government will play a pivotal role in facilitating the growth of these markets by identifying pathways for industry development. State-wide waste infrastructure planning will be undertaken and the Queensland Government will work with local governments to develop region-specific plans to deliver recycling and resource recovery facilities appropriate to these areas.

To provide a sustained feedstock for the recycling and resource recovery sector, the Queensland Government will pursue landfill disposal bans on selected waste streams. Such bans will be underpinned by economic modelling and market development plans for the diverted material. The Queensland Government recognises the need to give sufficient time for industry to transition and for infrastructure to be built, so a clear implementation timeframe will be provided prior to bans commencing. The applicability of bans on a regional basis will also be considered.

The Queensland Government will continue to explore product stewardship schemes to help drive market development, and will continue to work with the Australian Government to implement them.

In the medium term, there will be some wastes that cannot be recycled, and this provides an opportunity to consider the role of waste to fuel or energy. The Queensland Government will develop a policy for waste to energy that will seek to position it as an alternative to landfill, and not as an alternative to recycling as part of a longer-term solution.

Figure 1. Waste and resource management hierarchy

The waste and resource management hierarchy is a framework that guides the order of preference for managing waste. Waste should be avoided as a first priority, after which options for reuse and recycling should be explored. The options of fuel production, energy production or disposal should be reserved for residual waste that is unsuitable for higher order options. The hierarchy shapes the Strategy's priorities and provides the basis for the development of actions.

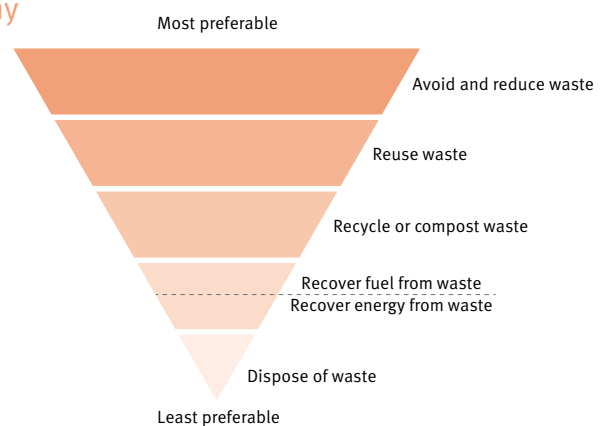
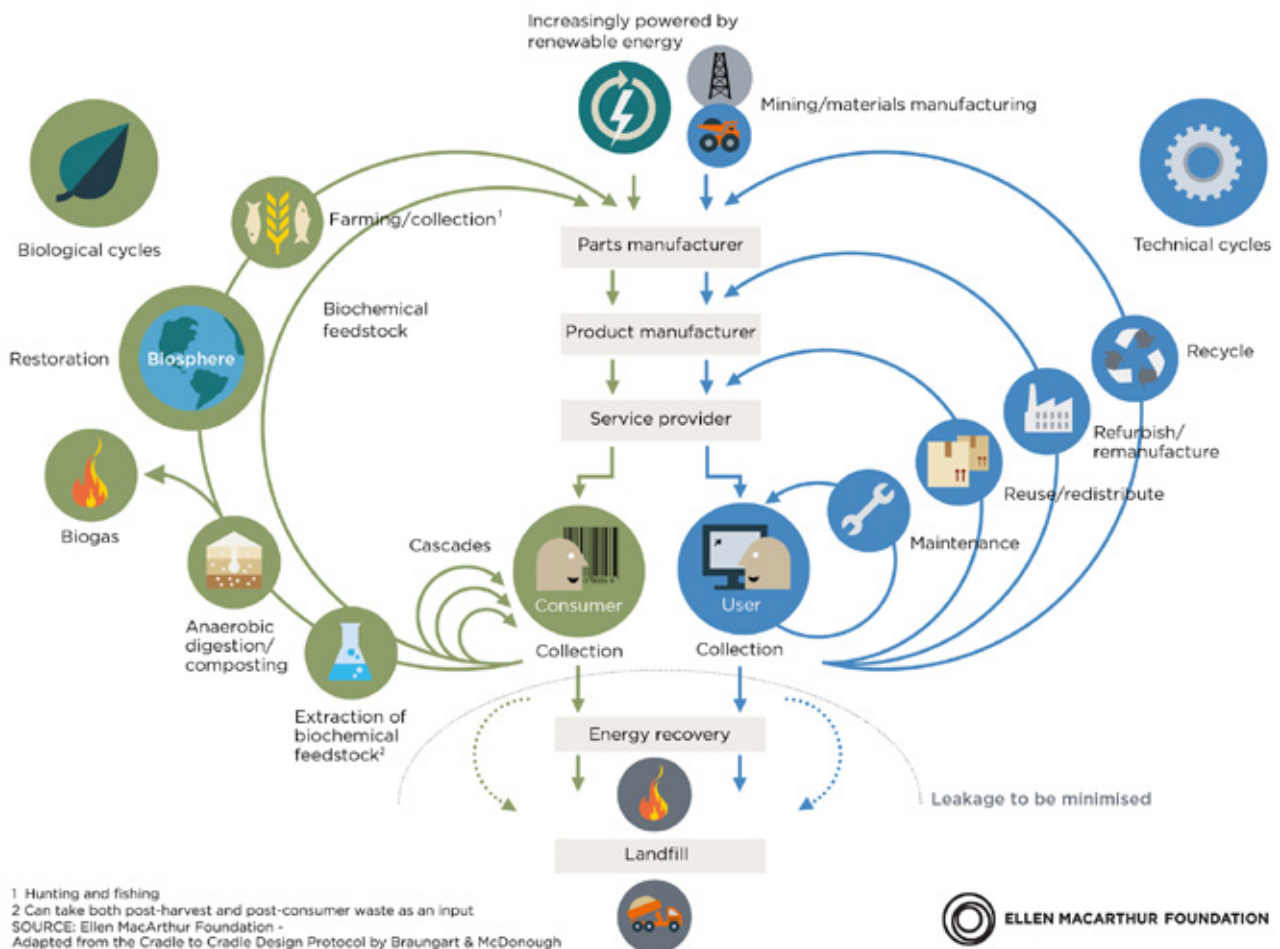


Figure 2. Circular economy principles (Ellen MacArthur Foundation, 2012)

Globally, governments and businesses are moving toward a circular economy model. Adopting circular economy principles presents opportunities for both industry and government to alter the way a substantive part of the economy operates, while creating growth and improved environmental sustainability. Shifting away from the linear ‘take-make-use-dispose’ model will deliver benefits through reduced waste and improved resource efficiency, can create new economies and build long-term market, environmental and economic resilience.

CIRCULAR ECONOMY - an industrial system that is restorative by design



A circular economy aims to ensure that:

- products and materials are used efficiently to minimise the amount of waste created
- waste that is produced can be recovered and beneficially used to make other products and contribute to the economy
- products and materials keep circulating within the economy at their highest value for as long as possible, through remanufacturing, reuse and recycling.

The following circular economy principles can be applied to waste management and resource recovery sector.

- Generation of waste should be avoided where possible (for example, by eliminating the need for single-use plastic bags).
- Product design should make optimal use of recycled materials, use only materials that are able to be designed for repair, recycled, and strive for efficient disassembly at the end of product life.
- The post-consumer recovery, reprocessing and marketing cycle should be efficient and integrated.

Strategy targets

The Queensland Government has a long-term vision, with corresponding targets that will facilitate sustained growth of the recycling and resource recovery sector, while reducing Queensland's waste footprint. Targets are set for 2025, 2030, 2040 and 2050 to enable ongoing measurement of progress and to recognise that there is potential for significant change in the short to medium term. Performance targets will be measured from the commencement of the Strategy, using baseline data from the 2017–18 financial year.

When setting the Strategy targets, consideration was given to the reasonableness, appropriateness, compatibility and achievability of the targets. This was achieved by undertaking a qualitative assessment which compared the targets against selected Australian and international jurisdictions for reasonableness and appropriateness; and a quantitative assessment which involved high-level modelling of predicted changes to the composition of waste and recycling to assess the compatibility and achievability of the targets.

The following targets have been developed to support the Strategy's vision, drive market growth and deliver the benefits associated with improved waste management.

Targets for 2050

- 25% reduction in household waste
- 10% of all waste going to landfill
- 75% recycling rates across all waste types

Waste avoidance

There are significant opportunities to reduce the amount of waste produced by making informed decisions on purchases. The Queensland Government will support Queensland businesses and households to reduce their waste production further through the delivery of targeted education and information-sharing programs.

The waste avoidance target focuses on the waste produced by households and referred to as municipal solid waste (MSW). In reducing household waste by volume, Queenslanders will see reduced grocery bills as less waste, especially food, is generated.

The waste produced under the commercial and industrial (C&I) and construction and demolition (C&D) streams is often influenced by macro-economic conditions, so these wastes are excluded from the waste avoidance target.

Table 1—Waste reduction targets for households

Stream	2025	2030	2040	2050
MSW	10%	15%	20%	25%

Reduced waste to landfill

In 2017–18, more than 50 per cent of Queensland's waste was sent to landfill. To drive the growth of recycling markets, the Queensland Government will introduce a waste disposal levy in July 2019 to provide a clear price signal to divert valuable material away from landfill. The levy will be accompanied by a series of companion measures that will subsequently create an alternative pathway for these materials to be recycled or recovered. There are a number of wastes, such as asbestos, for which landfill is unavoidable and these have been accounted for in the long-term targets.

Table 2—Amount of waste disposed of to landfill (as a percentage of total waste generated)

Stream	2025	2030	2040	2050
MSW	45%	30%	10%	5%
C&I	30%	20%	10%	5%
C&D	25%	15%	15%	15%
Overall	35%	20%	15%	10%

Increasing recycling rates

Increased recycling rates will be supported by the development of markets and the delivery of infrastructure to meet market demand for recycled material. The role of the Queensland Government will be to work with industry and local government to identify infrastructure needs and support planning for new infrastructure. The percentages in Table 3 relates to waste that is reported as recycled or reused, specifically excluding material from which energy is recovered.

Table 3—Recycling rates (as a percentage of total waste generated)

Stream	2025	2030	2040	2050
MSW	50%	60%	65%	70%
C&I	55%	60%	65%	65%
C&D	75%	80%	85%	85%
Overall	60%	65%	70%	75%



Strategic priorities

Three strategic priorities set out below have been identified to help drive a fundamental shift in the way waste is managed in Queensland and support the transition to a zero-waste society.

- Reducing the impact of waste on the environment and communities.
- Transitioning towards a circular economy for waste.
- Building economic opportunity.

Reducing the impact of waste on the environment and communities

The Queensland Government is committed to reducing the environmental and social impacts of waste. Waste crime, including littering and illegal dumping of waste, can undermine legitimate businesses through reckless or cheap disposal of waste. This can harm the environment, particularly in aquatic settings, where littered items can adversely affect marine life and compromise water quality.

Over time the need for fewer landfill facilities will reduce local air, land and water pollution, and together with the reduction of interstate waste transportation and less organic waste in landfill will contribute to a reduction in greenhouse gas emissions.

The Strategy will guide the development of educational programs to inform consumers about how they can reduce the amount of waste they produce, and to inform businesses about options to improve waste management. The Queensland Government will support this through the implementation of clear and transparent regulatory policy, and enhanced compliance frameworks to provide consistency across the waste management and resource recovery sector and reduce waste crime.

Transitioning to a circular economy for waste

The Queensland Government recognises the benefits of transitioning to a circular economy for waste. It will encourage the community, business and industry to manage waste so that its value is retained in the economy for as long as possible. Value can be gained from material otherwise destined for landfill when there are increased options for reuse, recycling and recovery of resources. All Queenslanders can play a role in this transition by adopting purchasing and consumption behaviours that help reduce waste and increase recycling and resource recovery.

Building economic opportunity

The Queensland Government recognises that the waste management and resource recovery sector is already an important contributor to the economy. However, there is further potential to grow the sector. The government will work with local government, business, industry and the recycling and resource recovery sector to expand reuse, recycling and recovery capability so that Queensland becomes a highly competitive centre for the remanufacture of waste materials into new products. Fostering sustained growth of the sector and establishing a progressive, stable policy and regulatory framework will provide business and industry with confidence to invest. It will also create new jobs, provide upskilling opportunities for the workforce, build infrastructure capacity and markets in regional areas, and contribute to sustainable growth in Queensland.

Working together to make the change

The Queensland Government will take a leading role in guiding and facilitating the transition to a zero-waste society to deliver improved environmental protection and better economic prosperity.

Action is also needed by local government and the recycling and resource recovery sector, who are responsible for managing waste services and infrastructure and have a vital leadership role to play in delivering more sustainable waste management. The waste management and resource recovery sector in Queensland is well positioned to grasp the commercial opportunities presented by the transition to a circular economy.

Business and industry, waste generators, product designers, consumers and potential investors in resource recovery and reprocessing technologies and practices have a role to play in rethinking how they innovate and stimulate market demand for recycled content.

Households and the community can also play a vital role in considering what to purchase and what to do with products and materials that have reached the end of their current life cycle, including sorting and segregating wastes at home.

Enabling the change

There are a number of actions that need to be undertaken to facilitate the change required to deliver on the strategic priorities. These were identified through extensive consultation with stakeholders during the development of the draft Strategy.

- ✓ A strong **policy and legislative framework** will provide certainty, consistency and a clear policy direction that industries can use to inform proactive decision-making.
- ✓ Good **governance** will ensure that opportunities and barriers to change can be managed transparently to deliver optimal waste management outcomes.
- ✓ Effective **compliance management** will reduce waste crime and ensure a level playing field across the waste sector that requires and encourages waste management operators to not only comply with the prevailing law, but aspire to best practice.
- ✓ Robust **partnerships and collaboration**, and a sound **knowledge platform**, will drive innovation, investment, information sharing and the uptake of opportunities.
- ✓ A comprehensive **education** program will ensure waste management becomes a priority for communities as well as industries, and will drive changes in consumer expectations, knowledge and behaviour.



Strategy summary

Vision

Queensland will become a zero-waste society, where waste is avoided, reused and recycled. Strategic investment in diverse and innovative resource recovery technologies and markets will produce high-value products and generate economic benefits for the state.

Outcomes

- Reduction in the amount of waste that goes to landfill, is littered or illegally dumped.
- Reduction in waste related greenhouse gas emissions.
- Reduction in the long-distance transport of waste.
- Protecting Queenslanders' lifestyles and the enjoyment of our natural environment.
- Savings for households from avoiding unnecessary waste.
- Reduction in the impact from waste facilities on neighbouring communities and amenity value.

Strategic priority 1

Reducing the impact of waste on the environment

Actions for Queenslanders

- Reduce food waste.
- Buy better to minimise waste.
- Choose to refuse disposable products and reuse more.
- Recycle right and more often.
- Respect other people and the environment by keeping our shared spaces free from rubbish and litter.

For the full list of actions for Queenslanders, see the draft Waste Management and Resource Recovery Strategy, Community Summary.

Government actions

- Implement the Plastic Pollution Reduction Plan.
- Continuously improve the effectiveness of waste sector environmental compliance operations.

- Audit landfills to test the quality of Queensland landfill infrastructure and identify non-compliance.
- Provide assistance for alternative arrangements where landfill facilities are to be progressively closed.
- Develop the Litter and Illegal Dumping: A plan for Queensland.
- Develop an education strategy to integrate waste and recycling behaviours into the education system.

Actions for local government

- Support and contribute to targets and actions under Litter and Illegal Dumping: A plan for Queensland.
- Deliver litter and illegal dumping interventions within local communities and at targeted hotspots.

- Support delivery of waste education through existing networks.
- Improve or close redundant landfill facilities.

Waste sector actions

- Strategically locate facilities in accordance with land use planning guidelines.
- Avoid and minimise the long-distance transport of waste where practicable.
- Continue to educate industry members about the appropriate management actions to take for particular wastes.

Outcomes

- Sound management of waste as a valuable resource.
- Improved data and information sharing on material flows across Queensland.
- Clear standards and guidelines for reuse and recycling.
- Clear position and policy on the role of energy and fuels from waste in Queensland.

Outcomes

- Growth in the economic value of the waste management and resource recovery sector.
- Increased number of jobs in reuse, recycling and recovery.
- Clear and transparent waste and resource recovery infrastructure planning framework.
- Stimulated markets for new and innovative products containing recycled content and demand for recycled material.

Strategic priority 2

Transitioning to a circular economy for waste

Government actions

- Assess the opportunities of the circular economy model for Queensland.
- Collect and amalgamate data to understand material flows across the economy and address knowledge gaps.
- Explore options to expand reporting of waste to build baseline datasets and inform decision making.
- Develop material-specific action plans for problem wastes.
- Deliver community campaigns and education programs that support waste avoidance, re-purposing, reuse and recycling.
- Explore scope for industry leadership in developing a voluntary specification code for minimum recycled content in packaging and products.
- Develop programs to increase business recycling.
- Support and develop extended producer responsibility and product stewardship initiatives.
- Develop an energy from waste policy.
- Work with other governments to develop quality standards for product packaging.

Actions for local government

- Optimise waste collection services.
- Improve community understanding about recycling and waste avoidance.
- Develop consistent messaging in delivery of services between councils.

Waste sector actions

- Inform and educate business clients about options to reduce waste and increase recycling.
- Offer service options that provide clients with choice about the level of recycling they want to adopt.

Strategic priority 3

Building economic opportunity

Government actions

- Develop the Advance Queensland Waste and Resource Recovery Industries Roadmap.
- Continuously improve and reform waste-related legislative frameworks.
- Develop proposals for landfill disposal bans.
- Work with the Commonwealth Government to standardise waste policy, legislation, regulation and messaging.
- Review the land-use planning system to ensure pathways for industry development are supported.
- Promote the development of waste precincts.
- Develop a coherent state-wide waste infrastructure-planning framework and regional infrastructure plans.
- Support the commercialisation of successful recycling and remanufacturing technologies.
- Create market development plans for key waste types and waste sectors.
- Investigate alternative end-uses and markets for recycled materials.
- Stimulate demand by giving preference in procurement contracts for products that use recycled material.
- Develop programs to stimulate the growth of markets for recycled materials.
- Strengthen collaborative partnerships with key organisations in the sector.

Actions for local government

- Collaborate with state government planning on provisions to optimise land use and transport planning.
- Take a regional approach to infrastructure planning and collaboration.
- Collaborate across councils to create economies of scale and meet multiple infrastructure needs.
- Invest in improved infrastructure and standards for council run facilities.
- Rationalise waste facilities.

STRATEGIC PRIORITY 1

Reducing the impact of waste on the environment

A healthy environment creates safe and healthy communities, supports our economy and contributes to our general health and well-being. Which is why it is so important that we protect it for future generations.

Future waste management solutions that increase resource recovery and divert waste from landfill will reduce the impact on Queensland's environment and deliver better outcomes for local communities.

Outcomes

Reducing the impacts caused by waste on the environment will help achieve the following outcomes.

- Reduction in the amount of waste that goes to landfill, is littered or illegally dumped.
- Reduction in waste related greenhouse gas emissions.
- Reduction in the long-distance transport of waste.
- Protecting Queenslanders' lifestyles and the enjoyment of our natural environment.
- Savings for households from avoiding unnecessary waste.
- Reduction in the impact on neighbouring communities and amenity value from waste facilities.



Actions for Queenslanders

Individuals have an important role to play in moving towards a more resourceful, less wasteful future. Queenslanders are encouraged to take up the challenge of reducing their own waste, in any way they can, through five simple actions:

- reducing food waste
- buying better to minimise waste
- choosing to refuse disposable products and reusing more
- recycling right and more often
- respecting other people and the environment by keeping our shared spaces free from rubbish and litter.

For the full list of actions for Queenslanders, see the companion document draft Waste Management and Resource Recovery Strategy, Consultation Summary.

Queensland Government actions

The Queensland Government will continuously review waste sector environmental compliance operations to ensure that monitoring activities effectively reduce litter and illegal dumping and regulate environmental service facilities and operations. The government will also establish a clear environmental regulation and compliance monitoring framework that supports the efficient operation of the market to protect the environment and human health from waste crime, and provide a level playing field for all market participants.

The Queensland Government will work with the waste management and resource recovery sector, and local government to audit and assess the quality of existing landfill infrastructure, and identify facilities that are not compliant with the landfill guidelines and regulations. This information will help inform infrastructure needs assessments, and infrastructure planning and rationalisation of redundant facilities.

The Queensland Government will work with local government to reduce litter and illegal dumping through public education and information programs and capacity building. Continued data collection and research will support compliance and enforcement to support the Litter and Illegal Dumping: A Plan for Queensland. The plan will be supported by information and education programs undertaken by both the Queensland Government and local government about the impacts of litter and illegal dumping.

Local government actions

Local government is at the front line in dealing with the effects of litter and illegal dumping. They are well placed to lead the delivery of on-ground awareness, education and infrastructure with Queensland Government support programs and funding where appropriate. To achieve reductions in litter and illegal dumping across Queensland, local governments are needed to participate in actions that support the actions in the litter and illegal dumping strategy. This will ensure a unified voice and consistent approach to litter and illegal dumping is taken across all jurisdictional boundaries across Queensland.

Waste management and resource recovery sector actions

The sector has an important role to play in protecting the environment by positioning recycling and resource recovery facilities in strategic locations that minimises impacts on communities, taking action to reduce waste disposal that effectively minimises impacts on communities, managing landfill sites and reducing the transport of waste and recycled materials. The sector must also continue to educate its members about appropriate management actions for particular wastes, to ensure proper treatment, recycling and disposal.

STRATEGIC PRIORITY 2

Transitioning to a circular economy for waste

The transition to a circular economy will support higher recycling and recovery rates in Queensland, driven by world-class industry and technological advances.

Outcomes

Transitioning to a circular economy model for the waste management and resource recovery sector will help achieve the following outcomes.

- Management of waste as a valuable resource.
- Improved data and information sharing on material flows across Queensland.
- Clear standards and guidelines for reuse, recycling and recovery.
- A clear position and policy on the role of energy and fuels from waste in Queensland.



Queensland Government actions

The Queensland Government has identified a number of waste streams that require increased action to improve recycling performance. Clear and progressive policy will be complemented by a series of programs to focus on problem wastes including:

- built environment waste, including construction and demolition waste
- food and agricultural waste
- plastics
- waste electrical equipment and batteries
- glass
- paper and cardboard
- tyres
- textiles.

Topic-specific action plans will be developed as part of the Strategy to establish a clear picture of material flows, understand the supply and demand requirements for recycled content and establish market development plans.

Recycling

The Queensland Government will work with the waste contracting sector and local government to reduce the amount of business waste sent directly to landfill through more effective sorting at the source. It will develop a program to overcome the barriers to business waste recycling, and create mandatory conditions for new commercial premises to be designed and constructed with adequate waste disposal recycling systems in place.

The Queensland Government will continue to support and develop national extended producer responsibility initiatives, such as for the recovery and recycling of e-waste. These initiatives will be developed at a state level where there is no prospect of, or case for, a national solution, and where there is evidence that it would be beneficial to Queensland.

Knowledge

The Queensland Government will prioritise programs to improve the understanding of material flows across the economy and address key knowledge gaps. It will explore options to expand reporting of waste flow and recycling statistics across Queensland to build baseline datasets. A knowledge platform will be developed for industry, community and government to encourage innovation and collaboration.

Energy and fuel from waste

The Queensland Government will develop an energy and fuel from waste policy to ensure that environmentally safe technologies are developed for these processes. This will provide potential investment options to develop fuels and recover energy from wastes that cannot be reused or recycled as an alternative to landfill disposal.

Information and education

The Queensland Government will work with small and medium business, local government and community organisations to deliver information and education programs that support avoidance, reuse, recycling and proper handling (including disposal) of waste. These programs will aim to:

- build understanding of material flows across the economy and demonstrate the value of waste resources and the part that can be played by all Queenslanders to manage resources more efficiently
- connect material supply with demand markets through market planning and intelligence sharing
- develop measures to encourage positive waste behaviour so that all Queenslanders can make informed and active choices about managing waste as a potential resource.

Product standards

The Queensland Government will work with Commonwealth and state and territory governments, and the Australian Packaging Covenant Organisation, to develop nationally consistent quality standards for product packaging and reduce excessive product packaging and the use of composite or non-recyclable packaging. The government will also work with industry to develop a voluntary specification code for minimum recycled content in packaging and relevant products.

Local government actions

Local government has a vital role in managing waste services to communities and local business, and is well placed to contribute to improving community-wide understanding of best recycling practice and behaviour specific to their local area.

Waste management and resource recovery sector actions

The waste management and resource recovery sector as the key waste management provider is well placed to drive the growth and investment required to grow the sector. The industry has a commercial and ethical responsibility to inform and educate its business clients about how to reduce waste and increase recycling and offer service options that provide them with real choice about the level of recycling they want to adopt. The willing participation of the waste management and resource recovery sector, in partnership with the Queensland Government, is vital to the Strategy's success.



STRATEGIC PRIORITY 3

Building economic opportunity

Building economic opportunity will stimulate investment and market development in the waste management and resource recovery sector and support economic and jobs growth.

Outcomes

Building and facilitating economic opportunities for the waste management and resource recovery sector will help achieve the following outcomes.

- Growth in the economic value of the waste management and resource recovery sector.
- Increased number of jobs in reuse, recycling and recovery.
- Clear and transparent waste and resource recovery infrastructure planning framework.
- Stimulated markets for new and innovative products containing recycled content and demand for recycled material.



Queensland Government actions

Legislative and planning frameworks

The Queensland Government will allocate from waste levy revenue funds to facilitate industry development and the expansion and evolution of the state's waste management and resource recovery industry. This will be facilitated in partnership with industry and local government, who can provide certainty of feedstock and be consumers of large volumes of recycled commodities.

The Queensland Government will review and reform the waste-related legislative framework to ensure it facilitates and supports new ways for managing waste—where outputs from initial sorting or material recovery facility processes are recovered as raw materials for further processing.

The Queensland Government will consider how best to ensure appropriately classified wastes from one process can be used as a resource and feedstock for downstream value-adding processing. Such activity could be made more efficient by, for example, being co-located in industrial precincts.

The Queensland Government will continue to work with Commonwealth and state and territory governments to ensure strong alignment on waste policy, legislation and regulation. Working with local government the Queensland Government will seek to identify the type of waste facilities that need to be delivered to achieve the Strategy's outcomes. This includes how land-use planning and other mechanisms can assist in supporting the delivery of these facilities including through 'waste precincts'.

Infrastructure and services

The Queensland Government will work with business, industry and local government stakeholders to develop a coherent whole-of-state and regional infrastructure-plan for waste incorporating requirements for remote, regional and metropolitan areas.

The Queensland Government will work with local government and the waste management and resource recovery sector to develop a consistent procurement contract framework for waste management and resource recovery services.

Innovation

The Queensland Government will support innovative research and development, including the rollout of demonstration projects to assist with the commercialisation of projects to reduce the amount of waste generated, avoid the disposal of waste to landfill, and trial new and innovative recycling technologies.

Market development

The Queensland Government will develop a Resource Recovery Industries Roadmap and Action Plan in collaboration with business, the waste management and resource recovery industry and local government to develop alternative end uses and markets for recycled materials.

Market development plans will support the marketing of an increase in the availability and quality of recovered resources. Government investment in innovation will help identify commercially viable recovery options and uses to help drive market demand.

The Queensland Government will consider how both state and local government procurement can stimulate demand for recycled material manufactured in Queensland.

Industry support

The Queensland Government will develop a suite of programs to support business and industry using funding from waste levy revenue.

It will develop collaborative partnerships with key organisations in the waste management and resource recovery sector to facilitate business opportunities in resource recovery and remanufacturing.

Local government actions

Local government should work with the Queensland Government to review and plan regional infrastructure to deliver optimal recycling and recovery systems.

Local governments will be encouraged to review local planning provisions to ensure that development applications include adequate provision of waste management and resource recovery services.

Local governments should support the Queensland Government through adopting national or state standards for recycled content in procurement, stimulating demand for products containing recycled materials.

Local governments in regional and remote locations can collaborate to tackle specific challenges brought about by the often significant distance to the nearest reprocessing facility.

Local governments can give special consideration to alternative local uses for recycled materials—particularly where organic waste can be collected and processed to produce high value bio-extracts or high-quality compost, to be used in agriculture—and where innovative construction methods can be developed to use recycled materials where cost-effective transport is not possible.

Waste management and resource recovery sector actions

The waste management and resource recovery sector should work to identify where the opportunities for economic growth are, and be ready to invest accordingly.

Industry should work with local government to resolve planning issues for existing and new infrastructure.

Industry should also work with government to develop standards and specifications when using recycled material. A consistent approach will give consumers confidence in the quality and safety of these products and help drive market demand.



Have your say

Public submissions are now invited on the draft Waste Management and Resource Recovery Strategy for Queensland (the draft Strategy).

This Strategy has been developed in consultation with the Recycling and Waste Management Stakeholder Advisory Group, which is comprised of representatives from the waste management and resource recovery industry, local government, business and industry. The advisory group was established to provide advice on requirements for improved recycling and waste management infrastructure and practices, including appropriate land-use planning measures and strengthened regulatory provisions and activities.

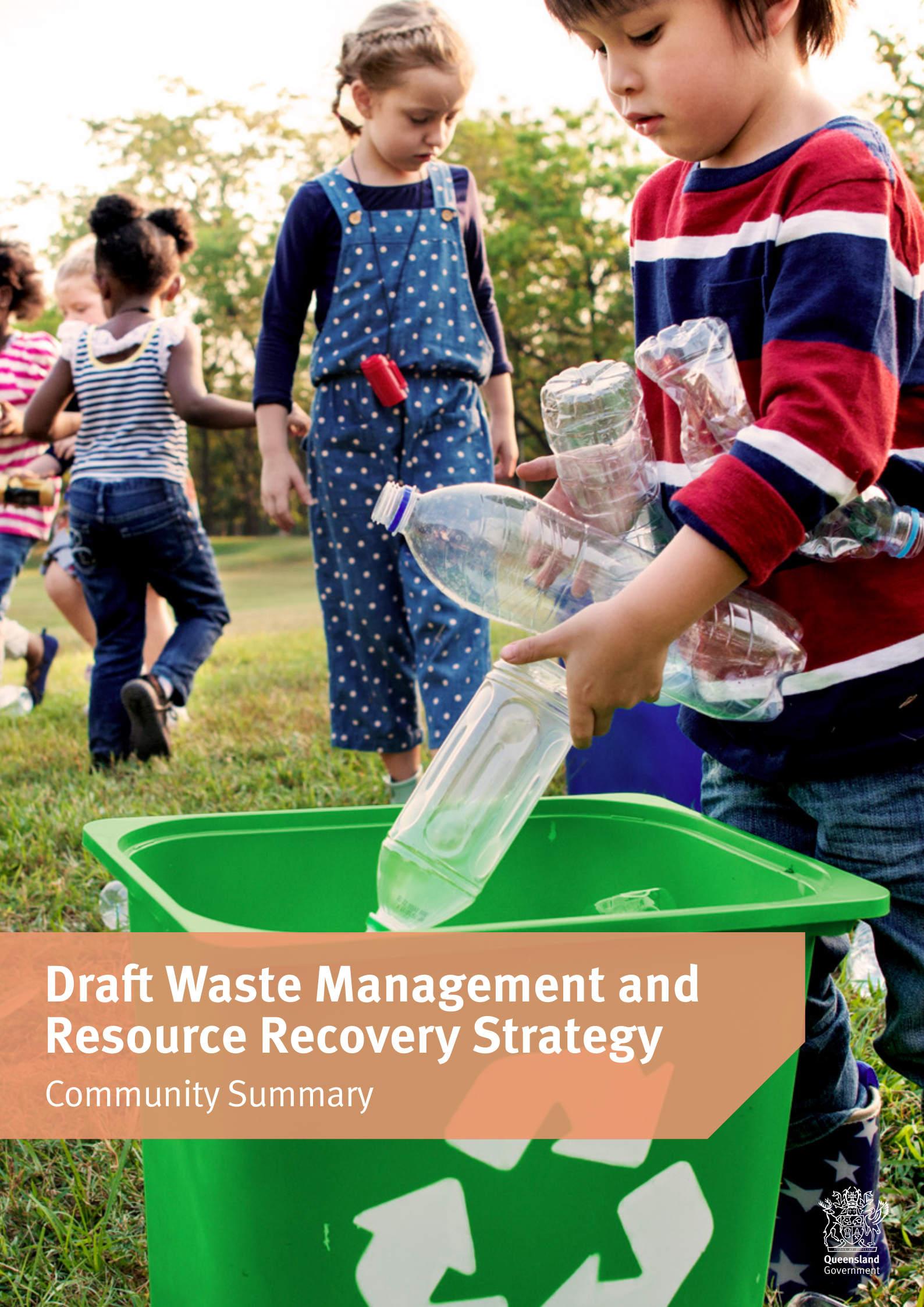
Consultation closes 5.00pm, 5 April 2019

Email: wastepolicy@des.qld.gov.au

Mail: Office of Resource Recovery
Department of Environment and Science
GPO Box 2454
Brisbane QLD 4001







Draft Waste Management and Resource Recovery Strategy

Community Summary

Turning the tide on waste

There is a growing understanding that waste is everyone's issue, and in turn, everyone has a role to play in reducing waste and its impacts on our communities, our environment and our economy.

Queensland is home to more than five million people and the amount of waste we produce is growing faster than our population.

This will have a real impact on the lifestyle we enjoy. More waste means more landfill sites in our communities, more greenhouse gases contributing to climate change, and more litter in our environment.

We have a timely opportunity to turn the tide on waste now, for a better, more sustainable future.

The Queensland Government is setting a new course, towards a zero-waste society where:



the natural environment is protected from the impacts of waste



everyone is responsible for taking action to reduce the amount of waste they produce



new products, jobs and industries are created from waste diverted from landfill

Everyone will have a role to play—business, industry and government, and as our greatest assets, Queenslanders will be pivotal in adopting the sustainable behaviours needed to create a less wasteful, more resourceful future, and to inspire our next generation of waste champions.

Our goal is to maximise the value of the resources we use, minimise the waste we create, cut emissions and pollution, and help create a cleaner, greener, healthier planet.

Every positive action, big or small, will make a difference.



Draft Waste Management and Resource Recovery Strategy

The Draft Waste Management and Resource Recovery Strategy (draft Waste Strategy) sets the course for Queensland to become a leader in recycling and recovery, where all parties are working together to create sustainable solutions that will deliver lasting economic benefits for Queensland, while also protecting our precious environment and the unique lifestyle we all enjoy.

It outlines the Queensland Government's proposed:

- vision for a zero-waste society by 2050
- short-term and long-term targets
- investment priorities and key programs and initiatives to position the state as a leader in resource recovery and recycling
- actions for encouraging and supporting individuals, businesses, industry and local councils to play their part in reducing waste.

To complement the draft Waste Strategy, this Community Summary has been developed to provide specific actions for Queenslanders to reduce their own waste production, boost recycling and reduce the impact of rubbish in our natural environment.

To view the full draft Waste Strategy and have your say visit www.qld.gov.au/wastestrategy.

The challenge— our current waste performance

The draft Waste Strategy provides an opportunity to look at Queensland's current waste performance and how we can improve it.

Key facts



The amount of waste Queensland produces is growing faster than our population



While Queensland's recycling rate has improved slightly over recent years, there is certainly more that can be done. By continuing to build on achievements—such as the plastic shopping bag ban and container refund scheme—we can all work together to achieve real change.



The opportunity—our vision for a more resourceful, less wasteful future

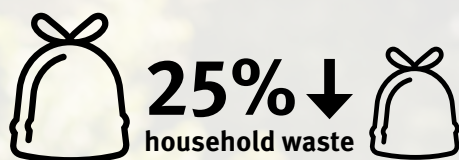
Vision

Our vision is for Queensland to become a zero-waste society, where waste is avoided, reused and recycled to the greatest possible extent.

The draft Waste Strategy provides a long-term plan for improving the way waste is managed in Queensland.

Waste reduction targets for 2050

By 2050, the draft Waste Strategy proposes the following targets:



Full details of interim targets between 2025 and 2050 can be found in the full draft Waste Strategy.

Queensland Government action

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.

For a complete list of the detailed actions that will be delivered to support the community, business, industry and local governments see the full version of the draft Waste Strategy.

What you can do now— five simple actions

With every small action we take individually, we can collectively make a huge difference.

Queenslanders are encouraged to take up the challenge of reducing their own waste, in any way they can, through five simple actions:

1

Reduce your food waste

Nearly half of household waste is organic waste (green waste and food waste) with food waste alone estimated to cost households more than \$2,000 per annum. Here are some simple tips for when you're:

SHOPPING

- look at what you have in the pantry and fridge before you go shopping
- plan your meals ahead
- shop with a list and only buy what you need
- check the use-by-date and use it before it goes off

COOKING

- keep fruit and veg in the fridge so it lasts longer
- cook more and freeze meals and leftovers for later
- freeze food if it's getting close to its use-by date
- get creative with your left-overs

COMPOSTING

- try composting or worm farming at home, even if you live in an apartment
- check local council websites to see if there are home composting programs or options for composting at community gardens



2

Buy better

Take a minute to think before you buy, this simple action can lead to more sustainable choices.

- where possible, buy quality goods that will last or that are easy to repair
- choose products with little or no packaging, like loose fruit and vegetables as opposed to pre-packaged
- choose goods made from recycled materials or with recycled material in them
- take action and tell retailers how you would like things to change

3

Choose to refuse and reuse

Ask yourself, do I really need it or are there more sustainable options?

- avoid disposable items altogether like opting for balloon-free events, or asking for no straw with your drink
- choose reusable over disposable items particularly single-use items such as plates, cutlery, bags, drink bottles, coffee cups etc.
- fix the products you have, instead of buying replacements
- choose products with reusable packaging
- donate your quality goods to charity, or buy and sell second hand goods to keep them in use
- take action and tell businesses how you would like things to change



Recycle right

Recycle as much as you can and make sure you recycle right.

- find out from your local council what is accepted in your kerbside recycling bin
- find out what other options are available in your area for recycling other items (like e-waste, batteries, container refund points, tyres, paint, mattresses etc.)
www.recyclingnearyou.com.au
www.containersforchange.com.au
- do not put your recyclables into the recycling bin in a plastic bag
- clean out your recycling items to make sure they are accepted for recycling—a quick rinse or a scrape out of left-over food can make all the difference
- fill up a bag each week with soft plastics and drop them into a REDcycle bin at your nearest participating supermarket

4

5

Respect people and the environment

Having an environment free from rubbish and litter makes our great outdoors, cities, towns, public transport and shared spaces much more enjoyable to be in. We should respect that other people, and wildlife, all use and live in these same spaces.

Litter and illegally dumped rubbish ruins our built and natural environment and endangers our waterways, wildlife and public health. Some simple ways to keep it clean:

- hold onto your rubbish until you can put it in a bin
- take larger items to a transfer station or landfill, or use your local council kerbside collections services when they come to your area
- if it's in good condition, donate to charity or take it to a council tip shop
- ensure your donated items go into a charity shop or bin, not left outside to be damaged or end up as litter—costing charities to clean up
- if you see litter, pick it up and put it in a bin
- only use licenced and regulated waste and recycling companies
- report littering from vehicles and vessels, and illegally dumped rubbish at www.qld.gov.au/litter



Have your say

To view the full draft Waste Strategy and have your say visit www.qld.gov.au/wastestrategy.

You can provide your feedback on the draft Waste Strategy by:

Email: wastepolicy@des.qld.gov.au

Mail: **Office of Resource Recovery**
Department of Environment and Science
GPO Box 2454
Brisbane Qld 4001

Consultation closes 5.00pm, 5 April 2019

What do you think?

Community questions

1. Do you agree that there is room for Queensland to improve its waste management performance (reduce the amount sent to landfill and recycle more)?
2. Do you support the draft Waste Strategy's vision of a zero waste society?
3. Do you support the inclusion of targets (including short and long-term targets) in the draft Waste Strategy?
4. Do you think that the five simple actions for Queenslanders (outlined previously) are appropriate?
5. How else can the Queensland Government further support and encourage long-term sustainable waste avoidance and resource recovery practices by individuals and households?





Brussels, 30.3.2017
SWD(2017) 126 final

COMMISSION STAFF WORKING DOCUMENT

on

NAUTICAL TOURISM

*The European Strategy for more Growth and Jobs in Coastal and Maritime Tourism*¹ focuses on capturing the job and growth potential of this prosperous sector by promoting skills and innovation, strengthening sustainability, maximising available EU funding and mainstreaming EU policies affecting coastal and maritime tourism. The strategy also provides for a number of actions to be undertaken in the field of nautical tourism (NT): i.) qualifications of professional yacht skippers and recreational boating, ii.) safety equipment for nautical tourism, iii.) waste prevention, management and marine litter and iv.) innovation for marina development.

The present Staff Working Document (SWD) will analyse the above mentioned fields based on the results of recent studies² and input from interested parties. It will describe the possible options to unleash the EU's Single Market potential for additional jobs and growth in these fields which are identified in these studies.

1. BACKGROUND

Nautical tourism is a dynamic sector. According to recent estimates presented in the study 'Assessment of the impact of Business Development Improvements around Nautical Tourism' (Study on Nautical Tourism) the EU's NT sector creates up to 234 000 jobs and generates € 28 billion annual revenue. About 48 million EU citizens participate regularly in water sports, out of which 36 million participate regularly in boating activities. Over 4,500 inland & coastal marinas create up to 70,000 jobs and generate up to € 4 billion annual turnover. About 6 million boats³ are kept in European waters out of which 60,000 charter boats generate up to € 6 billion turnover each year.⁴ The EU is a frontrunner with respect to innovation and technological processes e.g. in electric propulsion.

Marine recreational fishing is a popular leisure activity in Europe and an integral part of European coastal life and communities. According to unpublished data from the ICES Working Group on Recreational Fisheries Surveys (WGRFS), 6.3 million participants went fishing on 57 million days (mean 9.6 days per fisher and year) in the Euro-Atlantic area spending 4.9 billion Euros in 2015. This money is often spent in the coastal communities contributing to local employment such as tackle shops, hotels, restaurants, boat and equipment rentals, charter boats and fishing guides. The recreational sector does not only contribute economically but also provides social benefits to society like relaxation, exercise and experience of nature.

¹ COM(2014)86 final 20.2.2014.

² Study on the competitiveness of the recreational boating sector ECSIP (Nov 2015)
http://ec.europa.eu/growth/sectors/maritime/recreational-crafts/ec-support/index_en.htm
Study on specific challenges for a sustainable development of coastal and maritime tourism in Europe (June 2016)
http://ec.europa.eu/maritimeaffairs/documentation/studies_en
Assessment of the impact of Business Development Improvements around Nautical Tourism
<https://ec.europa.eu/maritimeaffairs/documentation/studies>

³ The present SWD uses the terms recreational vessels / crafts / boats / yachts below 24 meters of length as equivalent terms.

⁴ Given the lack of comprehensive EU data, there is however a significant uncertainty regarding the estimates provided in the present SWD.

The NT activity is concentrated in the services sector, which generates approximately 59% of its economic output, and on the Mediterranean coast. This region generates around half of the sector's economic output and employment, followed by the North Sea (22%), Atlantic Ocean (17%) and Baltic Sea (12%) regions.

Current challenges: although the data available suggest that activity levels remain below those seen prior to the 2008 financial crisis, the market is nevertheless showing signs of recovery. In parallel to this recovery however, there are some challenges. Amongst those is the estimated increase in average age of European boaters from around 45 to 55 years over the last decade, a trend likely to continue. This is not only due to the general population ageing in Europe. There is also a decline in participation in boating by younger people. The latter is in part due to increasing competition for leisure time from other recreational activities, as well as family and work commitments. Besides these developments other aspects also need attention.

Yachts' average lifespan has been estimated at 30 years, although in some instances this may stretch to 40-45 years. This lifespan has further increased over time due to the use of stronger materials, such as fibre reinforced polymer (FRP), 'reinforced plastic'. It is thought that between 1% and 2% of the 6 million boats kept in Europe, in other words at least 80,000 boats, reach their 'end of use'⁵ each year. However, only around 2,000 of those are dismantled. The rest are left abandoned, stored by their last owners, sent to landfill or incinerated. This poses a threat to the environment and a recycling challenge.

Market opportunities may however arise out of these challenges. This will be the case in particular if businesses can adapt to new customer requirements such as demand for alternative boat ownership and charter models. This includes offering shorter-term access to boating and the ability to combine multiple activities and locations within single holidays or itineraries (so-called 'combined products'). Infrastructure, equipment and support services need to cater for the specific needs of e.g. older participants. There is potential for businesses to exploit the opportunities provided by this market segment's relatively higher purchasing power and ability to participate in boating activities outside the peak seasons. Although the market for older practitioners is important, the focus must also remain on current customers and in particular on younger practitioners.

Product combination for crews of all ages and their families may also include 'après boating' activities. Such combined products may link marinas with other marinas as well as with cultural events, cultural routes (e.g. old galleons), restaurants, wine cellars, hinterland excursions, bicycle rides, wildlife parks, fisheries, boat trips to see seals or offshore wind-farms and other activities. Appropriate Information and Communication Technologies (ICT) may help selling such new combined products in single selling points (SSP). Such SSP may offer all combinations of sustainable products to be booked in one payment. Organising such SSP may involve all related actors such as marinas, hinterland businesses and tourism offices. The combined offer of sustainable products and services may open up new market opportunities. Last but not least, a clean and healthy environment combined with a sustained cultural heritage constitutes the fundamental business value of tourism in general and of nautical tourism in particular.

International opportunities ought to be seized. 2017 will be the 'International Year of Sustainable Tourism for Development' and 2018 will be both the 'European Year of Cultural Heritage' as well as the 'China-EU Tourism Year'. These opportunities may be

⁵ Interested parties suggest that 'end of use' boat is a more appropriate term as compared to 'end of life' boat. The reason for this being that boats may be disposed of while still seaworthy or restorable.

used to diversify the tourism offer to new customer trends. These opportunities should also help the EU industry develop a new leadership in upcoming markets related to Circular Economy, Information and Communication Technologies (ICT) as well as new production technologies likely to determine the future of nautical tourism.

The EU's single market should in any case be fully playing its role in providing the basic framework conditions in support of sustainable NT business development. However, as concluded by the Study on Nautical Tourism, there are still legal and administrative barriers to the good functioning of the EU's Single Market. Examples of such barriers mentioned in the study are the lack of EU-wide recognition of skippers' national licences and diverging national safety equipment rules for yachts. These hamper the sector's development of jobs and growth throughout the EU.

2. SKIPPERS LICENCE RECOGNITION

Access to boating tourism and employment opportunities are reduced by a lack of mutual recognition of professional and private skipper qualifications across Member States (MS). For skippers there is nothing like the drivers' licence for cars recognised throughout the EU.

Each Member State sets its own regulations on the type and nature of qualifications that private and professional skippers must hold. These differ across Member States for a number of reasons, such as differing cultural attitudes to safety and regulation, different maritime traditions, and different local meteorological and oceanographic conditions. Each MS then allows the holder of its qualification to skipper boats in its coastal waters and boats which are flagged to that state. This leads to problems in cross-border situations, where the boat's flag state is different from the home state of which the skippers are holding their qualification.

2.1. Professional skippers

The impacts of this problem are most acutely felt in the professional skipper market where professional qualifications for small vessels (under 24m) are not mutually recognised between Member States by way of automatic recognition.

Difficulties in recognition of professional skipper licences (ProSL) between MS hamper market developments. The existing Directive 2005/36/EC on the recognition of professional qualifications as amended by Directive 2013/55/EU allowing for recognition of professional qualifications, does not seem to adequately cater for the flexibility required in this specific market. There are no other systems in place to facilitate recognition and/or mobility of professional skippers at EU level. While the Directive provides for well-established rules on the mutual recognition of skippers' qualifications, recognition requests have to be submitted individually for each destination country. This constitutes an administrative burden for skippers and public authorities and does not prevent decisions imposing time-consuming and possibly also heavy compensation measures when the conditions for a direct recognition of qualifications are not met. In addition, the possibility to make use of the new tools introduced by that Directive (i.e., Common Training Frameworks or the Common Training Tests) ,which aim at developing regimes for automatic recognition on the basis of common sets of knowledge, skills and competences, appear to be limited at this stage and in the foreseeable future, due to this sector's particularities. Under these circumstances, charter companies in need of skippers able to work in many MS at short notice have difficulties finding them, in particular during peak seasons.

The consequent lack of free movement of professional skippers acts as a direct barrier to intra-EU trade and/or imposes additional cost on these skippers when needing to work across the EU. Language and insurance – common barriers to mobility in other professions – are less important factors. Indeed skippers with non-host state languages are often in demand. Insurance needs are tied to the legal requirement that the skipper qualification has to match the flag of a vessel, hence it is the lack of qualification recognition that affects insurance needs. This has consequences for the performance of businesses relying on workers who require a ProSL, including legal implications if working skippers are found to hold inadequate licences. Many boating-related jobs (e.g. in diving schools) include roles that require the worker to hold an appropriate skipper licence. The issue is not just limited to skippers of charter boats.

Unleashing the charter market's potential has become even more necessary due to the prevailing trend towards more boat chartering and less boat ownership. The Erasmus+ funded project 'TRECNET / TCC-SCV'⁶ developed a transparent process of qualification comparison by breaking down different ProSL into their smallest parts to make them comparable, then extracted a common set of knowledge, skills and competences for professional skipper qualifications in seven Member States and built a common core curriculum from these data. A follow-up call for an action to carry this pioneering work further, is planned to be launched in 2017.

According to the study on Nautical Tourism, the TRECNET / TCC-SCV approach could be used in more MS than the seven surveyed, to allow identification of a core qualification common to all MS and the potential 'top-up' qualifications requirements where national licences diverge from this common denominator. Skippers opting for such a 'top-up' to be able to work in another MS, would not need to take a full exam if they already hold a national licence. MS might even agree to compare national licences and work towards a commonly agreed EU ProSL. National and EU licences would not be exclusive but would coexist.

The Study on Nautical Tourism has explored two possible instruments for the adoption of such an EU ProSL, namely the existing Directive 2005/36/EC on the recognition of professional qualifications as amended by Directive 2013/55/EU, and more specifically the possibility to adopt specific Common Training Frameworks, or the adoption of a new and dedicated Directive. The study concluded that while the use of the existing Directive 2013/55 may reduce administrative burden, the development of specific CTF instruments will not be able to address all aspects relevant for recognition decisions and such an approach may also leave some other barriers to trade unresolved. This may be the case if MS would, further to the EU ProSL, maintain or introduce secondary requirements hampering the freedom of movement for skippers, such as particular insurance requirements, adherence to particular associations, or others. Such aspects could however be covered by a new dedicated Directive.

The benefits of an EU ProSL in terms of reduced loss of business due to mismatches between skippers and boats is estimated to provide one week of additional charter revenue per year for each skippered charter boat. This estimate corresponds to an overall increase in the charter sector's revenue of € 50 to € 120 million per year.

⁶ TRECNET: 'Transnational Recognition of European Certification in Vocational Education and Training' as extended by TCC-SCV: 'TRECNET Core Curriculum for Skippers of Small Commercial Vessels' <http://www.trecnet.eu/>

Further benefits for the circular economy. As reported in the Study on Nautical Tourism, an EU-wide skippers' licence would foster the yacht charter business. Rental models, such as yacht chartering, correspond to the principle of the circular economy and the objectives of waste prevention by consuming services rather than products. Ownership makes most sense for goods that may increase in value such as houses. Rental models are more efficient for other goods. Such circular rental business models (also existing in other industries e.g. for washing machines) provide for maintenance, repair and monitoring of the rented good. They also allow companies to provide advice on the best use of the rented good and allow reuse of obsolete materials by the producing company. Such circular rental business models are based on a new form of collaboration between parties, are economically viable, allow for the best reuse of resources and provide a new experience to consumers.

Future development of the EU's charter market may thus be facilitated. Diverse models of chartering and boat sharing may appear and create new ways of developing markets.

2.2. Private skippers

Private skippers' licences (PriSL) are also issued by each Member State without an EU-wide mutual recognition scheme. Private skippers may thus have difficulties chartering boats in MS other than the one having issued their national PriSL. In practice however, charter companies often accept the International Certificate of Competence (ICC)⁷ for signing charter contracts with private skippers. The ICC is nevertheless not recognised by the main charter countries within the EU. This is in particular the case in the Mediterranean Sea, the EU's number one charter destination. The consequences of charter companies accepting the ICC in countries not recognising it may be serious e.g. in case of control by coast guards, leading to legal problems, and/or in case of accident, leading to legal and insurance problems.

The legal barrier created by the absence of an EU-wide PriSL deters private skippers from entering into charter arrangements. This reveals a barrier to the good functioning of the EU's single market.

A remedy would consist in all EU Member States officially recognising the ICC after removing potential national barriers for doing so. An ICC recognised EU-wide would ease intra-EU trade and would attract more clients from other parts of the world who hold an ICC.

The Study on Nautical Tourism identified the benefits of having the ICC recognised by all MS in i.) increasing cross-border mobility, ii.) creating greater demand for intra-EU private boat and charter tourism, iii.) triggering opportunities for other nautical tourism businesses, iv.) removing charter companies' uncertainties as regards their clients' minimum level of competence, v.) lowering the charterer's administrative cost for checking clients' qualification and vi.) lowering the charterers' risk of revenue loss. If

⁷ International Certificate for Operators of Pleasure Craft (also referred to as ICC); United Nations Economic Commission for Europe (UNECE) Inland transport committee. The ICC applies to inland waters and/or coastal waters. <http://www.unece.org/fileadmin/DAM/trans/doc/2011/sc3wp3/ECE-TRANS-SC3-147-Rev1e.pdf>.

10% of bareboat charters were previously lost but could now be agreed due to an EU-wide recognised ICC, the study estimated that charter revenue would increase by € 240 million to € 270 million per year. Additional cost savings to charter businesses from avoiding qualification checking processes could further equate to around € 10 million per year.

3. SAFETY EQUIPMENT

Boat safety equipment is governed by a mixture of international, EU and national legislation. EU legislation, in particular Directive 2013/53 EU, regulates the notion of safety related to the design, construction and structure of recreational craft. This includes aspects such as yacht stability, load capacity, engine, gas and electricity installation, fuel tank design and anchorage system. While navigation lights, shapes and sound signals shall comply with the 1972 COLREG (The International Regulations for Preventing Collisions at Sea) or CEVNI (European Code for Interior Navigations for inland waterways) Regulations, other on-board safety equipment aspects such as life jackets, portable radio communication and type of life-raft are essentially left to the discretion of national authorities. National legislation is often intended to ensure that safety equipment is adequate for local meteorological and oceanographic conditions, and aligned with national maritime and safety attitudes. This has resulted in a divergence of requirements for on-board safety equipment across the EU. When a boat is sailed outside its Home State it must comply with the on-board safety requirements of both the boat's flag state and its host state. This means that boats used in such situations hold multiple sets of on-board safety equipment.

The impact, as identified in the Study on Nautical Tourism, is most acutely felt in the commercial market, where dual requirements are enforced through the licencing and boat inspection processes. A number of practical difficulties however reveal barriers to the good functioning of the EU's single market:

- i. *Extra cost:* Charter companies that frequently need to bring yachts from one Member State to another face extra cost. They have to purchase the various pieces of equipment required by each Host State they are going to cross. These extra costs can reduce the efficiency with which fleets are deployed across the EU during the boating seasons.
- ii. *Transparency:* Finding out about the various safety equipment rules applicable in the territorial waters of various Host States is a burden. The extent of such burden can be understood when considering that these rules need to be found in the relevant national legal documents or websites and be properly understood in the respective administrative language. Such lack of transparency can result in boat owners and users making incorrect purchases of equipment in an effort to comply with national requirements. It presents a legal risk to private and commercial users who are uncertain whether the equipment they hold meets the necessary specifications.
- iii. *Environmental pressure:* Having to buy extra equipment for each MS leads to an accumulation. The accumulated equipment however should be disposed of and recycled when at end-of-use. Different national safety equipment rules thus increase the pressure on the environment.
- iv. *Safety:* Member States justify different equipment to oceanographic conditions and may hold different approaches to safety. Different national approaches to

safety may however place skippers and crews in uncertainty as regards their effective safety and hamper their willingness to engage in cross-border sailing.

- v. *Enforcement:* Coast Guards (CG) having to enforce safety equipment rules face an additional burden when dealing with a yacht from another MS. To inspect effectively, these CG need to avail themselves of the exact list of safety equipment required by the respective Flag States. This leads to additional burden and may lead to incorrect acceptance or non-acceptance of safety equipment, with potential impacts on boater safety and the ability to operate both private and commercial boats.

Two solutions to overcome the barrier constituted by different national rules have been proposed by the Study on Nautical Tourism. A first option would consist in encouraging MS not to apply national (coastal state) legislation to foreign-flagged (and owned) boats smaller than 24 meters length which are already complying with their flag state requirements. A second option proposed consists in MS agreeing on a minimum EU standard for NT safety equipment in cross border sailing. Such a possibility would need to be further explored with national experts. Commission services may explore ways, potentially based on IT tools, to make the various national rules transparent and accessible.

The benefit of a minimum EU safety equipment standard for charter businesses is estimated by the study to yield an overall annual benefit of € 37,2 million.

Future economic activities in marina hinterlands may be favoured by cross-border boating. Cross-border boating is a triggering factor for the development of marinas and businesses in their hinterlands. Commercial offers may capture the additional demand created by this additional cross border sailing.

4. BOATING, MARINAS & HINTERLANDS

Most European marinas are small, or even micro enterprises (SME), or are managed by boating associations which do not have commercial aspirations. SMEs are known to be Europe's innovation engine. However, small marinas reported that engaging in innovation is not easy as they dispose of few resources and the fragmentation of the industry presents a barrier to collaboration and knowledge exchange. This can limit innovation as well as the sharing of, and learning from, best practices. Such barriers to collaboration and knowledge exchange negatively affect the development of combined products, as these products typically require partnerships to be built between multiple service providers. Also, shorter but more frequent holiday patterns trigger further need for faster online pre-booking of combined products as compared to individually booking several products. The challenges are greater in the development of spatially dispersed and cross-border products. A similar issue is seen with marinas and their integration with wider tourism and non-tourism economic activities. Existing platforms to support collaboration and knowledge exchange appear to be either too high-level or focussed on other areas of the market, limiting their effectiveness in addressing nautical tourism market issues.

Lacking investments result from insufficient access to finance. Whilst the tourism sector can access commercial financial markets as well as a range of EU (and other) funds, gaps remain. This is accentuated in situations where investments require innovation and hence greater risk. For combined products a specific gap was identified for micro-scale funding to help meet the costs associated with building partnerships. For marinas the length of the

investment cycle (due to the long-term nature of capital investments) also limits the rate at which physical infrastructure can be replaced. In both instances the effect is to reduce the sector's capacity to exploit emerging opportunities and adjust to changing consumer demands (e.g. those of an ageing customer base). Investments into adequate waste and sewage reception facilities may also need to be undertaken in order to comply with increased sustainability requirements, e.g. resulting from the need to reduce discharges at sea or on inland waterways. Investment prospects can also be affected by limits on the capacity of SMEs to take on larger investments e.g. multi-facility marina development, and by regulatory environments e.g. uncertainty on emerging issues such as marine planning and marine protected areas.

Diversifying the offer towards older and younger generations is important. Older generations with a higher purchasing power and availability outside the main season may be kept in NT activities until a higher age if the offer is better adapted to their particular needs. This may be achieved by a combination of infrastructure and service improvements such as i.) boats designed for easy circulation between roof, cockpit and interior, ii.) mooring platforms adapted for easy access to yachts and mooring assistance services offered by marinas for leaving and entering the berth as well as iii.) an adapted socio-cultural service offer in marinas and their hinterlands. The offer for younger generations may further include i.) easy rental of NT equipment, ii.) activities for children, nautical schools and organised competitions as well as iii.) innovative ways to use marina space outside main seasons. In general, a diversified offer linking marinas and their hinterlands should seek to develop activities that benefit and integrate both the local population and tourists. Diversifying the offer may be facilitated by including marinas and any SMEs as profit centres into local, regional, national and cross-border development plans. These actors may use appropriate ICT facilities to advertise and sell their diversified/combined offer.

Imperfect information as regards the economic value and role of marinas and other elements of nautical tourism limits the visibility of the sector. Such lack of visibility results in lack of interest from public sector regulators and funding agencies/institutions.

First suggestions to overcome these difficulties are provided by the 'Study on specific challenges for the sustainable development of coastal and maritime tourism'⁸ with a catalogue of documented best practices in the fields of coastal and maritime tourism development. The same study further provides a first decision tree for marina developments and a second decision tree pointing towards potential synergies between marinas and their hinterlands. Integrated Coastal Zone Management and Maritime Spatial Planning⁹ may further help embed such investments into the surrounding socio-economic-environmental context. Also, in 2015 the Commission published a first call¹⁰ for projects to develop nautical cultural heritage routes. End 2016 it published a second such call¹¹ to develop cross-border nautical tourism routes focussing on combined nautical-coastal product offers.

⁸ Study on specific challenges for a sustainable development of coastal and maritime tourism in Europe (June 2016) <https://ec.europa.eu/maritimeaffairs/documentation/studies>

⁹ Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning

¹⁰ <https://ec.europa.eu/easme/en/call-proposal-thematic-routes-underwater-cultural-heritage>

¹¹ <https://ec.europa.eu/easme/en/call-proposals-nautical-routes-europe>

Other suggestions in the study are i.) setting up an easy-entry micro-funding facility for innovation and investment in marina infrastructure and boating products to e.g. diversify the offer throughout different seasons and types of public, ii.) funding research on the economic benefits of marinas and iii.) providing support to capacity building to facilitate the integration of marinas in regional development plans.

The benefit of such actions is difficult to quantify. Estimates from the study reveal that, an increase of sailing opportunities for older people alone may be worth up to annual € 15 billion of economic activity for the sector. Further, attracting younger generations into the market with flexible (IT) service-based offers that possibly combine a whole range of tourism products in marinas and their wider hinterlands may provide significant additional benefits.

Future sustainable market opportunities, jobs and growth may be created by interlinking marina and hinterland developments in a way that is sustainable for local populations, the environment and nautical tourism development.

5. CIRCULAR BOATING ECONOMY

The Study on Nautical Tourism indicates that up to 2% of over 6 million boats (below 24 meters length) are reaching 'end of use' each year. The biggest difficulty seems to arise as regards boats built with Fiberglass Reinforced Polymer (FRP), 'reinforced plastic'. The first big wave of FRP hulls was built about 30 years ago and is now expected to progressively reach end of use. Recycling of such boats is increasingly becoming an issue.

Current end-of-use boat (EUB) management practices are insufficient. To start with, yachts are not registered in all MS or registered only if falling into certain categories. This means that identifying yacht owners may be difficult or impossible, thus increasing the chances of EUBs being abandoned. Unregistered yachts may further be less easily identified by Coast Guards for safety and security purposes e.g. in case of search and rescue, and they represent a gap for data collection purposes e.g. to better understand the sector's evolution. A large number of EUBs are not dismantled but instead are abandoned in ports and marinas, private premises, yards, etc., or are illegally landfilled or sunk. Marina and municipal authorities incur additional costs when disposing of abandoned boats found in waterways and onshore. The costs to authorities of removing abandoned vessels are generally much higher than the dismantling costs that boat owners would need to pay to send their EUBs to suitable facilities. Recycling of recreational boats is uncommon. Materials that are recovered from EUBs usually end up in a landfill or are incinerated.

Recycling of FRP, if it takes place, is however difficult and, a priori, not (yet) cost covering at large scale. For this reason one MS, France, already issued legislation on boat recycling. Nevertheless, some private sector waste management solutions are profit making. The currently common form of waste management applied to FRP is to burn the latter and recover energy in the process. Uncontrolled burning of both composite boats and wooden boats however results in the generation of toxic fumes from components in waste, such as heavy metals, but can also create dioxins and furans. Pollution components are spread to air, soil and water and can result in long term effects. Further,

the abandonment of boats can cause negative local impacts such as pollution from oils and hazardous substances, hazards to navigation, nuisance and marine litter. In both instances there are risks of impacts to human health and the environment. Forms of reuse or recycling also start to appear. Slices of FRP boat hulls are used to protect the side walls of navigation canals, small FRP particles are being reused as additional components for road construction material and FRP crushed into powder is being reused to build certain types of artificial stone (e.g. for kitchen sinks).

Resource efficiency and circular boating concepts of various types have been emerging. A first concept consists of increasing renewable energy sources on board yachts (e.g. solar, wind, hydro), thereby leading towards increasingly autonomous boats, reduced energy bills for users as well as jobs and growth in this market segment. Innovative concepts have also allowed to reduce energy consumption and further use of production waste during yacht construction, leading to cost savings for companies and thus to maintaining jobs and growth. Another concept has been to build boats/yachts with fully reusable and/or reused material. Two particular individual small-scale initiatives aiming at developing boats/yachts with 100% reusable materials have been brought to the attention of the Commission services.¹² Purely resource efficiency-centred approaches have consisted in reducing fossil fuel consumption of yacht engines¹³ including e.g. by using electric engines that lead to lower fuel bills for users, a competitive advantage for yacht/engine producers and related jobs and growth.

The way forward: interested parties could discuss potential solutions, such as co-financing boat recycling where recycling is not cost covering and where no (legal) solutions are in place. Such a stakeholder forum might also discuss avenues for further research on new materials allowing to produce fully circular boats. Extended Producer Responsibility (EPR) schemes for boats are an instrument available to Member States, which has the potential to influence the design and production of circular boats and facilitate their management at the end of their life. Several Member States have already established such schemes for a variety of products. As part of its Action Plan on the Circular Economy¹⁴, the European Commission has proposed amending the Waste Framework Directive¹⁵ to introduce general criteria for EPR schemes, including a requirement to modulate contributions according to the reusability and recyclability of the product at stake. While this proposal has not yet been adopted by the European Parliament and the Council, nothing prevents the Member States from establishing EPR schemes and already applying such criteria. MS might decide to register yachts under their flag (like for cars) as this could help identify owners of abandoned boats or for safety and security reasons.

Specifically for the marine litter aspect, the European Commission has envisaged a Strategy on Plastics in a Circular Economy¹⁶ to address the challenges posed by plastics and plastic recycling. Nautical tourism activities that can generate marine litter in the

¹² <http://gs4c.museumssites.com/home>; <http://www.ecosailtheworld.org/blue-ocean/>

¹³ The exhaust emissions produced by using fossil fuels are currently regulated by the Recreational Craft Directive 203/53/EU.

¹⁴ Closing the loop - An EU action plan for the Circular Economy, COM(2015) 614 final, 2.12.2015.

¹⁵ Directive 2008/98/EC, 19 November 2008

¹⁶ http://ec.europa.eu/smart-regulation/roadmaps/docs/plan_2016_39_plastic_strategy_en.pdf

form of plastics ought to be properly managed so as to prevent waste generation and ensure that no plastic is discharged at sea.

Attention should also be paid to waste reduction on board as well as proper delivery of the waste from recreational vessels to waste facilities in ports, in line with Directive 2000/59/EC on port reception facilities for ship generated waste and cargo residues, which also includes small recreational craft in its scope. A proposal to revise the Directive is currently under preparation, which looks at ways of better incentivising and enforcing the waste delivery by these vessels, in particular as regards garbage, as this is one of the sources of marine litter at sea. This also implies that adequate facilities for the collection and treatment of this waste are provided for in EU ports, which cater for separate collection in view of reuse and/or recycling, and that Waste Reception and Handling Plans are also developed for smaller ports and marinas following proper consultation processes with all relevant port users.

Circular economy benefits for additional jobs and growth: the Study on Nautical Tourism calculates that, assuming that 50 per cent of the 78,000 boats not currently dismantled are disposed of through appropriate dismantling and recycling, € 78 million of additional revenue for the dismantling industry could potentially be generated, and consequently create new jobs for the EUB dismantling industry each year. The circular economy benefits generated by e.g. resource efficiency, in particular by reusing 100% recycled material as well as by increasing rental economy/charter business, may create new additional revenues. Appropriate environmental impact assessments should help explore this further.

Future developments will significantly depend on innovation, new customer trends and diversified offer. Circular economy concepts combined with latest ICT developments seem to be a promising area to explore.

6. TECHNOLOGICAL INNOVATIONS FOR THE FUTURE BOATING INDUSTRY

Competing on world-wide markets, the EU's industry will need to secure its leading market position for the future.¹⁷ Clean water, air and land are the fundamental business values for the nautical tourism industry. Circular economic innovation combined with the latest sector-specific ICT developments may well capture rising consumer trends towards innovative market leadership by 2020 and beyond.

New reusable materials, new manufacturing techniques and new technologies may open up further markets. Interested parties brought to the attention of Commission staff that a first canoe has been produced by means of a '3D printer'. 3D printing is generally considered to 'increase production speed while reducing costs and meeting consumer demand with more speed and greater influence over production. Both can make production at or near headquarters cheaper than production overseas'¹⁸.

In the longer term future, innovation may lead towards boats being possibly 3D printed with 100% reusable material, autonomous in energy consumption and fitted with the latest IT. Charter companies may frequently have new boats printed in line with the latest

¹⁷ Study on the competitiveness of the recreational boating sector ECSIP (Nov 2015)
http://ec.europa.eu/growth/sectors/maritime/recreational-crafts/ec-support/index_en.htm, Nov 2015

¹⁸ European Commission - European Political Strategy Centre (EPSC) strategic notes Issue 7/2015 6 October: Integration of products and services.

design while reusing the material from their old fleet. This may further lead industry to review production processes and adapt to new market opportunities. Also, combining particular new yacht designs with a range of diversified service offers specifically adapted to younger and elderly people, may increase revenues and bridge part of the seasonality gap for marinas and hinterland businesses. Adding sophisticated business services to advanced manufactured goods may lead to innovations that are not easy to replicate by competitors and are therefore giving significant competitive advantages¹⁹.

7. CONCLUSION

As concluded by the relevant studies, shaping a prosperous future for the NT sector requires both circular industrial innovation and supportive public policies.

Circular industrial innovation based on circular economy concepts lies at the heart of the NT sectors' clean-sea business values. Circular and autonomous charter yachts fitted with latest IT may open up new market opportunities. New consumer trends and new diversified/combined tourism products sustainably interlinking local communities and tourism activities, can open up unexploited opportunities for more jobs and growth. Innovation and R&D (especially fundamental and experimental research) should be promoted and stimulated to maintain the EU industry's competitive advantage on the world markets.

*A well-functioning Single Market is crucial to allow for such NT developments. As any other sector, NT has the right to benefit from the advantages brought by the Single Market. Barriers such as *not* mutually recognised national skippers' licences and *different* national safety equipment rules need to be acknowledged, and tackled at the most appropriate level or by the most appropriate parties, in order to unleash the significant potential for further sustainable jobs and growth in the EU's NT markets.*

¹⁹ EPSC Issue 7/2015 6 October: Integration of products and services.

Attachment F – HIN and vessel identification



War on Wrecks Taskforce

Background Briefing

Hull Identification

1. Introduction

Ships which are abandoned, wrecked or unseaworthy are considered to be 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.

2. Hull Identification Numbers

2.1 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.

2.2 Jurisdictional analysis

2.2.1 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. A number of jurisdictions provide exemptions from requirements based on certain circumstances and/or criterion.

A brief review of other jurisdictions' statutory requirements for HINs and pre-condition for registration, including any barriers to registration (such as power/engine thresholds) indicates varying requirements as follows:

2.2.1.1.1 Australian jurisdictions

Table 1: Vessel Registration and Hull Identification Requirements in Select Australian Jurisdictions

	NSW	VIC	WA*	SA*	TAS	NT*	QLD
Vessel Registration required in Legislation?	✓	✓	✓	✓	✓	✗	✓
Max registration period per time	fees indicate 1 year renewal	1 year	1 year	1 year	not found	✗	1 year
Threshold for registration (powered vessels)	powered by engine more than 4kW	All powered vessels required	All powered vessels required	All powered vessels required	powered by engine 2.9kW (4hp) or more	✗	powered by engine more than 3kW (4hp)
Exemptions from Registration	8,4,9,10,11,15,16,19 & 20	1,4,9,17,19 & 20	15,17,18,19 & 20	1,2,3,4,9,15,16,17,18, 19 & 20	1,2,3,4,12,15,17,18,19 & 20	✗	1,2,3,4,6,8,12,15,17,18 & 19
HIN required in legislation?	✓ (compulsory)	✓ (not compulsory)	✓ (compulsory upon transfers)	✓ (compulsory)	✗	✗	✗
Authorized HIN inspectors?	✓	✗	✓	✓	✗	✗	✗
Fees for HIN assessment/verification	\$89/\$89	✗	\$90/\$50	\$96/68	✗	✗	✗
Other conditions	a ¹ ,b,c	a,b	a,b	a,b,c	a, b	✗	a, b
Verified Information sources	s.86 ² , s.49 ³ , s.50, s.85 ³	s.36 ⁴ , s11 ⁵	Website ⁶	s.116 ⁷ , website ⁸	s.5 ⁹	Website ¹⁰	s.26 ¹¹

¹ NB: a = compulsory display of registration number; b = licence required to operate a registered ship; c = vessel inspection prior to registration

² Marine Safety Regulation 2016 (NSW)

³ Marine Safety Act 1998 (NSW)

⁴ Marine Safety Act 2010 (VIC)

⁵ Marine Safety regulation 2012 (VIC)

⁶ <https://www.transport.wa.gov.au/marine/recreational-boat-registration.asp>

⁷ Harbours and Navigation Regulations 2009 (SA)

⁸ <https://www.sa.gov.au/topics/boating-and-marine/boat-registration/boat-code-identification-system>

⁹ Marine and Safety (Motor Boats and Licenses) By-Law 2013

¹⁰ <https://nt.gov.au/marine/for-all-harbour-and-boat-users/new-to-recreational-boating>

¹¹ Transport Operations (Marine Safety) Regulation 2016 (Qld)

2.2.2 Exemptions List

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/criterion can be categorised into two broad categories – the first, encapsulates where registration in an other 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:

Vessels registered in other jurisdictions & recognised in Queensland:

1. Any commercial vessel or a regulated Australian vessel (RAV)
2. A vessel regulated under the *Navigation Act 2012* (Cth)
3. Vessel registered in the same name on the Australian Shipping Register
4. Domestic vessels registered to other states (temporary vessel) / recreationally registered in other states/territories for a period of less than 3 months.

Vessel owner or purpose of use distinctions:

5. A vessel being registered to a beneficiary of a will, or to the estate of the late owner or within a family following the death of the registered controller - this being and including spouse, legal de facto and children
6. An expired registration when there is no change of ownership and renewal fee is paid
7. Vessel used only for the purpose of racing in organised events.
8. Not occupying a navigational water
9. Trader held vessel (for sale, demonstration, repair, testing etc.)
10. Lifesaving vessels and some school vessels exempt from fees registration
11. Vessel size and engine capacity, for example >5.5m long and 4kW (NSW)
12. Dumb barges and lighters where an engine is not attached
13. Hire and Drive vessels except high powered and PWC
14. Vessels in chains (vehicular ferries).
15. Off-the-beach vessels, canoe, surf ski, rowing shell
16. Seaplanes
17. Tender
18. Inflatable boat, water raft and other types of novel craft
19. Non-powered vessels, sail vessels and skiffs
20. Temporary entrants (< 3 months)

Although registration requirements and conditions vary, Queensland vessels will still be regulated under TOMSA/R and for safety equipments and navigation in waterway.

2.2.3 International Jurisdictions

Table 2: Vessel Registration and Hull Identification Requirements in Select International Jurisdictions

	Canada	Florida (USA)*	Texas (USA)*	California (USA)*
Vessel Registration required in Legislation?	Not compulsory for pleasure vessels	✓	✓	✓
Max registration period per time	X	None identified	2 years	2 years
Threshold for registration (powered vessels)	X	All powered boats required	None identified	All powered boats required
Registration exemptions	All pleasure crafts	4,8,10,12,15,18,19 & 20	10,15,18 & 19	4,7,10,15,18 & 19
HIN required in legislation?	X	✓	X	✓
Authorized HIN inspectors?	X	None identified	X	None identified
Fees for HIN assessment/verification	X	None identified	X	None identified
Other conditions^	X	a,b	a,b	a,b
Information sources	s.46 ¹²	website ¹³	website ¹⁴	website ¹⁵

^NB: a = compulsory display of registration number; b = licence required to operate a registered ship; c = vessel inspection prior to registration

* N/B: Information limited to content on agency's website.

3. Possible alternatives to Hull Identification Numbers

3.1 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 in a 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.

¹² Canada Shipping Act, 2001

¹³ http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute

¹⁴ https://tpwd.texas.gov/fishboat/boat/owner/titles_and_registration/

¹⁵ <https://www.dmv.ca.gov/portal/dmv/detail/boatsinfo/boatreg>

Each touch point with the Boatcode system is on:

- New vessels before initial registration
- On transfer of registration, where the vessel has not previously been affixed with a HIN
- For second-hand vessels being registered for the first time.

Exemptions from the system are available but are limited to:

- Any commercial vessel or a regulated Australian vessel
- A vessel regulated under the *Navigation Act 2012* (Cth)
- A vessel being registered to a beneficiary of a will, or to the estate of the late owner or within a family following the death of the registered controller - this being and including spouse, legal de facto and children
- An expired registration when there is no change of ownership and renewal fee is paid
- White water rafts
- Dumb barges and lighters (where an engine is not attached)
- Hire and Drive vessels except high powered and PWC
- Vessels in chains (vehicular ferries).

Fees apply to the assessment of a vessel for HIN and for the inspection of a ship's HIN. The cost for a new HIN issued is \$89.00 and the verification of a HIN is also \$89.00. Other fees apply pertaining to the registration to be an agent for the Boatcode system and for other administrative costs for the certificate to be produced and the plates issued.

Also, a large range of Queensland built recreational boats sold interstate to benefit their interstate customer are usually fitted with a HIN in accordance with the Boatcode system prior to delivery to the dealers.

3.2 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, in light of 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% 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.

There are some challenges with this system, such as how it connects to existing legislative frameworks, policies and processes and how privacy and security of registrant information is handled and maintained.

3.3 Australian Builders Plate

All ships built after September 2006 are required by law to be fitted with the Australian Builder Plate (ABP). The Australian Builders Plate 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.

3.4 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 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>

3.5 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 unless exempt.¹⁶ 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.¹⁷ 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 other vessel permission (if it was not previously allotted). The unique identifier stays with the vessel over the span of its life, even if the vessel changes ownership and is used for:

- identification by the National Regulator when the vessel is being operated
- identification by marine safety inspectors, other vessel operators and the general 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.

<https://www.amsa.gov.au/vessels-operators/domestic-commercial-vessels/unique-vessel-identifiers>

¹⁶ Marine Order 502 (Vessel identifiers-national law) 2017

¹⁷ <https://www.amsa.gov.au/vessels-operators/domestic-commercial-vessels/it-domestic-commercial-vessel>

4. Matters for further consideration

4.1 What can we do right now?

There are a number of options that are available for further policy consideration. Some of these are more easily achieved than others such as example 1, as follows:

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. However, these customers could have a number of choices:

- Contact a Boatcode agent,
- Contact the boat builder, or
- Create a HIN themselves.

For all of these options the customer/registrant is required to provide evidence of the HIN fitment to the ship as a validation process.

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, albeit small to the department would be the creation and dissemination of the HIN plates.

Example 3: A more regimented approach to the Australian Builders Plate 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 3 gates within 6 years of implementation.

This system would require the inspection of the ship, which would lead itself to a Approved Inspection Station style of system, as we have for vehicles already.

The examples above are potential options only and are not government policy, but could be matters for further investigation.

APPENDIX 1 – Identification and Rebirthing

War on Wrecks taskforce

Boat theft and rebirthing CMC Paper

30 October 2018

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. The relevant portion of this report is reproduced below for consideration.

Boat theft and rebirthing

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 per cent 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,¹⁸ 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.¹⁹ 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.

¹⁸ As at 31 May 2012, over 50 per cent 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).

¹⁹ 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,²⁰ 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.²¹ 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).²²
- 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.²³

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.²⁴

²⁰ Consultations with QPS officers. See also Club Marine (2010) and Stolz (2011).

²¹ 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.

²² HINs are unique (but not mandatory) identification numbers for boats.

²³ See Club Marine (2010) and Ausfish (2010).

²⁴ 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).

Attachment G – Registration



War on Wrecks Taskforce

Background Briefing

1. Background Information

Historical overview of regulation of vessels

The Transport Operations (Marine Safety) Act 1994 (TOMSA), is Queensland's primary marine safety statute. Prior to 1 July 2013, this legislation governed the safe operation of Queensland's commercial and recreational fleet. However, in 2012 the Commonwealth introduced the Marine Safety (Domestic Commercial Vessel) National Law Act 2012 and Schedule 1 which contains the Marine Safety (Domestic Commercial Vessel) National Law (National Law). The National Law commenced on 1 July 2013 and introduced a national system for regulating domestic commercial vessels, which are defined as vessels 'for use in connection with a commercial, governmental or research activity'. Construing whether a vessel is a DCV relies, to some extent on the scope of what constitutes a 'commercial, governmental or research activity'. The Commonwealth's interpretation of these terms may vary and may in the future be subject of discussions between the jurisdictions and AMSA and, potentially subject to judicial interpretation.

Domestic commercial vessels work predominately around the Australian coastline and vary widely in nature and purpose and include fishing craft, passenger and trading boats and a wide range of other small and medial sized vessels. The National Law does not, however, regulate vessels which operate internationally or foreign vessels, as they are regulated under the Commonwealth *Navigation Act 2012*. It also does not regulate recreational vessels which continue to be regulated under state legislation.

The overarching policy objective of the National Law is to provide for the consistent regulation of the domestic commercial vessel industry across Australia. This is to ensure that, irrespective of where a commercial vessel is in Australian waters, it is required to meet the same nationally-agreed safety standards. This means, for example, that those who design and build commercial vessels in one jurisdiction do not need to have the vessels re-certified for use in another jurisdiction. It also means that companies which operate nationally and have vessels in different jurisdictions do not need to deal with different regulatory requirements to manage their fleet and crew.

However, Queensland's marine safety laws continue to govern for some aspects of maritime operations relating to DCVs. Specifically, section 6(2) of the National Law refers certain matters in relation to domestic commercial vessels to continue to be regulated under state legislation. These are matters such as the transportation of dangerous goods, marine pollution, and waterways management including, for example, provisions dealing with alcohol and drugs testing and provisions dealing with the setting of speed limits.

Queensland's marine safety laws

Queensland's marine safety laws provides for the regulation of 'Queensland regulated ships'. This new term was incorporated into legislation to reflect the different categories of vessels captured under Queensland's laws post commencement of the National Law. A 'Queensland regulated ship' (QRS), is a defined term that covers all ships regulated under Queensland marine safety legislation.

The TOMSA applies to a ship connected to Queensland (under section 6) and defines a ship as:

'any kind of boat or other vessel used, or intended to be used, in navigation by water or for any other purpose on water'.¹

This includes a boat or other vessel:

- (a) whatever its size; and
- (b) however it is propelled or moved; and
- (c) whether it is on land or in water.

For example, a barge, lighter or other floating vessel, hovercraft or other surface effect craft are considered to be ships. It however does not include a vessel declared by regulation not to be a ship.

Requirement to be registered

In Queensland, the requirement for a ship connected to Queensland to be registered (unless otherwise exempt) is imposed by TOMSA which applies only to Queensland regulated ships declared by regulation to be ships to which the provision applies (s.54). Specifically, Part 5 of TOMSA provides for registration, licensing and permits required

¹ *Transport Operations (Marine Safety) Act 1994* (Qld), s.10.

for QRS. Section 56 of TOMSA provides that a regulation may require that a ship be registered as a 'recreational ship' or an 'other Queensland regulated ship'.

The *Transport Operations (Marine Safety) Regulation 2016* (TOMSR) then sets out when the registration requirements apply (s.26) and the requirement to register as either a 'recreational ship' or an 'other Queensland regulated ship' (s.27). Failure to register is an offence attracting a penalty of up to 200 penalty units.

In general terms:

- a recreational ship is defined as ships used only for private recreation;²
 - an 'other Queensland regulated ship' is a ship expressly excluded by the Commonwealth's National Law. The most common examples of these ships are surf lifesaving, school and community group vessels.
- A sub-category of '*prescribed other Queensland Regulated Ship*' exists (within this category) that captures: a 'prescribed other Queensland regulated ship' is 'other QRS' that is:
- (a) 6m or more in length; or
 - (b) designed to carry more than 12 persons on the ship; or
 - (c) operates more than 15 nautical miles from land.

[Ships defined as 'prescribed other Queensland regulated ships' may have additional conditions as part of their registration requirements for example, additional safety equipment requirements; licensing conditions or limit their area of operation].

One of the particular issues highlighted by the historical and current registration requirements is that while a commercial vessel is in service and operating it is regulated under the national laws and systems (including the payment of fees and levies for its operation). 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 and the new owner seeks to register the vessel as a QRS. While there is a departmental policy and procedure aimed at capturing the registration of a previously used commercial vessel and mechanisms to enable conditions to be applied (licensing or safety equipment), it solely relies upon the disclosure of information from the applicant at the initial registration stage. While there is no one system that captures or track vessel ownership through a vessel's life, it is most likely that these vessels, often in poor condition or no longer fit for their original intended purpose that are more likely to come back into Queensland's registration system and become a 'derelict' vessel.

2. Registration exclusions

In Queensland, all ships are required to be registered. However, an estimated 100,000 recreational ships in Queensland are not required to be registered or are exempt from registration. Exclusions are based on several criteria including engine power, use, origin and so on. The following sub-sections list these exclusions:

2.1 Ships Below Power Threshold

A Queensland regulated ship that is not powered or powered with an engine of less than 3kW (power threshold) is not required to be registered in Queensland. These are:

- i) not powered ships like canoe, surf board, inflatables boats, water rafts and similar other craft.
- ii) vessels powered with engines less than 3kW.

2.2 Interstate and Overseas Boats/Vessels

Recreational boats with valid interstate or overseas registration can operate in Queensland:

² *Transport Operations (Marine Safety) Act 1994* (Qld), s10B.

- for up to 1 year if the boat has current registration from a foreign country.
- while on interstate voyages if the boat has current registration from another state or territory.

However, after the 1 year period, interstate and overseas boats must be registered in Queensland. Also, if the boat owner moves to Queensland from another state or territory, or their interstate or foreign registration expires, owners must obtain Queensland registration.

2.3 Ships Owned by Non-Queensland Residents

Ships owned by non-Queensland residents and are in Queensland waters are not required to register in Queensland. A Queensland resident is defined as:

- an individual whose place of residence, or principal place of residence, is in Queensland; or
- a person whose place of business, or principal place of business, is in Queensland; or
- a person whose principal place of business for managing the ship's operations is in Queensland.³

2.4 Tender

A 'tender' is a defined term and is exempt from registration in Queensland provided it meets certain criterion. A tender is an auxiliary ship, other than a lifeboat¹, that is:

- not longer than 6m; and
- employed to attend another ship; and
- smaller than the other ship; and
- operated only in the proximity of the other ship.

The tender must be marked on the exterior with the word 'tender' and the parent ship's registration numbers, in characters at least 75mm high. If this is not possible, markings should be on the inside of the boat in the largest characters possible. If the tender is used for more than 1 ship, it may be marked with the owner's name.

However, if a tender is used outside or beyond the criterion outlined above – it is no longer deemed to be a 'tender' and is required under existing legislation to be registered unless it meets some other exemption/criterion (such as 3kW engine threshold for example).

2.5 Other Conditions

Other conditions that may exempt a QRS from registration include:

- a Queensland regulated ship that is the subject of a restricted use authority (a certain type of authority issued for particular purposes and can be issued with conditions);
- an other Queensland regulated ship that is less than 10m; and is the subject of a licence granted under the *Torres Strait Fisheries Act 1984* (Cth);
- a Queensland regulated ship that is not on or in water. Example if the registration of a Queensland regulated ship expires while the ship is out of water, the ship may be required to be registered only if and when it is placed back on or in the water.

³ *Transport Operations (Marine Safety) Regulation 2016*

3. Registration statistics

3.1 Number Registered

There is a legislative requirement for the Chief Executive to keep and maintain a register of vessel registrations of QRS. The register is an active record, and as such registration numbers are available for review at 'point in time' only. As at 30 June 2018 there were a total of 259,832 Queensland Regulated Ships (boats and personal watercraft) listed in the register under some 223,168 different registrants (individuals or organisations). This equates to approximately one registered ship for every 19 people resident in Queensland. Table 1 shows the types of ship in the Queensland fleet and their numbers per financial year from 2012-13 to 2017-18. Speedboats make the highest numbers of registered QRS for all years and their numbers has increased over the period.

Table 1: Number of Recreational Vessels in Queensland by Fiscal Year⁴

<i>Class of Ship</i>	<i>FY2012-13</i>	<i>FY2013-14</i>	<i>FY2014-15</i>	<i>FY2015-16</i>	<i>FY2016-17</i>	<i>FY2017-18</i>
Craft with Sails	7,030	7,015	6,990	6,927	6,890	6,739
Craft without Sails						
Motorboat	26,402	26,606	26,470	26,476	26,319	26,170
Speedboat	211,958	216,610	219,684	222,748	224,527	226,248
Other QRS	0	0	0	0	591	643
Prescribed Other QRS	0	0	0	0	13	32
Total	245,390	250,231	253,144	256,151	258,340	259,832

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 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.

3.2 Boat Sizes by Region

Generally the majority of boats (71%) are no more than 5 metres in length. This percentage increases to 97% 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. Table 2 shows a size distribution of QRS by maritime regions. The most popular type of boat is the open runabout which accounts for 66% (154,171) of the boat flotilla. Almost all of these boats (89% being 136,398) are trailered rather than moored or otherwise accommodated.

⁴ TMR register of Queensland regulated ships

<i>Maritime Region</i>	<i>Vessel Length (in m)</i>						Total
	<i>< = 3</i>	<i>3.01 to 5</i>	<i>5.01 to 7.5</i>	<i>7.51 to 10</i>	<i>10.01 to 15</i>	<i>>15</i>	
Brisbane	6134	101772	29247	4802	4563	824	147342
Gladstone	1076	36473	8591	1040	889	66	48135
Mackay	355	14062	4053	523	448	103	19544
Townsville	296	16790	4813	525	392	58	22874
Cairns	315	14681	5761	558	510	63	21888
Ex QLD	2	31	10	1	4	1	49
Total	8178	183809	52475	7449	6806	1115	259832

3.3 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. Table 3 shows the fees schedule and the concessional fees that may apply:

<i>Ship length</i>	<i>Registration fees</i>	<i>Concession registration fess</i>
Up to and including 4.5m	\$86.75	\$43.40
4.51 - 6m	\$192.90	\$96.45
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

Comparatively, registration fees for New South Wales is shown on Table 4:

<i>Type</i>	<i>Amount</i>
Initial and renewal	\$66 for vessels up to 3 metres, then \$10 per half metre thereafter to a maximum of \$663
Personal Watercraft (PWC)	\$336
Personal Watercraft (PWC) Concession	\$169
Transfer fees	Amount
Transfer of vessel registration other than to a dealer (provided vessel has current registration status)	\$32
Late transfer (applies in addition to the transfer fee if the transfer transaction is processed more than 14 days after the purchase of the vessel)	\$38
Transfer of vessel registration to a dealer in vessels for sale	\$19
Personalised registration (choice of unique identifier numbers – like personalised plates but for vessels)	\$186
Preserve personalised registration	\$27

And the registration fees in Victoria is on Table 5:

Table 5: Registration fees for Ship Registration Victoria			
<i>Type</i>	<i>Category</i>	<i>Description</i>	<i>Fee</i>
First issue	dealer plate	dealer trade plate	\$18.50
<i>Vessel Registration Fees Type</i>	<i>Category</i>	<i>Description</i>	<i>Fee</i>
Boating facilities and safety education fee (first issue or renewal)	Vessel or yacht powered by an engine	up to 4 metres in length (includes all canoes regardless of length)	\$41.90
Boating facilities and Safety Education Fee (first issue or renewal)	Vessel or yacht powered by an engine	Over 4 metres in length	\$87.40
Vessel Transfer Fee	Vessel or yacht powered by an engine	Transfer of a registered second-hand powered recreational vessel	\$18.50

3.4 Growth of Fleet

As at August 2018, about 259,919 boats were registered in Queensland. This is down from 260,714 in 2017. Boats registration has remained at approximate 260,000 in the last 3 years. Figure 1 shows boats registration numbers in Queensland between 2013 and 2018. Note that the 2018 data is captured in August, while the other data is taken in the December of each year.

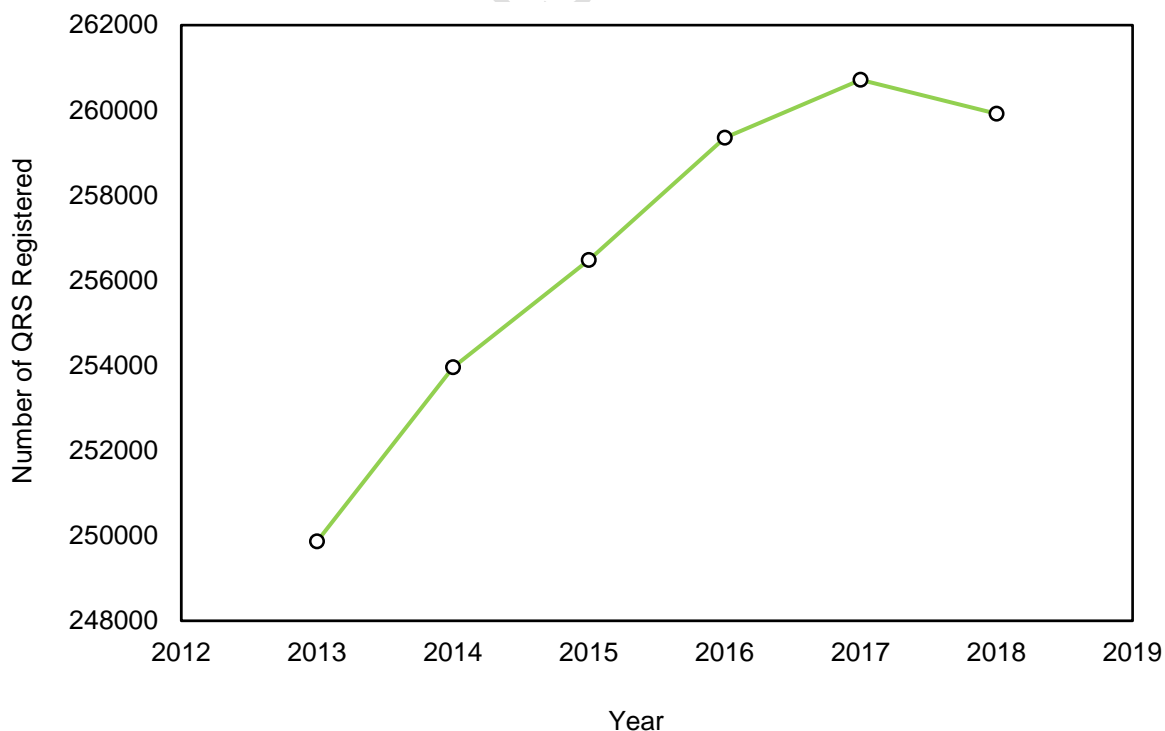


Figure 1: Number of Queensland Regulated Ship Registered from 2013 to 2018

3.5 Age of Fleet

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. Figure 2 below shows a graph of age ranges of boats in the Queensland fleet.

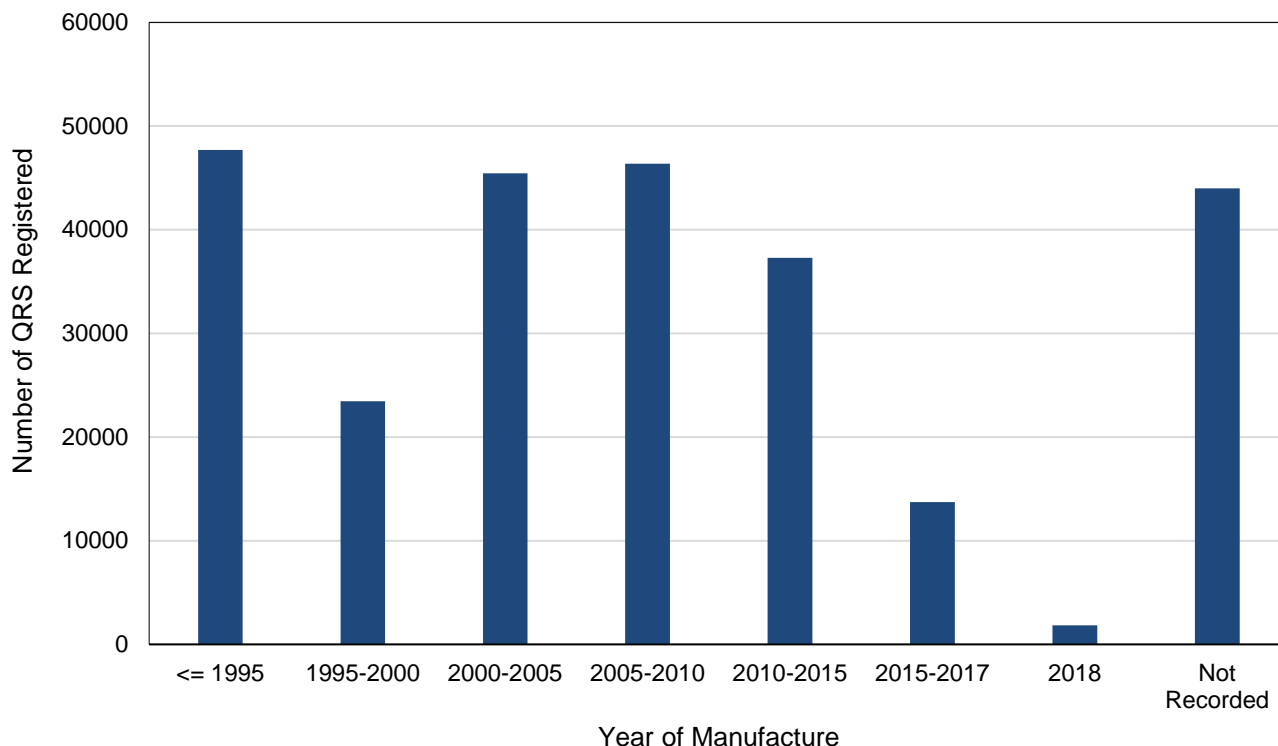


Figure 2: Age of registered QRS as at 2018

Baby Boomers (people born between 1947 and 1966) registered 44% of the boats and 30% of the PWC on the register. Generation X/Y (people born between 1967 and 1986) registered 37% of the boats and 51% of the PWC. The average ages of those registering a boat or a PWC were 53 years and 45 years respectively. Males registered 89% of the boats and 84% of the PWC on the register.

3.6 Material of Construction

From the most recent data available (October, 2018)⁵, about 62% of the hull of registered QRS were constructed with aluminium material (160,534). This was followed by fibre glass making up 33% (86,700) of the fleet. Other popular construction material are plastic, 1.3%, composite – 1.2%, rubber 0.95% and wood – 0.9%. The least popular construction material is ferro-cement which makes up 0.1% of the fleet. About 0.3% (784) of the registered boats have no information to identify their material of construction. Table 6 shows a summary of the materials used to construct the boats in the Queensland fleet. The register of registrations does not record the size or overall length of the vessel.

⁵ Extracted from TMR’s Roads Trail Registration System in October, 2018.

Table 6: Hull Construction Material and Body Shape of Registered Queensland Regulates Ships

Body Shape Code	Hull Construction									
	Alum	Comp	Ferro	Fibre	Plas	Rubb	Steel	Unkn	Wood	Grand Total
Bow Rider	3883	21	2	5177	170	6			2	9261
Centre Console	13465	104	4	3666	747	352	27		40	18405
Quarter Cabin Cruiser	3595	39	3	4382	95	1	10		35	8160
Full Cabin Cruiser	805	743	152	10854	9	3	785	181	1413	14945
Half Cabin Cruiser	4721	91	9	17332	30	1	35	100	334	22653
Open Cabin Cruiser	133756	550	23	14044	1747	1812	94	497	496	153019
Personal Water Craft	11	1418	1	24557	624	2		6	1	26620
Sport/Ski Boat	298	74	1	6688	19	81	1		97	7259
Grand Total	160,534	3,040	195	86,700	3,441	2,258	952	784	2,418	260,322

Note: Alum:Aluminium; Comp:Composites; Fero:Ferro Cement; Plas:Plastic; Rubb:Rubber; Unkn:Unknown.

3.7 Revenue Information

Table 7 below shows the revenue received by the State from ship registrations, over the last five financial years. Revenue received from boat registrations is paid to the Consolidated Revenue Fund. Note that the drop in revenue for commercial/fishing ships from the 2013-14 fiscal year, is due to the transfer of regulation of these class of ships to AMSA the national regulator. Prior to 2013, commercial/fishing ships were the second highest revenue earner for the State of Queensland, as can be seen in the 2012-13 fiscal year revenue.

Table 7: Revenue from registrations of Queensland regulates ships⁶

	FY2012-13 (\$)	FY2013-14 (\$)	FY2014-15 (\$)	FY2015-16 (\$)	FY2016-17 (\$)	FY2017-18 (\$)
Registration Fees - Recreational Ships	27,549,870	29,169,498	30,398,540	31,814,338	32,991,223	34,347,267
Registration Fees - Commercial / Fishing Ships	2,299,123	6,451	7,402	6,356	2,640	51
Miscellaneous Maritime Registration Fees	563,291	606,570	628,738	670,530	683,194	695,935
Total	30,412,284	29,782,519	31,034,680	32,491,224	33,677,058	35,043,253

⁶ Source: SAP

4. The Registration Process

Boats can be registered at a 'transport and motoring customer service centre' or, if in a rural area, in a Queensland Government Agency Program (QGAP) office, Magistrates Court or local police station that provides registration services.

To register a boat, the following is required:

- a completed Queensland regulated ship registration application (F3525)
- evidence of the boat's origin (such as a purchase receipt)
- evidence of identity (such as a current driver licence)
- payment for registration costs (if applicable).
- third party insurance is not included in the registration cost.

4.1 Information Captured in Registration Form

A sample of the boat registration application form (F3525) can be obtained at www.support.transport.qld.gov.au/qt/formsdat.nsf/Forms/QF3525. In addition to collecting owner's personal information like name, email and address, the form captures such information as;

- Registered number (if reserved)
- Previous or type registrations (if any)
- Ship use (private recreational only and or for others)
- Proof of origin

It also captures the description of the ship such as length and beam, engine details and construction material including the following ship details;

- Hull Identification Number (HIN) or Serial Identification Number (SIN)
- Year of build
- Make
- Model
- Ship builder (if known)
- Ship design
- Ship seller (if known)
- Hull construction material
- Ship colour
- Ship specifications (length, height and so on)
- Engine details
- Storage details

4.2 Other Requirements

Australian Builders Plate

The Australian Builders Plate (ABP) is a precondition for boat registration in Queensland. ABP is a national initiative to make boating safer by providing vital information about the capacity, capability and limitations of ships. The ABP requires ship builders, importers or competent persons to clearly display information about a ship's operational capabilities in a standard format.

Penalties apply for selling a vessel without an Australian Builders Plate that is required to have one fitted.

5. After Registration

5.1 Display of Registration number

Once registered, a registration number is allocated to the boat and a registration label is issued. Boat owners must display registration numbers so they can be read from 30m away and in a contrasting colour to the hull of the boat. The size of the registration numbers depends on the type of boat:

- Boats capable of planing—at least 150mm high on both sides.
- Boats not capable of planing—at least 75mm high on both sides or the stern.
- PWCs— must be at least 100mm high and on both sides.

The registration label must be displayed on the outside of the boat, above the waterline and near the registration numbers. If the registration numbers are displayed on the side of the boat or PWC the registration label should be displayed on the left (port) side.

5.2 When registration has expired

Boat registration expires if the registration fee is not paid by the expiration date. The maximum registration period per time is 1 year. When registration has expired, the boat or PWC is unregistered until the fee is paid. Operating an unregistered boat is illegal and can be fined.

Three months is given to renew boat registration after the expiry date, after which a new registration is required. Should registration be renewed during the 3 month grace period, the registration will be adjusted to the anniversary date of the expired registration and late renewal fee will apply otherwise, the owner may apply for a new registration.

5.3 Registration renewal

A renewal notice is sent out about 5 weeks before registration expires. Registration should be renewed before the due date or the boat or PWC cannot be operated. After payment is received, a new registration label and certificate is sent out in the mail. It may take up to 10 working days to receive the label and certificate depending on how payment was made or postal address.

New registration label is to be used to replace expired label and attach to the boat. Failure to remove old expired label can result to a fine. Old label must be replaced with new label within 21 days of the date that registration would have expired.

5.4 Change or Transfer of Registration Details

Boat registration details can be changed at a transport and motoring customer service centre or, in a QGAP office, Magistrates Court or local police station that provides registration services, if you living in a rural area. A completed change of Queensland regulated ship particulars notification form (F3527) is required to make the change. Transfer of registration may also be done online for eligible persons.

Second hand bought recreational boat, needs to change the ownership details to the new owner within 14 days of the purchase. Boats bought or sold with a registered trailer, will need the trailer to also be transferred.

APPENDIX

Appendix A: Recreational Boat Licensing and Registration in Queensland 1931 to 2014

Introduction

In Queensland the regulation of powered vessels used for private purposes has a long and complex history. It appears to have been precipitated by the rapid adoption of the internal combustion engine by boat builders in the early part of the last century.

While the living memory of the introduction of these first regulations no longer lingers within the department, the significant details and the reasons for their adoption can, with some confidence, still be pieced together from those extant documents that come readily to hand.

Newspapers of the 1910's and 1920's report the details of a substantial number of marine incidents occurring on Brisbane River and other waterways. These incidents involved commercial and private motor boats and often involved fires and/or explosions, overloading or collisions between unlit vessels plying the river at night.

While in 1923 some new regulations appear to have been issued under the state *Navigation Act of 1876*, these only addressed the overloading of passenger vessels.

The difficulty appears to have been that when the Act came into force in 1876 a "vessel" was defined as "any ship or other vessel used in navigation whether propelled by sail, steam or oars" there being at that time no traffic on the water propelled by oil or fluid.

It was at this time reported in the newspapers that the Treasury was of the view that it would be desirable to "obtain control of motor boats, in the river which were plying for hire." And that "It was not intended that the new regulation should press heavily on privately owned motor boats."

The Navigation Act

In October 1924 preliminary notice was given in the Legislative Assembly of the intention to introduce a Bill to "amend the Navigation Acts 1876 to 1911 so as to provide for the better management and control of motor boats and motor vessels within the territorial waters of Queensland."

The Bill was introduced by the then Treasurer the Hon. W. H. Barnes on September 18 1930 and proceeded to its second reading on September 30 1930. It should be noted that the Bill was not received by the Legislative Assembly without objection.

The most forceful objection was made by the then member for Bremer Mr Cooper on October 2 1930 who noted that Part Two of the Bill did little more than stipulate the matters to be regulated and that those regulations would have to be approved by the Governor in Council on the recommendation of the Marine Board of Queensland. He then went on to describe this procedure as an example of "The New Despotism" in that "everything is being done by regulation, and all power is being given under regulation."

This Act was passed on November 13 1930 and on February 26 1931 regulations were made under the amended Navigation Act which come into operation on March 16 1931. While the majority of these regulations concerned vessel being operated for commercial purposes they do introduce the requirement that recreational vessels, with an engine producing more than a specific power output (4 b.h.p.) be registered. Specifically:

- That owners of private motor craft must apply to the Marine Board for registration, and this registration must be renewed annually.
- It is required that the registered number or name, followed by the letter "Q," shall be so painted as to be legible at a distance of 100ft. in daylight, and clear weather.
- It is required that every owner or other person nominated by the owner to take charge of a boat shall satisfy an inspector on oral or practical examination that he is competent to navigate and manage it.

At the time these regulations came into effect the yearly registration fee was set at 5s for vessels under 20ft and increased in increments to £1 for vessels over 50ft in length. In the first year of its operation 1157 vessels were registered, rising to 16,600 in 1967 and 251,231 in 2014 some 83 years later.

The first two points, the payment of an annual fee and the painting of large numbers on the sides of vessels, were at the time (and continue to be) the source of perturbation to some member of the boating fraternity. At the time these concerns were expressed in letters to the editors of the newspapers and now in the form of private correspondence with the department.

The third point, a competency based test of the applicants boating knowledge at the time of registration, appears to have been accepted by the boating fraternity without demur and does in effect introduce the practice of competency based testing of persons applying for a licence to operate a recreational vessel in Queensland waters.

The reasons for the inclusion of private motor boats within the scope of the regulations was explained in a series of public lectures given by Captain Thomas F. H. Roberts who had been appointed Port Master of Queensland and the Chairman of the Marine Board in 1929 when Captain William V. B. Forrester retired from these positions.

These lectures pointed out the need for all vessels to show navigation lights when appropriate and to have their engines equipped with silencers. Of particular concern were those who had a private boat which in addition to using it for "family purposes" lent or hired it out to others and so entered into unfair competition with professional Watermen.

These vessels were of particular concern to the Port Master who suggested that they often had no proper lifesaving provision, were often overloaded, and not having qualified men in charge, were often a danger to all they carried.

It is of interest to note that in these lectures Captain Roberts also emphasized that in respect of those boat owners who did use their vessels "exclusively for family purposes" the intention of the regulations were "educational" rather than punitive, a view that continues to this day.

It seems that the principle reason for the registration of private vessels was to allow for the identification of the vessels and their owners so as to facilitate the policing of safety equipment standards, the number of passengers that could be carried, and to allow commercial and private vessels to be easily distinguished.

It should be noted that the capacity to introduce the explicit licensing of persons to operate recreational vessel was available in the legislation from its inception. Presumably the relatively small number of vessels, the cost of ownership of the vessels and the reasonable presumption that the registrant would be the operator of the vessel mitigated against the need for its adoption. Contemporary newspaper reports suggest that requiring people applying for registration to answer qualifying questions was somewhat of an afterthought, little discussed at the time and not considered particularly burdensome in practice. There is no evidence that the option of conducting a practical test as an alternative to an oral test was widely practiced.

This system of registration and quasi licensing established at this time appears to have proven largely satisfactory and remained in place until the introduction of *The Queensland Marine Act 1958* which repeals the *Navigation Act of 1876* and its subsequent amendments.

The Queensland Marine Act 1958

The *Queensland Marine Act 1958*, as a replacement for the Navigation Act, was necessarily extensive and comprehensive. It was seen as a long overdue opportunity to consolidate and modernize a system of regulation first formulated in the days when sail and steam were the established means of marine propulsion.

The Act preserved the "The Motor Boat and Motor Vessel Regulations", made under the 1930 Navigation Act and were subsequently remade in 1965 and again in 1975.

These regulations required private motor boats and private motor vessels powered with an engine of 2.984kW brake power or over to be registered.

The previous regulations relating to registration of recreational vessels were preserved while formally requiring person applying to register the vessel to make the following declaration:

"I hereby certify that the foregoing particulars are correct and undertake that the abovementioned boat will not ply for hire or reward, or be let for hire or reward, during the period of such registration."

And the issuing officer to declare:

"I certify that I have examined, and consider he [sic] (the person making the application for the registration of a vessel) is competent to manage and control the above mentioned Motor Boat or Motor Vessel."

The examination mentioned in this regulation involved an oral or practical examination as in the previous Navigation Act. It seems likely that applicants were asked the same simple questions that had been customary under the previous act until the introduction of speed boat and water-ski licences in 1962 when presumably this requirement would have become more honoured in the breach than the observance. It is interesting to note that the possibility that recreational vessels might be used for commercial purposes remained a matter of serious concern.

The introduction of recreational boat licensing in 1962 was coincident with the first of the baby boomers turning 17, the availability of small inexpensive fiberglass boats and the increasing popularity of water skiing which necessarily rendered the testing of boat owners or their nominees impractical.

When the licensing of speedboats and water-ski boats was introduced in 1962 the prescribed qualifications were as follows:

In respect of licensing an applicant for a license to drive a speedboat not being a waterski boat shall-

- (a) Be not less than seventeen (17) years of age;
- (b) Satisfy an inspector by practical demonstration that he is competent to navigate and manage a speedboat;
- (c) Have a good working knowledge of the Rules for the Prevention of Collisions at Sea;
- (d) Be familiar with the speed limits imposed by these Regulations; and
- (e) Be able to pass the eyesight test by reading correctly five of the six letters in the sixth line of the Snellans Sheet:

Applicants would not have to satisfy paragraph (b) of the regulation if they were a *bona fide* member-driver of an approved Speedboat Club or paragraph (e) of the regulation if they held a current Queensland driver's license.

In addition to these requirements an applicant for a water-ski licence also had to provide a test certificate from an approved Water Skiing Association or Powerboat Association certifying that he has passed a satisfactory test demonstrating his ability and competency to control a speedboat for the purpose of water-skiing and that he was found to possess a good knowledge of skiing signals and safety rules.

Consequently a valid water-ski licence would also allow the licensee to drive a speed boat.

The other notable difference between the speed boat licence and the water-ski licence was that while a speed boat licence was issued for an unlimited term on the payment of a single fee, the water-ski licence was more expensive and had to be renewed annually. It is important to note that the water-ski licence was not an endorsement of a speedboat licence and consequently if a person failed to renew their water-ski licence they did not automatically remain licensed to operate a speed boat.

In the first year of recreational boat licensing 2800 speed boat licences were issued rising to 85,602 in 1979, many of which will still be active. The number of water-ski licences issued was first recorded in 1967 when 6100 were issued rising to 36,928 current licences in 1979.

It is of interest to note that the separation of licensing and registration introduced competency based testing that was both theoretical and practical in contrast to the oral or practical test associated with vessel registration.

The licensing inspectors were officers of government departments, primarily the Department of Harbours and Marine (H&M) and the Queensland Police Service (QPS) though other suitable persons could be appointed by the Marine Board. In 1968 the number of inspectors was increased when all of the Patrol Officers of the Queensland Boating and Fisheries Patrol (QB&FP) were appointed Testing Officers for the examination of applicants for speed-boat and water-ski licences.

While this system remained satisfactory for quite some time, the integration of the Department of Harbours and Marine into the Department of Transport in 1989 and the subsequent transfer of the Boating and Fisheries Patrol to the Department of Primary

Industries (now the department of Agriculture and Fisheries) eventually resulted in difficulties related to the management and supervision of the testing procedures.

The administration of matters relating to marine safety continued under the *Queensland Marine Act 1958* until the introduction of *The Marine Safety Act 1994* (now *Transport Operations (Marine Safety) Act 1994*).

The Marine Safety Act 1994

The 1994 Act was intended to bring the superintendence of all matters relating to Queensland's maritime industry in line with the overall policy intent of the *Transport Planning and Coordination Act 1994*. This was primarily achieved by the adoption of general safety obligations and the establishment of systems intended to achieve an appropriate balance between safety and cost.

In respect of recreational boat registration and licensing, the subordinate legislation, the *Transport Operations (Marine Safety) Regulation 1995* and the *Transport Operations (Marine Safety—Recreational Ship Masters Licence Approvals) Standard 1998*, shifted the focus towards the selection and accreditation of those providing training and conducting examinations for a Recreational Ship Masters License.

The conditions governing the registration of recreational vessels remained largely unchanged.

The Act defines a recreational ship as:

- (a) A ship used only for private recreation; or
- (b) A tender to a ship used only for private recreation.

And states that:

A regulation may require the owner of such a ship to register it and that if a ship is registered as a recreational ship the owner or master must not operate the ship except as a recreational ship.

The Regulation requires:

- (a) A recreational ship which is powered by an engine of 3 kW or more to be registered.
- (b) The owner and master of a registered recreational ship must ensure the ship's registration number is displayed on the ship in the prescribed manner.
- (c) The owner and master of a registered recreational ship must ensure that the ship's current registration label is attached to the ship in the prescribed manner.

These regulations are largely a continuation of those first introduced in 1931 with the exception that passing an oral or practical examination was no longer prerequisite for the registration of a vessel and that the requirement that registration labels, first introduced on automobiles in 1934, be displayed.

The more substantial changes involved the marine licences issued and the supervision of those who would be authorised to provide training to, and conduct the examination of, prospective licensees.

The Speedboat Licence was replaced by Recreational Ship Masters Licence (RSML) which was issued for an unlimited term for a single fee while the Water-Ski Licence was discontinued.

The requirements to obtain a license were:

- 1) The chief executive may grant an application for a licence to operate a recreational ship as its master only if the applicant—
 - (a) is 16 years or more; and
 - (b) has a reasonable knowledge of—
 - i) the Act and this regulation as they effect recreational ships; and
 - ii) the Collision Regulations; and
 - (c) is reasonably competent in seafaring skills and safe operating practices for recreational ships; and
 - (d) (d) passes an eyesight test conducted by the chief executive.

- 2) A person is taken to have the competency required under subsection (1)(c) if the person has satisfactorily completed a course in seafaring skills and safe operating practices for recreational ships provided by a training provider approved by the chief executive under this section.

The Act then empowers the chief executive to conduct examinations in any way the chief executive considers necessary, and to prescribe standards under which entities seeking approval to conduct examination or provide training may be approved. These standards are described in the *Transport Operations (Marine Safety—Recreational Ship Masters Licence Approvals) Standard 1998*. It is of interest to note that under the Regulation an entity could not be granted approvals to conduct both training and examinations. Presumably this regulation was intended to avoid the possibility of conflicts of interest arising.

The requirements of boat registration established at this time are essentially those that obtain today. In respect of licensing, the system continued to appoint public officers, primarily officers of the QB&FP and the QPS, as license examiners and the appointment of private companies as approved training providers.

In 1999 concerns that the licensing system first introduced in 1962 was no longer appropriate was noted in a coronial investigation of a marine incident that occurred on the Brisbane River. Over the following few years the previously mentioned management and supervision difficulties became apparent when the probity and integrity of licence assessments being undertaken by some licence examiners became a legitimate matter of public concern.

These considerations, and a then developing view that were possible some government functions should be outsourced or devolved, led to the development of the BoatSafe scheme operating in Queensland today.

In August 2000, public consultations were conducted based on the accepted wisdom that the current licence examiner arrangements were demonstrably sub-standard and needed to be replaced with modern, competency-based assessment standards.

On December 19 2002 an amendment of the Regulation removed the restriction preventing a single entity being approved as both training organisation and an approved entity for the conduct of examinations.

There is no record of any person or entity being appointed as both a trainer and examiner at this time and so this change was presumable made in anticipation of the introduction of the BoatSafe scheme on July 1 2004.

In January 2003 another round of public consultations was conducted. This round introduced the proposed system and how the existing system might be phased out and how that transition might be managed.

Consequently the existing system involving departmental examiners and private training providers continued to operate until July 1 2004 when the BoatSafe scheme was introduced. The two systems then operated in parallel until the June 30 2005 when the former training and practical testing arrangements ceased leaving the BoatSafe scheme as the primary means of obtaining a recreational boat licence in Queensland.

This transition was implemented through the replacement of the *Transport Operations (Marine Safety—Recreational Ship Masters Licence Approvals) Standard 1998* by the *Transport Operations (Marine Safety—Recreational Marine Driver Licence Approvals) Interim Standard 2005* and the *Transport Operations (Marine Safety—Recreational Marine Driver Licence Approvals) Interim Standard (No. 2) 2005*.

These interim standards were repealed by the *Transport Operations (Marine Safety— Examining and Training Program Approvals (Recreational Ships and Personal Watercraft) Standard 2005* which, with the 1994 Act and the amended 1995 Regulation, provides the legislative authority under which BoatSafe is now administered.

From the perspective of intending licensees the BoatSafe scheme provides a thorough, uniform and systematic way in which a person can obtain the knowledge and training they require to meet the qualifications for a recreational marine licence set out in the 1995 Regulation. In practice this involves successfully completing a BoatSafe training course and being issued a certificate of competency which will be accepted by the Department of Transport as evidence of compliance and a licence will be issued.

The BoatSafe training scheme itself is administered by Marine Safety Queensland (MSQ), implemented by a BoatSafe Training Organisation (BTO) and delivered by a BoatSafe Training Provider (BTP). The administrative arrangements can be succinctly described.

- BTOs are approved under sections 103 and 104 of *Transport Operations (Marine Safety) Regulation 2004* as 'entities' to provide training and assessment of candidates for the purpose of being issued a recreational marine driver's licence.
- As an entity, a BTO must nominate to MSQ at least one BTP to actually conduct training and assessment on behalf of the entity (BTO). BTOs may nominate more than one BTP and these BTPs may deliver BoatSafe training and assessment services on the BTO's behalf throughout Queensland (subject to any area limitations on their commercial marine licence).
- Before being endorsed by MSQ, BTPs must satisfy the same suitability requirements as BTOs. These requirements are set out in the *Transport Operations (Marine Safety – Examining and Training Approvals (Recreational Ships and Personal Watercraft) Standard 2005*.
- If suitable, BTPs are endorsed as suitable by MSQ. It is important to note that BTP are not approved by MSQ.
- BTOs are at all times responsible for the professional conduct of endorsed BTPs delivering services on the BTO's behalf. If MSQ has an issue with a BTP, that issue is addressed through the 'parent' BTO.

For an 'entity' to maintain its approval as a BTO the entity must comply with three administrative standards. The BoatSafe Competency Standard details the standard a candidate must reach before a Statement of Competency can be issued. The BoatSafe Management Standard which governs the operation of BTOs and their BTPs and the BoatSafe Audit Standard which documents the framework within which BTOs will be audited for compliance purposes.

The BoatSafe Scheme has now been operating for 10 years during which it has largely achieved its intended aims. BTOs are now providing a uniform standard of competency based training and testing in every region of Queensland obviating the need to maintain alternate arrangements in remote regions.

The most common cause of concern has involved complaints made by one BTO concerning the business practices of another BTO or what one BTO perceives to be the failure of another competing BTO to fully comply with the administrative standards. In this context, economic competition between individual BTOs has resulted in an informal form of industry based compliance supervision.

The Department's capacity to take formal action against a BTO in the form of a prosecution for a specific breach has rarely been used. Some prospective BTOs have been refused approval while others have had the renewal of their authority refused. These actions were largely confined to the early years of the scheme. More recently enforcement has largely relied upon the suspension of particular BTPs and the issuing of show cause notices to BTOs as soon as any reasonable concern is detected.

Summary

While the legislative and regulatory history of recreational boat licensing and registration in Queensland appears to proceed down a long and winding road, the principle concerns they are and were intended to address have remained largely unchanged over the past 84 years.

The need to regulate recreational vessels was at various times a response to the nature of the marine traffic on Queensland's waterways, changing technology, geography, changing demographics, and the need to respond to particular administrative challenges.

In the early years of the last century the need to bring the regulation of commercial activities conducted in petrol powered vessels under the supervision of the *Navigation Act of 1876* necessitated the easy identification and hence registration of privately operated vessels being used exclusively for "family purposes".

It is from the resulting amendments and regulations enacted in 1931 that we today register recreational vessels, strictly prevent them from being used to "plying for trade", require them to display registration numbers, regulate the number of passengers they may carry and require them to carry and/or be fitted with all manner of safety equipment.

The most interesting aspect of the early enactments was the requirement that a prospective registrant be able to demonstrate, by oral or practical examination, that they were competent to navigate and manage the vessel. It is this requirement which in effect first introduced the quasi licensing of recreational boat operators.

In 1958 the introduction of The Queensland Marine Act was seen as a long overdue opportunity to consolidate and modernize a system of regulation first formulated in the days when sail and steam were the established means of marine propulsion.

This modern legislation preserved the registration requirements of the previous Act and specifically legislated for the possibility of licensing of operators of motor boats and ski-boats. The regulations requiring motor boat and ski-boat

operators to be licensed was enacted in 1962 coincident with the wide spread availability of small fiberglass hull vessels, the increasing popularity of water skiing and the first of the baby boomers leaving school. These three factors together necessitated the separation of registration and licensing. These licenses required candidates to demonstrate a theoretical understanding and practical ability to navigate a recreational vessel safely. It is of interest to note that the practical component could be satisfied by a candidate having their competency vouched for by a *bono fide* boating or skiing club.

The administration of matters relating to marine safety continued under the *Queensland Marine Act 1958* until the introduction of *The Marine Safety Act 1994* (now *Transport Operations (Marine Safety) Act 1994*).

The 1994 Act was intended to bring the superintendence of all matters relating to Queensland's maritime industry in line with the overall policy intent of the *Transport Planning and Coordination Act 1994*. This was primarily achieved by the adoption of general safety obligations and the establishment of systems intended to achieve an appropriate balance between safety and cost.

The regulation of recreational vessel registrations remained unchanged with the exception that an oral or practical test was no longer required. In respect of licensing both the motor boat and the water skiing licence were replaced with the Recreational Masters Licence which required both a demonstrated knowledge of relevant regulations and a practical examination of a candidates boating skills. The requirement to pass a practical test could be satisfied by successfully completing a boating course with an approved training provider.

These arrangements remained in place until it became obvious that the training and testing system which had remained largely unchanged for 40 years was, by modern standards, less than ideal. The resulting review in the early years of the new century resulted in the devolution of the examination function to the approved training providers who constituted the first of the BoatSafe Training Organizations. These organizations now provide, from within a comprehensive suite of administrative standards, a system of competency based training and certification intended to insure, in the words of the 1931 Act, that "every owner or other person nominated by the owner to take charge of a boat ... is competent to navigate and manage it".

Attachment H - Insurance

War on Wrecks taskforce

Background Briefing Vessel Insurance



BACKGROUND

- The Queensland government is often required to fund the removal of derelict and abandoned vessels, often at great expense. While legal avenues exist to recover funds through the courts, this is a timely and expensive process which is often unsuccessful.
- In an attempt to limit government expenditure and require owners to take responsibility for their own vessels, a mandatory insurance regime exists which requires the owners of boats which are over 15 metres in length to hold a policy of insurance which provides cover for the clean-up of pollutants, and the removal of wrecks, to the monetary limits outlined in section 62 of the *Transport Operations (Marine Pollution) Regulation 2018* '**pollution insurance**'.
- Boats which do not exceed 15 metres in length are not required to hold pollution, or indeed any other kind of insurance.
- In addition to mandatory pollution insurance, boat owners may obtain optional third party or comprehensive insurance, in much the same manner as car owners. Unlike cars or other vehicles operating on Queensland's roads, boat owners are not required to hold compulsory third party insurance.
- The purpose of this paper is to outline insurance types and determine whether scope exists for legislative changes to better meet the government's policy objectives. The primary focus of this paper is wreck removal insurance as this is the taskforce's primary remit however as insurance types are interlinked and may provide an avenue to improve safety and environmental outcomes, the paper will provide a brief analysis of other insurance types.

RECOMMENDATION

- In its current form pollution insurance does not meet the original policy objective.
- Insurance policies linked to vessel registration will not meet the policy objective.
- It is recommended that consideration be given to implementing an alternative program to fund the removal of derelict and abandoned vessels which is not dependent on market forces, or an owner's ability to maintain a vessel. Potential options include imposing levies on registrants, manufacturers or importers.
- Given the complexities involved and expertise required, it is recommended that the taskforce establish an appropriate working group to develop a policy position.
- However, it is recommended that a decision in relation to pollution insurance be deferred pending the results of future public consultation, and research being conducted by the QRBC.

POLLUTION INSURANCE

Legislative History

- In 2002 the *Transport Legislation Amendment Act 2002* was enacted, introducing a 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 abandoned or wrecked.*
- During 2006 the Maritime and Other Legislation Amendment Bill 2006 expanded the requirement by reducing the threshold to all ships more than 15 metres in length overall.
- This amendment was included 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.*
- A system was introduced whereby the owners of vessels (such as ferro-cement vessels) who were unable to obtain insurance 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.

Issues

- Pollution insurance is based on the availability of policies on the open market. Unlike programs such as Compulsory Third Party insurance, market policies are subject to many restrictions and limitations which reduce the programs' effectiveness. 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. Two examples of common inclusions and exclusions are included at Appendix two of this paper.
- 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.

Policy Objectives

- The policy objective of introducing pollution insurance is 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.*** 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.***
- MSQ has never recovered the cost of removing an abandoned vessel from an insurer.
- Where no insurance exists MSQ may take civil action against the owner to recover clean-up and removal costs. This process is dependent on the owner of a vessel having sufficient assets to satisfy a judgement. MSQ has taken action against the owners of two vessels (the *Sattha* and the *Defender*), however despite obtaining a judgement against each owner MSQ is yet to recover any funds.
- Abandoned boats are rarely insured, and where they are insured are rarely covered appropriately. The three case studies attached to this briefing highlight examples of where the pollution insurance regime has not provided the protection envisaged by the original policy.
- Given these limitations the current insurance regime does not meet the original policy objective of addressing *the growing number of larger abandoned ships that cost the State substantial amounts.*

Consultation

- The taskforce has conducted an initial round of public consultation to identify issues and potential solutions. The initial activity involved a public forum discussion conducted by the taskforce chair.
- The focus group identified a range of issues which are more broadly explained elsewhere, however as relevant to pollution insurance the focus group identified issues including;
 - The market driven approach restricts access to insurance.
 - Policies are restrictive and, in many cases, do not provide adequate cover.
 - The group generally agreed with the concept of a government managed insurance program to address perceived failures in the insurance market.

Recommendation

- The initial round of public consultation identified a high level of engagement with vessel insurance and its inherent limitations. By applying an iterative approach towards focussing the group discussion, it is expected that the upcoming consultation activities will develop a higher level of understanding of insurance limitations and expectations and inform an appropriate policy position.
- It is recommended that the taskforce defer developing a policy position until all public consultation is complete.

CTP AND OTHER INSURANCE

- Other than pollution insurance for ships over 15 metres in length, no mandatory insurance requirements apply to boats in Queensland waters. However, range of commercial insurance products are available and provide third party liability and comprehensive insurance coverage. Two examples of such policies are listed at Appendix two to this paper. A number of issues have been identified with respect to marine insurance including the lack of Compulsory Third Party coverage, and the sufficiency of coverage for available policies.

Compulsory Third Party

- All vehicles registered to drive in Australia are required to hold a Compulsory Third Party (CT) insurance policy which provides the driver with cover for any legal liability for injury or death as a result of an accident for which the driver is responsible.
- CTP does NOT cover for example, damage to vehicles or property, or the towing of vehicles from the incident location. CTP insurance is administered through the vehicle registration process.
- Boats are not provided with CTP coverage. For a boat owner to be covered for legal liability of this sort, the owner must obtain an insurance policy which provides 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.
- The case of Hume v Patterson is a stark example of what may go wrong during boating activities, and highlights the importance of CTP insurance. 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, which 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.

Case Study – *Hume v Patterson* [2013] NSWSC 1203

Background

On 18 November 2007, the plaintiff was wakeboarding with 2 male friends on the Tweed River in northern New South Wales. The plaintiff had prior experience wakeboarding and he was towed upstream (in a southerly direction) on a wakeboard, getting up and coming off “a few times”. The plaintiff then switched to a wakeskate, which he had never used before. The plaintiff fell 3 times on the wakeskate. The first fall occurred “almost straight away” and the second after approximately 50 metres. On the third occasion the plaintiff fell and sustained injury leading to C6 tetraplegia.

The plaintiff brought claims for negligence against the driver of the boat that was towing him (Timothy Patterson) and the owner of the boat. The plaintiff alleged that the driver of the boat was negligent in driving the boat outside the navigation channel (the channel), which resulted in the plaintiff striking his head on a sandbar when he fell. The claim against the owner of the boat was discontinued prior to the hearing.

The Decision

The court accepted that the depth of the water in the channel was significantly deeper than outside the channel. Ultimately the court was satisfied that the fall occurred whilst the plaintiff was wakeskating over or close to a sandbar west of the channel in water that was approximately 1.1 metres deep. While the plaintiff was unsure whether he hit the bottom of the channel when he fell, it was not accepted that the plaintiff struck his head on an unseen submerged object or that he drifted from the deep water of the channel to the area of the sandbar after the incident.

There was no question that the defendant owed the plaintiff a duty to exercise reasonable care for the plaintiff’s safety. The court found that the risk of harm did not materialise from the activity itself ie. wakeskating, but rather from conducting the activity in shallow water. It was held that a reasonable recreational boat driver should have driven the boat wholly within the marked channel and the defendant’s failure to do so was negligent. Had the defendant remained within the channel, the plaintiff’s injury would not have occurred.

Despite the fact that the defendant had attempted to rely on section 5L CLA (NSW) with respect to obvious risk of a dangerous recreational activity in its defence, it was not put to the plaintiff during his evidence that wakeskating in deep water was a dangerous recreational activity. After considering the evidence and other relevant decisions, the court ultimately found that the defendant had not proven wakeskating to be a dangerous recreational activity as it was generally undertaken in relatively deep water at a slower speed than wakeboarding, water skiing and ski-racing and there was a remote risk of serious injury in those circumstances.

Judgment was entered for the plaintiff with damages to be assessed.

Application

- CTP insurance policies cover the driver of an insured vehicle, with the insurance linked to the vehicle’s registration. Where a vehicle is not insured, no insurance policy exists and the driver is not protected against legal liability. This model may be directly applied to boating *if the policy goal is to provide protection against legal liability for death or injury as a result of an accident for which the boat’s driver is held responsible.*
- The CTP model is not intended to and will not effectively address derelict and abandoned ships. As CTP (type) insurance is linked to registration, where a vessel is not currently registered it is not covered by an insurance policy. As derelict and abandoned vessels are rarely registered, linking insurance to registration will not meet the stated policy objective of addressing *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.*
- Vessel registration may be used as a touchpoint and provide an ongoing source of funding to deal with abandoned vessels.

Recommendation

The CTP model will not provide the coverage necessary to address derelict and abandoned vessels. The taskforce may consider whether the registration process may be used as a sustainable source of ‘user pays’ funding to address derelict and abandoned vessels in the long term.

Public Liability insurance

- QRBC members include a number of water sport clubs who organise events such as boat racing, water-ski racing, sailboat racing and other events which are run under the authorisation of Aquatic Event permits.
- Water sports Clubs organising these events must provide evidence of a current public liability insurance policy prior to these permits being issued, and the council have identified significant gaps in the coverage provided. For example, the council identified one policy which excluded all on water activities.
- The QRBC intend to invite representatives of the insurance industry including an insurance broker, and insurance companies, to speak to the council in relation to these issues.

Recommendation

- It is recommended that when the QRBC process is complete, the results of this research be considered by the taskforce prior developing a final policy position with respect to marine insurance as a whole.

Appendix 1 – Case Studies

Case study one

The Whitsunday Magic was a 35-metre sailing vessel which was used for commercial tourism voyages in the Whitsundays. The ship was left alongside a wharf overnight and as the tide fell the side of the ship became hung up to a wooden pile. As the tide dropped further, the side which was hung up did not fall with the tide, causing the vessel to list to the point where water entered a deck breather, flooding the boat. The boat sank and was ultimately salvaged by the owner's insurer, who determined that the wreck was a total economic loss and would not be repaired.

The ship was purchased by a new owner who intended to take her to the Gold Coast where it would be converted into a floating restaurant. The ship was prepared and departed Airlie Beach however shortly into the voyage one of her engines failed. The ship turned back to Airlie Beach however shortly afterwards the second engine failed. The ship was taken under tow and taken to Airlie Beach where she was anchored. While the ship was awaiting repairs, a cyclone hit Airlie Beach and being unpowered the ship could not be moved. She was blown into shallow waters and rested upright on a muddy sea bed.

The owner attempted to make a claim on the insurance policy however the insurer determine that the boat was not seaworthy and therefore the insurance policy was invalid and declined to pay the claim. The ship ultimately fell onto her side and flooded. Attempts to require the owner to remove the ship failed and it was ultimately removed by MSQ.

**all photos courtesy of Google – not to be used for publication*

Before



After



Case study two

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.



Case Study three

The Haba V was a large (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 a number of 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 by MSQ before the insurer agreed to raise the ship and remove her from Queensland waters. This involved issuing a direction to the administrator on the basis that as they were operating the company's bank accounts and making decision in relation to how the ship was operated, moved and recovered, they fell within the expanded definition of a ship's 'owner' pursuant to section 9 of the *Transport Operations (Marine Safety) Act 1994*.

Further, 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.



Appendix two – Insurance comparison

Company	Coverage		
RACQ Boat Insurance Policy - Product Disclosure Statement RTBI2 03/17	Included	<p>Loss or damage to your boat caused by an incident that happens during the period of insurance.</p> <p>Includes The hull, decks, cabins and all permanently fixed deck and cabin hardware, The motor shown on your Certificate of Insurance, The trailer shown on your Certificate of Insurance, Other equipment shown on your Certificate of Insurance which is on your boat but not permanently attached to the hull, Built in safety equipment like global positioning systems, two way radios and depth sounders, 4 Masts, spars and rigging, 4 Sails.</p>	
	Exclusions	Specific	<ul style="list-style-type: none"> • If someone steals your boat when it's on land and is left unattended, and you haven't taken reasonable steps to secure it. • Loss or damage to sails if they are split by wind or blown away when set (but we do cover your sails if your boat has been stranded or has collided with another object). • Loss or damage to paintwork that does not match the manufacturers specifications • Loss or damage to the tyres on your trailer caused by: applying the brakes, or bursting, cuts or punctures. • Loss or damage to sails, masts, spars and rigging if: your boat is a yacht or sailing boat, and you are racing your boat. But we do cover you if you have the optional benefit 'Racing' • Loss or damage to motors, electrical machinery, batteries or equipment. But we do cover those items if the loss or damage results from: heavy weather which causes your boat to be submerged, your boat sinking, getting stranded or burnt, your boat colliding with something, or someone stealing the items with signs of forced entry or forcibly removing them from your boat. • The cost to fix a defect or design or construction fault to any part of your boat. • Any unrepaired damage to your boat which exists before an incident happens. • Loss or damage caused by: wear and tear, electrolysis, osmosis, rusting or other types of corrosion, or insects or vermin. • Any loss or damage to your boat that happened before you took out your policy with us. • Any reduction in your boat's value after it has been repaired. • Any indirect loss resulting from loss or damage to your boat including: financial loss or damage (e.g. you can't use your boat), or any inconvenience or other non-financial loss of any kind (e.g. loss of enjoyment from not being able to use your boat). However, this exclusion does not stop you from making a claim for any extra benefit or optional benefit you may be entitled to
		General	<ul style="list-style-type: none"> • Boat use - Your boat is being used: for a purpose other than what it is designed for; for commercial purposes including hire or charter; in an unlawful way or for an unlawful purpose; in an <i>unseaworthy or unsafe condition that was known to you or should have been reasonably known to you and the condition contributed to the incident</i>; unregistered when it is required to be registered • Computers and data • Confiscation and repossession • Deliberate acts • Driver responsibilities • Pollution, contamination or the presence of asbestos or other airborne contaminants. • Radioactivity • Safety and security • Terrorism or war • Your boat is more than 200 nautical miles from the Australian or Tasmanian mainland. • Your boat is a powerboat and is being used in time trials or racing. • for water skiing (unless under Boat Comprehensive Insurance you have the optional benefit 'Water skiing' – see page 23).

Club Marine <i>Pleasure craft insurance</i>	Included	Accidental Loss or Damage to Your Boat	<ul style="list-style-type: none"> • Accidental Loss of or Damage to Your Boat • Repairer's Negligence • Theft of Your Boat • Damage resulting from a Latent Defect which has caused loss or damage to Your Boat (but excluding the cost of rectifying the Latent Defect itself) • Lawful Seizure, but not if it results from a lack of reasonable care in the safeguard, protection and/or security of Your Boat or illegal activities • Recovery/Detention <p>We will also pay, over and above the Section 1 sum insured shown on the schedule, but <i>not exceeding an amount equal to the value of the Boat</i> in the aggregate per event the cost of removing the wreck of your boat where You <i>are legally required to remove it by local or government authorities</i></p>
		Liability to other people	<p>The discharge, release or escape of fuel, lubricants or sewage from holding tanks other than liability arising from or connected with:</p> <ul style="list-style-type: none"> • Your own <u>recklessness, deliberate actions or misconduct</u>; • The <u>recklessness, deliberate actions or misconduct</u> of any person in possession of Your Boat with Your permission; • Fuel or lubricants not being used in connection with the operation of Your Boat at the time of loss;
		Injury to the Named Insured	<p>If a Named Insured is Injured in an Accident and that Injury results in: Death; Permanent and Total Loss of sight of an eye; • Permanent and Total Loss of the use of a limb; • Permanent and Total Loss of the thumb or index finger.</p>
	Exclusions	Specific	<p>We will not cover legal liability:</p> <ol style="list-style-type: none"> 1. Incurred by Boat builders, repairers, yacht clubs or marina operators unless they are in charge of or in control of Your Boat in an emergency for the purpose of minimising any loss or damage covered by Section 1 of Your Policy; 2. Arising other than from the Hull, Motors, Masts, Spars, Rigging, Sails, Equipment and Accessories being on and/or used on Your Boat, Boat Tender or Trailer; 3. Incurred while Your Boat is attached to or when it becomes accidentally detached from a motor vehicle in motion, other than during launching or hauling out of the Boat from the water; 4. For loss or damage occurring to property owned by You or in Your physical or legal control or owned by any person using Your Boat or in their physical or legal control; 5. For the death or Injury of a person who is employed or contracted in the operation of Your Boat or should have been covered by any compulsory compensation insurance; 6. For disease that is transmitted by You or anyone using Your Boat; 7. Arising out of the towing of any persons or objects in the air including but not limited to hydrofoiling, parasailing, paragliding and the use of aerial devices (including air chairs). However, this exclusion will not apply to instances where skiers become temporarily airborne during normal skiing/wakeboarding activity; 8. For any fines or penalties and/or aggravated, punitive or exemplary damages; 9. For any relief or recovery other than monetary amounts; 10. Arising from a contract that imposes on You a liability which You or a covered person would not otherwise have other than a lease or berthing agreement with You for the provision of a berth, mooring or storage facility for Your Boat as provided above; 11. That is in any part covered in any way by any: (a) statutory or compulsory insurance Policy or statutory or compulsory insurance; or (b) compensation scheme or fund; even if the amount recoverable is nil;

			<p>12. Arising directly or indirectly out of or in any way connected with, the existence, at any time, of asbestos;</p> <p>13. Arising directly or indirectly from or in any way connected with, the existence, use, operation or maintenance, at any time, of Computer Technology, electronic mail, a computer virus, an internet site or other internet based service, intranet or any web site;</p> <p>14. Any claim directly or indirectly caused by the use of Diving Equipment.</p>
		<p>General</p>	<p>Any claim arising from an incident involving Your Boat or any Boat covered by this Policy, when it is outside the Geographic Limits unless Specifically provided by this Policy; or You advise Us and We agree to extend in writing</p> <p>Any claim arising from an incident involving Your Boat or any Boat covered by this Policy, when it is being used for hire, charter or reward of any kind unless You first advise Us and We agree to extend cover in writing</p> <ol style="list-style-type: none"> 1. Any claim arising from an incident involving Your Boat or any Boat covered by this Policy, when that Boat is under the control of: <ul style="list-style-type: none"> • An unlicensed person when a licence is necessary; • A person without adequate experience to reasonably control that Boat; • A person under the influence of alcohol or drugs; or • A person who has been refused Boat or motor vehicle insurance within the last five years unless We have been notified of the refusal and We have subsequently agreed to cover such a person under this Policy. 2. Racing (other than social yacht racing) 3. Wear and tear 4. Inherent vice 5. Vermin 6. Delamination, deterioration, corrosion and electrolysis 7. Over powered Boat 8. Pollution - Any claim caused by or arising as a result of pollution or radioactive contamination except as otherwise specifically covered in the Policy. 9. Boat condition - Any claim caused by or arising as a result of the unseaworthiness, lack of repair or maintenance of Your Boat or any Boat covered by this Policy 10. Water-skiing 11. Safeguard (lack of care) 12. Nuclear 13. Fraud 14. Deliberate act 15. Unlawful purpose 16. Mooring - Any claim for loss or damage caused by or arising as a result of the mooring used by Your Boat or any Boat covered by this Policy not being: Of a suitable design and weighting for Your Boat or any Boat covered by this Policy; Appropriately sited; and/or Regularly maintained on at least an annual basis and in good order. 17. Speed 18. Computer software 19. Terrorism and/or war

Appendix three – example of public comment regarding the limitations of boat insurance



The image shows a screenshot of a Facebook post and its comments. The post is from a user whose name is redacted. The post text discusses the user's experience with boat insurance, mentioning Cyclone Debbie and the limitations of insurance in the area. The post has 4 reactions, 20 comments, and 3 shares. Below the post, there are four comments from other users, all with redacted names. The first comment is a 'Like' from 3 weeks ago. The second comment is also a 'Like' from 3 weeks ago with 1 reply. The third comment asks 'Have you tried' and is from 3 weeks ago with 1 reply. The fourth comment says 'try [redacted] insurance. good luck' and has 1 like.

 [Redacted Name]
25 September at 14:32 · 🌐

We had boat insurance with [Redacted] and they were brilliant throughout Cyclone Debbie, but has just been advised they will no longer offer boat insurance in the area. I have called [Redacted] [Redacted] (would not insure anything over \$60 and was astronomical in price), ...NONE of them will insure because we are in a cyclone area, and they will not insure craft over 34feet!
(Our yacht is 35 feet) [Redacted] was of course just totally overpriced and needed surveys every 3-5 years. [Redacted] was the only one that was willing to insure at a reasonable price. Who would you recommend? I have heard not to go with [Redacted] — 📺 looking for recommendations.

👍👍👍 4 · 20 Comments · 3 shares

👍 Like · Share

 [Redacted Name]
Like · 3w

 [Redacted Name]
Like · 3w
↳ 1 Reply

 [Redacted Name] Have you tried [Redacted]
Like · 3w
↳ 1 Reply

 [Redacted Name] try [Redacted] insurance. good luck
👍 1

Attachment I – Artificial Reefs

Moreton Bay artificial reefs



Fish populating the 'fish boxes' at North Moreton Artificial Reef.

The Queensland Government has established seven artificial reefs in Moreton Bay Marine Park. These reefs provide recreational anglers with a range of exciting fishing opportunities in the marine park.

https://www.npsr.qld.gov.au/parks/moreton-bay/zoning/trial_artificial_reef_program.html

War on Wrecks Taskforce Interim Issue Brief

Use of recovered vessels as artificial reefs

Comments received in response to a TMR/MSQ facebook post indicate a level of support for use of recovered vessels as artificial reefs.

In Australia the placement and construction of artificial reefs are regulated under the *Environment Protection (Sea Dumping) Act 1981 (Sea Dumping Act)*. Therefore, organisations wishing to create an artificial reef will require a sea dumping permit.

Artificial reefs are usually constructed for:

- recreational use (e.g. scuba diving, fishing)
- increasing or concentrating populations of marine plants and animals

Permits are necessary to ensure that appropriate sites are selected, materials are suitable and appropriately prepared, there are no significant adverse impacts on the marine environment and that the reef does not pose a danger to marine users.

Applicants must clearly demonstrate that the proposed project is appropriate for an artificial reef. Reefs may only be created for legitimate purposes (i.e. not waste disposal) and cannot pose a significant threat to users or surrounding environments.

The timetable for artificial reef projects is generally 12-18 months from the time of acquiring the vessel to the date of reef placement.

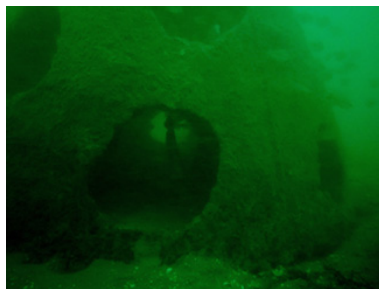
Derelict vessels are rarely suitable as artificial reefs. Many requirements need to be satisfied before a derelict vessel could be deemed a beneficial artificial reef. Considerations include the vessel's size, shape, weight, its remaining structural integrity, underwater life expectancy, presence/absence of any pollutants and containments, along with its ability to be safely and easily deployed.

In addition, there needs to be consideration to the proximity of a suitable receiving environment. An appropriate location to satisfy future access, avoid creating navigational hazards, and determine an appropriate long term purpose e.g fishing/diving etc needs to be identified.

Very few derelict vessels can satisfy all these requirements nor can they be easily, safely and cost effectively deployed to create a functional artificial reef. Rather it usually presents as sea dumping, merely shifting a problem from one location to another, and at a cost greater than disposal.

Generally, the preparation of a vessel for deployment as an artificial reef is extremely costly and time consuming and that is for a reef where diving is not permitted. If the site is to be dived it escalates the preparation cost and time three fold. Due to lessons learnt there is a strong desire to shift from the use of "materials of opportunity" towards purpose designed, engineered, certified, built structures. These purpose built artificial reefs maximise the productive life of the reef and minimise the whole of life maintenance costs through design thereby eliminating all the issues associated with trying to repurpose derelict vessels.

Cardinal fish make this reef ball their home.



Attachment J – Donation of vessels

War on Wrecks Taskforce Interim Issue Brief

Donation of derelict vessels to community

Comments received in response to a TMR/MSQ facebook post indicate a level of support for give-away vessels recovered vessels.

Many of the vessels identified for removal are not in a condition that would warrant repair. For others, there is a risk that if donated, they would reappear in Queensland's waters as derelict vessels at some time in the future.

Where vessels are in reasonable condition, they may be sold at auction to recover cost to government of their removal.

Evening Star

Vessel appears to have been built professionally - Day Dream 28 - most likely circa 1960/70. The vessel would be described as a conventional canoe stern sloop, constructed from ply and timber. The vessel's structural integrity has been compromised from environmental factors (sinking) and its subsequent recovery.

The durability of the plywood has been so affected by the timber deterioration, the entire hull sheathing (ply) would necessitate replacement to consider the ship seaworthy that is if the ship intended to be returned to the water.

Appreciable deterioration* in combination with the compromised structural integrity of the hulls scantlings* as such would require extensive investigation/repairs.

Galvanic/electrolysis corrosion in the mast will affect its structural and mechanical strength and would require professional repairs/replacement.

The value of the ship prior to its sinking, that is, taking into account and believing the ship was seaworthy with the engine running – sails/rigging being in a fair and reasonable condition would be estimated at \$5,000. Refurbishing this ship as to be in a similar condition as for figure seven would be in the vicinity \$20,000 – 25,000. A similar vessel in completely refurbished condition is currently listed for sale at \$19,000.



Attachment K – Unintended consequences - housing

Whole-of-life vessel strategy

Transitioning persons living on unseaworthy vessels into affordable housing

Background:

The Department of Housing and Public Works has been requested by Department of Transport and Main Roads to provide a briefing regarding the process of transitioning persons living on unseaworthy vessels into affordable housing to be tabled at the taskforce meeting to be held on 26 October 2016.

Policy and procedures:

Eligibility:

To be eligible for long term social housing, applicants must be eligible by meeting all five eligibility criteria of:

- Australian Citizenship or Permanent Residency
- Queensland Residency
- Assets Test (including the property ownership component and the liquid assets component)
- Independent Income
- Household Income Limits.

and, **in addition to the above eligibility criteria**, meeting **at least one** of the criteria under the Appropriateness eligibility criteria:

- Homelessness and Temporary Housing - identifies households that are homeless or at risk of homelessness
- Location - identify households which must move or remain where they are to access essential facilities or support services.
- Physical Amenity - identify where the design and/or size of current housing does not meet the household's needs, or where there are health and safety risks with the current housing
- Rent Affordability - identify applicants whose current weekly rent is unaffordable against established bench marks when calculated as a percentage of gross household income
- Formation of New Households - identifies an applicant with a physical or psychiatric disability or mental illness

Income and Assets:

- Live aboard boats form part of the eligibility criteria for long term social housing
- Live about boats are not a component of Property Ownership under the Assets Test
- Live about boats form part of the liquid assets component of Assets Test.
- The combined liquid assets limits must be within the current liquid asset limits for the household size. The current liquid assets limits are:
- Single person household - \$116,375.00
- Two or more-person household - \$148,625.00
- If the vessel is over 10 years old, written estimation of the value of the asset by the customer is required.

- If the vessel is under 10 years old a current documentation stating the value of the vessel is required i.e. receipt of sale, valuation less than one year old, value listed on insurance documentation.

Applying for housing assistance:

- To apply for housing assistance, applicants must complete the Application for Housing Assistance form and supply all necessary evidence before their application can be assessed.
- The department uses the Client Intake and Assessment Process (CIAP) to determine if applicants are eligible for housing assistance and to prioritise their level of housing need based on the outcome of a Housing Need Assessment (HNA).
- The assessment process should determine if people are eligible for assistance and should be applied flexibly to allow the use of discretion to ensure a responsive approach in the delivery of public housing.

Service Delivery Transformation under the *Queensland Housing Strategy 2017-2027*:

- The department's Service Delivery Transformation will deliver a new person-centred service approach, that considers the holistic circumstances of the person, rather than just their housing need. This approach will allow the early identification of a customer's needs to inform an immediate response, with effective linkage to relevant housing assistance, including products to assist customers into private rental, and support services. Longer-term responses will then be developed to ensure sustainable housing and support outcomes are achieved for the customer.
- With the introduction of home pathway planning, the department will be able to work alongside the customer to assist in maintaining contact with support services, develop immediate, short-term and long-term goals and actions to achieve these goals.

Housing assistance products:

- The department has developed new private rental products to assist customers access or sustain private rental. The addition of the new products builds on the resources available to staff to provide a tailored wrap around customer-centred response.
- The department's RentConnect service provides assistance to people through the provision of information, liaison with real estate agents and documentation to support private rental housing applications. Additionally, the department can provide a rental guarantee to landlords on behalf of customers.
- Bond Loan Plus (BLP) expands on the existing Bond Loan (BL) product and was developed to respond to a service gap for customers wanting to access housing in the private market who may not have sufficient savings for the bond and two weeks rent. BLP is the equivalent of up to 6 weeks rent – BL and 2 weeks rent. The loan is repaid over 18 months with a minimum repayment of \$60 per month.
- RentConnect Tenancy Guarantee (TG) is a product offered to a real estate agent or landlord to provide more security and reduce risk when agreeing to house a departmental customer. The objective of the TG is to house customers that are experiencing non-financial barriers into the private rental market and provide confidence that the tenancy is sustainable.

Appendix 5 – Case Studies

War on Wrecks Case Studies 2

November 2018

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1. Reward

1.1 Overview & Initial Contact

Between June and July 2018, an officer from Roads and Maritime Services (RMS) from New South Wales alerted the Gold Coast office of Maritime Safety Queensland that a 16 metre vessel under removal order in NSW had been sold to a Gold Coast resident in Biggera Waters. The advice provided was that it would be likely the vessel would be re-located north over the border into Queensland waters on the Broadwater.

In late August 2018, Marine Officers observed a large white vessel laying at anchor near Currigee on South Stradbroke Island. The vessel displayed NSW registration, and appeared to be anchored safely and correctly outside the navigable channel, and did not appear to be derelict.

On 29 September 2018, reports and complaints were received advising that a vessel had floundered and was partially submerged in the “keyhole” on the south western end of Wavebreak Island on the Broadwater. Upon inspection, it was determined that the vessel subject of the reported incident was the previously observed vessel from Currigee. A check with RMS revealed that the vessel was as the *Reward* and ownership had been transferred to a person living in Queensland, establishing the link between the vessel and the information provided by RMS.

1.2 Condition assessment

The vessel MAY have value once recovered and a sale via auction will be considered once vessels' worth is assessed post salvage.

1.3 Timeline of Procedures

06/18-07/18- Gold Coast MSQ Office alerted by RMS NSW that the *Reward* had been sold to Gold Coast resident.

08/18- MOs observe *Reward* laying at anchor near Curigee on South Stradbroke Island- it did not appear to be derelict.

29/09/18- Complaints received about floundering, partially submerged in the “keyhole” on the south western end of Wavebreak Island on Broadwater. Vessel inspected and identified as *Reward* and its owner identified.

13/10/18-14/10/18- Owner observed attempting to pull vessel upright - this being the weekend prior to the expiry of the Harbour Master's Direction the owner was issued with 2 weeks prior.

15/10/18- All equipment removed from beach, with no sign that vessel had been shifted or altered in any way.

19/10/18- Attempts made to contact the owner went unanswered before 5PM, when notice expired. The owner would later contact MSQ at 5:03 pm, saying he had been holidaying and would be prepared to deal with the vessel on Monday.

24/10/18- Investigating Officer alongside MSQ-employed timber boat builder/surveyor conducted inspection of *Reward* with the owner present- the owner was cooperative and allowed un-impeded access. The owner agrees to interview with MSQ on 31/10/18.

Later that day, contractors would successfully refloat and secure *Reward*. The owner takes the vessel to an at that stage unknown destination while the contractors were absent from the vessel for a short period of time. Contractors equipment was also on board.

27/10/18- Gold Coast Waterways Authority responds to an obstruction in the Coomera River, yellow Special Marker deployed. Vessel was later identified as the *Reward*.

30/10/18- the owner issued second Direction to remove obstruction in Coomera River. Fails to comply.

15/11/18- MSQ removes vessel from Coomera River

1.4 Cost assessment

Initial removal - \$6,000

Removal of submerged vessel - \$18,000

1.5 Photos



2. Senrab

2.1 Overview & Initial Contact

On 16 December 2016 Marine Parks from White Patch on Bribie Island, reported to Maritime Safety Queensland at Mooloolaba that the vessel 'Senrab' had sunk in the Pumicestone Passage at White Patch. A search of TICA indicated that the vessel was owned by a Queensland resident. Marine Officer A contacted the owner later that day and asked that person to attend the vessel, Request agreed to.

Marine Officer B contacted the owner on 4 January 2017 and asked him/her what he/she had done to remove the vessel from the water. The owner said that he/she had engaged some contractors to remove the vessel and they had made three attempts but failed. The owner said that he/she was out of money but would continue to try and engage another contractor. MO B asked the owner to keep in contact with MSQ at least once a week. MO B also provided the owner with the contact number of a local salvor. The owner agreed to remain in contact. To date the owner has not contacted MSQ or the supplied salvor and will not answer calls.

2.2 Condition assessment

While there have been concerns that the vessel is a navigation hazard, its current location places it far out of the main channel.

However, upon recent inspection, part of the vessel's superstructure had deteriorated, resulting in the ship slipping down the bank. While still not a direct navigational threat, the vessel has nevertheless been marked with a yellow buoy.

2.3 Timeline of Procedure

16/12/16- Senrab's sinking in Pumicestone Passage reported to MSQ- investigation identifies the owner of the vessel Owner contacted later that day to attend his vessel, to which owner agreed.

04/01/17- owner contacted to follow up on steps taken to remove vessel- claims to have engaged contractors to remove vessel, but these attempts failed

16/01/17- Vessel visited by Marine Office- photos taken for report.

17/01/17- Regional Harbour Master contacts owner, states concern that vessel is a navigational hazard, and issues direction to remove vessel from waters by 6 February 2017.

17/03/17- MSQ contacted by officer of Marine Parks, explain they were unable to pursue owner for non-compliance with direction. Updated address for owner issued, removal of vessel left in care of Marine Parks.

12/12/17- Moreton Bay Regional Council contacts MSQ over concern *Senrab* is a navigational hazard. Inspection conducted, and special mark buoy placed to mark location of wreck.

26/07/18- Marine Officers visit address of owner, where owner was not found- different address provided upon investigation the following day.

27/07/18- Officers visit owner's updated address- no-one in residence, but vehicle found that was registered to owner. Real estate agent in charge of property would later confirm owner lived at address. MO C contact details left at residence and with agent.

Later that day, decision reached to issue owner with Shipping Inspector's Declaration.

30/07/18- Direction issued to owner, and mailed to registered address the following day- direction expired 30 August 2018 and no action taken. Vessel to be removed by MSQ.

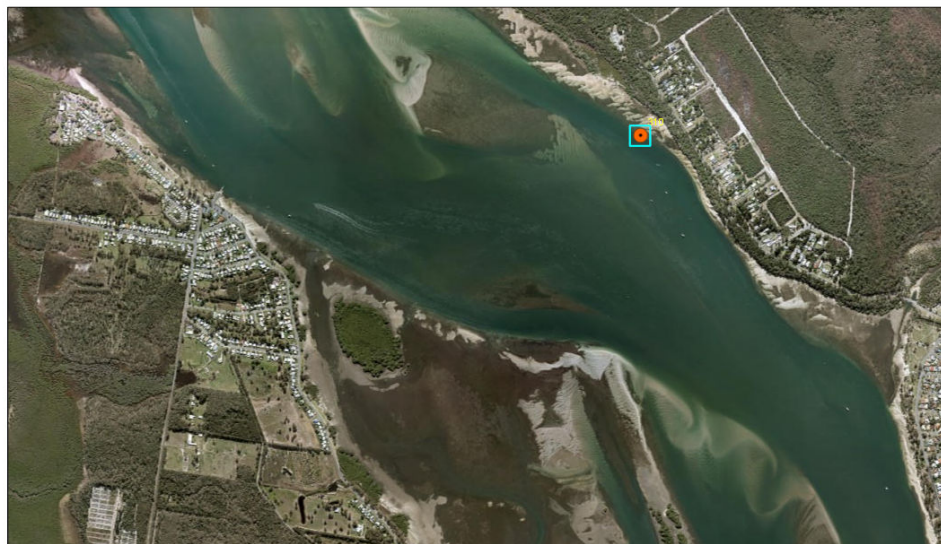
2.4 Cost assessment

Removal of similar vessels from this area put the costs somewhere between \$30 000 to \$50 000 to remove and dispose of vessel.

2.5 Photos



Senrab - Derelict vessel



7/31/2018 9:48:02 AM

Local Government Areas - DNRM

Coastal waters - 3 nM limit

0 0.13 0.25 0.5 mi
0 0.2 0.4 0.8 km

Geonames, Australia, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Maritime Safety Queensland - Spatial Services
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3. Capucine

3.1 Overview & Initial Contact

On 27 August 2018 it was reported that a yacht had been observed dragging its anchor in Moreton Bay. There were no persons onboard the yacht. Volunteer Marine Rescue (VMR) requested to relocate the vessel to the Maritime Safety Queensland enforcement mooring at Bongaree in the Pumicestone Passage. This task was completed on 28 August, along with inspection of the vessel was undertaken and photographs taken.

On 05 September 2018 SC A of SCWP made contact with the owner of the unit complex where owner resides. SC A gave the owner MSQ contact details. I later received a call from the owner of units who told me that he had spoken with owner of the vessel about the yacht and had been told that the yacht had been sold in Darwin in 2012. He also said that vessel owner had been homeless for some time and was surprised that he was still contacted to the yacht. Unit owner provided MSQ with vessel owner's current contact. Owner advised vessel sold to a person in Darwin in 2011 and that it was on hard stand at a yacht club for about six months. The new owner walked away leaving the yacht at the yacht club. Vessel owner has lost any paper work relating to the boat since selling the boat.

An email was forwarded to Redland Bay Water Police requesting any information that they or local VMRs may have about the vessel. Vessel not known in the area.

Vessel to be removed from Queensland waters and relocated to hard stand where full assessment of the value vessel can be made preceding a possible sale by auction.

3.2 Condition assessment

There appeared to be evidence onboard that someone had been on the yacht recently. The cabin of the vessel was in disarray with most items scattered on the deck. This would possibly been due to the vessel being battered by sea conditions in Moreton Bay.

A notice was placed onboard the vessel. A member of the VMR crew handed me a note that was found onboard the yacht. This identified the yacht owner.

3.3 Timeline of Procedures

27/08/18- Vessel sighted dragging anchor in Moreton Bay- request made to relocate vessel.

28/08/18- Relocation completed successfully and inspection conducted- evidence that yacht had been recently used. Owner identified.

05/09/18- Owner of unit complex contacted and provided with vessel owner contact details. Owner of the vessel claims the yacht was sold in Darwin in 2011 or 2012 to new owner, who has since abandoned the vessel and does not possess paperwork since lost it due to travels following sale of yacht.

3.4 Cost assessment

Vessel to be removed from Queensland waters and relocated to hard stand where full assessment of the value vessel can be made preceding a possible sale by auction.

3.5 Photos



4. Jessica

4.1 Overview & Initial Contact

“Jessica”, a 9m fibreglass yacht, was reported sunk at Port Alma in November 2016. Upon inspection, the sunken vessel was showing 3 meters of mast on high tide. The last known owner (according to records) was contacted and said they would remove the vessel.

Over the course of two years, there would be an extended investigation and multiple attempts made to ensure the owner complied with direction and removed the vessel from the water, and little progress was made- though there was an incident that led to QPS discovering a number of illegal firearms and weapons on the premises of the vessel’s owner.

Following an investigation that revealed the owner appeared to be attempted to break the vessel up, and with no other action taken toward removing the vessel themselves, MSQ began procedures to remove the vessel on 29 October 2018

4.2 Condition assessment

“Jessica” was found submerged, showing approximately 3 meters of mast on high tide, and was determined to be a navigational hazard.

On 29 October 2018, following the discovery of the vessel’s mast on the sea-bed near the vessel- in spite of the owner’s claims it had been removed- there was concern from MSQ Gladstone that the owner intended to use the vessel’s anchor to break the vessel up- which would result in a significant amount of debris in the sea bed.

4.3 Timeline of Procedures

11/16- Jessica reported sunk at Port Alma- yellow buoy installed to mark location of sunken vessel as navigational hazard.

01/17- Several attempts made to contact or locate owner, which were unsuccessful.

03/17- Investigation conducted into identity and location of last know owner. Owner located and contacted- owner claimed to be aware of vessel and preparing to remove it. Contacting owner had proven challenging due to not answering calls and having two different addresses.

24/07/18- Vessel still not removed- Marine Officers attempt to reach owner at their home- owner did not answer, although it was clear that there was someone present at residence. Card left at residence, and enquiries with locals confirmed the address as the correct one to contact owner.

07/08/18- MSQ officers attended address again and located owner at rear of house (at this point, owner was found cleaning a firearm, which they attempted to hide. Later QPS investigation revealed a number of illegal firearms and items in residence and vessel.) Owner claimed to be in process of vessel removal- intended to do so on following weekend (11/12). Owner given further 28 days to remove vessel.

05/09/18- Enquires made, and vessel still found to be in place- compliance action plan completed and approved by RHM and compliance unit.

14/09/18- RHM Direction issued to owner to remove vessel by 12 October 2018

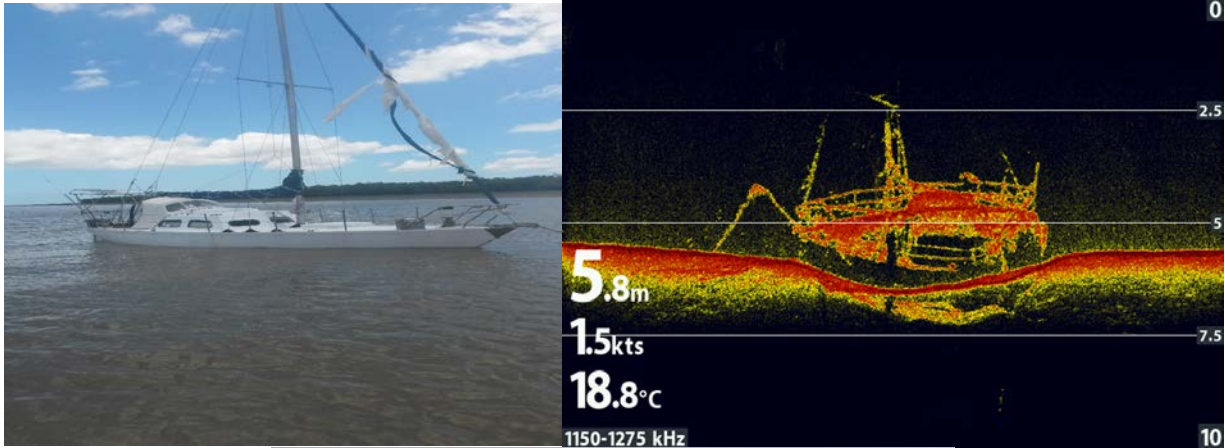
29/10/18- Owner had still not removed vessel and had not provided MSQ with any reasonable excuse as to why- MSQ making preparation to remove vessel.

19/11/18- Compliance Action Plan completed- contractor to commence vessel removal 20/11/18, with an estimated time of 3 days.

4.4 Cost assessment

Estimated removal costs are between \$10,000-20,000, pending involvement of local council.

4.5 Photos



5. Coral Viewing Platform

5.1 Overview and Initial Contact

Long-term 9m x 5m x 3m steel structure – sunk/abandoned in front of Whitsunday Sailing Club rock wall in 2010. Currently marked by lit special mark.

No details of how structure came to be in location or ownership.

Abandoned property notice expires early November 2018.

5.2 Condition assessment

Difficult to assess condition of platform – due to prolonged exposure, it is doubtful there would be any residual value.

5.3 Timeline of Procedures

Abandoned property notice expires early November, 2018. Procurement process to remove vessel commenced.

5.4 Cost Assessment

\$150,000

5.5 Photos



6. Castlemaine

6.1 Overview & Initial Contact

On the 26th of June 2018, a report was that a vessel later identified as the CASTLEMAINE YH523Q had taken on water and had sunk in the shallows within the mooring area adjacent to Russell Island. Concerns were raised that if the vessel floundered further and broke apart it may present a navigational hazard to their ferries.

On the 27th of June 2018, Marine Officers attended the scene on board the QGV COWAN and were able to identify the vessel via the registration label attached to the windows. Subsequent checks and inquiries revealed that the vessel hadn't operated in 18 months and was registered to a resident who in Queensland.

The Area Manager has been in contact on multiple occasions with owner, and in spite of claims that owner intends to re-float the vessel, has repeatedly failed to do so by specified dates.

The vessel remains fast to the sea floor lying on her starboard side with tides flooding and ebbing with little change to her status. It is highly unlikely that the owner will have any success in re-floating the vessel without commercial assistance and it is believed this will not happen due to his financial situation.

6.2 Condition assessment

When inspected, the vessel was deemed a hazard to navigation. The waters surrounding the vessel are navigable in small craft at most tides and lines and anchors used to secure the vessel to the shoreline extend several hundred metres through the small craft mooring area. It is possible that the vessel may move on high tides combined with strong winds and be pushed into deeper water.

If the vessel breaks apart, the floating debris may result in damage to nearby users of the channel including passenger ferries.

6.3 Timeline of Procedures

27/06/18- Officers attend to Castlemaine at site of sinking- owner of vessel identified.

02/07/18- Area Manager meets with owner, who advises that he intends to refloat vessel. Attempts over following days are unsuccessful.

23/07/18- Officers attend site again- vessel in same location and in a similar situation as previous inspection- safety risk discovered in relation to lines extending from vessel to shore 150m away- presents a navigational risk to other ships.

Area Manager contacts owner and directed to remove lines- owner claims a visit from a relative was reason for lack of action.

25/07/18- Follow-up visit shows lines still in place, direction not followed.

28/09/18- Harbour Master's Direction expires- has not been followed.

15/11/18- contract to remove vessel awarded

6.4 Cost assessment

\$20K – removal will likely be detrimental to vessel structure.

6.5 Photos



7. Susie Lou

7.1 Initial Contact & Overview

The *Susie Lou* is a 20 metre steel monohull Queensland Regulated Ship currently registered in Victoria. The vessel owner is identified, who uses the vessel as primary place of residence. The vessel is moored on a Gold Coast Waterways Authority buoy mooring at Deepwater Point near Labrador on the Gold Coast. Owner had relocated from Victoria close to 23 years ago on the vessel and has since resided in Queensland. Owner was granted Unrestricted Buoy Mooring Authority on 9 July 1994.

On 11 October 2017, Marine Officer A, accompanied by members of the Gold Coast Water Police, responded to a written complaint concerning the *Susie Lou* by conducting an investigation around the allegations made concerning the vessel. The charges made against the *Susie Lou* and owner included: failure by owner to insure his vessel; the discharge of untreated sewage into nil discharge waters; and being in ownership of a Queensland Regulated Ship that has not been properly registered, with no reasonable excuse on owners part as to why this is the case.

7.2 Condition assessment

The *Susie Lou* has several potential hazards: when boarding the vessel for inspection, it was noted that the abundance of work benches, welding equipment, steel, timber, engine parts, and associated equipment crowded the entire aft deck making access or abandonment in an emergency situation difficult. These were also identified as pollutant as they could cause considerable harm were the ship to capsize or these items were to fall free from the ship.

Several 200 litre steel drums were also located that were allegedly being used as ballasts by owner. There was also 40 to 50 litres of engine oil found in the bilge, and a 12 volt bilge pump that was continually discharging out into the water.

Additionally, several other items were identified as flotsam or items that would pollute Queensland Coastal Waters if the vessel sunk or suffered another type of emergency. Evidence suggest the hull had not been properly maintained in 22 years, and that the main engine was inoperable.

7.3 Photos





8. Firefox

8.1 Overview & Initial Contact

The vessel with previous registration JY376N was issued a notice Authorised Officers Direction Sect 86(A) on the 18/06/2018 in the Cairns Harbour for potential pollution risk.

August 2018 new owner purchased the vessel and carried out repairs to rectify issues.

Between August and September, repairs undertaken and vessel returned to water. MSQ Cairns issued a Restricted Use Authority to allow the vessel to moved to Townsville for further repairs.

At 8 am on 23 September 2018, a 23 metre vessel named *Firefox* steaming from Cairns to Townsville was grounded on the reef in front of Brook Island, North East of Cardwell after having significant engine and electrical failure.

2 POB rescued early by friend assisting in another vessel. Queensland Water police attended and rescue 2 more POB once the vessel was assessed as not recoverable.

After becoming stranded on Brook Island, the Great Barrier reef Marine Park Authority issued a notice to remove the vessel from the highly sensitive marine park area.

The vessel has been determined lost and waiting for removal and assessment.

8.2 Condition assessment

Vessel is now in poor condition.

8.3 Cost assessment

May be in excess of \$500,000 to remove.

8.4 Photos



9. Defender

9.1 Overview & Initial Contact

The *Defender* is a 35-meter reconstructed timber coastal trading ketch. It's one of the last surviving examples of the coastal trading ketches that were built in Australia during the late 1800s and early 1900s. Little remains of its original structure, however, as it was effectively rebuilt in the 1980s as part of Australia's Bicentennial celebrations in 1998. The *Defender* had been laid up in Townsville since November 2008, first on hard-stand at Ross Haven Marine before being moved to a berth in Ross Creek in July 2001.

On 5 January 2016, *Defender* was reported sunk at its berth in Ross Creek. MSQ responded and secured a pollution boom around the vessel, and issued a direction to owner to remove the vessel from Queensland waters.

9.2 Condition assessment

Preliminary inspection by a diver revealed that a loss of watertight integrity occurred because of the failure of a section of hull timbers. The vessel had already been awaiting repairs following an engine room fire 7 years prior to its sinking at its berth.

9.3 Timeline of Procedures

05/01/16- Vessel reported sunk at Ross Creek- MSQ responds by creating pollution boom around vessel, and issuing direction to owner to remove vessel by 11/01/16.

27/2/2016- The owner attempted to sell the vessel to person B for one dollar on 27 February 2016 (after it had sunk at its berth in Ross Creek). The District Court in Townsville has ruled the sale invalid. In spite of the Court's determination person B continues to assert that he is the owner and lobby for the *Defender*'s salvage and restoration.

19/8/2016, the Townsville District Court ordered that the '*Defender*' be removed by 30 October 2016 but owner did not comply and Maritime Safety Queensland (MSQ) on the authority of the court salvaged the ship.

The District Court has ordered that the owner pay the State \$771,913.31 plus considerable legal costs. The State is vigorously pursuing this debt through the courts.

The ship was broken up and disposed of on 26 June 2017.

9.4 Cost assessment

\$645,000 was spent refloating and breaking up the vessel.

9.5 Photos



10. Black Pearl

10.1 Overview & Initial Contact

The Black Pearl was a Soviet-era vessel in operation in Russia during the Cold War. Sunk in a river in the Ukraine in the 80s, she was resurfaced in 1990, and her decks and steel structures layered over with concrete. The vessel was later relocated to New Zealand, and eventually Australia, where she was registered in New South Wales as a recreational vessel, and operated in Sydney, before its relocation to the Brisbane River approximately 2 years ago.

The Black Pearl was found at anchor on Town Reach of the Brisbane River as of June 15 2018, unoccupied and with no clear means of contact with its owner in the event of an emergency. An investigation into the ship's condition was subsequently conducted by MSQ officers.

10.2 Condition assessment

The Pearl is in exceedingly poor condition

10.3 Timeline of Procedures

11/08/18- Arrangements made by ship's owner to have Bhagwan marine tow ship to base before being lifted at The Yard, following exchanges and notices issued by MSQ on ship's non-compliance- move set for 13/08/18

20/08/18- Bhagwan agreed to prepare MEP/towing and slipping plan for Black Pearl following owner's lack of movement on matter delaying original move set for 13/08/18

28/08/18- Bhagwan undertakes move of Black Pearl to base- reports success the following day.

29/08/18- Bhagwan proposes movement of BP from current position in fuel wharf to Aquarium Passage to allow continued operation.

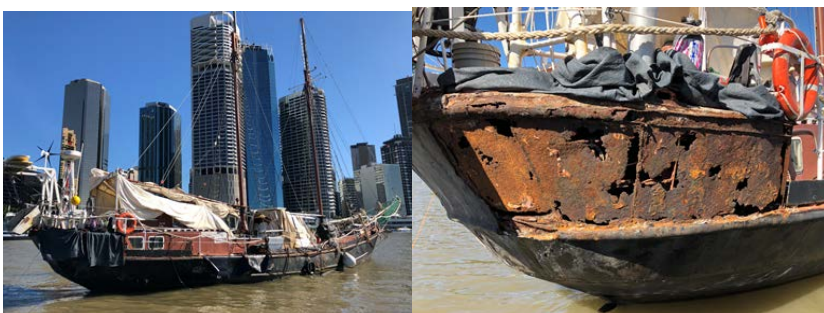
30/08/18- BP towed to the Yard successfully, but will not lift ship due to poor condition- approval granted to relocate ship from fuel wharf to nearby mooring.

27/11/18- Enforcement Order granted by District Court to have owner submit a written towing and slipping plan within 7 days, remove vessel from Queensland waters in 14 days, and provide a \$150,000 ban guarantee to the State Government within 7 days.

10.4 Cost assessment

Current estimate of costs to MSQ of management of Black Pearl are currently between **\$100-150,000**.

10.5 Photos



11. Kew-Ee-Too

11.1 Overview & Initial Contact

The Kew-Ee-Too is a two-storey house boat that was found near Wavebreak Island, anchored away from the beach in semi-deep waters.

An inspection of the vessel was carried out by Marine Officer A on 24 October 2018, whose professional opinion determined the vessel to be unseaworthy and that it should be removed from Queensland waters. The owner contacted Marine Officer B following his attachment of a collector's sticker to the vessel- the exchange was characterised by Officer B as abusive and hostile.

MO B contacted the owner again the morning of 29 November 2018. The owner was more amiable, and made multiple assurances and promises that the vessel would be removed from the water and repaired, however MO B visit to the area in which the vessel was found led to him discovering the Kew-Ee-Too grounded on the beach at Wavebreak Island along with a number of other derelict vessel.

There is also an issue with the vessel concerning its registration- the vessel had been registered at an LOA of 14.8 metres, however it was discovered this had been reduced manually from a LOA of 16 metres.

11.2 Condition assessment

In his inspection, Officer A made a number of broad observations about the condition of the Kew-Ee-Too, which included:

- The ships structure has been designed and built using general domestic house building products.
- Pontoon Hulls are built from HDPE pipe. Modifications to the hulls (Noted: as to bring the ship under 15m).
- Forward nacelle pod (aluminium) fitted in-between the HDPE Hulls.
- Extensive marine growth below the waterline.
- Fundamental structural deformity in the HDPE hulls and deterioration in the ships general superstructure.
- Ship had no means to evacuate collected water from the bilges.

Further to this, MO A concluded in his professional opinion that:

- The ship "KEW-EE-TOO" is currently in a state of dis-repair, due to the bending stress at the deck, if the superstructure was an efficient one, is should be able to absorb a certain portion of the racking sighted in the structure, however the evidence shows the entire superstructure is being adversely affected, as such, the ship should be considered as unseaworthy and removed from Queensland waters.
- The ships electrical installation/equipment is not electrically safe and persons on board are not free from electrical risk. (*Electrical Safety Act 2002 - TO(MS)A 1994 - section 41- General safety obligations about conditions of ships*).
- The repair (aluminium plating) conducted to the aft end of the HDPE hulls should not be considered as an operational repair.

11.3 Timeline of Procedures

24/10/18- MO A conducts inspection of vessel- deems it unseaworthy and must be removed from Queensland waters.

19-25/11/18 - The "Kew ee too" registered at LOA of 14.8 metres – AFE45Q. (Modified with a hand saw from 16 metres in LOA)

29/11/18- MO B contacts owner of vessel following previous hostile encounter- owner assures Knowles that vessel will be removed for water. Inspection later in the day reveals that Kew-Ee-Too had run aground on Wavebreak Island.

11.4 Photos



Appendix 6 – Submissions

Attachment A

Submission – Gold Coast Waterways Authority

SUBMISSION

Gold Coast Waterways Authority

I am pleased to make the following submission for Gold Coast Waterways Authority to the Committee for the War on Wrecks.

Background

The mission of Gold Coast Waterway Authority (GCWA) is to manage and enhance Gold Coast waterways in partnership with other State Government agencies and the public and on behalf of the Queensland Government.

GCWA aspires to set the standard for world-class waterways management – emphasising environmental excellence – to improve the quality of access for open waterways space for the enjoyment of everyone.

In embracing this mission, GCWA is building on its successful infrastructure program while adopting a broader focus on supporting sustainable commercial and recreational uses of the waterways as the Gold Coast population grows. The challenge for GCWA is to manage these multiple uses and ensure acceptable behaviours, as well as preserving environmental values, including water quality and waterways resilience.

An integral part of GCWA's mission is to prevent, manage and, where necessary, remove derelict, abandoned and wrecked vessels from Gold Coast waterways (I refer to these collectively in this submission as '**Wrecks**'). Wrecks are not only unsightly and potentially a safety hazard, they also adversely affect the environmental and community values of Gold Coast waterways.

GCWA has an active program to manage Wrecks and other water traffic, and the purpose of this submission is to outline that program, and to seek the Committee's support for GCWA's suggestions for improved levels of coordination amongst State Government agencies and the boating industry. GCWA also outlines suggestions for legislative reform, including better legislative tools that would allow GCWA to better manage the Wreck problem in Gold Coast waterways.

GCWA notes that key issues being considered by the Committee include:

- 1. Review of the effectiveness of existing efforts to address waterway management and derelict vessels in Queensland.**
- 2. Identification of causal factors that contribute to undesirable waterway management and vessel ownership behaviours.**

- 3. Investigation of best practice strategies that other national and international regulators have successfully implemented to address these factors.**
- 4. Identification of new strategies and initiatives that can be successfully implemented in Queensland to address the issues and assess their impact.**
- 5. Options to improve levels of coordination and collaboration of existing efforts at the local, regional and state level**

I have structured my submission around these key issues.

1. Review of the effectiveness of existing efforts to address waterways management and derelict vessels in Queensland

GCWA works under a range of legislation to manage Gold Coast waterways, the main one being the *Gold Coast Waterways Authority Act 2012* (GCWA Act). The GCWA Act also confers a range of other transport-related legislative responsibilities upon GCWA, such as:

- *Transport Infrastructure Act 1994* (TIA) as it provides for the *Transport Infrastructure (Waterways Management) Regulation 2012* (TIWMR) to regulate certain on-water activities; for example, anchoring and mooring restrictions
- *Transport Operations (Marine Safety) Act 1994* (TOMSA) to carry out certain functions that are not seen as core responsibilities of MSQ within Gold Coast waterways; for example, the administration of buoy moorings and aquatic events, and the management of all aids to navigation and marine signs
- *Transport Operations (Marine Pollution) Act 1995* (TOMPA) to perform the first-strike response for vessel-sourced oil pollution in Gold Coast waterways.

GCWA may only rely upon the tools available in the legislation mentioned above for its management of water traffic and response to the Wreck problem. There are limitations to GCWA's program as it relates to Wrecks, as shown by the following statistics from the last 12 months:

GCWA Act

- removed 10 Wrecks at a cost of \$62K
- recovered \$0 (nothing) from owners.

TIA

- monitored 846 anchored vessels (not Wrecks)
- issued 175 removal notices for unlawfully anchored vessels (not Wrecks)
- removed 9 unlawfully anchored vessels at a cost of \$14K (not Wrecks)
- recovered \$14K from vessel owners (not Wrecks) as removal expenses.

TOMSA and TOMPA

- no action for Wrecks

From experience, GCWA has found that the existing regulatory mix does not adequately enable GCWA to efficiently and effectively execute key responsibilities for waterways management on the Gold Coast, and more particularly, the management of Wrecks can be challenging and frustrating.

As it is presently drafted, there are 3 main issues with the GCWA Act:

1. GCWA employees are not protected in the exercise of their responsibilities to manage Gold Coast waterways in the same way as other State Government employees (for example, employees of Maritime Safety Queensland (MSQ) and port authorities).

2. There are no powers to recover expenses for removing Wrecks, other than for 'abandoned property'. This means that where there is an owner asserting rights to a particular Wreck, GCWA cannot recover expenses under existing provisions.
3. It does not provide the usual enforcement provisions relating to regulatory notices, such as those provided by TIA for port notices and TOMSA for directions¹.

The net effect of these regulatory gaps is that GCWA is significantly constrained in its efforts to manage the Wreck problem. For example, where there is an owner asserting rights to a particular Wreck, even though the owner may be failing to discharge his or her usual obligations as the owner of the Wreck, if GCWA exercises its powers through a waterways notice to manage the Wreck, GCWA cannot then recover its expenses of so doing.

It might be thought that the GCWA Act, given that it is a relatively new piece of legislation, already contains the powers needed to effectively manage Gold Coast waterways. This is not the case. GCWA is obliged by the GCWA Act to manage Gold Coast waterways with a *minimum of regulation* and the drafters of the GCWA Act were cognisant of that, and so the range of powers available are limited.

Importantly, GCWA does not seek to expand its powers in any way that would encroach upon the powers or responsibilities of other State Government agencies. However, there are times when GCWA must act firmly and decisively to efficiently and effectively manage local waterways problems, particularly with respect to Wrecks, and the GCWA Act does not always support that action as it is currently drafted.

There is no doubt that Wrecks are usually accompanied by strong public attention. Under the present suite of legislation, GCWA struggles to manage the Wreck issue in a timely and effective manner to satisfy the community's expectation that all Wrecks should be removed from the water immediately. GCWA has also found that other State Government agencies are reluctant to assist them with Wrecks in Gold Coast waterways, because the local Wrecks are viewed entirely as a GCWA problem.

2. Identification of the causal factors that contribute to undesirable waterway management and vessel ownership behaviours.

In GCWA's view, the principal causal factor for vessels becoming Wrecks is that of irresponsible ownership. By irresponsible ownership, it is meant that:

1. The owner of the vessel (Wreck) does not maintain the vessel to a seaworthy standard.
2. The owner of the vessel (Wreck) does not maintain a policy of marine insurance to ensure that funds are available to remove the Wreck from the water in the event of any marine incident or accident.

¹ Further detail is provided in Table 1.

3. The owner of the vessel (Wreck) does not supervise or otherwise keep secure the vessel to prevent it from sinking or being driven ashore or further damaged in heavy weather.

The root cause of this lack of effective discharge of vessel ownership responsibilities is, generally speaking, the lack of appropriate financial resources. Vessels are expensive to own and maintain in terms of a range of factors including:

- mooring fees
- costs of removing the vessel from the water and storing it elsewhere
- insurance premiums
- ongoing maintenance costs.

Failure to effectively meet one or more of these costs will likely result in the vessel becoming a Wreck sooner or later.

In the life-cycle of every vessel comes a moment in time when the cost of maintaining the vessel to a seaworthy standard, insuring it against marine perils, and storing the vessel securely (whether in a marina, on a mooring, at anchor or on a hard stand) outweighs the inherent value of the vessel. It is at this juncture that responsible owners will seek to sell their vessels, often at a very low price. It is at this time that irresponsible owners, that is people who do not have the financial resources to properly maintain, supervise and care for a vessel, become owners, and the vessels they procure eventually become Wrecks.

In GCWA's view, the best time for intervening to prevent the problem of vessels becoming Wrecks is at that time when a vessel is about to pass into irresponsible ownership. In accordance with the adage, 'a stitch in time saves nine', an intervention *before* the vessel becomes a Wreck is more efficient, cost-effective and certain of success. A War on Wrecks strategy should consider how to ensure that owners have the financial resources to properly care for, maintain and supervise their vessels. In GCWA's view, this approach could be a better investment of State Government time and resources than a clean-up of Wrecks.

To that end, GCWA recommends that the 'War on Wrecks' strategy considers:

- The requirement for ongoing **marine insurance** for wreck removal for all vessels regardless of use or size.
 - A proactive **seaworthiness strategy** that may require positive verification of seaworthiness, even for recreational vessels.
 - The **sale of vessels for nominal consideration** as a trigger for further investigation.
 - The **transfer of commercial vessels to recreational registration** be subject to review, particularly for larger commercial vessels such as former tugs, commercial fishing vessels and vessels exceeding 15 metres in length.
3. **Investigation of best practice strategies that other national and international regulators have successfully implemented to address these factors**

GCWA's view is that the present limitations of the GCWA Act are preventing it from effectively managing its own 'War on Wrecks'. GCWA are conscious of the risk to its reputation if the public fully appreciate its legal limitations, along with the very real potential for adverse criticism and embarrassment that this may attract, not only for GCWA, but ultimately also for the Queensland Government.

GCWA is increasingly being referred to as a 'toothless tiger', an unfortunately appropriate and accurate observation.

In GCWA's view, there are 2 alternative approaches to achieve a solution:

- 1. A single sweep of consequential amendments to the GCWA Act to allow GCWA to function efficiently and effectively as waterways manager.**
- 2. A combination of appointments, delegations or amendments under a broader suite of other transport legislation to achieve a similar outcome but in a less efficient and effective manner.**

GCWA's first preference is to amend the GCWA Act to provide GCWA with equivalent legislative machinery as that made available to port authorities with port notices, to enable GCWA to efficiently and effectively utilise waterways notices.

The waterways notice is the primary mechanism provided to GCWA by the Parliament to achieve its main purpose; namely, *'to deliver the best possible management of the Gold Coast waterways at reasonable cost to the community and government, while keeping government regulation to a minimum'*. They are, potentially, a very flexible and useful tool for the management of Wrecks and other challenging waterways issues.

The inadequacy of the regulatory framework to enable GCWA to efficiently and effectively manage Wrecks has been an issue for quite some time. Small problems first started to appear shortly after the establishment of GCWA in December 2012. The issue was then formally recognised as part of the recommendations from an interim review of GCWA completed by ARENA Organisational Consultants in August 2014. Outcomes of the review were supported by the then Deputy Director-General of Department of Transport and Main Roads, who was a member of the interim review steering committee.

GCWA seeks the Committee's support for implementation of a legislative reform program directed towards the effective management of Wrecks, consistent with existing and nearly identical powers already available to port authorities.

- 4. Identification of new strategies and initiatives that can be successfully implemented in Queensland to address the issues and assess their impact**

In GCWA's view, and as set out under points 2 and 3 above, there are a number of preventative and response programs that could be implemented to more effectively manage the Wreck problem in Queensland, and in particular, Gold Coast, waterways.

In terms of prevention, the most effective strategy would be to ensure that vessels do not pass into irresponsible and impecunious ownership, so that they do not become Wrecks in the first place.

In terms of response, the most effective strategy, at least for Gold Coast waterways, is to appropriately empower GCWA to take effective action to remove Wrecks from the water and to recover its expenses of so doing from owners of the Wrecks, where those owners can be identified.

5. Options to improve levels of coordination and collaboration of existing efforts at the local, regional and state level

GCWA has a strong relationship with MSQ on the Gold Coast, and there is close consultation and collaboration in relation to the management of unseaworthy vessels before they become derelict and abandoned Wrecks.

This existing sound collaborative relationship can be built upon in terms of a 'War on Wrecks' strategy to apply both the preventative and responsive strategies appropriately; in particular:

- MSQ's role to inspect vessels can assist by identifying those at risk of becoming Wrecks, and applying appropriate interventions available to harbour masters and shipping inspectors under TOMSA and authorised officers under TOMPA
- GCWA's role to respond to vessels that ultimately become Wrecks, removing those Wrecks cost effectively and efficiently, and then recovering the expense of so doing from owners.

Importantly, for GCWA to effectively fulfil this role, legislative reform is required as described above.

GCWA has also considered other potentially effective alternatives that may be available in the interim. This largely involves delegations under specific transport legislation, namely TIA and TOMSA, as outlined below and further detailed in **Table 1** on page 7:

TIA

- Delegate to GCWA the full port notice regimen, including appointment of authorised officers (and the necessary legislative amendments that may be needed to make this possible)

TOMSA

- Delegate appropriately experienced employees of GCWA as a harbour master for Gold Coast waters (imposing specific limitations that enable GCWA to effectively manage issues such as derelict vessels by opening access to the enforcement machinery provided by TOMSA).

I look forward to discussing this submission with you further once you have had a chance to review and consider the information above and in **Table 1**.

Hal Morris

Chief Executive Officer

Gold Coast Waterways Authority

Table 1: Examples of issues faced by GCWA and alternative solutions to enable efficient and effective management of Gold Coast waters

Issue	Alternative 1 ²	Alternative 2
Waterways notices under the GCWA Act ³ , in their present form, cannot be effectively used because the GCWA Act does not contain the necessary machinery provisions for their issue, cost recovery and enforcement.	Amend the GCWA Act to include the necessary machinery provisions to be able to appropriately issue and enforce waterways notices (i.e. provisions similar to those supporting port notices under chapter 8, part 3B of TIA ⁴).	Amend TIA and associated delegations to allow GCWA ⁵ to access the full range of port notice provisions for use in a broader range of circumstances.
Officers investigating GCWA related matters have no powers or protections because the GCWA Act does not provide for 'authorised officers'.	Amend the GCWA Act to include 'authorised officer' provisions, thereby affording GCWA employees investigating GCWA related matters appropriate powers and protections (i.e. provisions similar to those supporting port notices under chapter 8, part 3B of TIA).	Amend TIA and TOMSA ⁶ and associated appointments or delegations, as necessary, to allow GCWA employees investigating GCWA related matters to have appropriate powers and protections to conduct investigations for offences under those acts (i.e. TIA and TOMSA).
Powers exist under TOMSA that would enable GCWA ability to appropriately deal with derelict vessels. These powers cannot be effectively used by GCWA because: (a) the GCWA Act is silent on such issues; and	Amend GCWA Act as above such that waterways notices can be appropriately used to efficiently and effectively manage derelict vessels.	Delegate harbour master powers under TOMSA (with appropriate limitations) to appropriate GCWA employees to enliven GCWA's ability to use the available suite of enforcement tools in that act (i.e. TOMSA).

² Alternative 1: GCWA preferred option.

³ GCWA Act: *Gold Coast Waterways Authority Act 2012*

⁴ TIA: *Transport Infrastructure Act 1994*

⁵ GCWA: Gold Coast Waterways Authority

⁶ TOMSA: *Transport Operations (Marine Safety) Act 1994*

<p>(b) the appropriate appointments or delegations from other acts (e.g. TOMSA) are not in place.</p>		
<p>Under the GCWA Act, GCWA has no ability to recover expenses incurred when dealing with property, other than in specific circumstances when dealing with abandoned property.</p>	<p>Amend the GCWA Act to include provisions that enable GCWA to recover expenses in cases other than abandoned property (i.e. provisions similar to those supporting port notices under chapter 8, part 3B of TIA).</p>	<p>Adopt a firm policy of refraining from incurring any expenses when exercising delegated powers in situations where a lead administering agency is well placed with appropriate legislative provisions to recover costs (e.g. recovery of expenses incurred to move a vessel subject to a direction).</p>

TWG to the War on Wrecks taskforce

Agenda Item 1 – GCWA Submission

MSQ Response

PURPOSE

1. To inform the TWG of Maritime Safety Queensland's (MSQ) views on the Gold Coast Waterways Authority's (GCWA) submission, pursuant to the terms of reference of the TWG, to:
 - a. provide advice on the current constraints in the efficient management of derelict vessels and possible solutions.
 - b. to provide a coordinated whole of sector view on policy development and implementation options.

BACKGROUND

2. The GCWA is a member of the Queensland Government's War on Wrecks Taskforce and represented on the TWG.
3. On 26 October 2018, the GCWA tabled a submission at the War on Wrecks Taskforce's Yeppoon meeting for the Taskforce's consideration.
4. The submission has been forwarded to TWG members for consideration at its next meeting.

SUMMARY

5. The GCWA submission proposes legislative reforms specific to the GCWA's functions and operations and aligns its proposed reforms to the issues to be considered by the Taskforce.
6. In short, the GCWA propose the Taskforce recommend the specific enhancement of the GCWA's legislative powers and capabilities, in some cases equal to that of the marine safety regulator and/or port authority or port operators, to enhance the GCWA's ability to deal with 'wrecks'.

MSQ's RESPONSE

7. MSQ acknowledge, and often share some of, the challenges the GCWA raise in their submission and the complexity of the existing framework.
8. However, MSQ advocate for a whole-of-government approach and is supportive of a 'root and branch' review of existing waterways management legislation, with a view to reducing the complexity and improving its effectiveness.

RECOMMENDATION

It is recommended that the TWG:

1. Provide advice to the Taskforce that the TWG supports the need to have wholistic review of waterways management legislation and support MSQ leading a whole-of-government review of waterways management legislation, with a view to reducing the complexity and improving regulatory effectiveness.

Attachment B

Submission – Noosa Council

From: [Glenn N Hale](#)
To: [Peter G Wilkins](#); [Kirsten J Dawson](#)
Cc: [Jim A Huggett](#); [Paul G Brandenburg](#)
Subject: FW: Feedback to Derelict Vessel Taskforce
Date: Monday, 24 December 2018 11:56:41 AM
Attachments: [NoosaRiverPlan.pdf](#)
[ECM_20746626_v1_Response_from_Minister_for_Transport_and_Main_Roads_-_No....pdf](#)

FYI

NICA's assessment has a couple of inaccuracies – otherwise a fairly accurate record of our discussion with Council - Kirsten??

Think we will need to weave it into the interim Taskforce report and give their views a specific mention.

Regards

Glenn Hale

Acting General Manager

Maritime Safety Queensland | Customer Services, Safety and Regulation Division | Department of Transport and Main Roads

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From: Jan Maddin <jan.maddin@noosa.qld.gov.au>
Sent: Friday, 21 December 2018 11:29 AM
To: kim.richards@parliament.qld.gov.au; Glenn N Hale <Glenn.N.Hale@msq.qld.gov.au>; External-Sandy Bolton <noosa@parliament.qld.gov.au>; Tony Wellington <tony.wellington@noosa.qld.gov.au>
Cc: Craig Doolan <craig.doolan@noosa.qld.gov.au>; Kim Rawlings <kim.rawlings@noosa.qld.gov.au>; 'Bruce McConkey' (bruceandsarah11@hotmail.com) <bruceandsarah11@hotmail.com>; Bruce Hallett (bhallett8@gmail.com) <bhallett8@gmail.com>
Subject: Feedback to Derelict Vessel Taskforce

Good morning Kim & Glen

Thank you for the opportunity to provide feedback to the taskforce regarding abandoned and derelict vessels in the Noosa River.

Council's current policy position on these matters is articulated in the Draft Noosa River Plan attached – refer section 3.1.2 Anchoring, mooring and living on the river (pg. 21-24).

Due to historic and ongoing issues, Council would like to manage anchoring, mooring and living on the river at the local level. This intent has been pursued at a political level with Minister Bailey for a number of years and Council has recently received an encouraging response (refer copy of letter attached).

In summary, Council seeks–

- a transfer of agreed management responsibilities for these activities from the State to Noosa Council
- to establish of a River Management Unit (i.e. a new service in Council) to coordinate and implement the river plan actions
- to implement an on-river education and compliance program to regulate anchoring, mooring and living on the river
- a review anchoring and mooring locations
- a review of the types of moorings used
- to identify a cap and locations for living on the river
- to facilitate and monitor removal and disposal of vessels waste tank effluent
- to remove abandoned and derelict vessels from the river; and

In addition, Council would like to investigate legislative amendments to control the ‘length of stay’ for anchoring in the Noosa River.

The management approach outlined above follows the recommendations to Council by the Noosa River Community Jury which was established in 2015 to deliberate the topics:

- How can we manage the Noosa River better?
- What role should Council play and what resources should Council apply?

The full suite of Jury recommendations can be found in section 2.3 Community Jury (pg. 13-14).

Please note the Draft Plan was released for public consultation earlier this year and we are currently incorporating the feedback received in an updated Plan, which will be presented to Council for ratification early in 2019.

As mentioned at the meeting on 7 December, we would also like to incorporate comments from representatives of the Noosa Integrated Catchment Association (NICA) in this email below.

Hope you have a very Merry Christmas.

Kind regards

Jan

A summary of the very informative meeting with Sandy and MSQ representatives is outlined below which provides some responses indicating our concerns. In general we are delighted that MSQ have initiated this Task Force, and hope the review is completed expeditiously and will be adopted into legislation. Also that all stakeholders will be given the opportunity to review and respond to the Task Force’s recommendations prior to completion.

1. MSQ are monitoring 8 suspicious/near-derelict vessels and are in discussions with owners. This is a very long draw out procedure which recalcitrant owners seem able to subvert to their advantage.
2. A problem is locating owners of vessels, especially difficult for unregistered ones.
3. MSQ local manager, John Kircher is based at Mooloolaba, lives at Boreen Point, and maintains a watch on Noosa River as he passes every day
4. Other waterways have different and area specific regulations. Gold Coast has more restrictions. Yeppoon is monitored by a local volunteer group who pass requests to MSQ for

prompt action, even based on quality of vessels and maintenance.

5. Qld government are willing to delegate certain responsibilities to councils. They have set up a task force to examine the many regulations, simplify and rationalise them, and delegate where appropriate. (However task forces are very slow and laborious).

6. Tony Wellington said that any actions now await completion of the Noosa River Plan, as any changes must conform to that document which has legal status after approval and adoption.

7. A type of marine CTP insurance scheme to allay costs has been under discussion.

8. A copy of relevant regulations has been made available, from which the following summary has been derived.

A SUMMARY OF REGULATIONS ADMINISTERED BY MSQ

Ref: Transport Infrastructure (Waterways Management) Regulation 2012

The Noosa River system is a regulated waterway. This means that certain restrictions are applicable to the waterway below high water mark.

General rules:

1. Vessels may not be anchored or moored within 30 m of an approved structure or vessel attached thereto (S3.6(1.2)). Authorised moorings are classed as structures. (Priv com).
2. A live-aboard vessel may not remain in any part of the waterway for more than 48 hours without obtaining a living on board approval. (S4.11(4)).
3. In Lake Doonella, Noosa River Canal Estate, and downstream of a line 333° N of Munna Point living on board is prohibited. (S4.11(1)).
4. Any vessel being used for living on board for any time must be equipped with a waste holding system which can only be emptied into a waste pump-out facility, and a written record of each discharge must be maintained. (S4.13).

Exemptions to the Regulation are:

1. Government vessels or those carrying out approved works (S5.1).
2. Coastal vessels entering to seek shelter or undertaking repairs (10 day limit) (S6.20)
3. Vessels for which a watercraft works approval has been issued (S5.14(1))

B.H. McConkey

20-12-2018

Best regards for Christmas and 2019

Bruce.

Jan Maddin

Environment Officer (Rivers & Coast) | Environment Services
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The Noosa River Plan



Whole of catchment management



Noosa River protected for future generations



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Noosa River Plan
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Acknowledgements

Council wishes to thank all interested stakeholders who have taken the time and energy to help guide the development of this plan.

Disclaimer

This document has been developed by the Noosa Council's Environment and Sustainable Development Department in response to the Noosa River Community Jury recommendations regarding river management and a review and update of the previous Noosa River Plan (2004) endorsed by Council in 2016 and 2017 respectively. Information contained in this document is based on available information at the time of writing. All figures and diagrams are indicative only and should be referred to as such. This is a strategic document which deals with technical matters in a summary way only. Council or its officers accept no responsibility for any loss occasioned to any person acting or refraining from acting in reliance upon any material contained in this document.

Message from the Mayor

The Noosa River begins as a small stream in the northernmost reaches of Cooloola. It then snakes its way for 60 km through the Great Sandy National Park to end in a wondrous tangle of remarkable lakes in Noosa Shire.

The Noosa River system is as integral to the Noosa Shire's charm as are its national parks and beaches. On any fine Sunday, hundreds of locals and visitors can be found enjoying the grassy parklands alongside the river next to Gympie Terrace. While children frolic in the shallows, kites, sea eagles and ospreys hover overhead, hunting for fish. Human fish hunters are also plentiful, with hopeful anglers casting lines from shore, jetty or boat. Meanwhile, canoeists and stand-up-paddle boarders slip past; the ferry toots its horn, and motorboats laden with sightseers head upstream to the river's Everglades.

It would be difficult to put a figure on the economic value of the Noosa River, and arguably one shouldn't try. Its real worth is better measured in human wellbeing and in safeguarded biodiversity.

The Noosa River regularly achieves the highest health rating in South-East Queensland. That is in large part because so much of the river resides in the Cooloola section of the National Park. And for that we have environmental activists to thank, particularly those in the Noosa Parks Association and also the Cooloola Committee. During the 1960s, 1970s and 1980s, many battles were fought by these groups to stop logging, mining and development in Cooloola.

The success of those lobbyists guarantees that our river has a healthy start in life. It also resonates with many in today's community, especially those individuals and organisations who continue to focus their efforts on river and catchment health.

But their efforts are no reason for complacency. There are still myriad human influences on the waterways. Sediment from the Kin Kin catchment, urban run-off from Noosaville and Tewantin, and the impacts of hundreds of powered boats, all take their toll.

Even back in 2001, a Healthy Waterways publication titled Discover the Waterways of South-East Queensland asked a pertinent question about the Noosa River: "Will we love it to death?"

Of course we must ensure that we do not wreak further damage on this magnificent natural asset, and this Plan is part of that undertaking by Noosa Council.

I congratulate the Council staff, community representatives, residents, business owners and my fellow Councillors on working together to create this important document.

If the Noosa River is to maintain its enviable health rating, and even improve its biodiversity, then this Plan is an essential blueprint for that effort.

Everyone can play a role in protecting and enhancing our spectacular river system.

Tony Wellington

Noosa Mayor



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1.0

Introduction



The Noosa River system is the major waterway of the Noosa Shire. It extends from the Cooloola section of the Great Sandy National Park at its headwaters, to the river mouth at Laguna Bay. The river is recognised internationally for its high environmental and scenic values flowing from the catchment's rich biodiversity and habitat. It is a much sought after recreational, tourism and fisheries resource that makes a substantial contribution to the local economy.

Many people have a long-held, deep social connection with the river. This contributes to a strong sense of place.

The waterways and wetlands of the catchment form an important part of the local Kabi Kabi (Gubbi Gubbi) first nation's traditional lands with ongoing cultural significance.

1.1 The Noosa River today

The Noosa River is arguably South East Queensland's only substantially natural major river system. It boasts considerable areas of remnant vegetation and a wide range of intact aquatic ecosystems.

Large areas of undisturbed bushland adjoining the headwaters of the river are protected as National Park or State Forest, and more than 100 Council-managed bushland conservation

reserves are located throughout the catchment. This vegetation, and the large proportion of protected areas, have been a key factor in maintaining the river's outstanding natural attributes.

The Noosa River wetlands and Lake Weyba are listed as Wetlands of National Importance. This spectacular and extensive system of freshwater, brackish and saline lakes, marshes, heathlands and estuary is one of few such complex wetland systems on the eastern Australian seaboard.

The ecological condition or 'health' of the Noosa River catchment is assessed annually as part of the South East Queensland Waterways monitoring program. Since 2001 Noosa has received ratings between A (excellent condition) and B (good condition), consistently the highest in the region.





1.2 A system under pressure

The Noosa River system is a natural asset facing increasing pressure. To ensure the values of the river are maintained and improved, these pressures need to be managed effectively. Such pressures are common to waterways across the region and come under three broad categories:

- Population growth, recreational demand and commercial use of the river.
- Rural and urban runoff.
- Climate change.

More than 54,000 people call Noosa Shire home, however this figure can increase markedly during peak holiday periods when taking into account overnight visitors and day visitors. This seasonal influx results in high volumes of boat traffic on the river and high numbers of people using foreshore areas along the lower reaches of the estuary.

The Noosa River Marine Zones, in place since 2009, regulate some boating-related uses, however these rules are not well understood or typically observed by the recreational boating public. Across Queensland, the recreational boating industry has expanded rapidly with one in every 19 people now owning a boat and/or a Jet Ski. This leads to high demand for marine infrastructure to service this growth.

The Noosa River offers safe anchorage for cruising yachts, mooring locations for recreational boating, and opportunities for living on the river. For many years there has been a proliferation of abandoned and derelict vessels in the river, anchored vessels left unattended for long periods of time, and swing moorings located in seagrass beds within declared Fish Habitat Areas. These neglected vessels often occupy prime positions along the river and contribute to congestion, clutter and safety concerns for other river users. People live on the river without the required approvals with some on-board occupants discharging waste water into the river.

Commercial use of the river, including commercial fishing, supports livelihoods and tourism in the region. These industries provide residents and visitors with a host of recreational opportunities and commercially caught seafood.

The Noosa estuary is only one part of a diverse suite of waterways and wetlands within the catchment which play a valuable environmental and economic role in the Shire. On this broader catchment scale, management actions are required to protect both the quality and quantity of water in the system.

Sediment runoff and other pollution from rural and urban areas affect water quality, aquatic habitats and aquatic life. Wetlands can be degraded by both urban development and overgrazing. Water is extracted from freshwater creeks and wetlands in rural areas for irrigation and stock. Water bores throughout the catchment also provide residents with access to groundwater reserves, whilst town water supplies for residents in urban areas of the Cooloola Coast are drawn from the upper catchment.

Climate change models predict storms of increased intensity are likely to increase the impact of runoff and flood events. Further, sea level rise is likely to cause the average level of the estuary to also rise, threatening wetlands in the upper end of the lakes system. Increased water temperature may place added pressure on native species, currently at the limit of their distribution, and make conditions more favourable for some pest animal and plant species to invade waterways and wetlands.

1.3

Keeping the river healthy

The actions within this Plan aim to protect the ecosystem health of the entire river system including water quality and habitats of native species, and support the recreation, fisheries and cultural values of the catchment. This balance can be achieved through improved land and water management practices and on-ground action, education and regulatory compliance, and better research and monitoring of the river and its catchment.

Much of this can only be done effectively through a partnership approach, involving local residents, community groups, traditional owners, businesses and the relevant government agencies. There will be new costs involved with an increased local focus on management of the river, especially with the transfer of management of some State responsibilities to Noosa Council. A stronger local focus on the river will, however, lead to better management and environmental outcomes in the longer term.

A clean, healthy waterway that is visually appealing and vibrant with aquatic life is central to the wonderful environment residents enjoy and to the continued success of Noosa's tourism industry. Sustainable practices are required by all to ensure the natural values of the river do not deteriorate over time.

The Noosa River Plan (2018) has been prepared to guide this intent.

1.4

Scope and purpose

This River Plan heralds a new era of catchment management in Noosa. It incorporates a whole-of-catchment approach to management of land-based and on-river activities and applies to Noosa's freshwater creeks, wetlands, lakes, the river, coastal creeks and groundwater.

The purpose of the Plan is to protect the ecosystem health of the entire Noosa River system and support the recreational, fisheries and cultural values of the catchment.

1.5

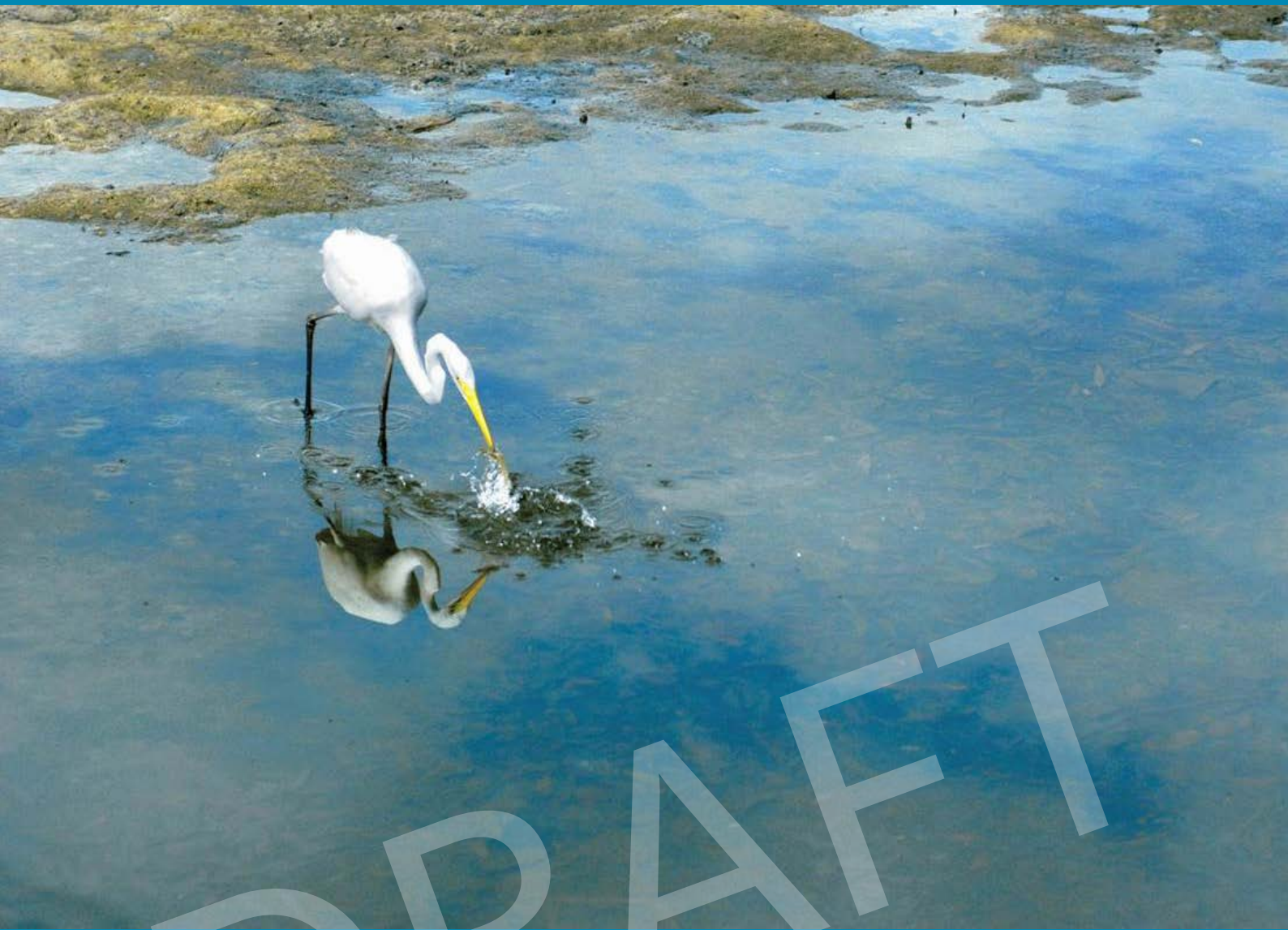
Vision

The Noosa River system is celebrated as the healthiest river system in South East Queensland and is managed and protected for future generations.



1.6 Objectives

1. The recreational boating public understand and observe the Noosa River Marine Zone prohibitions and restrictions.
2. Anchoring, mooring and living on the river is well managed.
3. Boating speed limits in key areas are appropriate.
4. Marine infrastructure is fit for purpose and does not adversely impact on the environment values or local amenity.
5. Commercial use of the river maintains the high environmental quality of the river, while meeting the needs of river users.
6. Commercial and recreational fishing are sustainably managed in the Noosa River.
7. Sediment, nutrients and contaminants moving from rural areas to waterways and wetlands are reduced.
8. Degraded waterways, wetlands, riparian areas and in-stream habitats are rehabilitated.
9. The quality of water running off urban areas is improved.
10. Sewage collection and treatment facilities are designed and managed to minimise adverse impacts on water quality (including groundwater) and habitats.
11. Impacts of litter in and around Noosa's waterways are reduced.
12. Resilience to the impacts of climate change in the Noosa River catchment is enhanced.
13. Aboriginal cultural heritage is protected and Kabi Kabi (Gubbi Gubbi) led river initiatives are supported.
14. International agreements for the protection of migratory shorebird habitat are upheld.
15. The occurrence of coastal algal blooms in Laguna Bay is mitigated and/or reduced.



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1.7 Guiding principles

An overarching guiding principle of the River Plan is to ensure that the catchment is sustainably managed as a single ecological, social and economic system. Decisions will therefore seek to maintain overall productivity of the river on a long-term, sustainable yield basis, whilst enhancing the quality of the catchment environment. Underpinning this are the following principles–

Council will:

1. Prioritise our management focus on the whole river catchment.
2. Seek partnerships and create opportunities for partner projects involving community, industry and government.
3. Encourage and facilitate best practices on-land and on-river.
4. Provide education, behaviour change and compliance programs to support residents and visitors recreating in and around the waterways.
5. Ensure all users of the river, waterways and wetlands contribute to management of the river and broader catchment.

2.0

The path to here



2.1 Background to river planning

Noosa Council commissioned the first Noosa River Plan in 1997. It delivered a comprehensive review of marine infrastructure and use patterns, identified various environmental, recreational and fisheries values, and outlined the factors affecting river use and management.

Subsequent planning activities undertaken by the Noosa Integrated Catchment Association (NICA), Council, State Government and industry and community representatives, focused on ensuring a healthy and productive catchment.

This process provided a forum for broad community input and discussion from stakeholders across the catchment. Issues and management actions were identified and prioritised, and a level of funding was obtained from various sources over the years to help implement some of the actions.

In 2004 an updated River Plan was implemented by Council under a coordinated management framework with the relevant State Government agencies. The River Plan also received broad community support and became Noosa Council's strategic policy position regarding planning, development and management of the Noosa River system. It delivered:

- A speed limit review and seasonal speed limit restrictions.
- Voluntary Codes of Practice for Noosa's commercial boatmen, living on board and kite surfers.
- Legislative changes and the introduction of the Noosa River Marine Zones restricting and prohibiting certain activities.
- Research into water quality issues.
- Rehabilitation of degraded riparian areas and wetlands throughout the catchment.

2.2 Current river management

The management of anchoring, mooring and living on board watercraft in the Noosa River system is administered by the Queensland Department of Transport and Main Roads (TMR) through Maritime Safety Queensland (MSQ). There are several key pieces of legislation which provide the head of power for the State authorities to manage the:

- Use of nominated waterways.
- Water traffic and associated infrastructure.
- Condition and operation of vessels.
- Ship-sourced pollution.



These laws include the *Transport Infrastructure Act 1994*, the *Transport Infrastructure (Waterways Management) Regulation 2012*, the *Transport Operations (Marine Safety) Act 1994* and the *Transport Operations (Marine Pollution) Act 1995*.

Compliance with these laws and regulations is managed via a system of complaint and information referrals to other State agencies. These agencies include the TMR Boat Harbours Team, Queensland Boating and Fisheries Patrol and the Queensland Police Service.

Management of commercial jetty leases in the river is administered by the Department of Natural Resources and Mines, while management of Queensland’s commercial and recreational fisheries is administered by the Department of Agriculture and Fisheries (refer Table 1 below).

State agency	Referral
TMR Boat Harbours Team	<p>Applications for buoy mooring authorities.</p> <p>Applications for living on board watercraft approvals.</p> <p>Complaints about anchoring, mooring, grounding, living on board watercraft, watercraft construction and works.</p>
Queensland Boating and Fisheries Patrol	<p>Complaints about anchoring and mooring.</p> <p>Complaints about waste holding systems.</p> <p>Complaints about non-compliance of the Noosa River Marine Zone.</p> <p>Enforces fisheries and boating safety laws through surveillance and inspection.</p> <p>Undertakes related education with industry and community groups.</p>
Queensland Police Service (Water Police)	<p>Enforces boating safety laws through surveillance and inspection e.g. speed limits, boat licenses, registrations, complaints about antisocial behaviour and illegal camping on islands and river foreshores.</p>
Australian Maritime Safety Authority (AMSA) on behalf of the Australian Government	<p>Safety administration of Domestic Commercial Vessel s e.g. registration, licencing and compliance functions from 1 July, 2018.</p>
Department of Natural Resources and Mines	<p>Management of commercial jetty leases under the <i>Land Act 1994</i> and <i>Land Regulation 2009</i>.</p>
Department of Agriculture and Fisheries	<p>Management of commercial and recreational fisheries in Queensland.</p> <p>Development and implementation of <i>Queensland’s Sustainable Fisheries Strategy 2017-20</i>.</p>

Table 1 State government agencies responsible for management of the Noosa River system.

In 2014, Noosa Council publicly declared interest in taking on responsibility for the management of anchoring, mooring, living on the river and commercial jetty leases.

Discussions with the relevant State agencies investigated how these activities could be managed at a local level as opposed to the current state-wide approach.

Around this time the Department of Agriculture and Fisheries instigated a state-wide review of the commercial and recreational fisheries, which also afforded Council the opportunity to continue to advocate for restrictions on the commercial fisheries in Noosa.

Local management of anchoring, mooring, living on the river and the commercial jetty leases now seemed a viable option for Council; however would the community be supportive of this approach?

2.3 Community Jury

In 2015, a 24-member Community Jury of local residents and ratepayers was established to provide recommendations on the topics:

- How can we manage the Noosa River better?
- What role should Council play and what resources should Council apply?

The scope of the jury included anchoring, mooring and living on the river, commercial use of the river and commercial jetty leases occupying the Noosaville Foreshore.



Following their four-month deliberation the majority of the Jury supported the proposition that Council should take over authority from the State Government for managing anchoring, mooring, living on the river and commercial use of the river on the basis it would be a user-pays system, funded through alternative means to rates. It is unlikely however, that a user-pays system will currently generate enough revenue to cover all the costs of these functions on the Noosa River. This is still a key challenge for Council and the community. Alternate funding sources will need to be explored if Council is to take on these responsibilities.

The Jury presented Council with 12 recommendations:

1. Review, update and implement the Noosa River Plan in a new framework and ratify with formal status to ensure it has authority.
2. Undertake effective monitoring and facilitation of waste tank effluent removal and disposal from vessels.
3. Establish an effective duty of care and policy regarding Aboriginal Cultural Heritage and aboriginal engagement on all aspects of river management.
4. Implement a role with authority on the river around compliance and monitoring.
5. Maintain river catchment protections.
6. Review fees for mooring and anchoring and levy rates for commercial jetties.
7. Establish a Noosa River Management Coordination Committee to oversee river management.
8. Remove abandoned, unattended, unauthorised, derelict and unsafe vessels to an impound area in the river for auction.
9. Review anchoring and mooring locations and types of moorings.
10. Determine a cap and locations for live on boards.
11. Implement lighting and marker options for boats and beacons for safety reasons.
12. Implement stricter management of acceptable commercial uses of the river and assume control of commercial leases.

At its Ordinary Meeting on 14 January, 2016 Council resolved to;

- A. Thank the Community Jury members for participating in the Community Jury process, for their dedication and time attending meetings, researching material and finalising their Report and recommendations to Council;*
- B. Note the Jury recommendation that Noosa Council should take on the responsibility of managing anchoring, mooring, commercial uses and jetty leases for the Noosa River;*
- C. Write to the Department of Transport and Main Roads and Department of Natural Resources advising them of the Jury's recommendation for Noosa Council to manage on-river and foreshore activities, seeking their support to establish an acceptable process for both parties to transfer agreed management responsibilities for the Noosa River to Council; and*
- D. Agree to utilise both the 12 additional Jury recommendations and the supporting explanations in the development of a comprehensive River Management Strategy and the associated discussions with State Government agencies.*

A proposal to review and update of the 2004 Noosa River Plan, under a whole-of-catchment management framework, was endorsed by Council at its Ordinary Meeting on 16 January, 2017.



2.4 Catchment overview

The Noosa River catchment is one of two major river systems located in the Noosa Shire on the Sunshine Coast. The river system covers 63% of the Noosa Local Government Area (see Figure 1).

The Noosa River flows south from the Cooloola Section of the Great Sandy National Park and is fed by springs that drain major sand deposits. It is one of the few Queensland Rivers that enjoy a continuous year-round freshwater inflow.

The rural areas around Kin Kin were originally cleared for timber and are the largest areas of modified landscape within the catchment. These rural industries, such as dairying, agriculture, horticulture and quarrying, were the early foundation of Noosa's economy.

Large parts of the catchment's freshwaters, groundwater and estuary are designated 'high ecological value' under *Schedule 1 of the Environmental Protection (Water) Policy 2009*. The management intent for these waters is to maintain an effectively unmodified waterway condition.

The Noosa River Wetlands and Lake Weyba constitute a groundwater-fed connected system and provide discharge to swamps, springs, channels, lakes, the estuary and marine environment. These wetlands play an important ecological and hydrological role in the natural functioning of a major wetland system including:

- Groundwater recharge and discharge.
- Flood control through short-term storage of floodwaters.
- Surface water filtration.
- Habitats for animals at a vulnerable stage in their life cycles.
- Refuge for animals during drought.
- Habitat for populations of native plants and animals including threatened species.

River Catchments In Noosa LGA

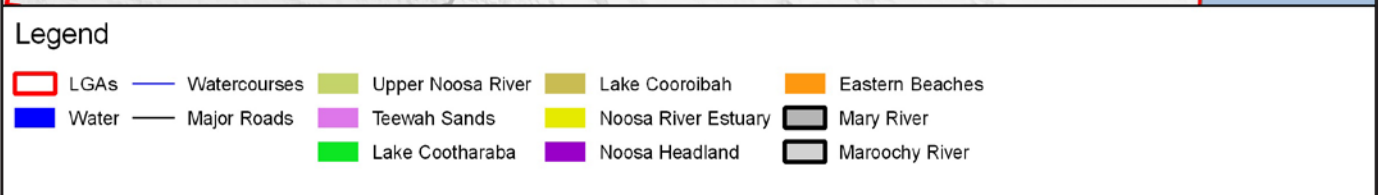
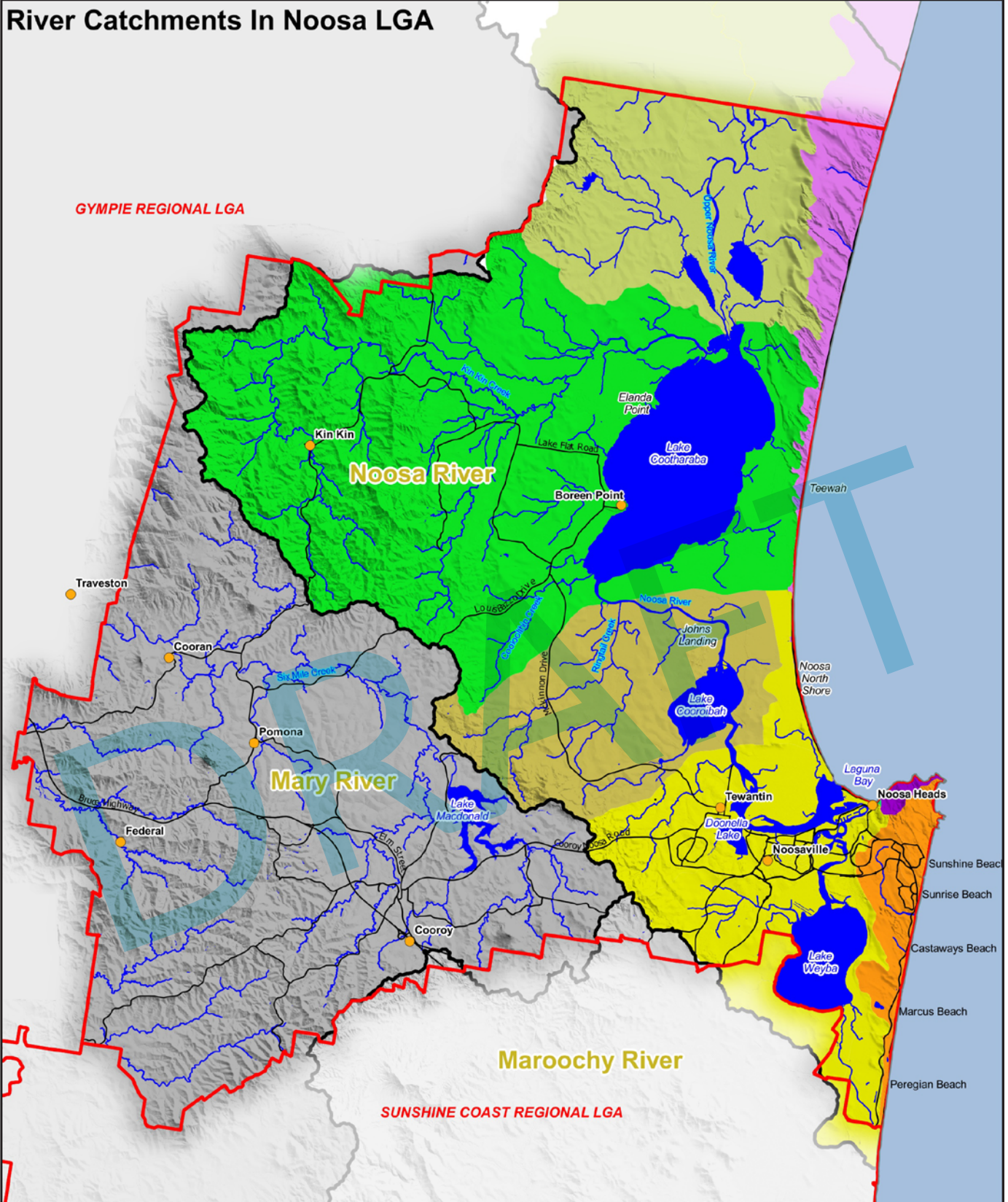


Figure 1 River catchments in the Noosa Shire.

The Noosa River is unique among Queensland estuaries in that it transitions from freshwater to hyper-saline waters in the lakes.

The freshwater lowlands provide habitat for endangered freshwater fish, such as the Honey Blue Eye and Oxleyan Pygmy perch, while the estuary harbours a wide range of fish, prawns and crabs of commercial and recreational importance.

The majority of the estuary falls within 6,000ha of declared Fish Habitat Areas (FHA). Queensland's FHA networks are protected against physical disturbance from coastal development, while still allowing legal fishing. Most of Noosa's FHA are classified 'management A', of the highest value, and are vital to commercial and recreational fisheries of the region.



The river has the largest riverine seagrass beds in South East Queensland. It also has mangrove forests featuring all of the Sunshine Coast's known mangrove species.

In 2005-07, a census of migratory shorebirds revealed the river mouth, sandbanks and adjoining Noosa North Shore is an area of 'National and International Importance' for shorebird conservation in Australia. A total of 43 species of shorebirds were recorded during this time, including many species protected under international agreements.

The estuary is a focal point for recreation and visitor activities. It offers safe anchorage for cruising yachts, mooring locations for recreational boating and opportunities for living on the river. Commercial jetty operations also provide a diverse array of motorised and non-motorised watercraft for tours, hire and self-drive.

The Noosa River system forms part of the Noosa Biosphere Reserve® which was designated by the United Nations Educational, Scientific and Cultural Organisation's (UNESCO) Man and the Biosphere Program in 2007 – it was a first for Queensland.





2.5 Ecosystem health

For the past 17 years, Noosa Council has been part of one of Australia's most comprehensive freshwater, estuarine and marine monitoring programs delivered by Healthy Land and Water (formerly Healthy Waterways).

The monitoring program provides a regional health assessment of South East Queensland's major catchments, river estuaries and Moreton Bay zones in the form of an annual Report Card grade (A-F). The program also quantifies, via a 1-5 star rating system, the level of social and economic benefits the waterways provide to local communities and the people who live there (Healthy Land and Water, 2017).

Since 2001, the health rating for the Noosa River catchment has fluctuated between an A (excellent condition) and B (good condition). These fluctuations are often linked to rainfall intensity and duration each assessment year.

Freshwater creeks have better health ratings during a wet year, indicating a positive influence of high water flows. In contrast, estuaries often have poorer grades in wet years, when significant quantities of sediment and nutrients are washed down from the upper catchments.

3.0

Management themes



3.1

Population growth, recreational demand and commercial use of the river

The Noosa estuary is a focal point for recreation and visitor activities. During peak periods the lower estuary is the busiest section of the river. There are approximately 54,000 residents in the Noosa Shire, however this figure can increase markedly during peak holiday periods. With a growing population comes a proportional, growing demand for water-based tourism activities.

While the influx of visitors and holiday-makers contributes significantly to Noosa's economy, the growing levels of recreational boating activity and increased demand for infrastructure have the potential to affect the environmental and amenity values of the river and distract from the user's enjoyment of the waterways.

3.1.1 Noosa River Marine Zone

Prior to the State's recreational boating census, the community was already expressing concerns about the number and type of watercraft using the Noosa River, and the increasing competition for space between various river users. These concerns led Council to establish the Noosa River Marine Zone to prohibit and restrict certain activities in the river.

The Marine Zone is a regulation made under the Transport Operations (Marine Safety) Act and is enforceable by Noosa Council and State agencies.

The Noosa River Marine Zone:

- Restricts personal jet skis to transiting downstream of the Noosa Waters Inlet and out to the open ocean.
- Prohibits personal jet skis on the remainder of the river.
- Allows commercial jet skis to operate within the officially gazetted commercial jet ski area in lower estuary
- Restricts water skiing to two ski runs in the river, upstream from Tewantin.
- Prohibits hovercraft, airboats, seaplanes, surfing and wave-jumping activities from operating in the river (refer Figure 2 below).

Ongoing education and monitoring of activities is required to ensure compliance with the Marine Zone rules.

Recreational boating census

In 2014 the Department of Transport and Main Roads conducted a recreational boating census which revealed over a quarter of a million recreational vessels were registered in Queensland.

This equates to approximately 1 registered boat or Jet Ski for every 19 residents.

The census also showed 51% of all recreational boats and 71% of Jet Skis were accommodated by the Brisbane maritime region which includes the Sunshine Coast and Gold Coast waterways.

The Brisbane maritime region reported the strongest growth (9.8%) in the number of Jet Skis on the register.

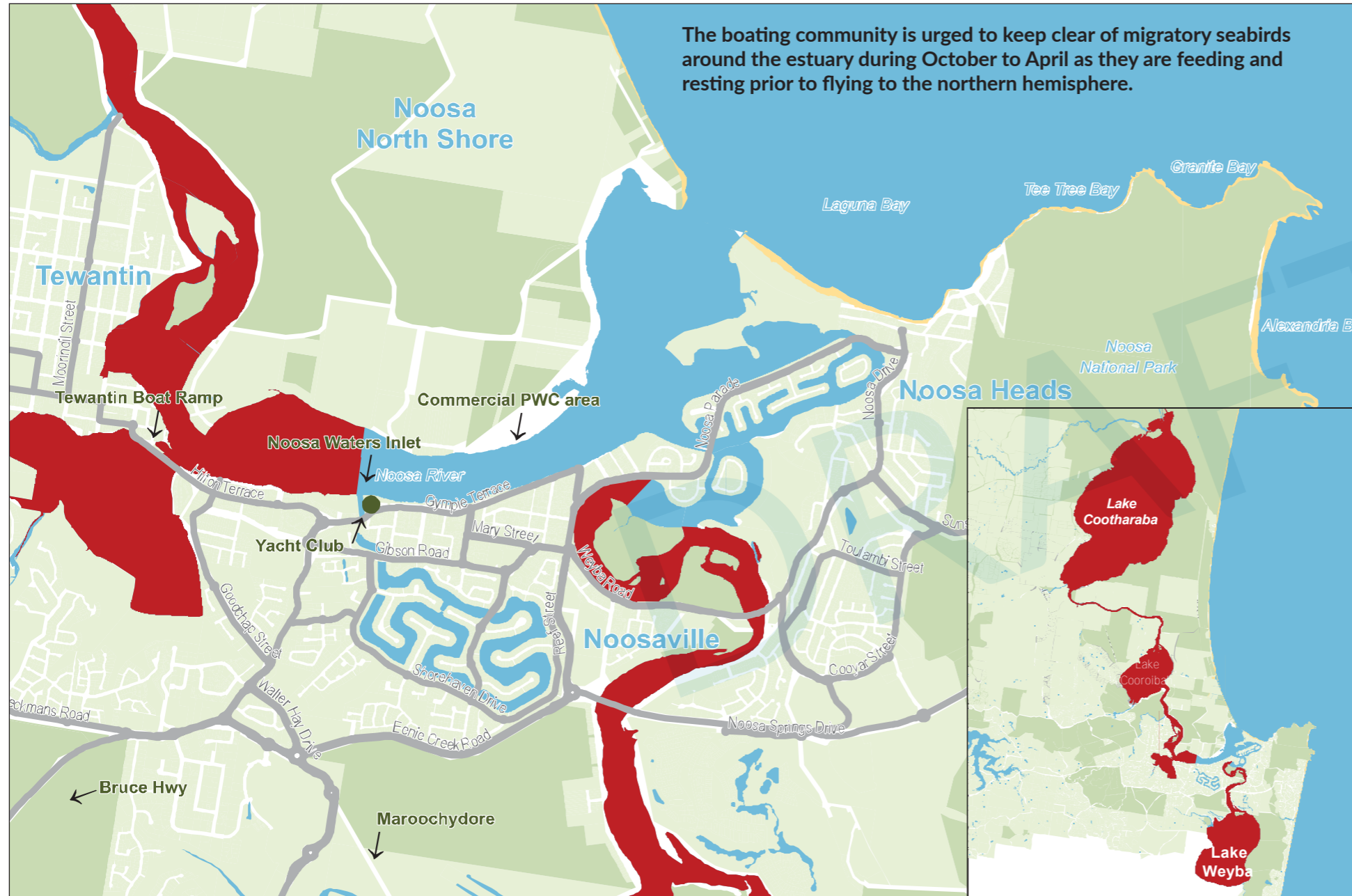
Personal watercraft areas (jet skis)

■ PWC (jet ski) activity is restricted in this area. PWCs can transit the river channel *downstream of the Noosa Waters Inlet* to the river mouth and out to open ocean. The marine zone does not apply to PWC activity in the open ocean.

■ PWCs are not permitted on the remainder of the Noosa River.

■ The commercial PWC area will continue to operation.

The boating community is urged to keep clear of migratory seabirds around the estuary during October to April as they are feeding and resting prior to flying to the northern hemisphere.



Prohibited on the Noosa River: hovercraft, airboats, seaplanes, freestyling, surfing and wave jumping activities, except freestyling by commercial PWCs in the commercial PWC area.

Water skiing areas

■ Water skiing and wakeboarding is only allowed in the two water ski runs between Tewantin and Lake Cooribah, from 8am to 5pm.

■ Water skiing is prohibited on the remainder of the river.

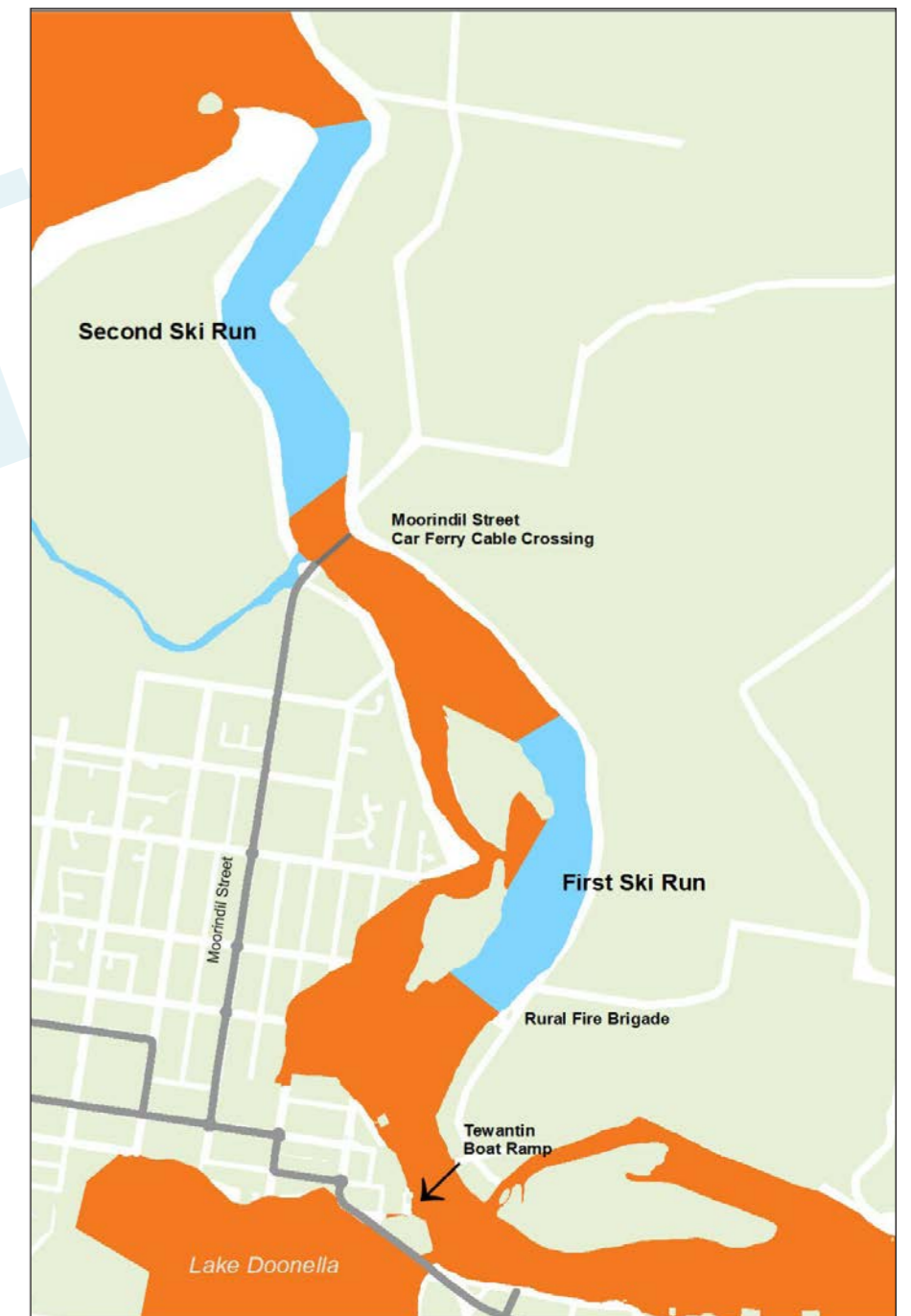


Figure 2 Map of Noosa River Marine Zone - jet ski and water skiing restricted areas

Objective 1: The recreational boating public understand and observe the Noosa River Marine Zone prohibitions and restrictions.

Management response	Who	When
Implement an on-river education and compliance program to regulate activities within the Noosa River Marine Zone.	Council	Short - medium term
Install additional Marine Zone signage on the foreshores to clarify the beginning and end of the MZ.	Council	Short term



3.1.2 Anchoring, mooring and living on the river

The Noosa estuary offers safe anchorage for cruising yachts, mooring locations for recreational boating, and opportunities for living on the river. It is a significant natural asset and a significant resource for recreation and tourism. The River Plan provides opportunity for establishing a well-managed, welcoming and friendly boating community in the Noosa estuary to support visitors, as well as meet the expectations of residents.

Anchoring

Over time, some boat owners have abandoned their vessels in the river, or they leave vessels unattended at anchor, in some case for many years. This has a negative cumulative impact on the visual amenity of the river and significantly contributes to river clutter.

These abandoned vessels mostly occupy the lower estuary, which is by far the busiest section of the river. They impede river use by others, especially those navigating the river in darkness.



Vessels left unattended at anchor for long periods are also an ongoing concern during very high tides and strong winds, as they frequently break from their restraints or drag anchors.

There are few legislative restrictions regarding anchoring in the Noosa River. There are no provisions regarding 'unattended' anchoring, and no provisions to control the length of stay. There is currently no fee associated with anchoring, and the current regulation (Transport Infrastructure- Waterways Management- Regulation 2012) allows boat owners to leave their vessels unattended at anchor indefinitely.

Maritime Safety Queensland (MSQ) has restricted legislative powers to deal with abandoned and derelict vessels. Their policy further limits when and where an investigation may be triggered and when it is acted upon.

Mooring

There are 112 authorised buoy moorings scattered throughout the length of the river. This number was capped in 2010 by the Harbour Master who determined the river was at capacity and any additional moorings would compromise marine safety. New requests for moorings are placed on a waiting list.

The issues with moorings in the Noosa River relate to:

- Their location contributing to river congestion.
- The number of vessels in very poor condition and the visual impact of neglected vessels occupying prime positions along the river.
- Scouring of seagrass beds from 'swing' type moorings located in declared Fish Habitat Areas (FHA).
- Non-compliance with the mooring permit's 'conditions of use'.

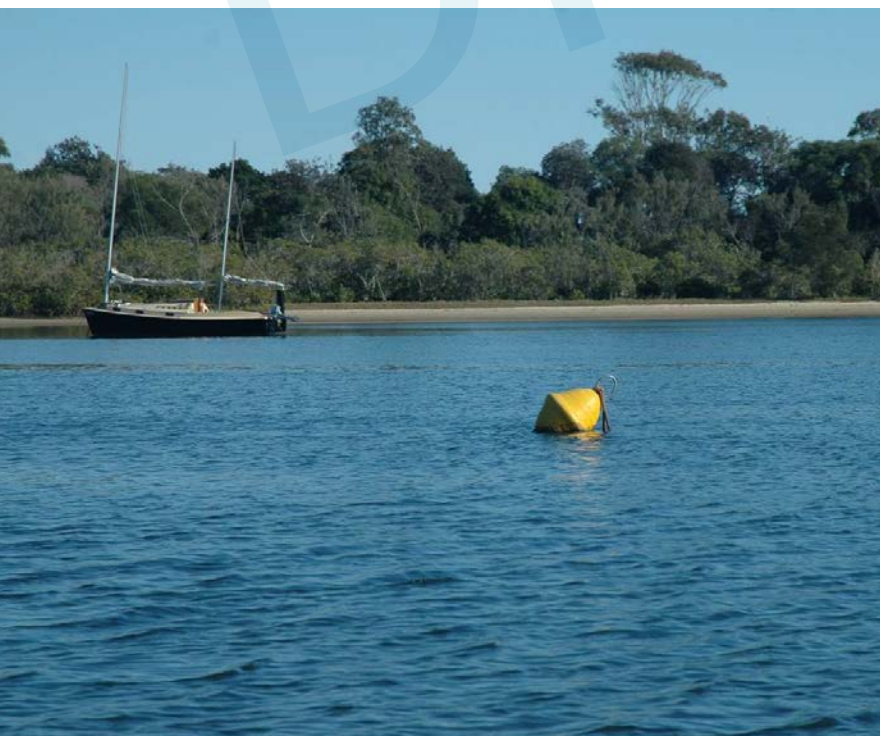


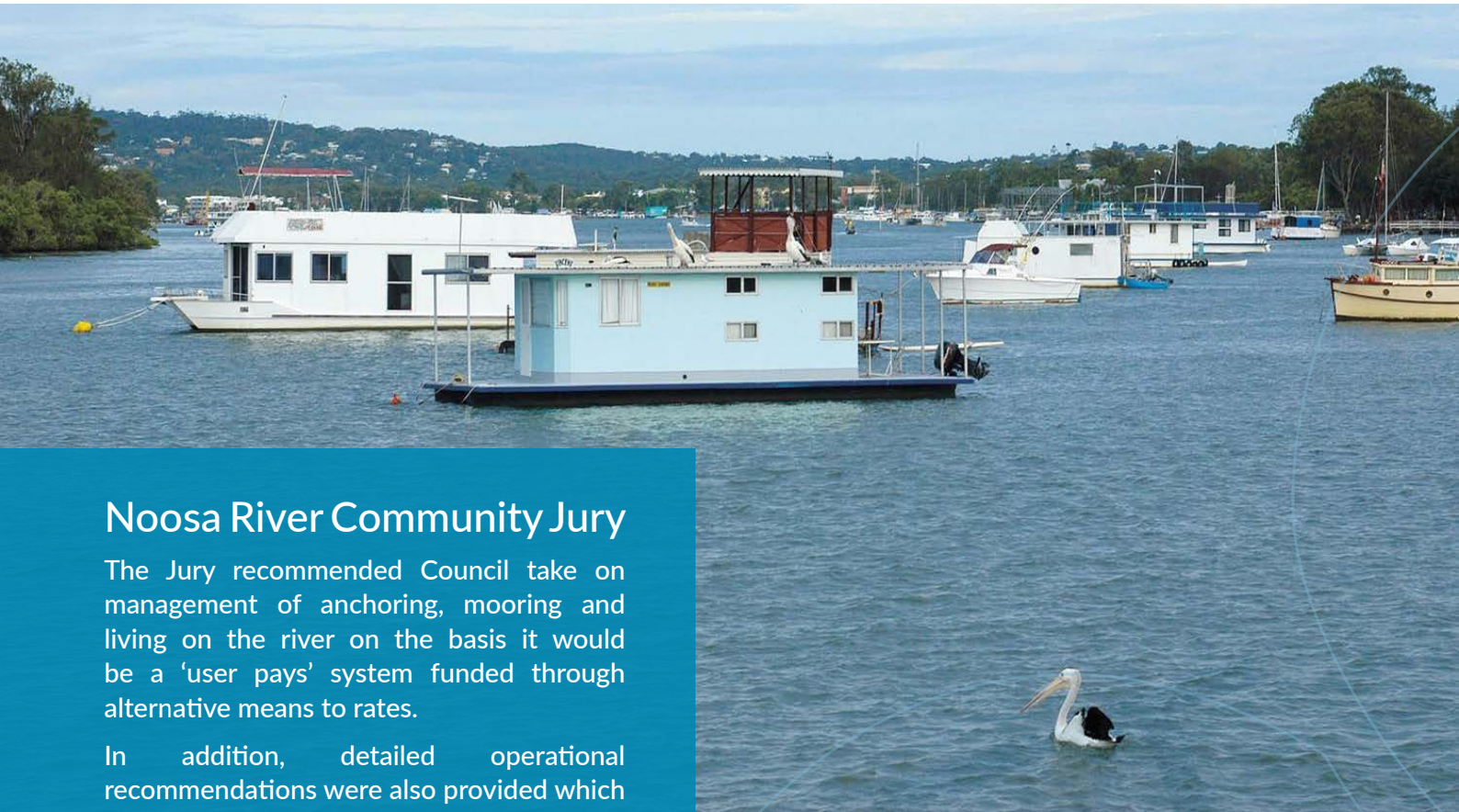
Mooring minders

A 'mooring minder' is the term colloquially given to relatively inexpensive boats purchased by a mooring authority permit-holder specifically for the purpose of reserving the mooring space.

These vessels are often in very poor condition and are left unattended for long periods of time. Aside from the visual impact of neglected vessels, these can also result in safety concerns and damage to other vessels and property if they sink or break free from their moorings, which are also often poorly maintained.

As a 'condition of use' for a mooring permit, authorities in some states require a vessel to be visually suitable for the area, and be maintained in a seaworthy condition, which means being capable of undertaking a voyage.





Noosa River Community Jury

The Jury recommended Council take on management of anchoring, mooring and living on the river on the basis it would be a 'user pays' system funded through alternative means to rates.

In addition, detailed operational recommendations were also provided which include:

- Implement a role with authority on the river around compliance and monitoring.
- Remove abandoned, unattended, unauthorised, derelict and unsafe vessels to an impound area in the river for auction.
- Review anchoring and mooring locations and types of moorings.
- Determine a cap and locations for live on boards.
- Review fees for mooring and anchoring.
- Undertake effective monitoring and facilitation of waste tank effluent removal and disposal from vessels.
- Implement lighting and marker options for boats (and beacons) for safety reasons.

Living on the river

The Department of Transport and Main Roads has issued a number of long-term and casual approvals for people to live on the Noosa River, either temporarily, intermittently or permanently.

Vessels used to live on-board are either at anchor or moored, and there is no fee associated with these approvals.

The Transport Infrastructure (Waterways Management) Regulation outlines the legislative provisions for living on board. These provisions restrict vessels being used for living on the river (whether temporarily, intermittently or permanently) from remaining in the river for more than 48 hours, unless the living on board is in accordance with the State approval.

As a 'condition of use' the vessel used to live on board must have the appropriate waste holding system on board. Occupants must ensure waste is not discharged to the river, ensure that a fixed

or mobile pump-out facility is used to empty the contents of the waste holding system and keep written records of each discharge while the vessel remains in the river.

Council regularly receives complaints from the general public and other river users that people discharge waste to the river. The Noosa River and adjoining lakes is a nil discharge area for treated and untreated sewage. These provisions are set out in the waterways management and marine pollution legislation.

Objective 2: Anchoring, mooring and living on the river is well managed.

Management response	Who	When
The actions below can only be progressed once the State has agreed to a transfer of management responsibilities to Noosa Council.		
<p>Advance discussions with relevant State agencies, informed by the Community Jury’s recommendation that <i>Noosa Council should take on the responsibility of managing anchoring, mooring, commercial uses and jetty leases for the Noosa River</i>. Subject to the handover of responsibility to Council for these activities, pursue::</p> <ul style="list-style-type: none"> a) Development of an Anchoring, Mooring and Living on Board Management Plan to identify how Council intends to manage these activities. b) State endorsement of the Plan, and enter into a formalised agreement under relevant waterways legislation. c) A review of anchoring and mooring locations and types of mooring. d) Identification of a cap and locations for living on board in the river. e) Effective monitoring and facilitation of waste tank effluent removal and disposal from vessels. f) Removal of unsafe, abandoned and derelict vessels from the Noosa River. 	Council , community stakeholders, Queensland Government	Short - medium term
The actions below can be progressed without a transfer of management responsibilities to Noosa Council.		
Investigate legislative amendments to control the ‘length of stay’ for anchoring.	Council	Short term
Advocate for improved lighting and marker options for boats (and beacons) for safety reasons.	Council, Queensland Government	Medium term

3.1.3 Speed limits and public safety

The lower Noosa estuary is popular and very busy, particularly around Munna Point and the Dog Beach (Noosa Spit). Boats travelling at speed in these areas have created a public safety risk. Council has also instigated extensive erosion protection works.

The boat wash produced from vessels travelling at up to 20 knots around these areas is contributing to the undermining the integrity of the erosion protection works in place and increasing the public safety risk to swimmers.



Council is focused on ensuring recreational boating is conducted in a manner that considers the amenity and safety of other river users and doesn’t compromise the capital investments made to protect river banks.

A temporary speed restriction of 6 knots was put in place whilst the erosion protection works were underway, however this restriction was lifted at the completion of the project. A permanent speed reduction from 20 knots to 6 knots in these specific areas would improve public safety and reduce the boat wash impact on the erosion protection works in place.



Objective 3: Boating speed limits in key areas are appropriate.

Management response

Review seasonal speed limit restrictions around Munna Point and Noosa Spit (Dog Beach) with Maritime Safety Queensland with a view to making these changes permanent.

Who

Council, community stakeholders, Queensland Government

When

Short term

3.1.4 Marine infrastructure

Eight public boat ramp facilities are provided by the State and managed by Council in order to service the Noosa River boating public. Public boat ramps are funded via recreational boating registrations and are designed and operated to provide functional, safe and convenient boat access to the river with no net loss of public access and use of the public foreshore.

In addition, there are 21 public jetty infrastructures and 687 privately owned jetties constructed throughout the Noosa River system. Jetties are constructed for the primary purpose of providing functional, safe and convenient access to vessels and additionally for public recreation purposes in the case of public jetties.

The majority of public jetties in Noosa are owned and managed by Council, and a few older, historic public jetties are owned and managed by the State. Owners of private jetties are responsible for their jetties' upkeep with most private jetties attached to freehold land, although in some instances, private jetties are attached to public lands.

All jetties require approval from Council under Noosa’s Planning Scheme as well as the State Department of Environment and Science (DES). Commercial operators may apply to Council to use public boat ramps and these operators also require approval from the State for owner’s consent.

Commercial water-based businesses are required to operate from an approved commercial jetty. The use of private jetties for commercial activities is not allowed. This is to ensure that appropriate facilities are provided for water-based commercial activities (and vessels) which provide due regard to the visual, environmental and cultural values of the river system.

There are a number of impacts and considerations for Council and the community regarding the use of boat ramps and jetties which include:

- Use of public boat ramps (including parking) impacting on surrounding streets and residents.
- Commercial operators using public marine facilities without approval.
- Unapproved boat ramps and jetties on public land built by residents and not designed or maintained to standards.
- Unapproved boat ramps and jetties on public land and in declared Fish Habitat Areas (FHAs).
- Potential safety risks to the public accessing unapproved boat ramps and jetties on public lands.



Objective 4: Marine infrastructure is fit for purpose and does not adversely impact on the environment values or local amenity.

Management response	Who	When
Review current management of boat ramps and jetties in collaboration with the relevant State agencies: a) Develop a comprehensive database of boat ramps and jetties in the river system. b) Investigate unauthorised uses and their impacts on environment/ local streets.	Council	Short - medium term
Investigate a means of assessing the carrying capacity of the river in terms of recreational boating.	Council	Medium - long term

Recreational boating facilities demand

In 2016, the Department Transport and Main Roads commissioned a Recreational Boating Facilities Demand Forecasting Study for Noosa Council's consideration (GHD, 2016).

This study set out the current and future demand for publicly accessible recreational boating facilities in the Noosa River for the next 20 years. The assessment considered facilities for vessels such as boat ramps, floating walkways and landings for deep-draft vessels. It is intended to be used to inform funding priorities from 2018/19 onwards. During this assessment, issues of overcrowding, capacity and safety were raised by stakeholders regarding access to recreational boating facilities (GHD, 2016).

The study suggests Noosa will soon need a total of 10 boat ramp lanes. Currently there are 7 'effective' lanes. Notably, the forecasting demand modelling does not consider the extent to which private jetties in Noosa service the recreational boating access needs. As a result, areas like Noosa with numerous waterfront residences have been assessed the same as those with none.

Council is more likely to support, subject to capacity and design considerations, upgrades to existing facilities as this is more aligned to Council's approach to managing the foreshore and open spaces. Council does not support the building of new boat ramps in the Noosa Shire.

3.1.5 Commercial use of the river

Jetty leases

There are 14 State commercial jetty leases established along the Noosa River between Tewantin's Memorial Park to the west and the Sofitel Resort (Noosa Parade) to the east – see Figure 3 below.



Figure 3 Commercial jetty leases along the Noosa River foreshores.

The leases are predominantly over water (i.e. beyond the high water mark) but most include a portion of foreshore land.

The Department of Natural Resources, Mines and Energy (DNRME) issues the leases and is responsible for their management under the Land Act 1994. Council cannot be authorised under the Land Act to take on management of these leases, however it is responsible for management of development within the lease and management of the public foreshores.

This shared responsibility creates a challenging management model for all levels of government.

The Noosaville foreshore, where the majority of leases are located, is one of the most popular recreational areas in the Shire. It now accommodates significant competing recreational and commercial demands, particularly during peak holiday times.

Council receives regular complaints about the commercial leases. A number of these complaints are from jetty operators themselves seeking a level playing field, whilst others are from the general public. Most complaints relate to:

- Subletting of commercial businesses which do not have a marine facility purpose.
- Commercial signage and hire watercraft occupying the public foreshores.
- Changes to commercial fleets (e.g. boat types and size).

Several years ago most leases were renewed for 30 years. New lease conditions decreased the specificity of previous conditions however standard lease conditions still require:

- Use of the lease for marine facility purposes only.
- Compliance with State and Local Government laws.
- Lessees to obtain necessary approvals for structures.
- Development and use of the land to be consistent with the Planning Scheme and requirements of Council.

Noosaville Foreshore Land Use Master Plan

In response to increasing demands for recreational, community and commercial use of the foreshore, Council, in consultation with the community and DNRME, has developed a Noosaville Foreshore Land Use Master Plan to inform future decisions regarding use of the Noosaville foreshore in particular.



Guidelines for the establishment of new businesses on the Noosa River

Council receives numerous enquiries for proposed new businesses on the Noosa River. Individually these applications have merit, however when considered together, the sheer number of potential uses would seriously impact upon safety, amenity and clutter on the river.

In 2006, Council created Guidelines for the Establishment of New Businesses on the Noosa River. These guidelines have been effective in managing inappropriate uses on the river and cover the following topics:

- **Jetty operation base required** - Commercial water-based businesses are required to operate from an approved commercial jetty. Use of private jetties for commercial activity and the operation of a commercial business (including Air BNB) from anchor or an authorised buoy mooring in the river are not permitted.
- **Floating shops** - Council does not support establishment of a new floating shop permanently attached to a jetty and used for commercial purposes.
- **Use of boat ramps** - The regular launching of commercial hire craft such as jet skis, boats, canoes, tour vessels etc. is not permitted from public boat ramps without approval. Boat ramps are owned by the State and intended to provide for private recreational vessels. Noosa Council supervises the operation of the boat ramps on behalf of the State.
- **Use of public jetties.** Public jetties are provided for use by private vessel owners and are not authorised for commercial activity. A new business relying on use of a public jetty will not be approved.
- **Sale of food from vessels.** The sale of food from a vessel to customers on the banks of the Noosa River is not permitted. Food may only be sold to customers on board or to occupants of another vessel.

Objective 5: Commercial use of the river maintains the high environmental quality of the river, while meeting the needs of river users.

Management response	Who	When
Support the implementation of the Noosaville Foreshore Land Use Master Plan.	Council	Ongoing
Review and update Council's <i>Guidelines for the Establishment of New Businesses on the Noosa River</i> .	Council	Medium term
Investigate a statutory means of managing the size and type of commercial fleets operating in the river.	Council	Medium term

Commercial fisheries

Sustainability of the Noosa River's commercial, recreational and indigenous fisheries is of great interest to the community.

Noosa Council supports protection of the 6,000 hectares of declared Fish Habitat Areas throughout the river system due to their importance to the sustainability of the fisheries in this region.

Fisheries review and reform

In Queensland, commercial and recreational fisheries are managed by the Department of Agriculture and Fisheries (DAF), which commenced an independent review of fisheries management in 2014.

Council made a submission to this review highlighting concerns about commercial and recreational fishing on Noosa North Shore (NNS) and requested the State to:

- Review the compatibility of commercial fishing uses and other recreational uses on the NNS.
- Close the NNS to commercial fishing by establishing a recreational fishing haven to exclude commercial fishing.
- Consider introducing recreational fishing permits.
- Consider buying back those commercial fishery licenses operating from the NNS and not re-issuing any existing licences due for expiry.
- Consider how Council could partner with the State to ensure smooth implementation of these recommendations.

In 2016, as a next step in the fisheries management review process, the State produced a **Green Paper on Fisheries Management Reform in Queensland** and again called for public comment.

This was a major step in development of a strategic policy to guide the management of Queensland's fisheries resources into the future. The Green Paper articulated a vision for the management of wild harvest fisheries and the proposed reforms required.

The State recognised that reforms and any new legislation may take a number of years to be completed. Council welcomed the opportunity to provide feedback to the Green Paper at its Ordinary Meeting on the 15 September, 2016.

Queensland Sustainable Fisheries Strategy 2017-2027

A **Sustainable Fisheries Strategy**, which takes into account the public feedback on the **Green Paper**, has been developed by the State. More than 11,000 submissions were assessed during this significant consultation exercise dating back to 2014.

The overwhelming message received during consultation was that all stakeholders wanted reform in the way the State manages fisheries. This included strong support from all sectors for better fishery monitoring, more effective engagement, more responsive decision-making and greater fisheries compliance with regulations (State of Queensland, 2017).

The Strategy sets out the reform agenda for the next 10 years with a commitment from the Queensland Government of more than \$20 million over the next three years to kick start implementation to support the reforms (State of Queensland, 2017).

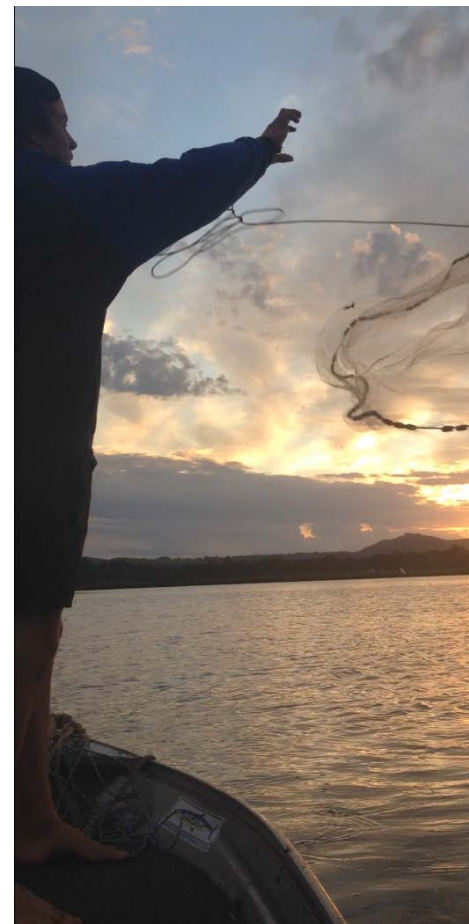
Partnerships and projects

Council, in partnership with the Noosa Biosphere Reserve Foundation, Noosa Parks Association, the Thomas Foundation and the Nature Conservancy, commissioned a number of fisheries-related studies that provide relevant science-based research about the Noosa River fisheries and management options for the restoration of aquatic habitats to improve these fisheries.

These studies include:

- **History of Aquatic Restoration and Management Options for Noosa Estuary and Lakes 2014**
- **Restoration of Noosa Estuary – An Assessment of Oyster Recruitment 2014**
- **Historical Ecology of the Noosa Estuary Fisheries 2015.**

This research was the catalyst for the Partner Project - Bring Back the Fish.





Bring Back the Fish

This project consists of three elements:

1. An assessment, undertaken by the University of Queensland, of current baseline environment conditions against which the success of restoration efforts can be measured. It includes assessing the links between school prawns and the prevailing environmental conditions, a current full stock assessment and recommendations for enhancing or restocking prawns in the Noosa lakes and estuary.
2. Direct restoration of lost oyster reef habitat in the Noosa estuary, undertaken by the University of the Sunshine Coast. It includes construction of artificial reefs and monitoring of results; and improved understanding of how the restored oyster reefs secure fish diversity, biomass and connectivity in the system.
3. A parallel project involved an assessment, undertaken by Noosa and District Landcare and Healthy Land and Water, of erosion prone areas in the Kin Kin Creek sub catchment to determine current sediment inputs to waterways. It identifies priority areas for riparian restoration. The objective of this work is to reduce the overall sediment load in the system that currently hinders the growth of oyster reefs and seagrass beds, which provide habitat for fish and prawns.

The long term outcome sought by Bring Back the Fish is a considered balance between marine biodiversity recovery and sustainable recreational and commercial fishing.

The project is led by the Noosa Biosphere Reserve Foundation with financial support from Noosa Parks Association, Noosa Council, Thomas Foundation, the University of the Sunshine Coast, Noosa and District Landcare and Noosa Integrated Catchment Association.

Objective 6: Commercial and recreational fishing are sustainably managed in the Noosa River.

Management response	Who	When
Continue to advocate as a key stakeholder in the State's sustainable fisheries management reforms for the Noosa region.	Council	Ongoing
Continue to explore, partner and invest in projects and initiatives that seek to improve river quality, habitat and health with a range of community organisations and partner organisations. Example-Bring Back the Fish partner project.	Council, Natural Resource Management groups, Community stakeholders	Ongoing



3.2 Rural and urban runoff (and other pollution sources)

3.2.1 Rural runoff

The hinterland sub-catchments within the broader Noosa River catchment have the potential to deliver sediment laden runoff into waterways and wetlands when it rains, especially former timbered areas which have typically been replaced by agriculture lands and road networks.

This transition has involved broad clearing across the landscape (including hill slopes) to make way for crop growing and animal raising and has made landscapes vulnerable to soil loss. Runoff from these areas can contain elevated quantities of sediment, nutrients and chemical contaminants (e.g. animal faeces, fertilisers and pesticides), and microbial contaminants (e.g. bacteria).

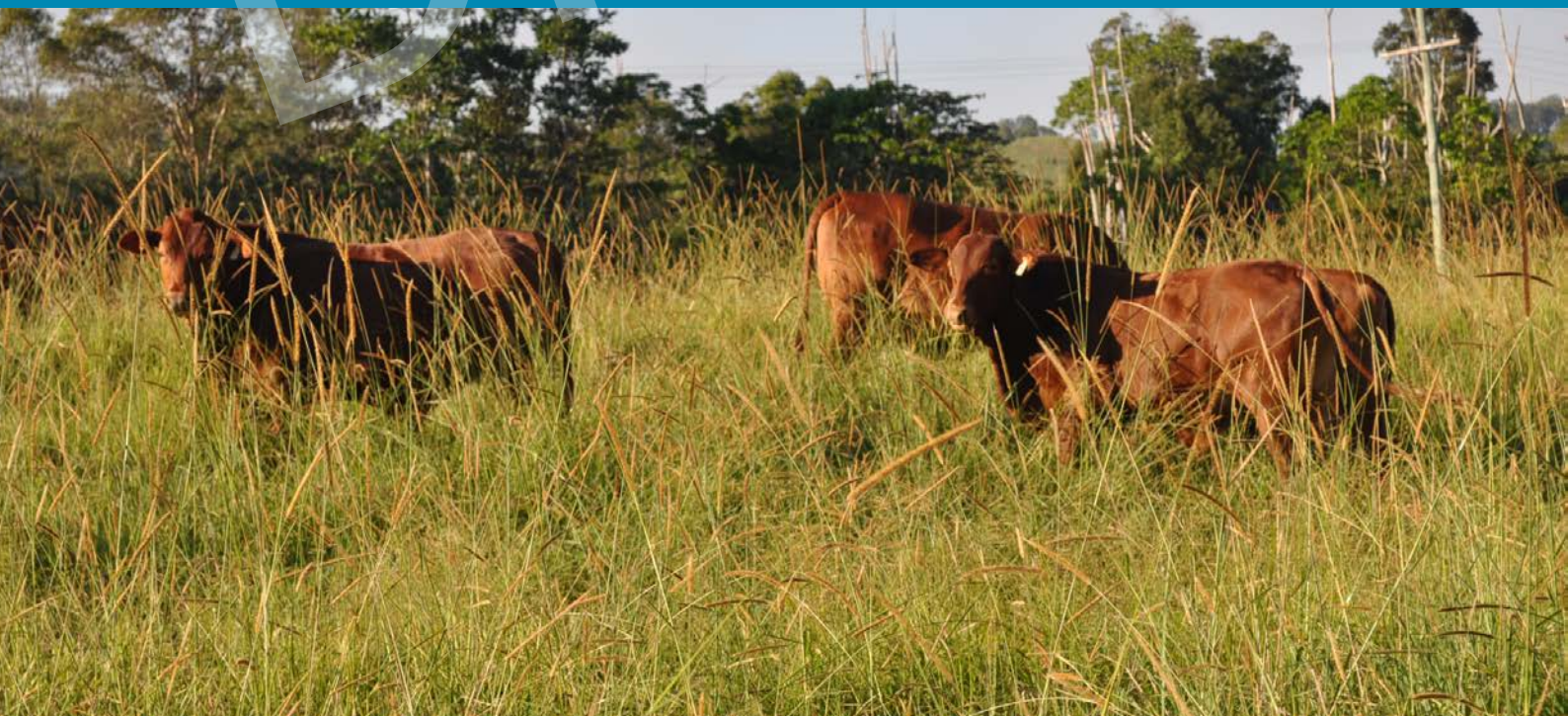


All the Shire's residents have an 'environmental duty of care' under the Environment Protection Act and the Environment Protection (Water) Policy to ensure their land-based activities do not adversely affect environmental flows, water quality, riparian areas, wetlands and in-stream habitats.

Landholder extension and educational programs are the preferred non-statutory approach to help achieve best management practices.

These programs can cover a wide range of land management and production issues, with soil health, grazing and use of fertilisers and chemicals directly relevant to water quality improvement. They are being implemented throughout central and north Queensland's river catchments to help reduce the impacts of rural runoff on the Great Barrier Reef.

Rural enterprise is a sector Council is committed to growing through the Noosa Shire Local Economic Plan as there is increasing demand for sustainably produced local food and beverages.



Partnerships and projects

The Kin Kin sub-catchment is the largest area of modified landscape in the Noosa River catchment and is a major source of sediments entering waterways.

In 2015 the Noosa Biosphere Reserve Foundation funded Noosa and District Landcare to undertake a LIDAR (Light Detection & Ranging) study to identify the degree of soil loss in the Kin Kin sub-catchment.

In addition, Council commissioned a condition assessment of all waterways within the Shire to identify their ecological values and 'recovery potential' to remediation activities.

These studies provide relevant, science-based research to inform management of landslips, erosion hotspots and where to target investments to repair degraded waterways and wetlands. They also provide the basis of partner project **Keep It in Kin Kin** which aims to reduce rural runoff, improve land management practices and protect riparian areas and wetlands.

This project is led by Noosa and District Landcare with funding made available through the Noosa Biosphere Reserve Foundation with support from Noosa Council and Noosa Parks Association, The Thomas Foundation and the Noosa Integrated Catchment Association.



Keep It in Kin Kin

This project compares LIDAR imagery from 2008 to 2015 to identify erosion hotspots in the Kin Kin sub-catchment most in need of intervention to keep the soil on the land and out of the waterways. LIDAR is an optical remote-sensing technique that uses laser light to densely sample the surface of the earth.

The analysis reveals that up to 2.3 million tonnes of sediment was mobilised in this area over the last seven years. Only 275,856 tonnes of sediment was found to be deposited in the sub-catchment which equates to approximately 88% of soil leaving the catchment via the waterways. Infographic Soil loss in Kin Kin?

Based on an average soil replacement cost of \$30/tonne the cost of this soil productivity loss exceeds \$6M.

This project also includes an extensive survey of the creek banks to locate infestations of the riparian menace Cats Claw Creeper (*Macfadyena unguis-cati*).

This 'transformer' weed species can dominate and completely degrade the integrity of creek and river banks, causing erosion and reducing biodiversity.

Implementation of a rural landholder education and extension program, as part of the project, will support landholders in remediation of landslips, erosion hotspots and eradication of Cat's Claw to negate these degrading processes on the river system.

Unsealed rural roads

Unsealed rural roads are potentially a major source of sediment entering waterways when it rains.

In the Noosa River catchment no specific measures of sediment contribution from rural roads has been undertaken. Healthy Land and Water have identified that a critical factor in determining the contribution of sediment from roads to waterways relates to the level of connectivity of ‘table drains’ entering these receiving waterways. A table drain is a v-shaped, trapezoidal or parabolic-shaped surface drain located immediately adjacent to the edge of a road.

This research has demonstrated that lowering connectivity to waterways requires that water is either discharged from table drains or spread across vegetated landscapes where sediment can settle or the flow is directed into detention basins for sediment settling.



Objective 7: Sediment, nutrients and contaminants moving from rural areas to waterways and wetlands are reduced.

Objective 8: Degraded waterways, wetlands, riparian areas and in-stream habitats are rehabilitated.

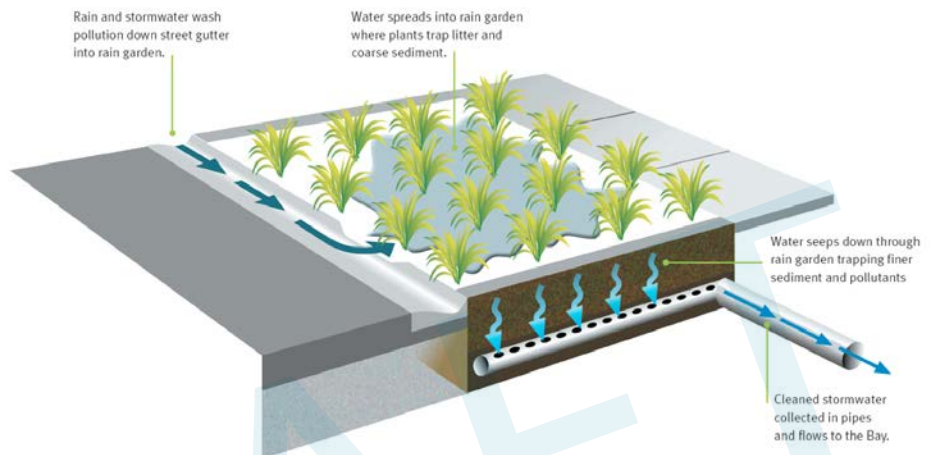
Management response	Who	When
Develop and implement a targeted extension and education program for rural landholders in important rural sub-catchments	Council, NRM Groups, Community stakeholders	Medium term
Continue to explore, partner and invest in projects and initiatives that seek to improve and remediate erosion hot spots and rehabilitate riparian areas. Example-Keep It In Kin Kin partner project.	Council, NRM Groups, Community stakeholders	Ongoing
Investigate the potential of unsealed rural roads in important rural sub-catchments contributing sediment-laden runoff to waterways.	Council	Medium term

3.2.2 Urban runoff

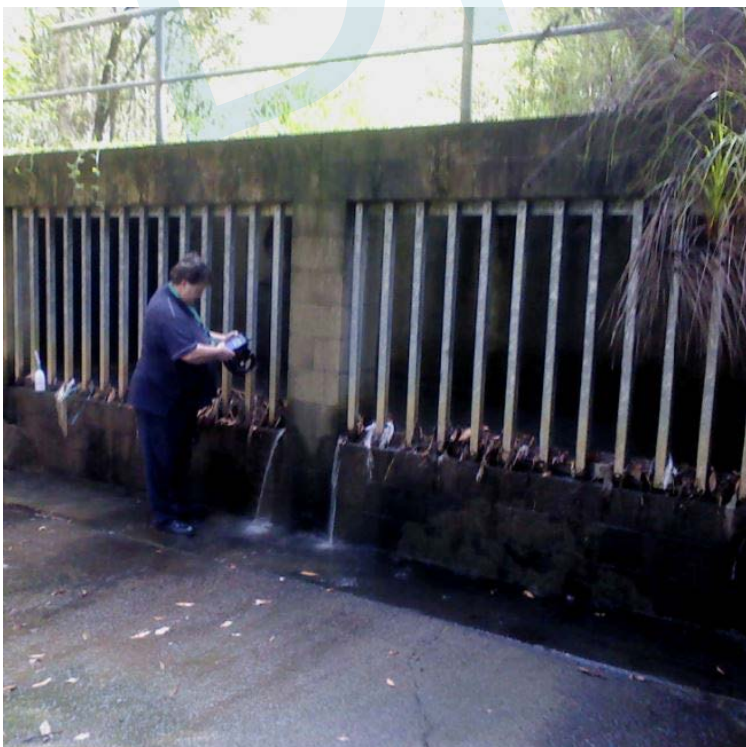
Urban runoff is a mixture of treated and untreated stormwater. It can be a major source of pollution. It is delivered to waterways via the stormwater network and contains sediments, nutrients and chemical contaminants, and 'gross pollution' such as litter.

The impervious surfaces of urban areas such as roofs, roads, driveways, car parks and paving also increase the velocity and quantity of runoff to waterways. Urban stormwater infrastructure, particularly water sensitive urban design (WSUD) infrastructure, can play a key role in reducing stormwater velocity and pollutants entering waterways.

In new residential developments, the installation of bioretention basins has become the most common stormwater quality treatment. Bioretention basins are a hybrid engineered and vegetated filtration device used to remove sediment, nutrients and litter from urban stormwater runoff.



In existing urban areas, stormwater quality treatment devices such as Gross Pollutant Traps (GPTs) were installed long before the bioretention basin technology. GPTs can intercept pollutants such as soil, silt, leaves, hydrocarbons and litter before entering the receiving waters. Continued upgrading and renewal of these types of infrastructure, as well as maintenance, is essential for ongoing effectiveness.



Council has a statutory management responsibility under the Environment Protection Act and Environment Protection (Water) Policy to make sure Noosa's waterways are protected through management of pollution sources. These responsibilities include ensuring:

- The quality of stormwater leaving new residential development achieves the State Planning Policy's pollution reduction targets.
- In existing residential developments, water pollutant loads to receiving waters are reduced.

Best management practices for stormwater management ensure:

- Renewal opportunities for stormwater quality improvement devices (including litter nets) are comprehensively investigated, mapped, assessed and prioritised.
- Renewals are systematically implemented as part of a long term, stormwater management improvement program.
- All stormwater quality improvement devices are managed and maintained over the life cycle of the asset to ensure treatment efficiencies are maintained.



3.2.3

Other pollution sources

Industrial business operations with the potential to release contaminants into waterways are referred to as Environmentally Relevant Activities (ERAs). These businesses are licensed with conditions under the Environment Protection Act 1994.

Council undertakes annual inspections of ERA licensed businesses to ensure compliance. These businesses include boat building, metal recovery, and asphalt industries. Following the introduction of the State Government's Green Tape Reduction Act 2012, many previously ERA licensed businesses, with the potential to pollute waterways, no longer require a licence with conditions of use, or an authorised annual inspection by Council. These businesses are expected to self-regulate and adhere to industry standards.

In 2016, an initial stormwater pollution investigation of the Noosaville industrial estate revealed pollution had occurred and impacted the local waterway. A further comprehensive investigation of 132 businesses across the Shire followed. It also revealed an alarming level of non-compliance.

Council has been working in partnership with key industries to facilitate information on environmental compliance and share knowledge. A risk-based annual inspection program of industrial premises is required to monitor protection of waterways values under the Environment Protection (Water) Policy.

Throughout the catchment, there are also instances where individual practices create polluted runoff, which enters waterways, predominantly via the stormwater network. Specific examples include:

- Building sites without erosion controls in place (sediment runoff when it rains).
- Back-washing of private swimming pools and spas (pathogens/chemical releases).
- Cleaning and painting roofs (runoff of paint/cleaning substances).
- **Car washes (runoff of hydrocarbons/cleaning substances) littering.**



Objective 9: The quality of water running off urban areas is improved.

Management response	Who	When
Ensure inclusion of environmental considerations in new and renewal capital projects and the asset management program.	Council	Ongoing
Ensure capital works projects include stormwater quality improvement devices, including litter nets, to reduce any pollution of waterways.	Council	Ongoing
Continue to require, regulate and ensure compliance of stormwater management systems and water sensitive urban design in private development.	Council	Ongoing
Continue to conduct risk-based annual inspections to monitor compliance of ERA licensed industrial operations.	Council	Ongoing
Conduct risk-based annual inspections of non-EA licensed industrial operations to monitor activities.	Council	Ongoing
Develop and implement a proactive education, behaviour change and compliance program to increase community awareness of the impact of specific practices which pollute waterways (e.g. erosion & sediment control on construction sites, roof painting, pool backwashing and car washes).	Council, Community stakeholders	Medium term



Residential septic systems

Residential on-site septic systems and waste water treatment facilities have the potential to impact groundwater quality if not appropriately managed, particularly within rural sub-catchments.

Council has a non-statutory responsibility to ensure education, behaviour change and compliance programs are in place to prevent waterways pollution, including pollution of groundwater.

Objective 10: Sewage collection and treatment facilities are designed and managed to minimise adverse impacts on water quality (including groundwater) and habitats.

Management response	Who	When
Establish an inspection program to proactively investigate potential of septic systems (and waste water treatment facilities) effluent leaking to groundwater.	Council	Medium term

Littering

Littering in and around the Noosa River system is quite common. Hotspots include the river foreshores, popular fishing locations, islands in the river, and along the beaches.

CSIRO has conducted significant research into littering and marine debris in Australian waters.

Survey data from every 100 km along the Australian coastline has shown that approximately three-quarters of the litter along the Australian coastline is plastic. Most is from Australian sources, not from overseas, with litter concentrated near urban centres.

Useful interventions, as identified by CSIRO, include:

- ‘Targeted’ litter education and awareness campaigns to stop littering.
- Litter debris traps in both surface and stormwater systems to reduce litter loads to waterways.
- River and beach clean ups to reduce litter deposited in and around local waterways.

A 2017 trial, using ‘litter booms’ in waterways and ‘foreshore and beach cleaning’ conducted within the Sunshine Coast Local Government Area, removed 3,493 plastic bottles and 2,659 plastic bags over a four month period.

Trials such as these, implemented in conjunction with targeted litter education and behaviour change campaigns, can deliver tangible outcomes in mitigating the impact of marine debris in the Noosa River.



River and beach clean ups

The scourge of plastics in waterways and the impact on marine life and seabirds resonates with many individuals and organisations in the community as a key environmental issue. An amazing cross-section of dedicated volunteers of all ages, act individually or together for coordinated river and beach clean-ups throughout the year.

Council supports these volunteers and clean-ups through provision of rubbish bags and disposal, and administers temporary event permits for activities conducted on public land. Key coordinating organisations include:

- Noosa Integrated Catchment Association (River Rangers).
- Surfrider Foundation.
- Clean Up Australia Day (CUAD).
- Noosa Community Biosphere Association.
- Coolum & District Coastcare.
- Sea Shepherd.
- Corporate organisations (Unitywater, Sofitel Noosa, Peppers Noosa).



Marine Debris – why does it matter?

Marine ecosystems worldwide are affected by human-made litter, much of which is plastic. Wildlife is impacted by marine debris directly through ingestion and entanglement and indirectly through chemical affects.

About half of seabird species across the globe have eaten plastic–this will likely increase to 95% of all seabird species by 2050.

Birds eat everything from balloons to glow sticks, industrial plastic pellets, hard bits of plastic, foam, metal hooks and fishing line.

Approximately one third of marine turtles have likely ingested debris–most items eaten are plastic and many turtles are now positively buoyant.

The regions of highest risk to global marine turtle populations are off the east coast of Australia, South Africa and USA; the East Indian Ocean, and Southeast Asia.

Turtles, seabirds, whales, dolphins, dugongs, fish, crabs and numerous other species are killed and maimed through marine debris entanglement.

A number of groups collate their findings and report on the volume of rubbish retrieved in and around Noosa's waterways each year:

- NICA's River Ranger volunteers fill a 1000L skip bin every two months with discarded items and litter from the lower Noosa River estuary.
- Surfrider Foundation volunteers annually collect 5 tonnes of rubbish along the Noosa North Shore to Double Island Point.
- Clean Up Australia Day volunteers recovered 8.2 tonnes of discarded items and 300 bags of litter from across the Shire in 2017.



Photo 1: The image above depicts a morning's haul from the Noosa River by NICA's volunteer River Rangers, 2017



An important outcome of river and beach clean-ups is the data gathered about rubbish collected at a given location. This data input to the Australian Marine Debris Database helps inform strategies for the long-term prevention of marine debris, including tackling the source of the rubbish.

Source reduction strategies

In 2018 Queensland will introduce a ban on single-use plastic bags, and a container refund scheme. These initiatives anticipate reducing the number of plastic bags and drinking container litter entering the environment.

In Noosa, the Boomerang Alliance has taken a lead role in influencing consumer behaviour, especially with regard to plastics.

The **Plastic Free Noosa** campaign engages with the retail and hospitality sector, as well as market, festival and event organisers, to encourage the take-up of reusable containers and packaging, or switch to commercially compostable alternatives where possible.

Broad community participation in **Plastic Free Noosa** as well as a targeted litter education and awareness campaign to stop the practice of littering throughout the river catchment has the capacity to reduce the amount of plastic in our waterways and ultimately the ocean.

Plastic bag ban and Refundable containers



BANNED



CONTAINER REFUND SCHEME



PET, HDPE PLASTICS

Objective 11: Impacts of litter in and around Noosa's waterways are reduced.

Management response	Who	When
Trial installation of litter nets at stormwater outlets and litter booms in key locations in the river.	Council	Short term
Develop and implement a targeted anti-littering campaign.	Council, community stakeholders	Short – medium term
Support volunteer river and beach clean ups to remove litter from in & around waterways.	Council, community stakeholders	Ongoing
Continue to promote and provide in-kind support to the Plastic Free Noosa initiative.	Council, community stakeholders	Ongoing

3.3

Climate change

South East Queensland has been identified as one of several high-vulnerability climate change 'hot spots' in Australia. Accordingly, a number of climate-driven natural hazards which Noosa Shire is currently exposed to are likely to be more problematic in the future. These include:

- More frequent and intense storm events.
- Lower average rainfall and more droughts.
- Flooding and heatwaves.
- Storm surge and coastal erosion.
- High sea level (Council Policy, Climate Change Response, 2017).

During shorter, more intense wet periods, freshwater creeks and estuaries are likely to receive higher flows, resulting in more runoff, increased bank erosion and landslips, exacerbating the rural and urban runoff pressures.

Further to existing pressures from population growth and coastal development, fisheries production will be impacted by changed patterns of rainfall and flow events, increasing water temperatures, fish habitat transitions and changes in stock distribution.

In extended dry conditions, environmental flows and water quality are likely to decline and affect aquatic life and waterway recreational activities. Impacts on low-lying coastal areas will be compounded by the climate variability, and degraded environments can accelerate this 'rate of change' and increase instability.

With the anticipated higher sea levels and storm surge, low-lying freshwater systems will be vulnerable to saltwater intrusion and inundation. Our climate has already begun to change, however sea level rise and its influence on the extent and severity of coastal hazards risks, are not projected to be felt for some time (Council Policy, Climate Change Response, 2017).

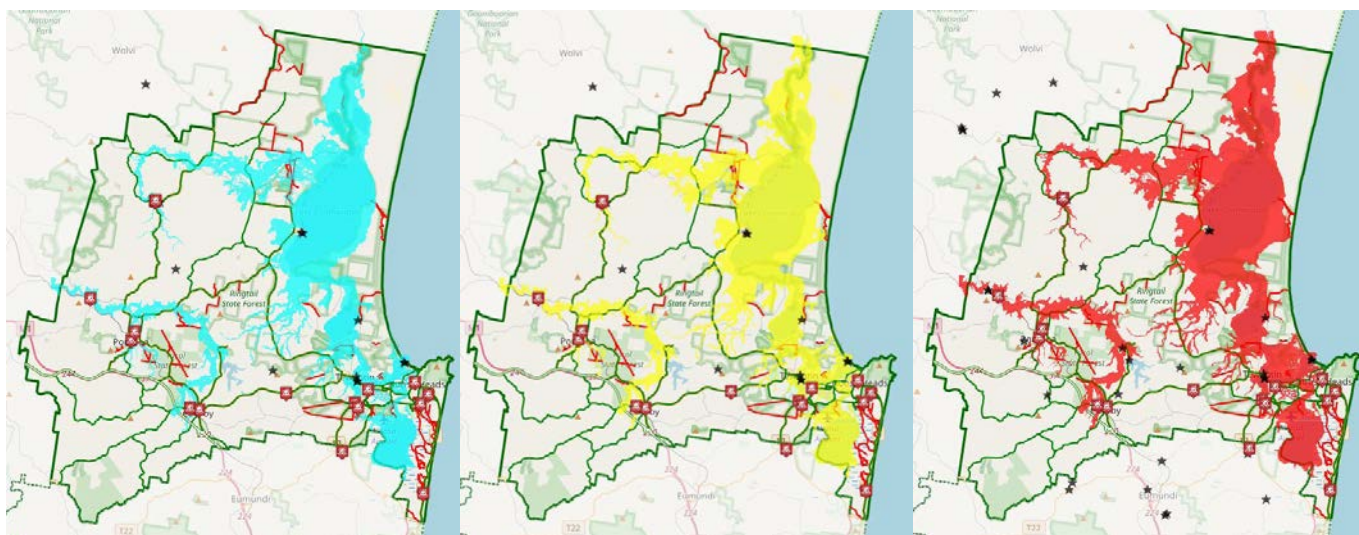
Understanding the impacts on vulnerable ecosystems can help identify measures to build resilience and secure vital refugia for native animals (including aquatic animals) over the long term.

Exposed and sensitive areas in the river catchment

As a low-lying coastal area, the Noosa Shire has high exposure and sensitivity to the impacts predicted to be most prominent in coastal areas, wet lowland forests and riparian areas (Noosa Biodiversity Assessment Report, 2017).

Due to heavier rainfall events and more extensive and destructive flooding (refer Table 2 below) riparian areas and wetlands in the catchment are expected to experience more frequent and intense damage such as wetland silting and loss of soil and nutrients from riparian zones.

These areas will also become more susceptible to weed incursions and greater natural ecosystem disturbance (Noosa Biodiversity Assessment Report, 2017).



Moderate flooding – may occur on average once a decade.

Major flooding – may occur at least once in an average lifetime.

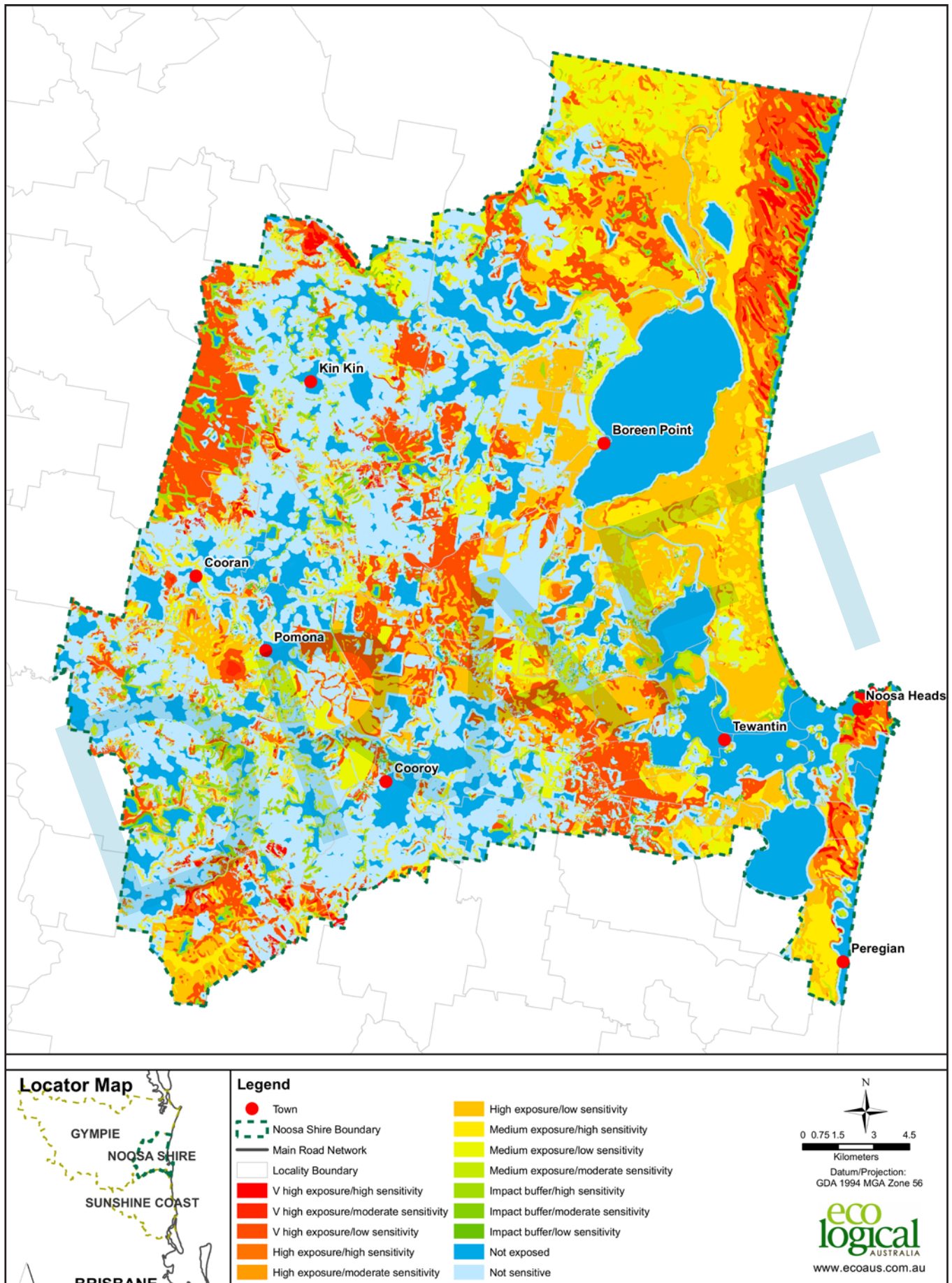
Extreme flooding – rare event relatively few people to witness.

Table 2. River and storm tide flood maps (Source: NSC Disaster Management).

Lower average rainfall and more droughts equate to a hotter, drier climate i.e. increased temperatures and evaporation. Vegetation within the catchment is anticipated to experience some sensitivity to these effects. The bushfire risk will also increase and is likely to be further exacerbated by other factors such as increased understorey fuel loads from weed incursion (refer Table 3 and Map 1 below).

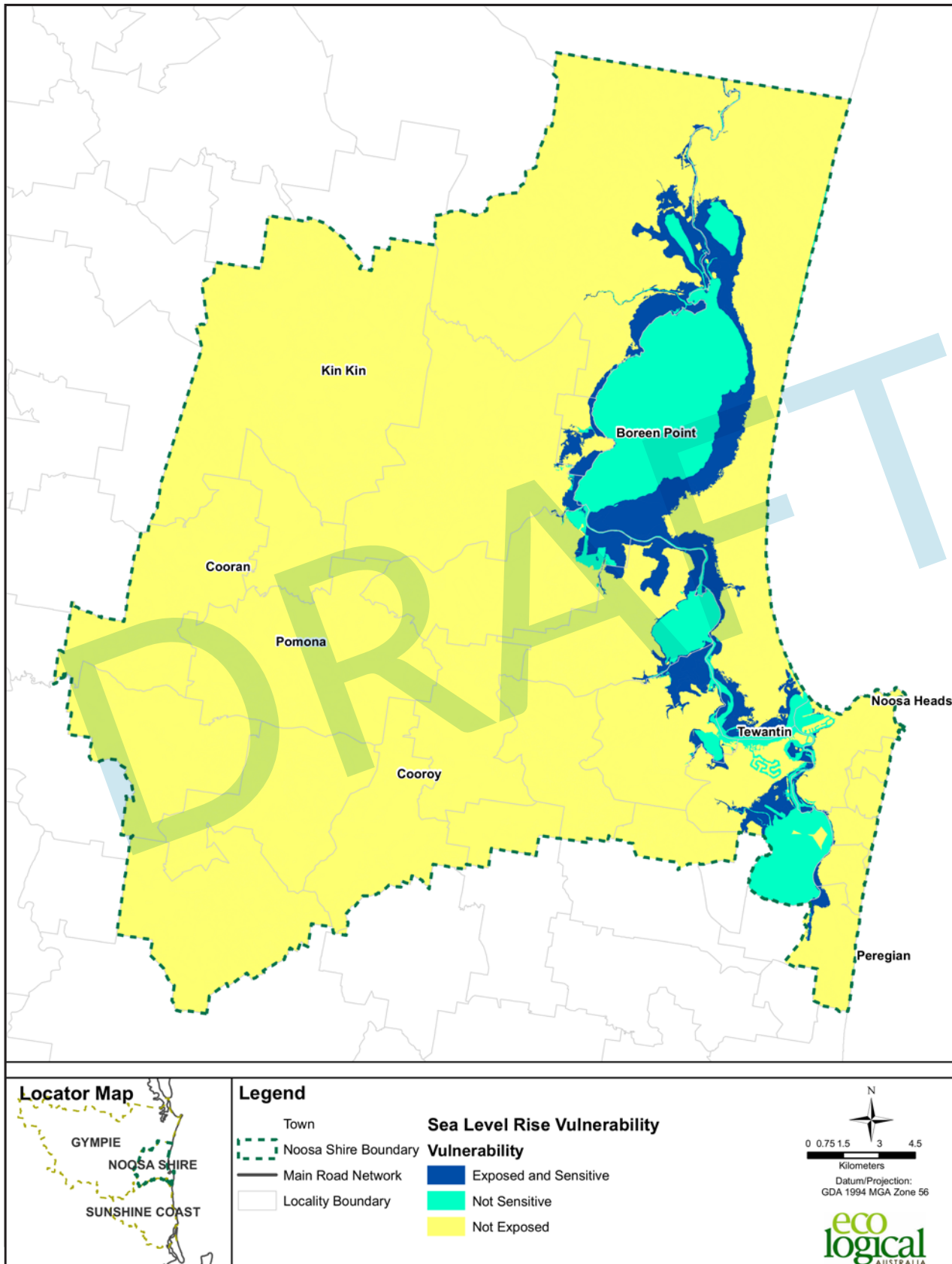
Broad Vegetation Groups (BVGs)	Area of increased bushfire risk (ha)	% of total area of this vegetation type
Rainforest / scrubs	5,674	84%
Wet Eucalypt	10,556	100%
Eucalypt woodland	13,267	100%
Eucalypt woodland on floodplains	975	95%
Paperbark woodlands	7,306	100%
Heaths and other coastal vegetation	5,481	93%
Wetlands	240	100%
Mangroves and Saltmarsh	199	47%
TOTAL	43,698	

Table 3. Vegetation vulnerability to bushfires (Source: Noosa Biodiversity Assessment Report, 2017)



Map 1. Bushfire risk vulnerability within the Noosa Shire (Source: Noosa Biodiversity Assessment Report, 2017).

The sea level rise exposure areas are concentrated around the fringes of the coastal waterways of the Noosa River and the low flow lagoon systems of Lakes Cootharaba, Cooriobah, Doonella and Weyba (refer Map 2 below). Sea level rise could raise the normal river level (tidal zone only) by 0.8m by 2100, with more land inundated during storm tide events in the future (Climate Change Adaptation Plan, 2018).



Map 2. Sea level rise vulnerability in the Noosa River catchment (Noosa Biodiversity Assessment Report, 2017).

The most affected vegetation groups in these areas are anticipated to be mangrove and saltmarshes, followed by paperbark woodlands. In addition, rainforests, wetlands and heath communities would be significantly susceptible to saline incursion and storm tide inundation – refer Table 4 below.

Broad Vegetation Groups (BVGs)	Area at risk from sea level rise (ha)	% of total area of this vegetation type
Rainforest/scrubs	8	0%
Wet Eucalypt	37	0%
Eucalypt woodland	498	4%
Eucalypt woodland on floodplains	36	4%
Paperbark woodlands	2,973	41%
Heaths and other coastal communities	580	10%
Wetlands	42	18%
Mangroves and Saltmarsh	418	98%
TOTAL	4,592	

Table 4. Vegetation vulnerability to sea level rise (Noosa Biodiversity Assessment Report, 2017)

Low risk climate change adaption in catchment management

It is Council’s intention to adopt an ecosystem-based approach in preparing the Noosa River catchment for the impacts of climate change.

Important findings by Lukasiewicz, Finalyson and Pittock, 2013 recognised many existing catchment management activities represent an ecosystem-based approach to climate change adaptation but are usually undertaken in response to existing pressures with their climate change adaptation potential not considered.

Six (6) catchment management actions were identified as the lowest risks and highest benefits under a variety of climate change scenarios. These include:

- Restoration of riparian vegetation.
- Management of weed and pest species.
- Freshwater habitat connectivity.
- Conservation of more resilient habitats.
- Conservation of gaining reaches.
- Geomorphic restoration (Lukasiewicz et al, 2013).

Resilient habitats refer to the capacity of an ecosystem to respond to a disturbance by resisting damage and recovering quickly without changing or losing function or services.

A ‘gaining stream’ is where groundwater flows into a river channel from a local aquifer and increases water volume farther downstream. ‘Geomorphic restoration’ relates to restoring the processes which form landscapes (Lukasiewicz et al, 2013).



Other low-risk, high-benefit adaptation options for consideration include water management throughout the catchment. These include scenarios that intervene in the water or flow regime of a wetland or river such as farm dam management, groundwater water extractions and waste water treatment (Lukasiewicz et al, 2013). This is an important focus for the Noosa River Wetlands and Lake Weyba, which constitutes a groundwater-fed connected system.

All these approaches demonstrate best practice and aim to maximise and optimise the river catchment’s natural values and ecosystems services (Lukasiewicz et al, 2013).



Council, in conjunction with Noosa and District Landcare, commissioned a study to examine barriers to fish passage through the river system and the Department of Environment and Science (Wetlands Unit, 2017) conducted a Walking the Landscape workshop. These both provide up to date and relevant science-based research regarding aquatic connectivity and a whole-of-system framework for understanding how water flows in the catchment.

In addition, the Noosa Shire – Waterways Assessment 2017 has helped inform the Noosa Planning Scheme and future rehabilitation strategies.

These studies build knowledge about:

- Unique habitats of high ecological values
- Key areas most vulnerable to climate changes
- Key areas suitable for restoration of aquatic habitats and to improve fish passage
- Key erosion hotspots suitable for future restoration activities.

This information has and will continue to guide partner projects to enhance the natural values of the river system.



Assessment of Barriers to Fish Passage

Fish require passage throughout the river system as part of their life cycle for the purposes of breeding and spawning, feeding, juvenile migration, predator avoidance, defence and territorial behaviour.

Man-made structures such as culverts, causeways, bridges, dams and weirs can form partial or complete barriers which inhibit fish movement. This can be through an actual physical blockage of the waterway or through alteration of the natural flow conditions.

Other barriers include weed and sediment chokes in and beside waterways, or chemical barriers such as pollution or acidification of waterways.

The project aims to:

- inform future investment for fish passage remediation
- restore aquatic connectivity within the river system.

This partner project is led by Noosa & District Landcare. Funding has been made available through Noosa Council's community grants program.

Objective 12: Resilience to the impacts of climate change in the Noosa River catchment is enhanced.

Management response

Identify vulnerable sub-catchments and ecosystems at high risk to climate change impacts and potential management actions as part of the Climate Change Adaptation Plan.

Who

Council

When

Short – medium term

Identify existing catchment management activities occurring in vulnerable areas and how these can help build ecosystem resilience to climate change (e.g. Partner Projects, volunteer Bushland Care activities, Bushland Reserve management around waterways and Land for Wildlife/Volunteer Conservation Agreement program participants).

Council, Natural Resource Management groups, Community stakeholders

3.4

Engagement with Kabi Kabi (Gubbi Gubbi) Traditional Owners

The Kabi Kabi (Gubbi Gubbi) First Nation People are the Traditional Owners and Native Title Applicants for the Noosa Shire.

A recommendation of the Noosa River Community Jury was for Council to establish an effective duty of care and policy regarding Aboriginal Cultural Heritage and engagement with Kabi Kabi (Gubbi Gubbi) representatives on all aspects of river management.

In May 2017 Kabi Kabi (Gubbi Gubbi) family representatives were invited to attend an informal workshop with Council to get to know each other, help build respectful relationships and discuss involvement in river management.

At this initial meeting, Kabi Kabi (Gubbi Gubbi) expressed their preference for all engagement activities to be conducted through the Native Title Applicants, their interest in protecting cultural heritage, and being involved in the planned oyster reef restoration in the estuary.

In July 2017, the Kabi Kabi (Gubbi Gubbi) Native Title Applicants and families were invited to the Noosa North Shore for a camping weekend with Noosa Councillors and key staff. This get together was held at a time when traditionally many Kabi Kabi (Gubbi Gubbi) people congregated on the North Shore beach during winter fish runs prior to European settlement. Here discussions focused on:

- Recognition of Aboriginal Cultural Heritage in the catchment through art, interpretation and education.
- Protection of cultural sites and values.
- Indigenous Land & Sea Ranger Program for Noosa.
- Involvement in policy and programs.

The Noosa Heritage Reference Group invited a Kabi Kabi (Gubbi Gubbi) representative to be part of this group, which provides recommendations to Council regarding investment of the Shire's Heritage Levy funds. A Kabi Kabi (Gubbi Gubbi) led proposal to identify and map Aboriginal Cultural Heritage throughout the catchment is now underway.

The Indigenous Land & Sea Ranger Program is managed by the Department of Environment and Heritage Protection (EHP) with rangers employed through local indigenous host organisations and funding provided by the Queensland Government.

Land and Sea Rangers have been contracted to work in 17 regional and remote communities across Queensland and undertake a wide range of environmental restoration activities, community education and visitor management (e.g. eco-tourism). This program continues to successfully deliver on planned activities and program outcomes, with clear evidence these activities lead to wider environmental, social, cultural and economic benefits.

The initiatives listed above create opportunities for the Kabi Kabi (Gubbi Gubbi) to work on country and sustain their cultural and spiritual obligations. For others, these endeavours have the potential to enrich further understanding of the Aboriginal cultural significance of the Noosa River catchment.



Objective 13: Aboriginal cultural heritage is protected and Kabi Kabi (Gubbi Gubbi) led river initiatives are supported.

Management response	Who	When
Ensure Kabi Kabi (Gubbi Gubbi) is represented on the Noosa Heritage Reference Group to help identify and protect Aboriginal cultural heritage in Noosa River catchment.	Council, Traditional Owners	Ongoing
Help facilitate Kabi Kabi (Gubbi Gubbi) involvement in key partner projects and policy development.	Council, Traditional Owners, NRM groups and Community stakeholders	Ongoing
Promote and support development of an Indigenous Land and Sea Ranger Program.	Council, Traditional Owners	Medium term

3.5 Protection of migratory shorebird habitat

Every spring and summer the Noosa River mouth and estuary becomes home to thousands of migratory shorebirds that have left their breeding grounds in Arctic Asia, Alaska and the North Pacific.

The shorebirds stay in Noosa until autumn, building up strength to undertake their journey back to their breeding grounds, however juveniles may remain the whole year until mature enough to undertake the migratory journey.

Australia is an ecologically important location for migratory shorebirds within the East Asian-Australasian flyway (see opposite), with an estimated two million shorebirds migrating annually. To ensure their conservation, the Australian Government has fostered international cooperation through a range of important agreements.

Migratory shorebirds must have space, food and protection from predators and disturbance to recuperate from their long flights. Conservation of these sites for



migratory birds both within Australia and along their migration routes is essential to their survival.

Ideally, there should be no public access (by humans and/or domestic animals) to areas identified as important to migratory shorebirds.

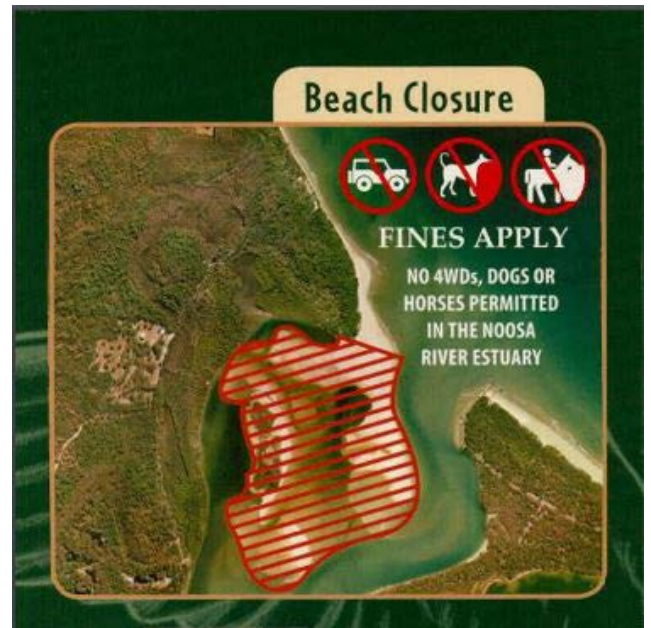
Where this is not feasible, particular recreational activities may need to be excluded or it may be necessary to limit the number of people using an area at one time and/or limit activities during the period between October and March when the majority of shorebirds will be present.

Exclusion Zone - Noosa North Shore

To ensure Noosa’s important shorebird site is protected from human disturbances, Council established an ‘exclusion zone’ on the Noosa North Shore adjacent to the river mouth.

This exclusion zone prohibits access of 4WDs, dogs and horses. The public are still able to access the exclusion zone area by foot and/or by boat.

To improve awareness of the exclusion zone it is proposed to install a beach buoy line (see opposite) in this area as an alternative to fencing, and create a visual demarcation of the exclusion zone for 4WDs.



Objective 14: International agreements for the protection of migratory shorebird habitat are upheld.

Management response	Who	When
Conduct regular regulatory compliance of Noosa North Shore exclusion zone to protect migratory shorebird habitat.	Council	Ongoing
Install a ‘beach buoy line’ to mark the Noosa North Shore exclusion zone boundary.	Council	Short term





3.6 Coastal algal blooms

Since 2002, *Hinckesia sordida*, a naturally occurring non-toxic brown alga has periodically 'bloomed' in Laguna Bay to form dense patches within the surf zone of Noosa's Main Beach, with large quantities of *Hinckesia* becoming stranded on the beach by the receding tides.

These algal blooms have occurred during spring or early summer and coincided with popular holiday periods and recreational use of the beach and ocean. The duration of the bloom depends on the availability of nutrients, flow conditions and the weather.

The presence of *Hinckesia* is visually unappealing to swimmers and decomposing algae on the beach can emit a sulphurous odour which also deters beach goers. Council removes the washed up *Hinckesia* to landfill which helps to keep the beach free of the algae so it remains enjoyable for residents and tourists.

All other beaches south of Main Beach are not affected by *Hinckesia*.

Why is *Hinckesia* here?

Algae in general are found in most aquatic environments including rivers, lakes, estuaries, oceans, hot springs and glaciers. They are vital components of aquatic ecosystems as they are producers of oxygen and carbohydrates.

When conditions are favourable, some algae species (including *Hinckesia*) have the potential to 'bloom' and they can grow rapidly to dominate the aquatic environment. Coastal algal blooms can persist for several weeks or even months. The bloom 'collapses' once the algae have consumed all available nutrients, or conditions (e.g. flow, weather) are no longer conducive to rapid growth (Healthy Waterways, 2005).



In Noosa, the *Hincksia* blooms ‘worsen’ with north-easterly winds and are ‘cleared’ from Main Beach by south-easterly winds. From 2002 to 2006, and again in 2017, nuisance blooms of *Hincksia* in Laguna Bay significantly impacted the local economy and residents and visitors’ enjoyment of Noosa’s Main Beach.

Previous studies and trials aimed at finding the source of *Hincksia* and removing the vast biomass of a *Hincksia* bloom from Laguna Bay proved inconclusive.

Research has recognised macroalgal blooms (such as *Hincksia*) are a ‘symptom’ of increasing nutrient loading into aquatic environments which has been demonstrated by the disappearance of blooms in a number of estuarine bays in the USA and the UK following the reduction in nutrient input into these systems (Phillips, 2006).

The findings from this research suggest the source of nutrients fuelling the bloom at Noosa must be identified and management strategies developed to reduce nutrient inputs (Phillips, 2006).

Objective 15: The occurrence of coastal algal blooms in Laguna Bay is mitigated and/or reduced.

Management response

Who

When

Devise a management strategy in conjunction with macroalgal biology & ecology experts to seek to further understand, manage and potentially reduce *Hincksia sordida* blooms.

Council

Short – medium term

4.0

Implementation - Action Plan

Implementation of this River Plan is intended to occur in partnership with community stakeholders including Natural Resource Management (NRM) groups and the relevant State Government agencies. It is proposed to establish a River Management Unit within Council to coordinate implementation of the Plan's actions. Following community feedback on this plan, it is proposed to feature a mix of approaches including:

- **Ongoing** actions within the existing remit of Council that can be undertaken without requiring existing resources.
- **New initiatives** which can be undertaken by Council that will either require additional funding, or will be within the existing remit of Council without requiring new resources or funding.
- **Collaborative action** which can be funded by a range of internal and external sources that may or may not have the active involvement of Council.
- **Advocacy** initiatives which require Council to gain the support of the State Government and may require legislative reform.

Priorities for implementation of the actions will be developed in consultation with internal and external stakeholders. Council will be exploring and seeking a range of revenue sources to support the funding of achieving the objectives of this plan. Where funding is required, Council will seek to secure and allocate funds based on the priorities as part of the annual budget process and seek alternate revenue sources where feasible.

A five (5) year timeline is set for implementation of the Action Plan below. Approximate timeframes for each of the actions have been identified:

- Short term – within the first 18 months of the life of the plan
- Medium term – between 12 months and 3 years
- Long term – 3-5 years.

Monitoring and evaluation

It is proposed to review the Action Plan annually to monitor and evaluate the effectiveness of implementation, as well as enable an appropriate management response to emerging issues and trends occurring in the river system. The aim of monitoring and evaluation is to measure the efficiency and effectiveness of investments made and report on the progress against the Plan's objectives. This will include:

- The extent to which actions have been successfully implemented - indicated by the percentage of actions delivered within the planned timeframe.
- The extent to which actions have achieved the objectives and outcomes - indicated by the percentage of objectives and outcomes achieved.
- The satisfaction of financial contributors with the level of outputs from investment - indicated by the value of project outputs achieved, compared to the dollar and in-kind contributions made.

It is also proposed the River Plan itself be reviewed and updated every five (5) years to ensure the river system continues to have a high management profile as an important natural asset and is protected for future generations.

4.1 Action Plan

	Action	Responsibility	Status/How?	Timeframe	Outcome
1	Establish a dedicated River Management Unit within Council to coordinate and implement the actions of the River Plan.	Council	New initiative	Short term	A new level of service is created by Council and resourced to manage the Noosa River.
2	Establish appropriate communication and consultation mechanisms to support ongoing community input into the management of the Noosa River.	Council, Community stakeholders	New initiative	Ongoing	The community is engaged and continues to contribute to the management of the Noosa River.
3	Investigate alternative revenue and funding sources to assist in the implementation of the River Plan objectives and actions.	Council	Ongoing	Short - medium term	Management costs associated with River Plan implementation are offset by alternative revenue streams where possible.
4	Work with community groups and other agencies to ensure appropriate water quality monitoring is undertaken in the Noosa River.	Council, Community stakeholders, relevant State agencies.	New initiative	Ongoing	Water quality monitoring by partner agencies is targeted to inform management of the Noosa River system.
Management theme: Population growth, recreational demand and commercial use of the river					
5	Implement an on-river education and compliance program to regulate activities within the existing Noosa River Marine Zone.	Council	New initiative	Short - medium term	The recreational boating public understand and observe the Noosa River Marine Zone restrictions and prohibitions.
6	Install additional Marine Zone signage on the foreshores to clarify the beginning and end of the MZ.	Council	New initiative	Short term	The recreational boating public understand and observe the Noosa River Marine Zone restrictions and prohibitions.

7	Advance discussions with relevant State agencies, informed by the Community Jury's recommendation that Noosa Council should take on the responsibility of managing anchoring, mooring, commercial uses and jetty leases for the Noosa River. Subject to the handover of responsibility to Council for these activities, pursue:	Council, Queensland Government, Community stakeholders	New initiative	Short – medium term	Noosa Council takes on responsibility for agreed management functions in the Noosa River.
	a) Development of an Anchoring, Mooring and Living on Board Management Plan to identify how Council intends to manage these activities.	Council		Short term	A clear management framework is established.
	b) State endorsement of the Plan, and enter into a formalised agreement under relevant waterways legislation.	Council, Queensland Government		Short-medium term	Anchoring, mooring and living on the river are locally managed.
	c) Implementation of an on-river education and compliance program to regulate anchoring, mooring and living on the river.	Council		Short-medium term	All waterways regulations and 'conditions of use' are observed by the owners or operators of vessels.
	d) A review of anchoring and mooring locations and types of mooring.	Council		Short-medium term	Impacts on water quality and declared Fish Habitat Areas are reduced. Safe and suitable locations are provided for vessels. Clutter and congestions in the lower estuary is reduced.
	e) Identification of a cap and locations for living on board in the river.	Council		Medium term	Vessels used to live on board create no impediments regarding use of river foreshores by local residents and the general public.

	f) Effective monitoring and facilitation of waste tank effluent removal and disposal from vessels.	Council		Medium term	The release of pollutants from vessels into the river system is prevented.
	g) Removal of unsafe, abandoned and derelict vessels from the Noosa River.	Council		Short - medium term	Unsafe, abandoned and derelict vessels are gradually removed from the river.
8	Investigate legislative amendments to control the 'length of stay' for anchoring.	Council, Queensland Government	New initiative	Short-medium term	New provisions in the relevant waterways legislation prohibit long term unattended anchoring in the Noosa River.
9	Advocate for improved lighting and marker options for boats (and beacons) for safety reasons.	Council, Queensland Government	New initiative	Medium term	All round white lights are displayed on vessels occupying the river and markers on beacons assist river navigation (especially at night).
10	Review seasonal speed limit restrictions around Munna Point and Noosa Spit (Dog Beach) with Maritime Safety Queensland with a view to making these changes permanent.	Council, Community stakeholders, Queensland Government	New initiative	Short term	Speed limits in high use areas are appropriate to ensure public safety and protection of sensitive areas. Changes are supported by the broader community.
11	Review current management of boat ramps and jetties in collaboration with the relevant State agencies and:	Council, Queensland Government	New initiative	Short - medium term	Noosa Council has control of Noosa River management functions as far as is practicable
	a) Develop a comprehensive database of boat ramps and jetties in the river system.	Council Queensland Government		Short - medium term	The database is shared by all agencies and includes locations and ownership of unapproved jetties on public land.
	b) Investigate unauthorised uses and their impacts on environment and local streets.	Council		Medium term	Public boat ramps are not used for 'unapproved' commercial operations. Impacts on surrounding local streets and residents are minimised.

12	Investigate a means of assessing the carrying capacity of the river in terms of marine infrastructure.	Council	New initiative	Medium - long term	Council makes informed, long-term decisions about marine infrastructure in the Noosa River.
13	Support the implementation of the Noosaville Foreshore Master Plan.	Council	New initiative	Ongoing	The river and its foreshore are public assets protected and managed for all to enjoy
14	Review and update Council's Guidelines for the Establishment of New Businesses on the Noosa River.	Council	Existing initiative	Medium term	Applications for new businesses on the Noosa River and effectively managed.
15	Investigate a statutory means of regulating the size and type of commercial fleets operating in the river.	Council	New initiative	Medium term	Commercial operations on the Noosa River are managed effectively.
16	Continue to advocate as a key stakeholder in the State's sustainable fisheries management reforms for the Noosa region.	Council	Existing initiative	Ongoing	The fisheries resources in Noosa are managed in a genuinely sustainable manner.
17	Continue to explore, partner and invest in projects and initiatives that seek to improve river quality, habitat and health with a range of community organisations and partner organisations. Example- Bring Back the Fish partner project.	Council, Natural Resource Management groups, Community stakeholders	New initiative	Ongoing	Council works with the community to develop and deliver new initiatives.



Management theme: Rural and urban runoff (and other pollution sources)

18	Develop and implement a targeted extension and education program for rural landholders in important rural sub catchments.	Council, Natural Resource Management groups, Community stakeholders	New initiative	Medium term	Best management practices in rural areas ensure sediment loads and other contaminants to waterways are reduced..
19	Continue to explore, partner and invest in projects and initiatives that seek to improve and remediate erosion hot spots and rehabilitate riparian areas. Example: Keep It In Kin Kin partner project.	Council, Natural Resource Management groups, Community stakeholders	New initiative	Ongoing	Key erosion hot spots remediated. Sediment loads to waterways are reduced. Riparian areas are protected to stabilise banks, maintain habitats and ecological function.
20	Investigate the potential of unsealed rural roads in important rural sub-catchments contributing sediment-laden runoff to waterways when it rains.	Council	New initiative	Medium term	Sediment runoff to waterways from unsealed rural roads is quantified to better inform future management.
21	Ensure inclusion of environmental considerations in upgrade and renewal capital works projects and the asset management program.	Council	Existing program	Ongoing	Stormwater quality improvement infrastructures are maintained over life cycle of asset to ensure treatment efficiencies are maintained.
22	Ensure capital works projects include stormwater quality improvement devices, such as litter nets, to reduce any pollution of waterways.	Council	Existing program	Ongoing	Capital works are well managed and do not add pollution to waterways.
23	Continue to require, regulate and ensure compliance of stormwater management systems and water sensitive urban design in private development.	Council	Existing program	Ongoing	Private developments effectively manage inputs into the stormwater system.

24	Continue to conduct risk-based annual inspections to monitor compliance of Environment Authority (formerly ERA) licensed industrial operations.	Council	Existing program	Ongoing	Licensed industrial operations comply with their EA requirements.
25	Conduct risk-based annual inspections of non-Environment Authority licensed industrial operations to monitor activities.	Council	New initiative	Ongoing	Non-licensed industrial operations comply with the general environmental obligation.
26	Develop and implement a proactive education, behaviour-change and compliance program to increase community awareness of the impact of specific practices which pollute waterways (e.g. erosion & sediment control on construction sites, roof painting, pool backwashing and car washes).	Council, Community stakeholders	New initiative	Medium term	Specific behaviours are targeted in industries that impact on water quality.
27	Establish an inspection program to proactively investigate potential of septic systems and waste water treatment facilities to leak effluent into groundwater.	Council	Existing program expansion	Medium term	Landholders are aware of the condition of septic systems and encouraged to undertake remediation action.
28	Trial installation of litter nets at stormwater outlets and litter booms in key locations in the river.	Council	New initiative	Short term	The effectiveness of litter nets is properly assessed as a management tool for the Noosa River.
29	Develop and implement a targeted anti-littering campaign.	Council	New initiative	Short-medium term	Specific behaviours are targeted to reduce the impact of litter in the Noosa River

30	Support volunteer river and beach clean-ups to remove litter from in & around waterways.	Council, Community stakeholders	Existing program/new initiative	Ongoing	Litter around Noosa's waterways is reduced. Marine debris is reduced.
31	Continue to promote and provide in-kind support to the Plastic Free Noosa initiative.	Council, Community stakeholders	Existing program	Ongoing	Council supports source reduction strategies in Noosa to help reduce plastics in waterways.

Management theme: Climate change

32	Identify vulnerable sub-catchments and ecosystems at high risk to climate change impacts and potential management actions as part of the Climate Change Adaptation Plan.	Council	Ongoing	Short-medium term	Understanding climate change impacts and risks in key areas helps inform future management.
33	Identify existing catchment management activities occurring in vulnerable areas and how these can help build ecosystem resilience to climate change (e.g. Partner Projects around waterways, volunteer Bushland Care activities, Bushland Reserve management, Land for Wildlife/Volunteer Conservation Agreement program participants).	Council, Natural Resource Management groups	New initiative	Ongoing	Community and partner actions and investment contribute to building resilience in the catchment.
34	Implement a program of works to remediate barriers to fish passage identified as high priorities.	Council	New initiative	Medium - long term	Barriers to fish passage in the Noosa River system are gradually reduced. Fisheries connectivity builds resilience in the catchment.



Management theme: Engagement with Kabi Kabi Traditional Owners

35	Ensure Kabi Kabi (Gubbi Gubbi) is represented on the Noosa Heritage Reference Group to help identify and protect Aboriginal Cultural Heritage in the Noosa River catchment.	Council, Traditional Owners	New initiative	Ongoing	Aboriginal cultural heritage is protected and interpreted throughout the river catchment.
36	Help facilitate Kabi Kabi (Gubbi Gubbi) involvement in key partner projects and policy development.	Council, Traditional Owners	New initiative	Ongoing	Kabi Kabi representatives are supported in their caring for country initiatives.
37	Promote and support development of an Indigenous Land and Sea Ranger Program.	Council, Traditional Owners	New initiative	Medium term	Kabi Kabi are supported in key programs and initiatives for the ongoing management of the river.

Management theme: Protecting migratory shorebird habitat

38	Conduct regular compliance activities of Noosa North Shore exclusion zone to protect migratory bird habitat.	Council	New initiative	Ongoing	Residents and visitors are compliant with the Exclusion Zone restrictions on the Noosa North Shore. 4WD, horses and dogs do not access this area. Migratory shorebird habitat is protected and enhanced.
39	Install a 'beach buoy' to mark the Noosa North Shore exclusion zone boundary.	Council	New initiative	Short term	Exclusion zone for migratory shorebirds is observed.

Management theme: Coastal algal blooms

40	Devise a management strategy in conjunction with macroalgal biology and ecology experts to deter future Hincksia algal blooms.	Council, Natural Resource Management groups	Existing program expansion	Short - medium term	The impacts of Hincksia algal blooms are reduced or eliminated.
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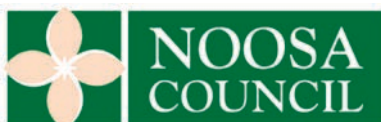
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Attachment C

Submission – Boatsafe Queensland

BOATSAFE QUEENSLAND INC.



The Boatsafe Industry Association

ABN 18 968 234

BTAQ Postal Address: 41 Gilward Drive Mudgeeraba 4213

Email: bqi01@bigpond.com

Website: www.boatsafequeensland.org

MEETING with Transport Main Roads 9 am 28th March 2019

Our association has been out to all members for feedback on items leading up to this meeting, and on one item a decision has been made not to speak for or against, due to an equal vote of YES / NO by members.

That Item is to strongly suggest to TMR to have renewable licences incorporating a refresher every 5 years.

RENEWABLE LICENCE

BACKGROUND

When the Personal Water Craft (PWC) Licence was introduced, it was found those candidates for a PWC Licence that had held their Recreational Marine Drivers Licence (RMDL) prior to applying for a PWC Licence had forgot their Collision Regulations and International Association Lighthouse Authorities (IALA) of Buoyage system etc., and therefore, this association with the co-operation of TMR wrote the 20 & 40 question assessment for the PWC.

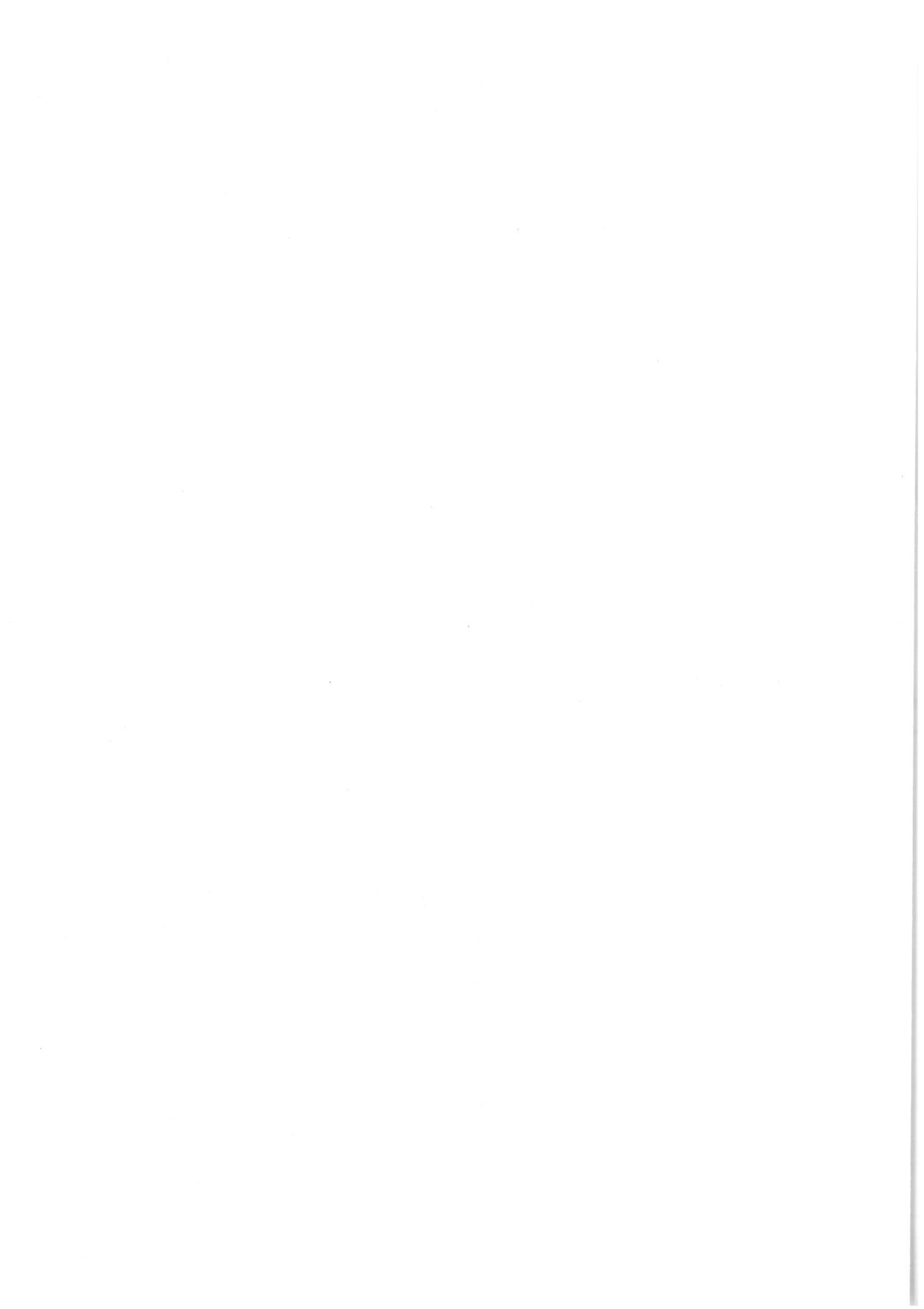
Now students that are doing training & assessment for the PWC on the same day need only do the 20 question assessment as they have previously that day been trained & assessed in collision regulations & IALA Buoyage System.

Whereas the student that at some previous date had gained a RMDL now has to complete the 40 question assessment, which contains 20 questions on Collision Regulations & IALA Buoyage System as TMR has recognised that those students quickly forget their RMDL training. Driving a car is a daily or weekly event, whereas driving a boat is a weekly or yearly event and in some cases, maybe years.

Queensland is the only state in Australia that has a lifetime licence.

Members have voted equally for a renewable 1, 3 or 5 year renewable RMDL & PWC Licence. Some of our members felt that this would be a financial windfall for TMR, others could see that by having a skipper refresh by means of completing an on line course every 5 years we would have safer waterways.

This has been reinforced in recent talks with Tony Nelson of Gold Coast Water Police who also supported refresher courses, due to the lack of knowledge of Collision Regulations by recreational boaties on the waterways, whether the above is the best way, or TMR may have



other ways in mind, but one thing is evident a system of refresher is vital to safe boating on Queensland waterways. **REFER Blue Water Review**

BELOW IS AN EXERT FROM THE RECENTLY RELEASED BLUE WATER REVIEW

Public Boating Regulation, Education and Awareness

28.17 Responding to emergency events on water is but one element of a policy response. Appropriate education and regulation is another element of a holistic policy response that should be considered as a risk mitigation strategy.

28.18 The license requirements to be in control of a recreational vessel are generally a one size fits all condition. Whether you operate in an enclosed river on a four-metre vessel or travel offshore to outer barrier reef islands in a 16-metre sailing vessel the license requirements are the same. There is also no requirement for any renewal or re-endorsement of a license. A license could have been granted 15 years ago but there is no opportunity to ensure the license holder is both aware of contemporary safety requirements and capable of safe operation of the vessel of which they are now in charge.

28.19 There is a view that the quality of boating licence courses is highly variable with many considered to be very much a box ticking exercise. The risks continue to rise as the public purchase larger and faster vessels and enclosed waters become more congested, or boater increasingly passage further offshore. It is questionable whether the licensing and education regime has kept abreast of these changes. A tiered licensing system reflecting the size and

complexity of a vessel and/or limiting the operating area of the license holder could be examined for feasibility.

INDUSTRY CAPPING

Another item that was on our agenda was the matter of Capping BTOs & BTPs until the ratio of Licences to BTOs/BTPs comes back to the 2015 ratio.

BACKGROUND

In 2015 number of Recreational Marine Drivers Licences (RMDL) issued was 25946.

In 2017 number of Recreational Marine Drivers Licences RMDL) issued was 23918

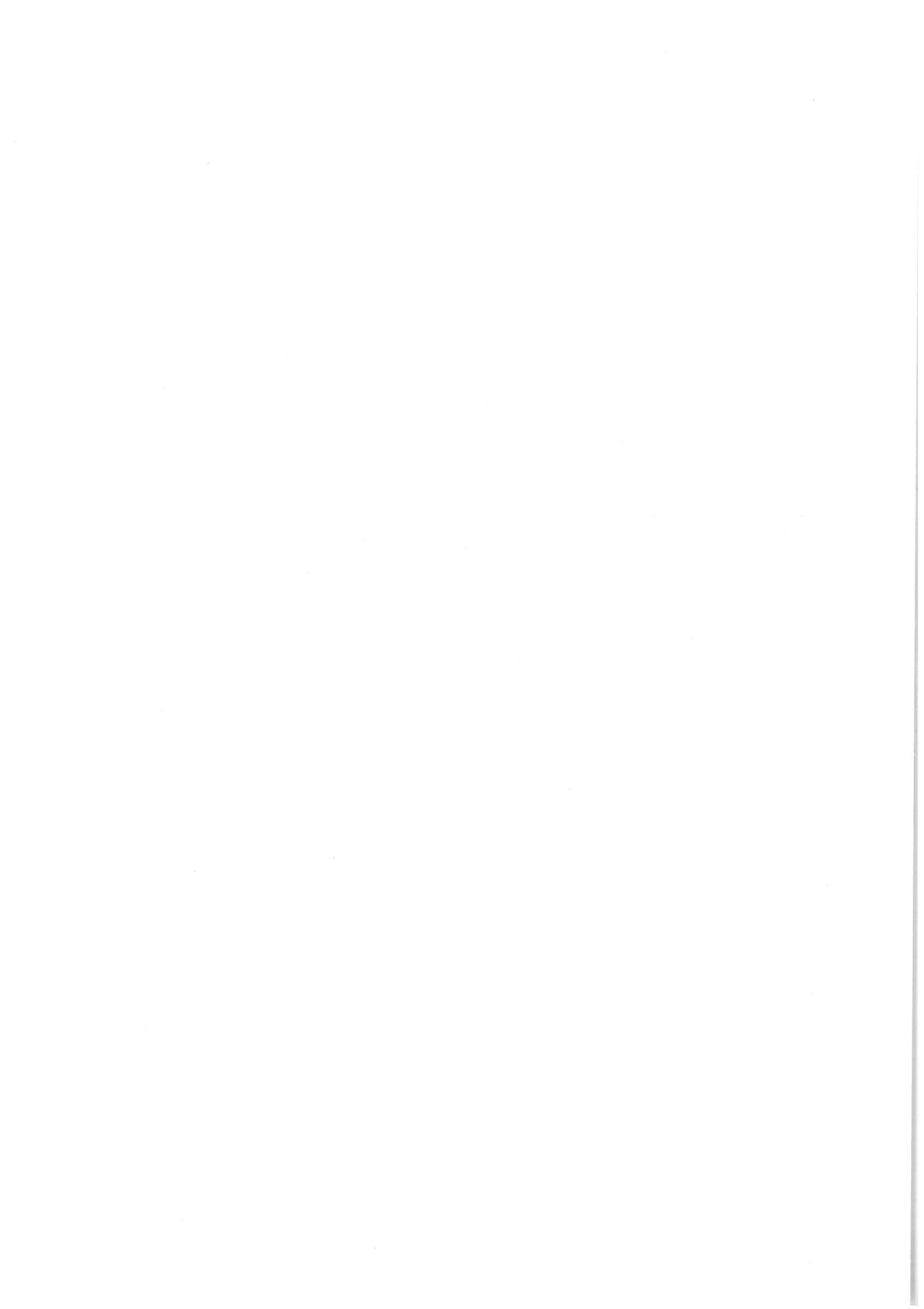
A decrease of 7.81%

The number of Boatsafe Training Providers (BTPs) issuing licences in 2015 was 136.

The number of Boatsafe Training Providers (BTPs) issuing licences in 2017 was 346.

An increase of 80.88% in two years.

Our association has dropped this item from our agenda, until such time we can provide further evidence to support this item, we wish to thank TMR for holding a special meeting with committee member Darryl Greentree to discuss this item.



BOATSAFE QUEENSLAND AGENDA ITEMS 28th MARCH 2019

1. TIME FRAMES OF RMDL UNITS

Each Unit in the Boatsafe Competency Standard has its own timeframe with a total timeframe of 4hrs 25 minutes. Our members believe there should be no unit times, but only a total time.

BACKGROUND

These timeframes were introduced by Ross Godden of MSQ and at the time Mr Godden said these times could be re visited at a later date.

Since these Unit times were introduced, I do not know one BTP that has stuck to these time frames, but instead BTPs have used common sense and devoted the time to each unit that the BTP felt necessary to achieve competency of the student, time left over after all units completed allows trainer to reinforce highly ranked safety items.

2. OFFSHORE OPERATIONS

BACKGROUND

As you are aware there is no training in the RMDL for those venturing offshore, and there are no questions in the RMDL Assessment relating to offshore operations.

We constantly see media reports of vessels turning over/sinking /or some other emergency offshore, and in 90% of cases it is a lack of education that has led to the emergency.

Our members believe there should be an add on licence to the RMDL for offshore operations.

PLEASE REFER TO BLUE WATER REVIEW

3. LARGE VESSEL LICENCE

BACKGROUND

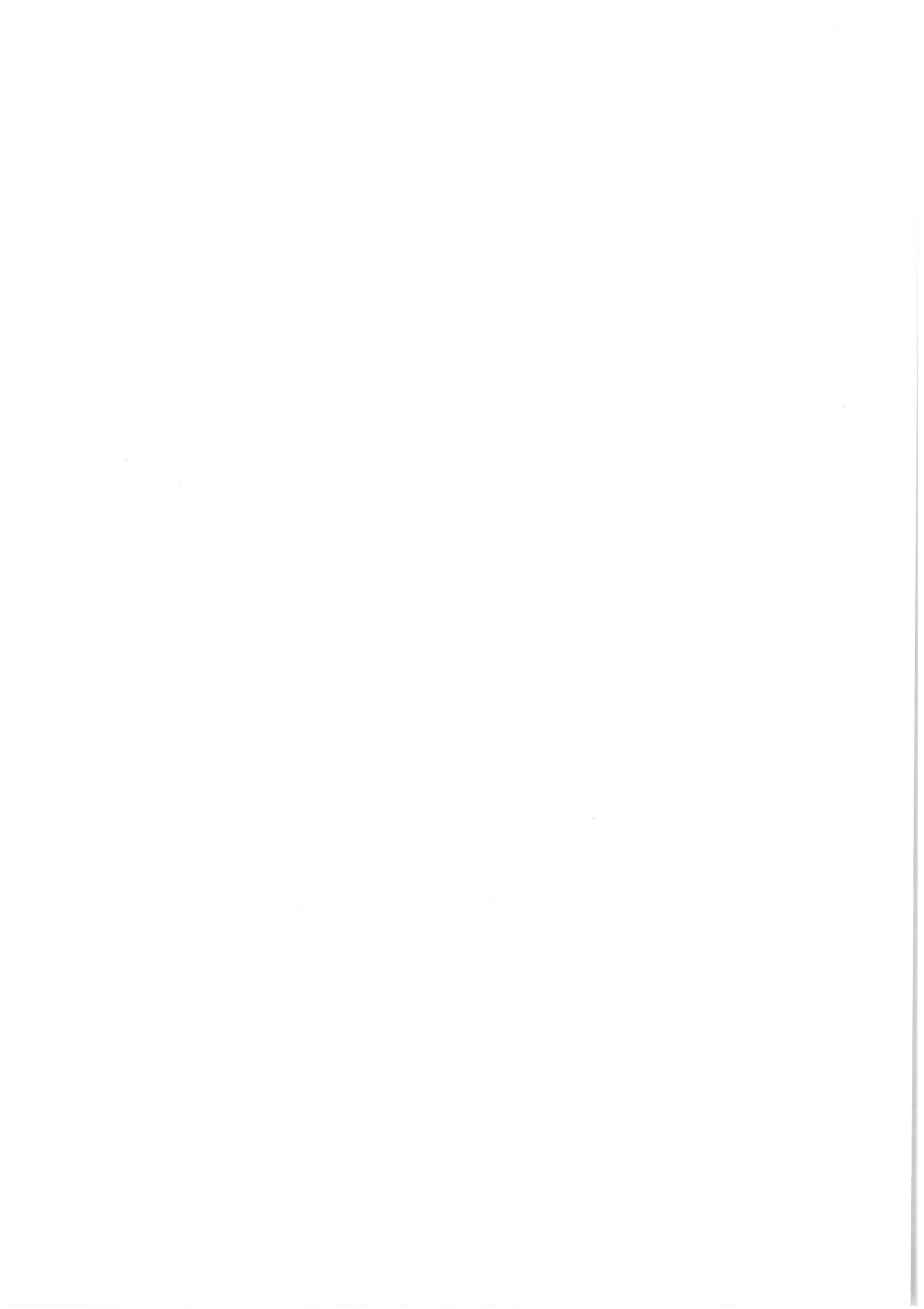
Maritime Safety Queensland were about to introduce this licence in 2012, but when Campbell Kevin Thomas Newman was elected Premier of Queensland on 26th March 2012 as many things in Queensland ground to a halt, so did this licence.

Our members would fully support MSQ/TMR to reintroduce this licence as an add on licence to the RMDL.

PLEASE REFER TO BLUE WATER REVIEW.

This association with the co-operation of TMR has reduced paperwork in many areas, the draft below is an attempt to save BTPs time, TMR money and make this area simpler.

One Competency Certificate can be used for RMDL & PWC , BTP just strikes out which is not relevant to the student, any further licences TMR sees fit to include can just be added to the same Competency.



(Issued by training provider)
Transport Operations (Marine Safety) Act 1994



This statement is not a licence

PB

This statement is valid for the issue of a **RMDL** **PWCL**
month from the statement issue date.

The statement must be presented to the Department of Transport & Main Roads customer service centre within the validity period.

A recreational marine drivers licence (RMDL) or equivalent is pre-requisite for the issue of any other recreational marine licence.

Candidate details

Family name

Given name/s

Residential address

Postcode

Candidate's Identification details

Photographic driver's licence

Driver's licence number

Queensland

Other, namely,

.....

OR, Photographic ID / or ID bearing signature of candidate

Document type

Document number

(Do not record credit/bank card numbers)

Date of birth

Gender

Male

Female

Assessment details

BoatSafe training organisation trading name

Assessment location

Postcode

Assessment date

Primary method of assessment

Competency based training/assessment (SCPT)

Recognition of Prior Learning (RPL) (SCPR)

Outcome of assessment

Competent

Not yet competent

Training provider declaration

I have assessed the above named candidate's knowledge, skills and competency in accordance with the BoatSafe PWCL Competency Standard prescribed by the Department of Transport and Main Roads.

I am satisfied that the person described in this statement is the person assessed for the purpose of issuing this Statement of Competency.

Training provider's full name (please print)

Full Boatsafe Training Provider number (seven digits)

PB

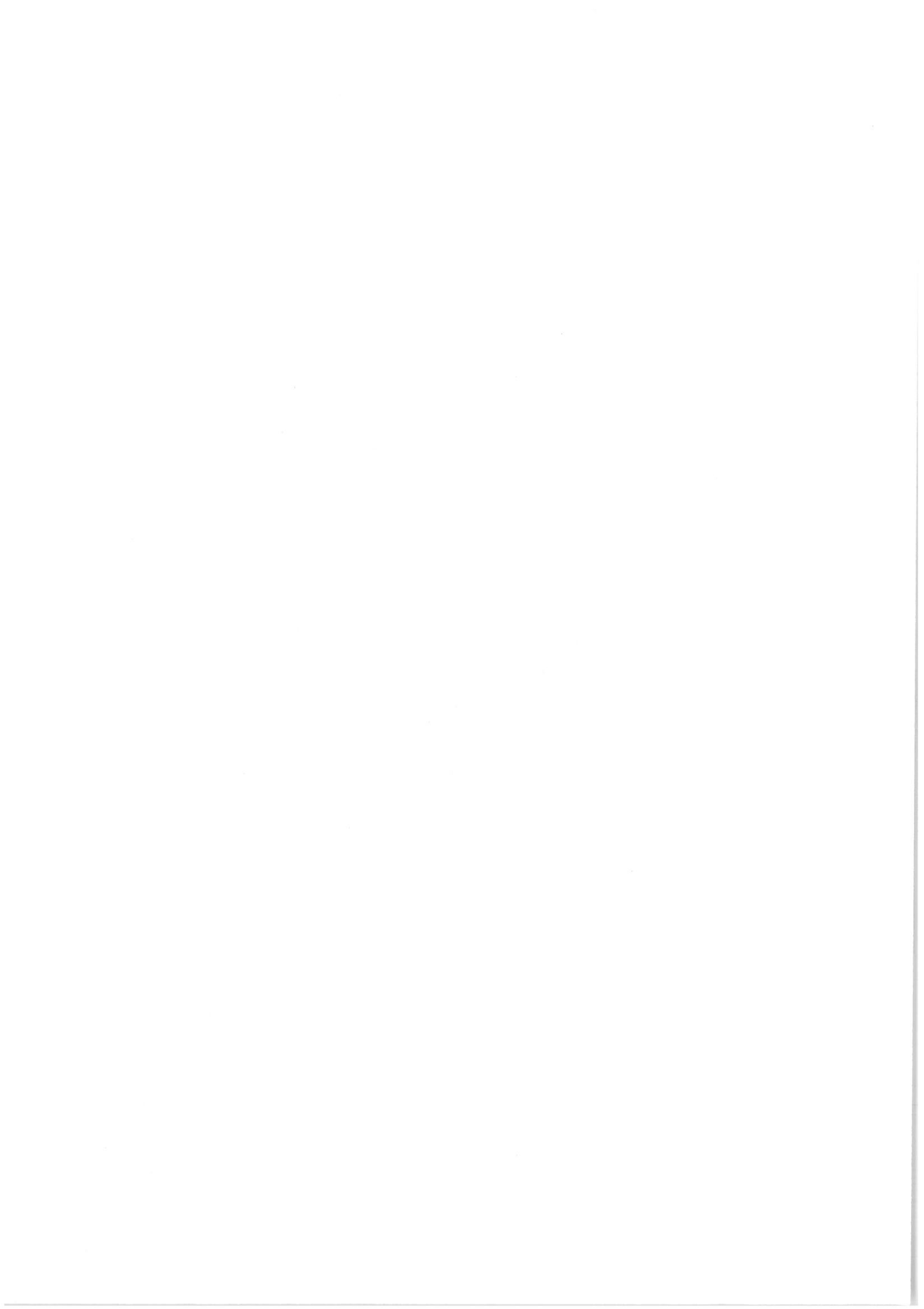
Training provider's signature

Statement issue date

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White copy - Transport and Main Roads Blue copy - Candidate Yellow copy - Book copy

TRB Forms Area
Form F4328
V01 Apr 2017



CLOSING NOTES:

Since TMR has taken over management of the Boatsafe scheme we have had a good working relationship with TMR mainly through Carl Watson and Nigel Ellis, and we are looking forward to this good relationship continuing into the future.

We have in the past written the 50 Question Assessment for the RMDL for Maritime Safety Queensland and in recent years, we have written the 40 Question Assessment and 20 Question Assessment for the PWC., along with working on the PWC CAT.to reduce paperwork.

We have not always had a good working relationship with MSQ highlighted by our association members refusing to attend Boatsafe Advisory Panel meetings, but we now have Phil Hambly our go to man at MSQ who we have worked with in the past, and our relationship is one of mutual respect.

We look forward to working with TMR and MSQ in the future, for the benefit of the Queensland boating public.

Kind Regards,

Gordon Petersen

Boatsafe Queensland Inc.

