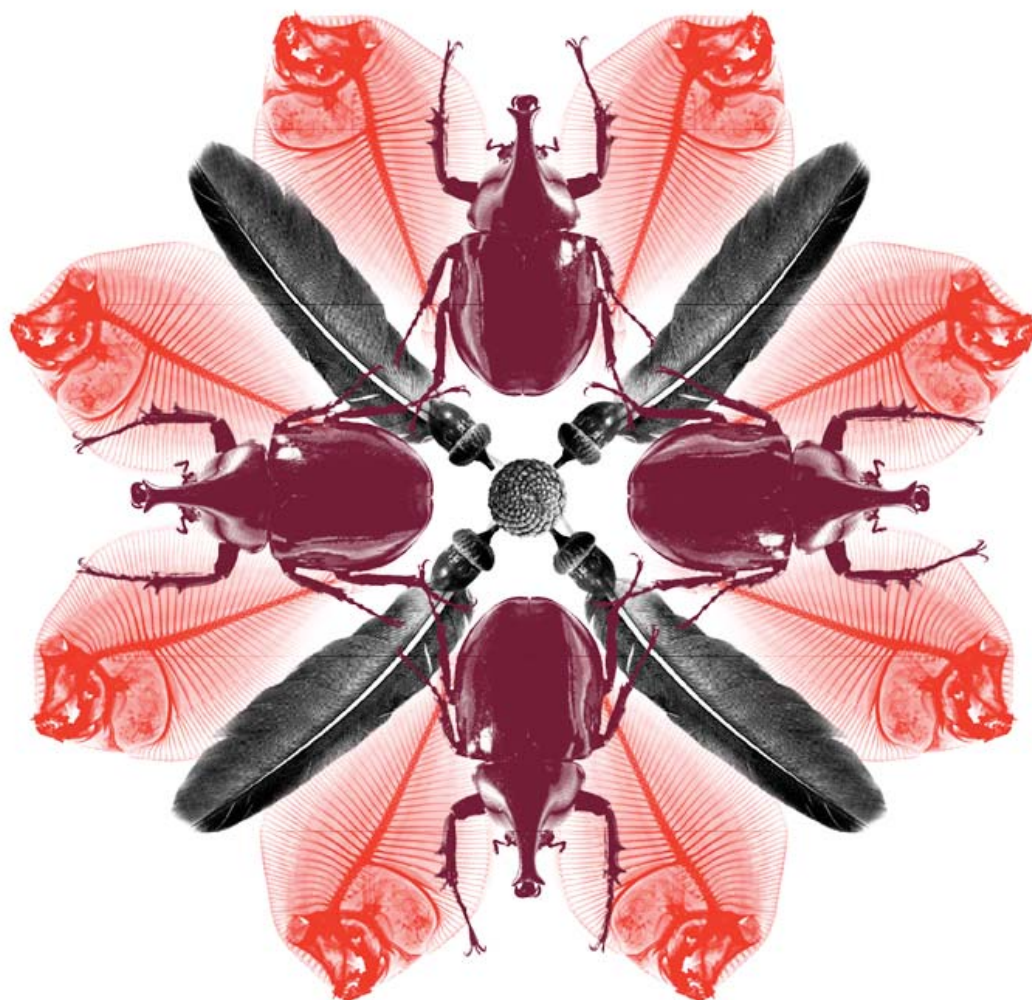




Australian Government
Department of Agriculture
and Water Resources

Australian Ballast Water Management Requirements

Version 7



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Version history

The Australian Ballast Water Management Requirements are updated periodically. You can check that this version is still current at agriculture.gov.au/abwmr

The following table describes recent changes to the requirements.

Version	Date	Reason for issue
5.3	1 August 2011	Review and update of document to reflect new ballast water management requirements.
6	6 June 2016	Review and update of document to reflect new ballast water management requirements under the <i>Biosecurity Act 2015</i> .
7	07 July 2017	Review and update of document to reflect the <i>Biosecurity (Ballast Water and Other Measures) Amendment Act 2017</i> and the <i>Biosecurity (Ballast Water & Sediment) Determination 2017</i> .

1 Introduction

The Australian Ballast Water Management Requirements set out the obligations on vessel operators with regards to the management of ballast water and ballast tank sediment when operating within Australian seas. These requirements include legislative obligations under the:

- [Biosecurity Act 2015 \(Biosecurity Act\)](#), and
- International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Convention).

They also provides guidance for vessel operators on best practice policies while in Australia. The requirements apply to all vessels operating internationally and domestically in Australia.

The legislative obligations on vessels to manage ballast water are contained in the Commonwealth Biosecurity Act 2015 and associated legislation. Vessels following these requirements will be complying with these obligations.

Ballast water can contain a range of invasive marine species, which, if unmanaged, can lead to significant economic and environmental impacts on Australia's unique maritime environment.

This version of the requirements reflects the implementation of the Ballast Water Convention and other changes associated with the introduction of new national domestic ballast water requirements to reduce the risk of spreading marine pests that have already established in Australian seas.

Contact details for more information on these requirements is included in [Section 10](#).

Checklist for Masters

This checklist is to assist masters in complying with these requirements and includes page references for more information.

- ☐ Ensure the vessel has a Ballast Water Management Plan (BWMP, management plan) and Ballast Water Management Certificate (BWMC, management certificate) as set out in [Section 2](#).
- ☐ Ensure all operations are recorded in the Ballast Water Record System, as described in [Section 2](#).
- ☐ Ensure the vessel has met the reporting obligations set out in [Section 3](#).
- ☐ Ensure all ballast water is managed in accordance with [Section 4](#).

2 Documents required

Key points

- All vessels must carry a valid management plan
- Most vessels will also require a management certificate
- Vessels with a ballast water management system (BWMS) should also carry a Type Approval Certificate specific to the type of BWMS
- All vessels must maintain a complete and accurate record of all ballast water movements

For clarification of requirements for different vessel types please refer to [Attachment A](#)

Ballast Water Management Plans

All vessels designed to carry ballast water are required to carry a valid management plan. A valid BWMP must be approved by either a survey authority, classification society, or the Administration of the vessel. For Australian flagged vessels, a management plan must be approved by the Director of Biosecurity, or an approved survey authority.

BWMPs should be consistent with the Ballast Water Convention's *Guidelines for Ballast Water Management and Development of Ballast Water Management Plans* (G4 Guidelines).

The BWMP must:

- be vessel specific (vessel name and International Maritime Organization (IMO) number)
- be approved by a survey authority, recognised organisation, or the vessel's flag administration
- nominate the rank(s) of the responsible officer and crew
- contain the ballast water management method and pumping rates.

Non-commercial vessels that are less than 400 gross tonnes are exempt from carrying management plans. Vessels with sealed tanks may also be eligible for an exemption upon application. Refer to [Section 7](#) for details on seeking an exemption.

Ballast Water Management Certificates

A management certificate is required for all vessels to which the Ballast Water Convention applies. The majority of Australian domestic vessels designed to carry ballast water will also need to obtain a ballast water management certificate. [Attachment A](#) lists the certification requirements for different classes of vessel.

A BWMC verifies the vessel has been surveyed to a standard compliant with the Ballast Water Convention, and must be consistent with the format described in Appendix I of the Ballast Water Convention. A statement of fact, or a certificate of compliance, is also accepted for vessels flagged to an administration that is not party to the Ballast Water Convention.

A valid BWMC must be issued by either a survey authority, classification society, or the administration of the vessel, and be in accordance with Regulation E-1 of the Ballast Water Convention. For Australian flagged vessels, a management certificate must be issued by the Director of Biosecurity, or an approved survey authority.

The certificate should:

- be vessel specific (vessel name and IMO number)
- be ratified by a survey authority or recognised organisation
- state the principal ballast water method(s) used (Regulation D1 (Exchange Standard) or Regulation D2 (Treatment Discharge Standard) or Regulation D4 (Prototype System))
- certify Regulation E-1 in fine print (survey schedule)
- have an end date up to five years from time of inspection.

A reference to Regulation D-1 on a BWMC will suggest the vessel utilises ballast water exchange. Whereas, a reference to Regulation D-2 suggests the vessel utilises a BWMS. If Regulation D-2 has been selected, the management certificate should clearly state the name of the system.

Floating platforms, Floating Storage Units (FSUs) and Floating Production, Storage and Offloading Units (FPSOs) are required to obtain a BWMP and BWMC. The survey schedule required for these vessels is not required to follow the schedule specified in Regulation E.1.1. Certification for floating platforms, FSUs and FPSOs may remain valid for a maximum of five years in-between surveys.

An example of valid certificates is provided in [Attachment B](#).

Type Approval Certificate

For vessels with a BWMS, also known as a ballast water treatment system, a Type Approval Certificate should be retained on board. A Type Approval Certificate relates specifically to the ballast water management system, and is not vessel specific.

Ballast Water Record System

All vessels that carry ballast water must maintain a complete and accurate Ballast Water Record System (Record System). The system may be electronic or in hard copy, and should comply with Regulation B-2 of the Annex to the Ballast Water Convention.

The Record System should contain a complete record of all ballast water movements. Records that should be kept in the vessel's ballast water recording system when conducting a ballast water exchange are:

- start and finish coordinates
- start and finish times for pumping water during an exchange
- actual pumping times (these should not be affected by the crossing of time zones)
- residual volume remaining in the tank at the end the empty cycle prior to refill (empty refill method only)
- signature of the officer in charge of the operation.

A ballast water handling log is recommended for vessels that use an electronic record keeping system as a backup for verification purposes. A vessel must maintain a minimum of two years of records on board from 8 September 2017.

If you require further advice and information, please contact us using the details available in [Section 10](#).

3 Ballast water reporting

Key points

- It is highly recommended that all vessels submit a Ballast Water Report. Vessels intending to discharge ballast are obligated to report.
- International vessels can submit a Ballast Water Report through the [Maritime Arrivals Reporting System \(MARS\)](#)
- Domestic trading vessels can request a low risk exemption through a Domestic Risk Assessment. All applications must be submitted through MARS.

Reporting obligations differ depending whether a vessel is trading domestically in Australia, or making international voyages. This is distinct from the flag of the vessel, and is based on whether the vessel has been released from biosecurity control by the department.

If there are exceptional circumstance that prevent the vessel from managing the ballast, the department should be notified as soon as practicable. In the event of a BWMS failure, the operator must [notify the Maritime National Coordination Centre \(MNCC\)](#) as soon as they are aware of the failure, to seek the department's advice on contingency measures.

Reporting obligations for international vessels

Vessels that are intending to discharge internationally sourced ballast water must submit a Ballast Water Report through MARS at least 12 hours prior to arrival.

However to prevent the discharge of high risk ballast, even vessels not intending to discharge ballast water are strongly encouraged to manage their ballast water, and submit a Ballast Water Report.

The Ballast Water Report will be assessed by the department through MARS, and a response will be issued through the Biosecurity Status Document. The Ballast Water Report should be updated if the ballast water situation changes on board.

Following the first point of arrival, international vessels may uptake Australian sourced ballast water for discharge later in Australia or overseas. The movement of Australian sourced ballast water between Australian ports is prohibited unless it has been managed, or a low risk exemption has been provided by the department.

Vessels can request discharge of Australian sourced ballast water by resubmitting their Ballast Water Report with an updated status about their ballast water tanks. This must occur prior to arrival at the subsequent Australian port.

More information about Ballast Water Reports and Biosecurity Status Documents is available on our website at agriculture.gov.au/biosecurity/avm/vessels

Reporting obligations for domestic vessels

Vessels that have been released from biosecurity control are still required to manage the movement of Australian sourced ballast water. All ballast water must be managed or receive a low risk exemption from the department.

Vessels can seek a low risk exemption through a Domestic Risk Assessment submitted through MARS. Exemptions will be granted for ballast water which is determined to be low risk based on the date and port of uptake and the date and port of discharge. Once submitted, a Domestic Risk Assessment Outcome document will be issued advising the vessel of the status of the exemption.

Vessel operators should be aware that seasonal changes will affect the outcome of risk based exemptions within Australian ports. Risk based exemptions for Australian sourced ballast water are only issued for a single voyage on the specified dates.

Vessel operators must retain evidence of the exemption notice on board, and may be required to present this on an inspection. If a risk based exemption is issued, the vessel is not required to manage the relevant ballast water prior to discharge at the port specified in the exemption.

Verification inspections

The department may conduct on-board ballast water verification inspections to assess the ballast water information on board, including plans, certificates, and ballast water records.

In addition to the above records, a responsible officer that is listed in the BWMP must be available to assist with the inspection.

Fees apply to verification inspections, as per the Department's charging guidelines.

4 Ballast water management options

Key points

- Australia is phasing out ballast water exchange in line with the agreed schedule set out under the Ballast Water Convention.
- All ballast water should be managed using one of the approved ballast water management options.
- Carrying high risk ballast water is strongly discouraged, as a vessel's itinerary may change or discharge may be necessary to ensure the safety of the vessel or prevent pollution

Phase out of ballast water exchange

Australia is implementing the agreed implementation schedule for the Ballast Water Convention that requires vessels to phase out ballast water exchange in favour of a method that is compliant with the D-2 discharge standard. In order to achieve this, vessels will be required to install an IMO approved BWMS, or use one of the other approved methods of management.

Vessels constructed on or after 8 September 2017

New vessels constructed on or after 8 September 2017, will be required to meet the Regulation D-2 discharge standard from the date they are put into service.

Vessels constructed before 8 September 2017

Vessels constructed before 8 September 2017 will need to comply with the Regulation D-2 standard by either the first or second five-year renewal survey of the vessel associated with the International Oil Pollution Prevention Certificate (IOPP) under the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex I.

Vessels must comply with the Regulation D-2 standard by their first renewal survey date, when the first renewal survey takes place:

- on or after 8 September 2019, or
- a renewal survey has been completed on or after 8 September 2014, but prior to 8 September 2017.

Vessels must comply with the Regulation D-2 standard by their second renewal survey date, when the first renewal survey takes place:

- after 8 September 2017, and
- before 8 September 2019.

Vessels that are not subject to IOPP renewal surveys

An existing vessel to which the IOPP renewal survey under MARPOL Annex I does not apply must meet the Regulation D-2 standard from 8 September 2024.

New vessels	Existing vessels where	For other existing vessels	Existing vessel not required to have an IOPP certificate
Keel laid on or after 8 September 2017:	Completed IOPP renewal survey between 8 September 2014 and 7 September 2017:	First IOPP renewal survey on or after 8 September 2019 OR Second IOPP renewal survey on or after 8 September 2017	Tankers of less than 150GT and ships other than oil tankers of less than 400GT:
Install a BWMS upon delivery	Install BWMS at the first IOPP renewal survey on or after 8 September 2017	Install BWMS at whichever occurs first	Install BWMS no later than 8 September 2024

Source: The North of England P&I Association Limited

Approved methods of ballast water management

The approved methods of ballast water management are:

- use of a BWMS
- ballast water exchange conducted in an acceptable area
- use of low risk ballast water (such as fresh potable water, high seas water or fresh water from an on-board fresh water production facility)
- retention of high-risk ballast water on board the vessel
- discharge to an approved ballast water reception facility.

Use of a Ballast Water Management System

The department accepts any IMO Type Approved BWMS, and prototype systems being tested for approval. The list of Type Approved and Prototype Approved systems is available at imo.org.

All Type Approved systems have been included in the department's reporting documents. If your vessel's particular system does not appear on this form, contact the MNCC.

BWMS must be used in accordance with the manufacturer's instructions as described in the BWMP.

Ballast water exchange

Ballast water exchange is an approved method only for those vessels that are not yet required to meet the Convention's Regulation D-2 discharge standard as described in the phase out schedule above.

Ballast water exchange must be conducted to the equivalent of a 95 per cent (or greater) volumetric exchange, using one of the acceptable methods of ballast water exchange provided below. Ballast water exchanges must be conducted as far from the nearest land as possible, and in all cases within an acceptable area (see acceptable areas for ballast water exchange).

The safety of the vessel and crew are paramount, all safety considerations must be taken into account when conducting ballasting operations. The Master of the vessel must ensure that the ballast water exchange is conducted in accordance with the vessel's ballast water management plan to ensure the method is appropriate to manage the risk of transferring pests whilst also ensuring the safety of the vessel and crew.

Acceptable methods for ballast water exchange

Australia's acceptable ballast water exchange methods are consistent with the Ballast Water Convention. A vessel should only use ballast water exchange methods that are described in the vessel's BWMP. Under the requirements of the Ballast Water Convention, three methodologies are considered suitable to meet a 95 per cent (or greater) volumetric exchange:

- sequential exchange (empty/refill)
- flow-through
- dilution.

Sequential exchange (empty/refill)

Sequential exchange is emptying of at least 95 per cent of the total tank volume prior to refilling it with water sourced from an area considered acceptable for ballast water exchange. Vessels conducting a sequential exchange must ensure that the residual volume is less than 5 per cent of the total tank volume prior to refilling the tank.

When verifying an empty/refill operation, a biosecurity officer will compare the residual volume of the tank recorded at the end of the empty cycle to the final volume on arrival, to ensure that at least 95 per cent of high-risk water was exchanged.

Flow-through method

A total of three times the total ballast capacity of the tank (300 per cent) must be pumped through, as a minimum, when conducting exchange using the flow-through method.

This is calculated from the time when the tank is full and/or water begins to overflow from the tank, not from when the pumps start. This is the case regardless of whether the tank was partially or completely full at the beginning of the flow-through process.

Tanks must be flushed one at a time or in similar port and starboard pairs. If co-joined ballast tanks are flushed, a biosecurity officer may request documentary evidence of the ballast tank layouts to ensure compliance with these requirements (e.g. the vessel's ballast water management plan). Flushing dissimilar tanks together does not meet Australian requirements and may result in the ballast water not being managed for discharge in accordance with the Biosecurity Act.

A biosecurity officer can verify if a sufficient volume of water has been exchanged by using the current verified pumping capacity and pump time to determine if at least 300 per cent of the total tank capacity has passed through the tank. Pumping times must be calculated from the time each tank starts to overflow, not from when the pumping operation has begun.

For further advice on conducting flow-through exchanges, please refer to [Section 9](#).

Dilution method

At least three times the tank's maximum capacity must be pumped through when conducting an exchange using the dilution method.

Tanks must be flushed one at a time or in similar port and starboard pairs. If co-joined ballast tanks are flushed, a biosecurity officer may request documentary evidence of the ballast tank layouts (which could be included in the BWMP) to ensure compliance with these requirements. Flushing tanks inconsistent with the vessels ballast water management plan will result in the ballast water not being managed for discharge in accordance with the Biosecurity Act.

For further advice on conducting flow-through exchanges, please refer to [Section 9](#).

Low-risk ballast water

A tank is considered to contain low-risk ballast water if at least 95 per cent of the ballast water in that tank is from a low-risk source. Tanks containing less than 95 per cent low-risk water will be considered high risk, and will need to be managed consistent with the methods outlined in this document.

Fresh potable water

Fresh potable water can be sourced from a municipal water supply or from an on-board desalination system. Documentation will be required to confirm the source of any potable water. Documentation may include:

- a bill of sale or receipt
- a signed letter on company letterhead verifying the origin of the water
- a surveyor's report, or
- records of operating a desalination system detailing the volume of fresh water generated.

If these conditions cannot be met, the ballast water will be considered high-risk, and must be managed by an acceptable method outlined in this document prior to discharge in Australian seas.

Water taken up on the high seas

Water that has been taken up on the high seas, or international waters, is considered to be low risk. This includes water that is greater than 12 nautical miles from any land mass and in water that is greater than 50 metres deep.

Water taken up and discharged within the same place

Ballast water taken up and discharged in the same place is considered low risk, provided that the water comprises 95 per cent or greater of the volume of water in the tank. The same place is considered to be within the port limits of the same port, or within one nautical mile of the point of uptake.

Water taken up and discharged in an area defined as a [Same Risk Area](#) is also considered low risk and does not need further management.

Retention of high-risk ballast water

Operators may choose to retain high-risk water within a ballast water tank if there is no intention to discharge the water in Australian seas. However, carrying high-risk ballast water into Australian seas is strongly discouraged, as a vessel's itinerary may change, or discharge may be necessary in the case of safety or pollution considerations.

Tank-to-tank transfers

Ballast water may be transferred between ballast tanks to control the trim and draft of the vessel. Tank-to-tank transfers of high-risk ballast water complicate ballast water management and may result in accidental discharge. Operators must be vigilant to ensure the risk of high-risk ballast discharging during the transfer operations is minimised.

Mixing low-risk water with high-risk water through tank-to-tank transfers may result in ballast water being considered high risk and unsuitable for discharge. Vessel operators must update their ballast water records for each transfer operation.

Empty tanks

Tanks are considered to be empty when the pumps lose suction, and the remaining volume cannot be removed.

It is recommended that soundings of empty tanks be conducted, and recorded separately in the vessels ballast water recording system at the end of the pump out cycle of ballast operations. These soundings must demonstrate that the volume remaining is less than 5 per cent of the total volume of the ballast water tank.

If the residual volumes exceed 5 per cent of the final volume, the tank is considered to be unmanaged and any water introduced to that tank would result in a mixed tank. A biosecurity officer may ask vessel operators to conduct soundings on a selection of empty tanks to ensure the residual volumes are recorded accurately.

Mixed tanks

Where water from more than one source is added to a ballast water tank, it is considered to be a mixed tank. The mixing of ballast water from multiple sources in one tank is not recommended by the department as it increases the complexity in managing the tank and increases the risk of discharge of high risk water.

Mixed tanks may be eligible for discharge if all water is from low risk sources.

If you are concerned about your vessel's eligibility for a mixed tank for discharge, [contact the MNCC for advice](#).

Discharge to a ballast water reception facility

Ballast water may be discharged to a ballast water reception facility that has been approved by the Director of Biosecurity in accordance with the G5 Guidelines of the Ballast Water Convention. The ballast water must be treated or disposed of at the facility in accordance with the approval requirements.

If there is an intention to discharge to a ballast water reception facility, [contact the MNCC](#) to ensure the facility intended for discharge is an approved facility.

Discharge relating to safety, accident or pollution

A vessel is able to discharge high risk ballast water when:

- it is necessary for ensuring the safety of a vessel in emergency situations or saving a life at sea
- the discharge is accidental and results from damage to the vessel or its equipment, or
- it is necessary for the purposes of minimising pollution.

All reasonable precautions must be taken to prevent or minimise the discharge. Vessel masters must report the discharge to the department as soon as possible after the incident. Under no circumstances should this information be sent to the department any later than the submission of the pre-arrival report.

For enquiries, or to report discharges relating to safety, accident or pollution, [contact the MNCC](#).

Alternative methods

Vessels wishing to use alternative methods for ballast water management that are not specified in this document, or that cannot comply with the requirements, [contact the MNCC](#) as soon as practicable to avoid possible delays in operations.

5 Acceptable areas for ballast water exchange

Key points

- Vessels must not exchange ballast water within the Great Barrier Reef or Ningaloo Reef, as described in this section and in [Attachment D](#).
- Vessels taking up and discharging ballast water within the [Same Risk Areas](#) described in this section are not required to manage the ballast water.

Ballast water exchange should be conducted in areas at least 12 nautical miles from the nearest land and in water at least 50 metres deep. In addition ballast water must not be exchanged within 12 nautical miles of the Great Barrier Reef, or within the Ningaloo Reef ballast water exchange exclusion area.

The waters within the following areas are considered [Same Risk Areas](#) and water may be taken up and discharged within these areas:

- Gulf St Vincent and the Spencer Gulf
- Port Phillip Bay.

Great Barrier Reef Marine Park

The ports within the Great Barrier Reef Marine Park, and part of the Torres Strait, are known as the Great Barrier Reef Marine Park— Domestic Ballast Water Zone. This zone includes:

- all ports located within the boundaries of the Great Barrier Reef World Heritage Area
- Weipa
- all ports located within the boundaries of the Torres Strait Islands
- Bundaberg.

Vessels must abide by additional requirements when conducting ballast water operations within this zone. This applies only to vessels utilising ballast water exchange as their primary method of ballast water management. When a vessel is required to meet the discharge standard under Regulation D-2 of the Convention and Australia's ballast water requirements (see [Section 4](#)) the vessels' ballast water must be managed in accordance with the ballast water management plan.

Discharging ballast water sourced outside the Zone

Ballast water management operations must occur prior to entering the Great Barrier Reef Marine Park – Domestic Ballast Water Zone, if you plan to discharge water sourced externally at a port within the zone.

Discharging ballast water sourced inside the Zone

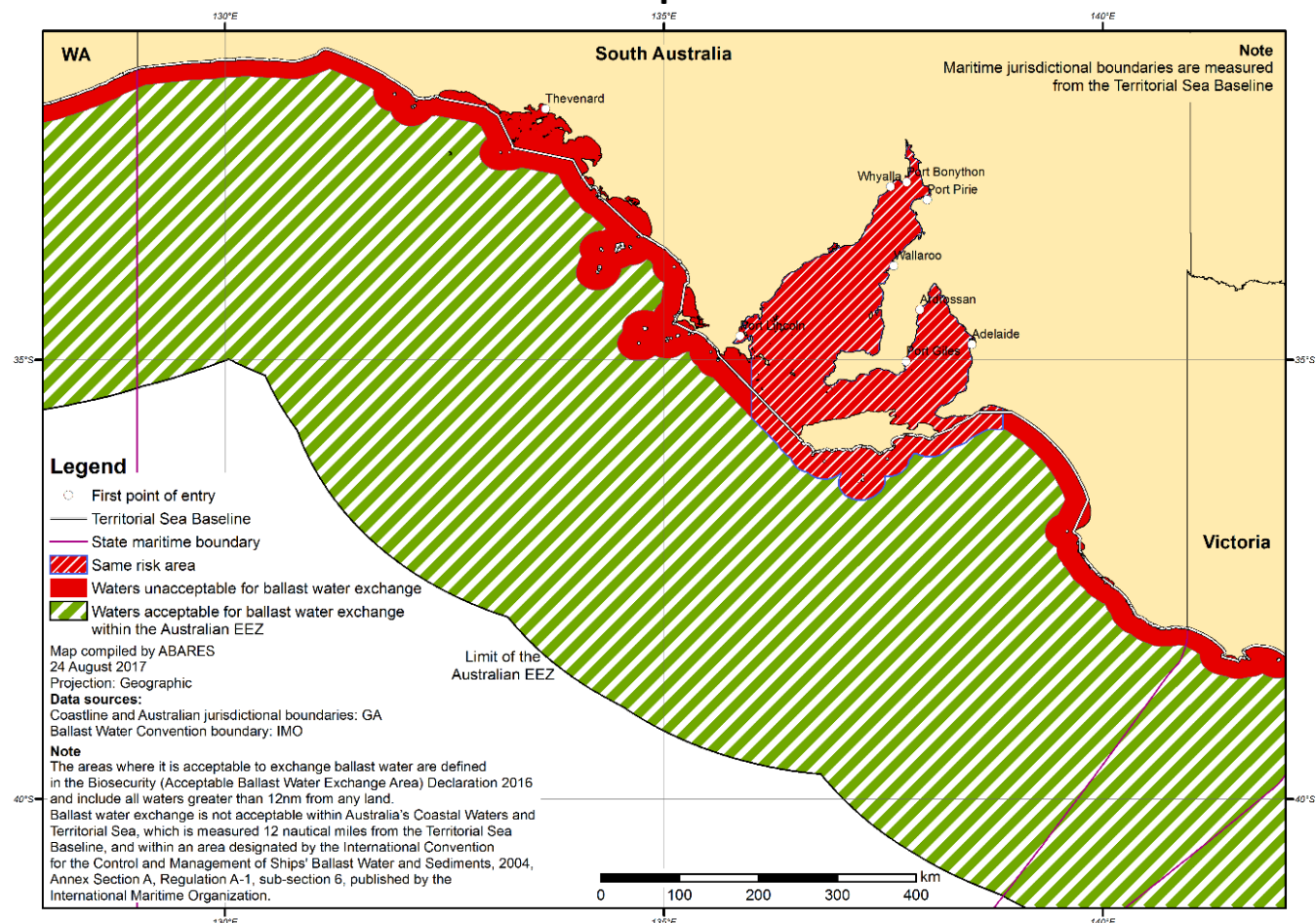
Vessel operators are not required to manage ballast water sourced within the zone if:

- their vessel uses ballast water exchange as their primary method of ballast water management, and
- the ballast water was taken up in the zone, and
- ballast water exchange is the only practicable ballast water management method available.

Same Risk Areas

Vessels are not required to manage ballast water within the two designated Same Risk Areas described below. Australia has designated same risk areas in South Australia and Victoria, as described below.

South Australia- Gulf St Vincent and Spencer Gulf



Eastern boundary

River Murray mouth (west bank): 138° 52' 28.325"E. 35° 33' 26.697"S

Intersection with edge of waters acceptable for BW exchange: 138° 52' 30.469"E. 35° 47' 44.164"S

Southern boundary (east to west)

Intersection with edge of waters acceptable for BW exchange (east): 138° 33' 51.748"E. 35° 50' 32.605"S

Eastern end of Kangaroo Island: 138° 8' 6.428"E. 35° 50' 29.078"S

Western end of Kangaroo Island: 136° 32' 1.042"E. 35° 52' 29.632"S

Intersection with edge of waters acceptable for BW exchange (west): 136° 12' 29.499"E. 35° 52' 31.625"S

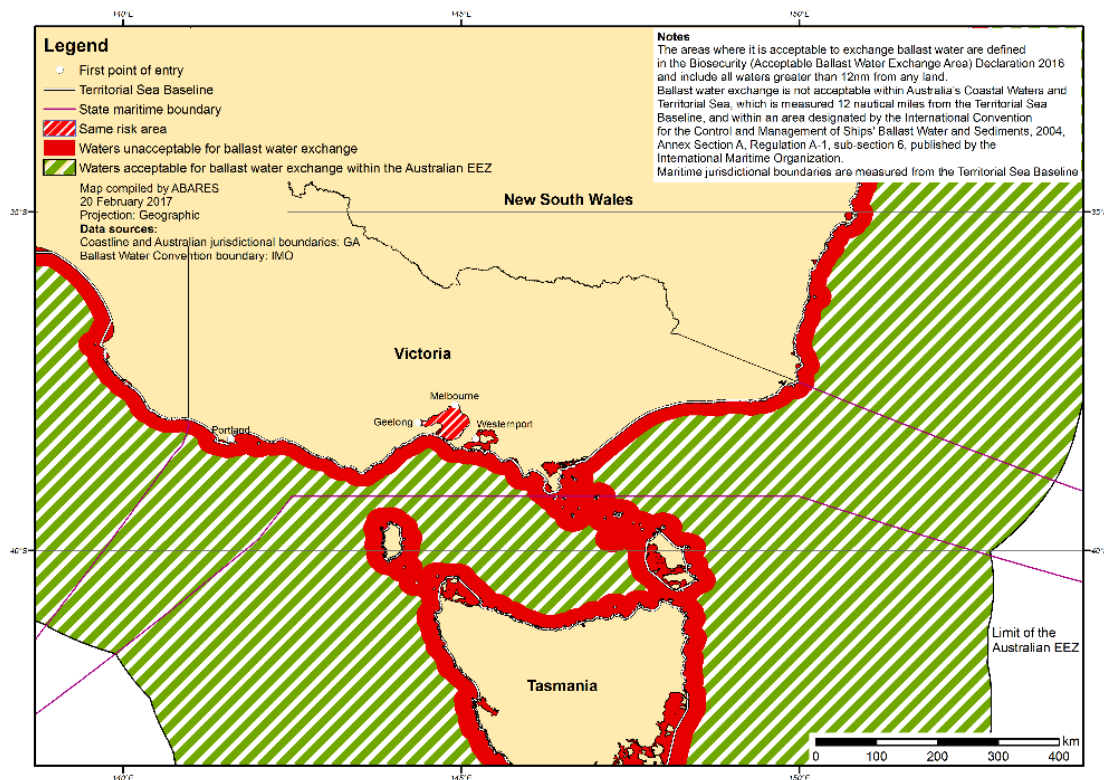
Western boundary

Cape Catastrophe: 136° 0' 8.018"E. 34° 59' 8.712"S

Intersection with edge of waters acceptable for BW exchange: 136° 0' 2.63"E. 35° 39' 47.805"S

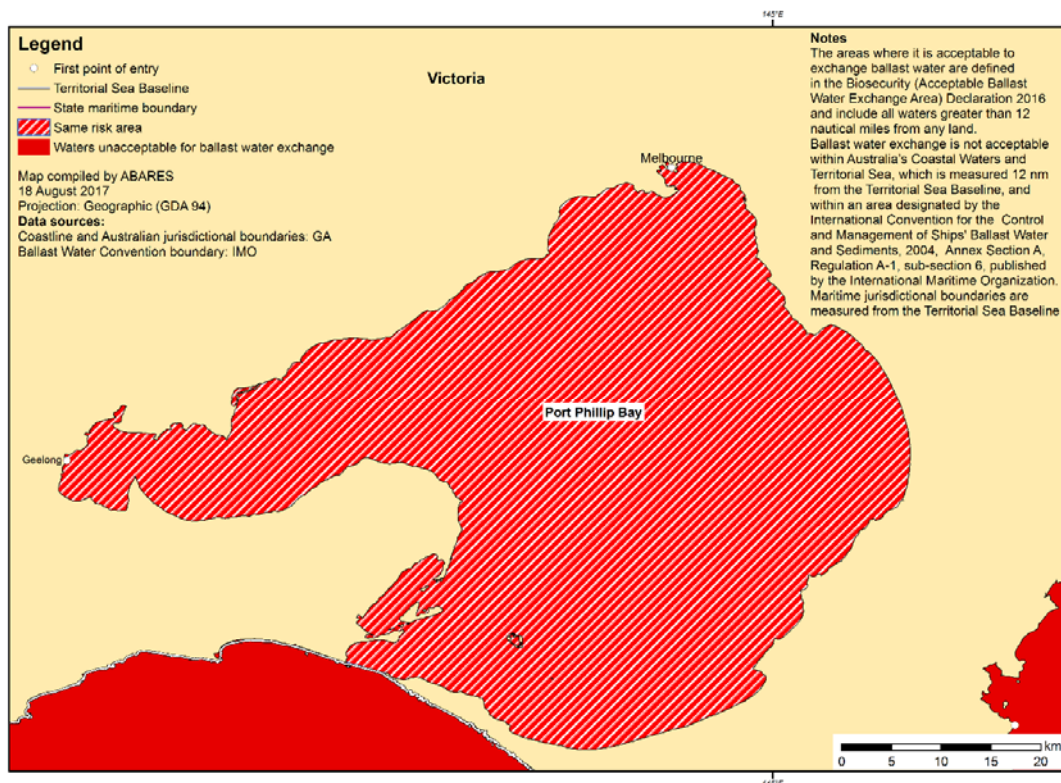
Victoria- Port Philip Bay

This area is inclusive of all waters north of the heads (coordinates below) of Port Philip Bay.



Western boundary 144° 36' 54.272" E 38° 17' 29.988" S

Eastern boundary 144° 39' 2.7" E 38° 18' 6.737" S



6 Ballast water management for vessels servicing offshore installations

Vessels arriving at an offshore oil and gas installation within Australia's Exclusive Economic Zone (EEZ) must manage their ballast water in accordance with one of the acceptable methods of ballast water management, prior to arrival.

Vessels using ballast water exchange that are arriving in Australia's EEZ from a port outside of Australia, the ballast water exchange must be conducted consistent with the requirements of [Section 4](#) of this document.

Vessels that operate between offshore oil and gas installations and Australian ports are also required to manage their ballast water before arrival at the installation and Australian port. The acceptable area for a ballast water exchange between an installation and an Australian port is in sea areas that are no closer than 500 metres from the offshore installation, and no closer than 12 nautical miles from the nearest land.

If any vessels are unable to achieve these ballast water exchange requirements, they must [contact the MNCC](#) for further advice.

7 Exemptions

Key points

- Exemptions apply to some vessels in regard to meeting the D2 discharge standard of the Ballast Water Convention. If your vessel fits the eligibility criteria, the exemption applies automatically.
- Other exemptions are available on application, including risk based exemptions.
- Application and/or assessment fees may apply to exemptions.

Exemptions from the Ballast Water Convention's Regulation D-2 discharge standard

A number of vessel types and operations are exempt from meeting the Regulation D-2 discharge standard of the Ballast Water Convention. Vessels meeting these conditions **do not** need to seek an exemption from the obligations specified in brackets:

- vessels that do not use ballast water to control trim, stability or list (exempt from all requirements)
- vessels with sealed tanks, and only discharge for the purpose of scheduled maintenance, dry-docking or emergency (exempt from ballast water management requirements except keeping ballast water records)
- vessels using only potable water, and operating solely in Australian waters (are not required to meet the Regulation D-2 discharge standard, and therefore are not required to install an (IMO) approved BWMS)
- vessels that only uptake and discharge ballast water in the same place (within the port limits of the same port, or within 1 nautical mile of the point of uptake) are not required to meet the Regulation D-2 discharge standard, and therefore are not required to install an (IMO) approved BWMS)
- dumb barges with no power source, that do not uptake and discharge ballast water (are not required to meet the Regulation D-2 discharge standard, and therefore are not required to install an (IMO) approved BWMS)
- recreational, or search and rescue vessels, less than 50 metres in length, with less than 8 cubic metres of ballast (do not need a BWMC, and because they are not required to meet the Regulation D-2 discharge standard, do not need to install an (IMO) approved BWMS).

Case by case exemptions are available upon application for vessels operating only in Australian waters. Applications will considered for:

- floating platforms, FSUs and FPSOs operating exclusively in Australian waters
- vessels unable to retrofit an (IMO) approved ballast water treatment system based on legitimate design restrictions
- fishing vessels that only source ballast water outside 12 nautical miles from the nearest land.

Exemption from the requirement to obtain a Ballast Water Management Certificate or Ballast Water Management Plan

While all vessels must keep records of ballast operations, case by case exemptions from having a BWMP and BWMC are available upon application for vessels operating only in Australian waters. [Attachment A](#) explains the requirements for different vessel types in detail.

Vessels may apply for an exemption where equivalent measures to address biosecurity and safety concerns can be demonstrated. Applications will be considered for vessels that:

- are less than 400 gross tonnes
- use potable water as ballast, and only discharge for the purpose of scheduled maintenance, dry-docking or emergency
- are dumb barges with no power source, and that do not uptake and discharge ballast water on a regular basis
- are fishing vessels which only source ballast water outside 12 nautical miles from nearest land.

Risk based exemptions

A risk based exemption from vessel inspections, of up to five years may be granted upon application to the Director of Biosecurity. Applications must include a risk assessment based on the Convention guidelines for risk assessments (G7), which demonstrates the level of biosecurity risk associated with the ballast water is acceptable.

How to apply for an exemption

To apply for an exemption email pestsmarine@agriculture.gov.au. The application will be assessed within 28 working days of receipt of a valid application. Assessment fees may apply.

An application for an exemption must include:

- a completed and signed application form
- proof of legal entity showing the business or organization name that is the owner of the vessel
- vessel particulars or an attachment showing vessel particulars and ballast capacity
- operational profile of the vessel, demonstrating operation solely in Australian waters or the high seas
- if applicable, an approved BWMP detailing ballast operations and methods
- if applicable, an approved BWMC.

Further information may be required in order to assess the application.

If you have questions about applying for an exemption, please email pestsmarine@agriculture.gov.au.

8 Disposal of ballast tank sediment

Key points

- Disposal of tank sediment is prohibited in Australia's EEZ
- A vessel may discharge ballast tank sediment outside 200 nautical miles from the nearest land, and in at least a depth of 200 metres or at an approved land-based reception facility

Sediment must be disposed of in an area outside 200 nautical miles from the nearest land, and in at least a depth of 200 metres, or at an approved land-based reception facility. Australian state and territory legislation may apply to land-based sediment reception facilities.

Eductors are not permitted to strip ballast tanks in Australian seas, unless a vessel seeks permission to discharge sediment to a reception facility.

The discharge of sediment is permitted if:

- it is necessary for ensuring the safety of the vessel in an emergency or saving life at sea, or
- if the discharge is accidental and results from damage to the vessel or its equipment,
- where all reasonable precautions have been taken to prevent or minimise the discharge;
- or for the purposes of minimising pollution.

The department must be contacted with details of the disposal within 24 hours of the vessels crew becoming aware of the disposal.

For more information, [contact the MNCC](#).

9 Practical considerations

Masters must apply the requirements in this section if applicable to their vessel type.

Ballasting under pilotage

A vessel that is under pilotage may manage ballast water to adjust trim for safety considerations and/or to allow for draft restrictions. This may occur after the responsible ballast water officer has submitted the ballast water report to the department demonstrating the ballast water on-board has been acceptably managed for discharge. The vessel's responsible ballast water officer is required to record all ballast water management in the vessel's ballast water records. These records must be presented to a biosecurity officer on request.

Estimating pump rates

The definition of a single pressure source includes using two or more pumps simultaneously into common lines.

Estimating the quantity of water flushed through each tank involves estimating the delivery rate of ballast pumps, and timing the hours of running of those pumps.

The actual pump rates will differ from their rated capacity due to:

- wear on pumps, pipes etc.
- depth underwater of sea inlet (vessel's draught)
- horizontal and vertical distance of each tank from the pump (friction/gravity)
- vessel trim (trim by the stern will pump the water uphill and force the pump to overcome gravity)
- variations in ballast main diameter.

To ensure that sufficient water has been flushed through a tank to satisfy Australian requirements, we strongly recommend that ballast water management equipment such as pumps be regularly surveyed, and tested to verify actual delivery rates.

Pumping rates should be recorded in the Ballast Water Management Plan and verified through annual surveys.

Test to estimate pumping rates

Pump tests should be conducted against the fore peak tank as it is generally furthest tank from the ballast pumps. Most vessels have a portion above the waterline, and most ballast mains (pipes) will incorporate a series of reductions in diameter and changes in direction between the pump and the tank. The combination of all of these factors leads to the fore peak tank receiving less water per hour than any other on the vessel.

The pump test should therefore comprise filling the fore peak from empty or waterline (as proven by a manual sounding) until the tank is full or overflows and timing the operation. A template for documenting ballast pump tests is available in [Attachment C](#).

If more than one ballast pump is fitted, each pump should be tested separately. If two pumps are intended to be used together in flow-through operations, a separate test using both pumps together should be conducted. The quantity being delivered by two pumps operating together into a common line would usually be less than the sum of each pump's individual delivery rate.

As it would be unusual to use two pumps to fill the fore peak tank, a test of the combined delivery rate of two pumps should be conducted against forward upper wing tanks, ideally above the waterline. For example, Top Side Tanks 1 Port and Starboard.

The department recommends pump tests only be conducted when it is safe to do so.

Exchange calculation examples

Sequential exchange

Calculation example 1

A vessel has a fore peak ballast tank with full capacity 2,000 m³. The vessel's master wishes to arrive in an Australian port with the fore peak tank only half full (1,000 m³). Regardless of how much high-risk water is in the tank before the exchange, the water in the tank must be exchanged so that, after refilling, not more than 5 per cent of the resulting mixture in the tank is high-risk water. After pumping out (when suction on the pump is lost), a sounding of the tank is taken and this shows that only 5 m³ remains.

In this situation, provided at least 95 m³ of deep ocean water is added to the fore peak tank, the resultant mixture will be acceptable for discharge in Australian seas. The master may fill the tank only to his desired volume of 1,000 m³ and the ballast water in the tank requires no further management.

Calculation example 2

A vessel has a centre line, double bottom tank beneath No. 1 Cargo Hold (DB1C) with full capacity 6,000 m³. The vessel's master wishes to arrive in an Australian port with DB1C only filled to one-third of its capacity (2,000 m³).

After pumping out (when suction on the pump is lost), a sounding of the tank is taken and this shows that 250 m³ remains in the tank.

To achieve a 95 per cent volumetric exchange in this tank, the master has two options:

- 1) Fill the tank up to 5,000 m³ and then pump out water until his desired level of 2,000 m³ is reached
- 2) Strip the tank until only 100 m³ remains before refilling the tank to 2,000 m³.

Flow-through/dilution

A cape-sized vessel (100,000 DWT) with nine cargo holds, has the following dedicated ballast tanks:

Tank/hold	Capacity	Contents
WBT 1P	3 000 m ³	Full
WBT 1S	3 000 m ³	Full
WBT 2P	4 200 m ³	Full
WBT 2S	4 200 m ³	Full
WBT 3P	3 000 m ³	1200 m ³

Tank/hold	Capacity	Contents
WBT 3S	3 000 m ³	Full
WBT 4P	4 200 m ³	Full
WBT 4S	4 200 m ³	Full
After peak	1 200 m ³	800 m ³

The 10-year-old vessel is fitted with two main ballast pumps each with a rated capacity of 2,500 m³/hr when the vessel was new. From pump tests, the chief officer is aware that each of these pumps now delivers about 2,000 m³/hr when used by itself, or a total of 3 700 m³/hr when the pumps are used together.

Calculation example 1

Fore peak tank (capacity 2,000 m³) initially contains 1,000 m³ of high-risk ballast water. The Master wants to exchange the tank's contents in mid-ocean using the flow-through method.

300 per cent of the tank's full capacity (i.e. $3 \times 2,000 \text{ m}^3$) = 6,000 m³.

Using only one pump, the master must pump clean seawater into the tank for three hours. Using two pumps together, the required pumping time would be $6,000 \div 3,700 = 1.62$ hours (1 hour 37 minutes).

One pump delivers 2,000 m³/hr = 6,000 m³ in 3 hours = 300% of tank's FULL capacity.

Two pumps deliver 3,700 m³/hr = 6,000 m³ in 1.62 hours = 300% of tank's FULL capacity.

Calculation example 2

The Master wants to use flow-through method on WBT 1P, WBT 1S, WBT 2P and WBT 2S.

Acceptable

Using both ballast pumps together, the master simultaneously flushes WBT 1P and 1S for at least 4.86 hours (combined capacity of 1P&S = 6,000 m³, 4.86 hours pumping @ 3,700 m³/hr = 18,000 m³ = 300% of each tank's full capacity).

After the ballast exchange in WBT 1P and S, those tanks are closed off and a new exchange begins on WBT 2P and S simultaneously. No. 2s, with combined capacity of 8,400 m³, require a further 6.81 hours of flushing with both pumps simultaneously.

Unacceptable

Master uses both pumps to flush WBT 1P&S and WBT 2P&S (combined capacity = 14,400) simultaneously for 11.68 hours. The pumps deliver the same quantity of water in total but it is impossible to say how much water each tank received if this procedure is used. It is clear though that No. 1s, being further from the pumps, will receive less than No. 2s.

10 Further advice and information

General advice and support

Further information can be obtained by contacting the department or visiting the department's [website](#). For further information on the process to manage ballast water in Australian waters, please contact the Maritime National Coordination Centre or the department's nearest [regional office](#).

Maritime National Coordination Centre

Email: maritimeNCC@agriculture.gov.au

Phone: 1300 004 605

Fax: 1300 005 882

Exemptions

For further information on exemptions please contact the department's Ballast Water Unit.

Ballast Water Unit

Email: pestsmarine@agriculture.gov.au

Website: agriculture.gov.au/ballast

11 Attachment A: Ballast Water Management Plan and Certificate requirements

This table shows the requirements for ship types/classes designed to carry ballast water, to obtain a ballast water management plan and ballast water management certificate.

Ballast Water Management Plan and Certificate requirements

Scenario	Ship type/class	Sub-category	Ballast Water Management Plan	Ballast Water Management Certificate	Additional comments
1	Ships which use an IMO Type Approved BWMS	All	Yes—approved by a survey authority or a Flag State Administration	Yes—approved by a survey authority or a Flag State Administration	–
2	Commercial ships 400 gross tonne and greater	Internationally operational ships	Yes—approved by a survey authority or a Flag State Administration	Yes—approved by a survey authority or a Flag State Administration	–
3	Commercial ships 400 gross tonne and greater	Domestic only operating ships	Yes—approved by a survey authority, registered surveyor or Flag State Administration a	Yes—approved by a survey authority, registered surveyor or Flag State Administration.	Exemptions may be available on a case-by-case basis for ballast water management certificates
4	Commercial ships less than 400 gross tonnes	Internationally operational ships	Yes—approved by a survey authority or a Flag State Administration	Yes—approved by a survey authority or a Flag State Administration	–
5	Commercial ships less than 400 gross tonnes	Domestic only operating ships	Yes—approved by a survey authority, registered surveyor or Flag State Administration.	Yes—approved by a survey authority, registered surveyor or Flag State Administration.	Exemptions may be available on a case-by-case basis for ballast water management certificates
6	Non-commercial ships designed to carry ballast water	Greater than 400 gross tonnes	Yes—approved by a survey authority, registered surveyor or Flag State Administration.	Yes—approved by a survey authority, registered surveyor or Flag State Administration.	–

Scenario	Ship type/class	Sub-category	Ballast Water Management Plan	Ballast Water Management Certificate	Additional comments
7	Non-commercial ships designed to carry ballast water	Less than 400 gross tonnes	No (application for exemption not required)	No (application for exemption not required)	Must still manage ballast water. May contact the department for appropriate methods.
8	Ships that are covered by Equivalent compliance (Regulation A-1) of the Ballast Water Convention b	–	Yes—approved by a survey authority, registered surveyor or Flag State Administration.	No (application for exemption required)	Must still manage ballast water. May contact the department for appropriate methods.
9	Ships considered to have sealed tanks, including: <ul style="list-style-type: none"> permanently sealed tanks tanks physically sealed or locked out. 	–	No (application for exemption not required)	No (application for exemption not required)	Must still manage ballast water. May contact the department for appropriate methods.
10	Ships using potable water, which only discharge for scheduled maintenance, dry-docking or emergency. Dumb barges (barges with no power source to pump water. Filled by some other means, such as hoses)	–	No (application for exemption required)	No (application for exemption required)	Must still manage ballast water. May contact the department for appropriate methods.

a Email pestsmarine@agriculture.gov.au for information on how to identify an appropriate registered surveyor.

b The *Guidelines for Ballast Water Management Equivalent Compliance (G3)* apply to pleasure craft used solely for recreation or competition or craft used primarily for search and rescue less than 50 metres in overall length and with a maximum ballast water capacity of eight cubic metres. Overall length means the length of the hull excluding bowsprits, booms, bumpkins, pulpits.

12 Attachment B: Example Ballast Water Management Certificate

Certificate no:
Page 1 of 2



Ballast Water Management Certificate/Document/Statement of Compliance

This Certificate/Document/Statement of Compliance is issued for the information of interested parties to indicate compliance with the provisions of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (hereinafter referred to as "the Convention") **under the authority of the Government of** by Lloyd's Register EMEA.

Particulars of ship

Name of ship
Distinctive numbers or letters
Port of registry
Gross tonnage
IMO number
Date of construction
Ballast water capacity (in cubic metres)
Method of Ballast water management used

Details of Ballast water management method(s) used

Date installed (if applicable)
Name of manufacturer (if applicable)

The principal ballast water management method(s) employed on this ship is/are:

- ☐ in accordance with regulation D-1
☐ in accordance with regulation D-2
(describe)

- ☐ the ship is subject to regulation D-4

This is to certify:

- 1 that the ship has been surveyed in accordance with regulation E-1 of the Annex to the Convention; and
- 2 that the survey shows that Ballast Water Management on the ship complies with the Annex to the Convention

This certificate is valid until subject to surveys in accordance with regulation E-1 of the Annex to the Convention

Completion date of the survey on which this certificate is based:

Issued at on

Surveyor to Lloyd's Register EMEA

a member of the Lloyd's Register group.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Form 6608 (2015.08)

13 Attachment C: Ballast water pump test

Vessel name:.....

IMO number:

Port of registry:

Date launched:

ID of ballast pump(s) tested:.....

Original rated capacity of pump(s) tested:

Details of tank(s) used in test:

(Fore peak tank preferred for single pump tests, forward upper wing tanks preferred for testing combined pumps)

a) Maximum tank capacity (m³):

b) Initial contents (m³):

c) Time start pumping:

d) Time tank overflowed: e) Hours Pumping (d – c): f) Volume pumped (a – b):

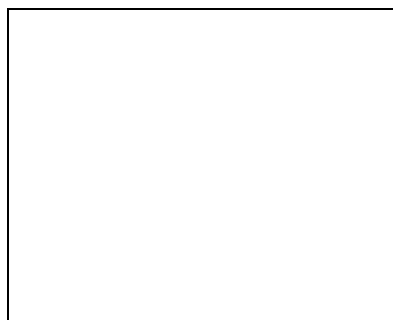
e) Pump's delivery rate: (f ÷ e) per hour

f) Date of Pump Test/...../.....

Master's signature:

Chief officer's signature:

Vessel's stamp:



The safety of the vessel and crew are paramount. We strongly recommend pump tests are only to be conducted if safe to do so, and that pumps are tested at least every 12 months.

14 Attachment D: Maps of ballast water exchange exclusion areas

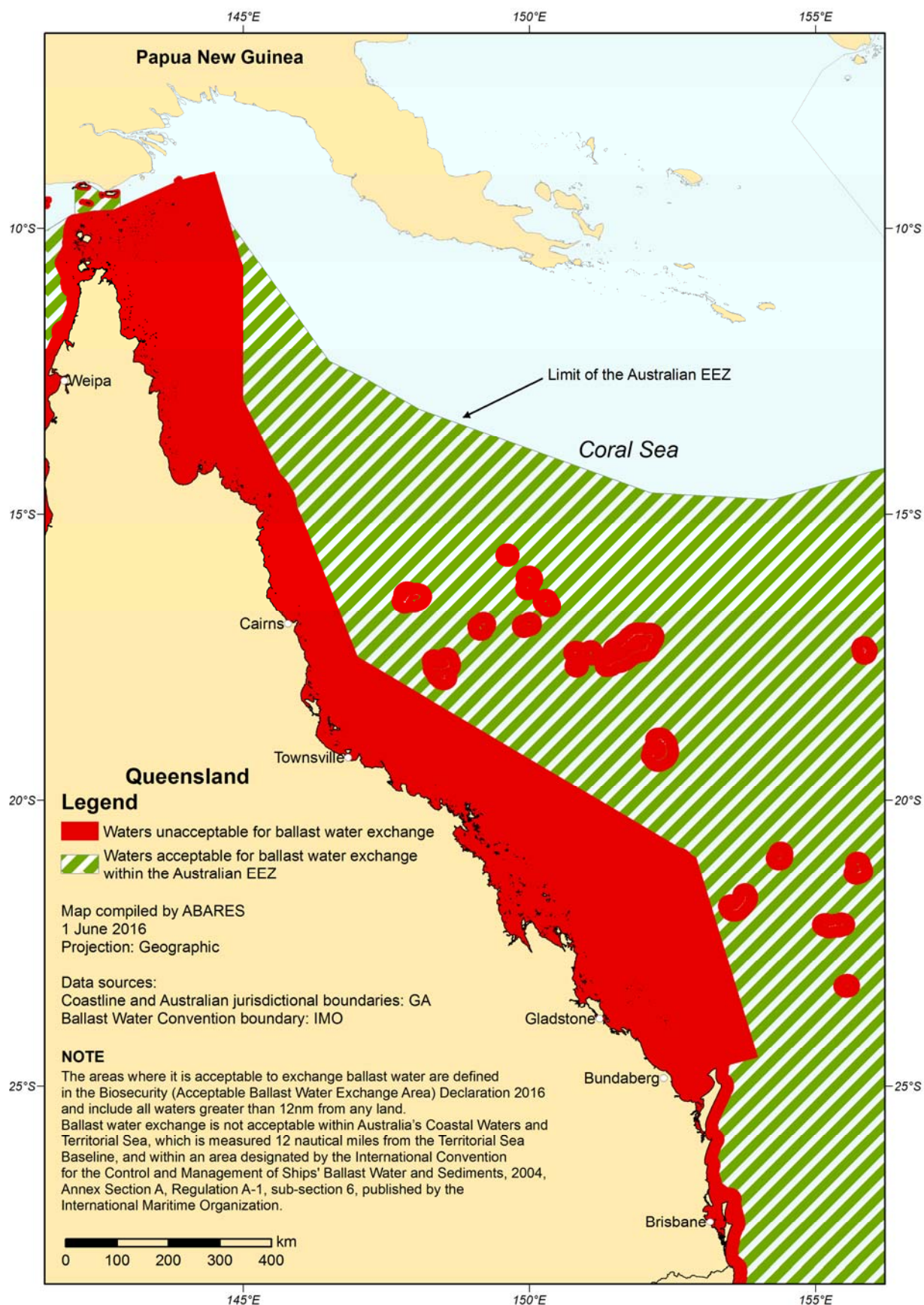
Great Barrier Reef ballast water exchange exclusion area

From the nearest land off the north-eastern coast of Australia means from a line drawn from a point on the coast of Australia in:

latitude 11°00' S, longitude 142°08' E
to a point in latitude 10°35' S, longitude 141°55' E
thence to a point latitude 10°00' S, longitude 142°00' E
thence to a point latitude 9°10' S, longitude 143°52' E
thence to a point latitude 9°00' S, longitude 144°30' E
thence to a point latitude 10°41' S, longitude 145°00' E
thence to a point latitude 13°00' S, longitude 145°00' E
thence to a point latitude 15°00' S, longitude 146°00' E
thence to a point latitude 17°30' S, longitude 147°00' E
thence to a point latitude 21°00' S, longitude 152°55' E
thence to a point latitude 24°30' S, longitude 154°00' E
thence to a point on the coast of Australia in latitude 24°42' S, longitude 153°15' E

If the requirements to conduct a ballast water exchange outside 12 nautical miles of the Great Barrier Reef Marine Park (see Map 1) are unachievable, the master should contact the MNCC for advice as soon as possible.

Map 1 - North-eastern Australian areas that are acceptable for ballast water exchange within the Australian EEZ



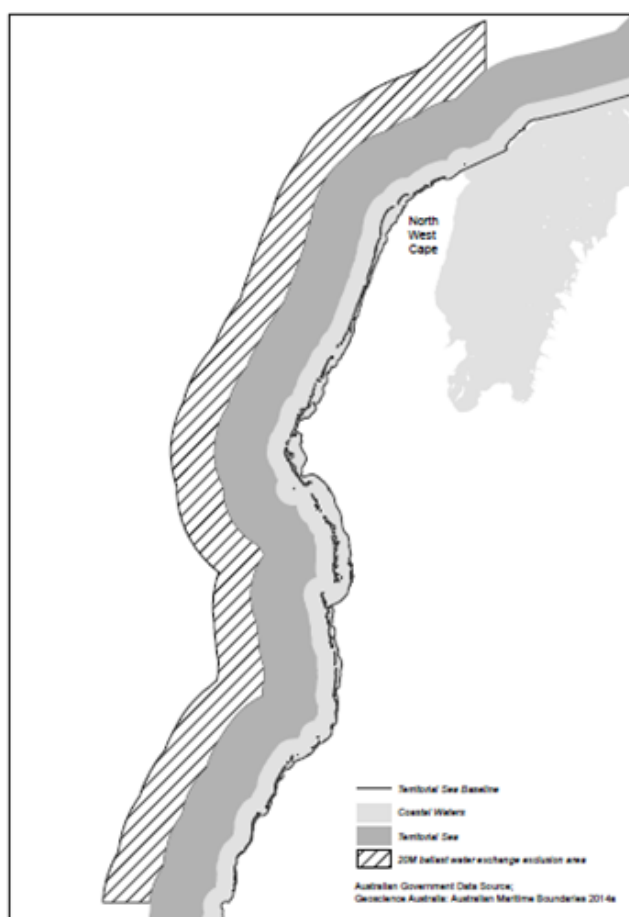
Ningaloo ballast water exchange exclusion area

Ballast water exchange is not permitted in the Ningaloo ballast water exchange exclusion area.

The Ningaloo ballast water exchange exclusion area is the area bounded by the line starting at the point described in Item 1 of the following table and running sequentially as described in the table below.

Item	Description
1	The point of intersection of the outer limit of the territorial sea, north of North West Cape Western Australia, by the meridian of longitude 114°14'21" East
2	North along that meridian to its intersection by the outer limit of the line every point of which is 20 nautical miles from the territorial sea baseline
3	Generally south-westerly along that outer limit to its intersection by the parallel of latitude 24°01'53" South
4	East along that parallel to its intersection by the outer limit of the territorial sea
5	Generally north-easterly along that outer limit to the starting point

Map 2: Ningaloo Reef Marine Park Exclusion Zone



15 Glossary

Australian ballast water

Water that has been sourced within the Australian exclusive economic zone (within 200Nm of Australia). Also referred to as domestic ballast water.

Ballast Water Convention

The International Convention for the Control and Management of Ship' Ballast Water and Sediments which came into force on 8 September 2017 and has been ratified by Australia.

BWMP

A Ballast Water Management Plan (also referred to as a management plan) is specific to the vessel and provides the appropriate procedures for the safe management of ballast water on that vessel.

BWMC

A Ballast Water Management Certificate verifies the vessel has been surveyed to a standard compliant with the Convention and states the principle management methods used.

BWMS

A Ballast Water Management System, also known as a treatment system, is a system designed to remove and destroy/inactivate biological organisms (zooplankton, algae, and bacteria) from ballast water. These systems must be approved by the International Maritime Organisation.

Department

Australian Department of Agriculture and Water Resources

Domestic ballast water

Water that has been sourced within the Australian exclusive economic zone (within 200Nm of Australia). Also referred to as Australian ballast water.

Empty tank

Ballast tanks that contain less than, or equal to, 5 per cent high risk water based on the total tank capacity.

High-risk ballast water

Ballast water that is considered to represent an unacceptable biosecurity risk to Australia. This includes, but not limited to, any ballast water that has not been managed in accordance with these requirements and has been taken up:

- within 12 nautical miles of any land mass or in water less than 50 metres deep
- within 500 metres of an offshore installation, or
- in an Australian port and intended for discharge in the Australian territorial seas.

Vessels without records to demonstrate the management or source of the ballast water will be considered to have high risk ballast water.

Low-risk ballast water

Water that has:

- been managed using one of the approved methods listed in [Section 4](#), or
- an approved low risk exemption and is sourced in Australia.

MARS

The Maritime Arrivals and Reporting System, used to submit the Ballast Water Report and Domestic Risk Assessment.

Record System

A Ballast Water Record System which is a complete and accurate record of all ballast water operations.

Responsible officer

The officer or crew member identified in the ballast water management plan to conduct the ballasting operations.

Sealed Tanks

Ballast tanks that are permanently sealed and unable to receive or discharge ballast water from the environment. Vessels that have been fitted with spectacle blinds or similar, and do not intend to discharge or uptake ballast water during normal operations, are considered to have sealed tanks.

Sloshing

The official term for the movement of water in a slack tank. Such movement can be so violent that it causes damage to structural steelwork inside a vessel's tank.