



Options for sewage legislation compliance

Declared ships

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Contents

Options for sewage legislation compliance	1
Declared ships	1
Ship-sourced sewage: Guidance on implementation	1
Vessel owner and operator responsibilities	2
Types of waters	2
Prohibited discharge waters	2
Smooth waters	3
Discharge requirements in smooth waters – untreated sewage	3
Discharge requirements in smooth waters – treated sewage	3
Hervey Bay and northern Moreton Bay waters	3
Discharge requirements in Hervey Bay or northern Moreton Bay waters — untreated sewage	3
Discharge requirements in Hervey Bay and northern Moreton Bay waters	3
Open waters	4
Discharge requirements in open waters — untreated sewage	4
Discharge requirements in open waters — treated sewage	4
Equipment	6
Macerators	6
Sewage holding device	6
On-board sewage treatment system on a declared ship	6
Documentation and record keeping	6
Shipboard sewage management plan	6
Shipboard sewage management plan requirements	7
Sewage disposal record book	8
Key sections of the Act and the Regulation applicable to declared ships	9
Guide to Queensland’s coastal waters	10
Nautical mile	10
Territorial Sea Baseline	10
Coastal waters of the state	10
Coastal waters as defined in the Act	11
Maritime Boundaries Map	12

Table of Figures

Figure 1	Example of a possible format for a shipboard sewage management plan	7
Figure 2	Example of the format for a sewage disposal record book	8

Table of Tables

Table 1	Summary of discharge requirements based upon waterway and sensitive areas	5
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Ship-sourced sewage: Guidance on implementation

Transport Operations (Marine Pollution) Act 1995 (the Act)

Transport Operations (Marine Pollution) Regulation 2018 (the Regulation)

Declared ships have a fixed toilet, and are:

- domestic commercial vessels with a certificate of operation issued, or taken to be issued, under the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* stating it is a class 1B, 1C, 1D, 1E, 4C, 4D or 4E ship; or
- other Queensland regulated ships regulated under the *Transport Operations (Marine Safety) Act 1994* and *Transport Operations (Marine Safety) Regulation 2016* designed to carry more than 12 passengers.

Key aspects:

- The Act and the Regulation apply to ship-sourced sewage.
- Sewage means:
 - drainage and other wastes from any form of toilets and urinals
 - drainage from medical premises (dispensary, sick bay and so on) via wash basins, wash tubs and scuppers located in such premises
 - drainage from spaces containing living animals
 - other waste waters when mixed with the drainages defined above.
- Sewage includes human faecal wastes.
- Sewage under Queensland legislation does not include grey water (waste water from showers and sinks) unless it is mixed with any of the above.
- The ship-sourced sewage legislation:
 - (a) specifies areas where the discharge of untreated and treated sewage is not permitted (illegal), or is restricted
 - (b) sets requirements for on-board sewage treatment systems
 - (c) sets sewage management requirements for certain types of vessels
 - (d) details the documentation and reporting requirements.
- The following requirements apply to declared ships:
 - the ship must be fitted with an appropriate sewage holding device (section 49 of the Act)
 - nil discharge waters (section 50 of the Act, plus section 33 and schedule 4 of the Regulation)
 - shipboard sewage management plan (under section 51 of the Act)
 - sewage disposal record book (section 38 of the Regulation)
 - sewage treatment system documentation (section 42 of the Regulation)
 - sewage treatment system service manual (section 44(2) of the Regulation)
 - sewage treatment system service records (section 44(4) of the Regulation).
- A macerator is required for a declared ship unless the vessel operates only in nil discharge waters and discharges sewage from the holding tank into a disposal facility only.
- All sewage must first pass through the macerator. Macerated sewage is not treated sewage (that is, it remains untreated sewage).
- Untreated sewage is sewage that has not passed through a certified sewage treatment system.

- A sewage treatment system is a certified installed system which is able to reduce the levels of sewage quality characteristics to within prescribed levels for the three grades of treated sewage: A, B or C as specified in schedule 5 of the Regulation. Grade A sewage is the most highly processed, and produces the cleanest effluent.
- On-board treatment systems provide a beneficial alternative to a basic holding tank on-board a vessel. Vessels which have a sewage treatment system must also carry the system maintenance documentation, treatment system assessment documentation, system service manuals and service records, in accordance with the Regulation.
- Treated sewage is sewage that has passed through a certified sewage treatment system, so that the resulting effluent has reduced potential to negatively impact on the marine environment.
- Nil discharge waters are specified based on the waterway type. These include:
 - (a) prohibited discharge waters
 - (b) smooth waters
 - (c) Hervey Bay waters and northern Moreton Bay waters
 - (d) open waters (see definition below).

Vessel owner and operator responsibilities

While in nil discharge waters, vessel owners must adopt any of the following measures to ensure that no sewage is discharged as it is illegal:

- always use shore facilities (such as toilets and showers) when berthed alongside
- encourage passengers to use shore facilities before heading out
- contain sewage in a sewage holding device
- have an understanding of the designated nil discharge areas within the area in which the vessel will be operating.

Detailed maps of nil discharge areas are available from the Maritime Safety Queensland website at: <https://www.msq.qld.gov.au/Marine-pollution/Sewage/Vessel-sewage-discharge-restriction-maps>

Types of waters

Prohibited discharge waters

It is illegal for any vessel to discharge untreated and treated sewage in prohibited discharge waters.

Prohibited discharge waters are defined in the dictionary of the Act (schedule 1) as any of the following waters:

- a boat harbour
- a canal
- a marina
- a designated area (schedule 1 of the Act):
 - the marine national park zone described in the *Marine Parks (Moreton Bay) Zoning Plan 2008*
 - the Noosa River
 - the marine national park zone, under the *Marine Parks (Great Sandy) Zoning Plan 2006*, located near Burkitt's Reef, Hoffman's Rocks or Barolin Rock, adjacent to the Woongarra Coast
 - an area within the Great Barrier Reef Coast Marine Park described in schedule 6 of the *Transport Operations (Marine Pollution) Regulation 2018*.

Smooth waters

Smooth waters means smooth waters under the *Transport Operations (Marine Safety) Regulation 2016* (schedule 8) and include all rivers and creeks, and designated smooth water areas — for example, Pumicestone Passage, southern Moreton Bay, the Narrows and Hinchinbrook Channel.

Smooth waters does not include:

- (a) waters within 0.5 of a nautical mile (nm) from land that are within partially smooth waters; or
- (b) prohibited discharge waters

Discharge requirements in smooth waters – untreated sewage

It is illegal for any vessel to discharge untreated sewage into smooth waters.

Discharge requirements in smooth waters – treated sewage

There are three grades of treated sewage: A, B and C. Table 1 provides a summary of the discharge requirements for sewage into smooth waters.

Hervey Bay and northern Moreton Bay waters

Hervey Bay waters means the waters of Hervey Bay, other than prohibited discharge waters, within the following boundary—

- from Burrum Point on the mainland to the Fairway Beacon, Hervey Bay
- to Rooney Point, Fraser Island
- along the western shore of Fraser Island to latitude 25°22.90' south
- to latitude 25°24.90' south, longitude 152°58.06' east
- due west to the mainland at latitude 25°24.90' south.

Northern Moreton Bay waters means the waters of Moreton Bay, other than prohibited discharge waters, within the following boundary—

- from latitude 27°06' south on the mainland to South Point, Bribie Island
- along the southern shore of Bribie Island to Skirmish Point
- to Comboyuro Point, Moreton Island
- along the western shore of Moreton Island to Reeders Point
- to Amity Point, North Stradbroke Island
- to Cleveland Point on the mainland.

Discharge requirements in Hervey Bay or northern Moreton Bay waters — untreated sewage

The discharge of untreated sewage from a declared ship is illegal in Hervey Bay waters and northern Moreton Bay waters. A maximum penalty of 850 penalty units applies for non-compliance.

Discharge requirements in Hervey Bay and northern Moreton Bay waters — treated sewage

There are three grades of treated sewage: A, B and C. Table 1 provides a summary of the discharge requirements for sewage into Hervey Bay and northern Moreton Bay waters.

Open waters

Open waters are defined in the dictionary of the Regulation (schedule 7) as the coastal waters, other than Hervey Bay waters, northern Moreton Bay waters, prohibited discharge waters or smooth waters.

Discharge requirements in open waters — untreated sewage

The discharge of untreated sewage in open waters is illegal within:

- 926m of a wharf or jetty (other than a jetty that is a marina)
- 1852m of a person in the water and an aquaculture fisheries resource

If a ship has 7 to 15 persons on-board, discharge of untreated sewage is prohibited within 1852m of any of the following:

- a reef
- the mean low water mark of an island or the mainland.

For ships with 16 or more persons on-board, it is illegal to discharge untreated sewage anywhere in Queensland's coastal waters. A maximum penalty of 850 penalty units applies for non-compliance.

Discharge requirements in open waters — treated sewage

There are three grades of treated sewage: A, B and C. Table 1 provides a summary of the discharge requirements for sewage into open waters.

Table 1 Summary of discharge requirements based upon waterway and sensitive areas

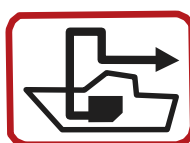
Sensitive area	Type of waterway				
	Prohibited discharge waters	Smooth waters	Hervey Bay waters	Northern Moreton Bay waters	Open waters
Person in the water	Treated and untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m)*^ Untreated (illegal)#
Aquaculture fisheries resource (such as an oyster lease or fish farm)	Treated and untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m)*^ Untreated (illegal)#
Reef	Treated and untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m) *^ Untreated (illegal)#
Mean low water mark of island or mainland	Treated and untreated (illegal)	Treated (0m) Untreated (illegal)	Treated (0m) Untreated (illegal)	Treated (0m) Untreated (illegal)	Treated (0m) Untreated (1852m) *^ Untreated (illegal)#
Wharf or jetty (other than jetty that is a marina)	Treated and untreated (illegal)	Treated (0m) Untreated (illegal)	Treated (0m) Untreated (illegal)	Treated (0m) Untreated (illegal)	Treated (0m) Untreated (926m)*^ Untreated (illegal)#

926m = 0.5nm / 1852m = 1nm

*<7 persons on-board

^7 to 15 persons on-board

#16 or more persons on-board



Pump out to shore facilities

Equipment

Macerators

As detailed in section 40 of the Regulation, ships that operate in coastal waters and have a fixed toilet must be fitted with a macerator and the sewage cannot bypass the macerator. For a declared ship under section 49 of the Act, this requirement does not apply if the ship:

- (a) operates only in nil discharge waters for section 49 of the Act; and
- (b) discharges sewage only into a reception facility.

Sewage holding device

All declared ships operating in nil discharge waters must be fitted with a suitable sewage holding device (section 49 of the Act).

A sewage holding device is defined in section 49 of the Act to mean:

- (a) a container or receptacle designed or constructed to receive sewage and hold it — for example, a portable toilet or holding tank
- (b) a treatment system that is fitted with, or connected to, a container or receptacle mentioned in (a).

On-board sewage treatment system on a declared ship

If a declared ship is fitted with an on-board sewage treatment system:

- section 51B of the Act requires the owner and master to ensure that the treatment system is maintained in proper working order
- section 43(4)(a) of the Regulation requires the owner or master of a declared ship fitted with a treatment system to have the treatment performance of the system maintained and assessed by an independent testing entity at the intervals specified in section 53(5)(a).

Documentation and record keeping

The owners and operators of declared ships must also keep on-board the following documents as part of their sewage management practices:

- shipboard sewage management plan (section 51 of the Act)
- sewage disposal record book (section 38 of the Regulation)
- sewage treatment system documentation (section 42 of the Regulation)
- sewage treatment system service manual (section 44(2) of the Regulation)
- sewage treatment system service records (section 44(4) of the Regulation).

Shipboard sewage management plan

Under section 51 of the Act a declared ship must have on-board a shipboard sewage management plan (SSMP). A maximum penalty of 850 penalty units applies for not keeping a shipboard sewage management plan on-board.

Also under section 51 of the Act, if a ship has on-board a shipboard sewage management plan but it is not fitted with the correct equipment required to implement the plan, the ship's owner and master each commit an offence. A maximum penalty of 850 penalty units applies.

The minimum requirements to be detailed in a shipboard sewage management plan are listed in section 36 of the Regulation and include:

- (1) the plan must be in English; and
- (2) the plan must state the following particulars—
 - (a) name, registration number and class of the ship to which the plan applies
 - (b) size and type of the ship
 - (c) the way the plan provides for the management of shipboard sewage and prevents the unlawful discharge of sewage from the ship
 - (d) the waters, if any, where the ship may lawfully discharge sewage
 - (e) the equipment the ship is fitted with for holding or treating sewage
 - (f) the operating and maintenance instructions for the equipment
 - (g) how the equipment is operated to prevent the unlawful discharge of sewage into waters where the ship is operating
 - (h) the way the equipment is to be maintained and checked to ensure it is in proper working order.

Shipboard sewage management plan requirements

Figure 1 Example of a possible format for a shipboard sewage management plan

Shipboard sewage management plan
Ship's name: Registration number:
Class: Size:
Ship type:
<i>(Details of passenger numbers and length of journeys may also be included to indicate the likely volumes of sewage generated on-board)</i>
On-board sewage management practices: <ul style="list-style-type: none">• Description of how sewage is managed on-board• Untreated or treated sewage on-board
Sewage equipment: <ul style="list-style-type: none">• The equipment, including model numbers and type, for managing sewage on-board• How equipment will be operated to prevent unlawful discharge
Areas where sewage discharge is permitted: <ul style="list-style-type: none">• List of areas where the discharge of sewage from the ship is permitted• Demonstrated understanding of nil discharge areas
Operating and maintenance instructions: <ul style="list-style-type: none">• Details of operating and maintenance instructions• Alternatively a description of where instructions can be found
Equipment maintenance: <ul style="list-style-type: none">• Details of maintenance schedule• Details of routine measures to ensure equipment is in proper working order

Sewage disposal record book

Under section 38(1) of the Regulation, a declared ship must carry a sewage disposal record book that is readily available for inspection at all times. A maximum penalty of 350 penalty units applies for failure to keep a sewage disposal record book.

The requirement to make an entry in a ship's sewage disposal record book where sewage is discharged has been extended to record all sewage discharges, not just those discharges made into a reception facility. The provision also requires the latitude and longitude to be recorded if the discharge is made at sea. Recording details of whenever sewage is discharged from a vessel helps to demonstrate compliance with the discharge requirements.

Entries in a sewage disposal record book

Under section 39(1) of the Regulation, whenever sewage is discharged, the ship's master or other person in control of the discharge must make an entry into the ship's sewage disposal record book. A maximum penalty of 350 penalty units applies for failure to make an entry.

It is a requirement to make an entry in a ship's sewage disposal record book each time sewage is discharged. The provision also requires the latitude and longitude to be recorded if the discharge is made at sea. Recording details of whenever sewage is discharged from a vessel helps to demonstrate compliance with the discharge requirements.

The entry in the sewage disposal record book must:

- (a) state the date, time, place, and volume, in litres, of each discharge
- (b) if the discharge is at sea-state the latitude and longitude of the place of the discharge
- (c) be written in the English language
- (d) be signed by the ship's master or other person in control of the discharge.

When a page of the sewage disposal record book is completed, the ship's master must sign the page. A maximum penalty of 350 penalty units applies for failure to sign the page.

Retention of the sewage disposal record book

Section 38 of the Regulation requires the ship's owner and master must ensure –

- (1) the ship carries a sewage disposal record book in which an entry can be made and is readily available for inspection at all reasonable times.
Maximum penalty—350 penalty units.
- (2) the sewage disposal record book in which an entry has been made is kept on board the ship until the day that is 3 years from the day of last entry in the record book is made and readily available for inspection at all reasonable times.
Maximum penalty—350 penalty units.

Figure 2 Example of the format for a sewage disposal record book

Sewage Disposal Record Book								
Date	Time	Place of Discharge			Volume (in litres)	Sewage Type Treated (T) Untreated (U)	Name	Signature
		Facility	At sea – include Latitude Longitude					
Signature of the ship's master								

Key sections of the Act and the Regulation applicable to declared ships

Declared ships

Declared ships have a fixed toilet, and are:

- domestic commercial vessels with a certificate of operation issued, or taken to be issued, under the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* stating it is a class 1B, 1C, 1D, 1E, 4C, 4D or 4E ship; or
- other Queensland regulated ships regulated under the *Transport Operations (Marine Safety) Act 1994* and *Transport Operations (Marine Safety) Regulation 2016* designed to carry more than 12 passengers.

Waterway types (defined in schedule 7 dictionary of Regulation)

- prohibited discharge waters
- smooth waters
- Hervey Bay waters
- northern Moreton Bay waters
- open waters.

Untreated sewage	Treated sewage	On-board sewage measures and practices
<ul style="list-style-type: none"> • Section 50 of the Act, plus section 34 and schedule 4 of the Regulation — nil discharge waters. 	<ul style="list-style-type: none"> • Section 50 of the Act, plus section 34 and schedule 4 of the Regulation — nil discharge waters. • Section 42 of the Regulation treatment system documentation and system service manual to be kept on-board. • Section 45 and schedule 5 of the Regulation — grades of treated sewage. • Section 46 of the Regulation — standard for treatment system. • Section 51B of the Act — requirement to ensure treatment system is in proper working order. • Section 43 of the Regulation — assessment and maintenance requirement for treatment system on declared ship. 	<ul style="list-style-type: none"> • Section 49 of the Act — declared ship to be fitted with a sewage holding device. • Section 40 of the Regulation — vessels to be fitted with a macerator which can not be bypassed • Section 51 of the Act and section 36 of the Regulation — requirement to have on-board a shipboard sewage management plan and details to be included in the plan. • Section 38 of the Regulation — a current and previous (last three years) sewage disposal record books to be kept on-board and available for inspection. • Section 42 of the Regulation — sewage treatment system documentation about performance. • Section 44 of the Regulation — sewage treatment system service records and system service manual.

Guide to Queensland's coastal waters

The following maritime boundary definitions are based on material sourced from Geoscience Australia (2016)¹.

Nautical mile

A nautical mile (nm) is a unit of distance equal to 1852 metres (m). This value was adopted by the International Hydrographic Conference in 1929 and has subsequently been adopted by the International Bureau of Weights and Measures.

It is also the unit adopted for the purposes of Australian Maritime Legislation. Refer to schedule 1(1) of the *Seas and Submerged Lands Act 1973* as published in the Commonwealth of Australia Gazette No.S29, 9 February 1983.

The length of the nautical mile is very close to the mean value of the length of 1 minute of latitude, which varies from approximately 1843m at the equator to 1861.6m at the poles.

Territorial Sea Baseline

The term Territorial Sea Baseline refers to the line from which the seaward limits of Australia's Maritime Zones are measured. These include the breadth of the territorial sea; the seaward limits of the contiguous zone, the exclusive economic zone and, in some cases, the continental shelf.

The territorial sea baseline may be of various types depending upon the shape of the coastline in any given locality:

- The normal baseline corresponds with the low water line along the coast, including the coasts of islands. Under the Convention, normal baseline can be drawn around low tide elevations which are defined as naturally formed areas of land surrounded by and above water at low tide but submerged at high tide, provided they are wholly or partly within 12nm of the coast. For Australian purposes, normal baseline corresponds to the level of Lowest Astronomical Tide (LAT).
- Straight baselines are a system of straight lines joining specified or discrete points on the low-water line, usually known as straight baseline end points. These may be used in localities where the coastline is deeply indented and cut into, or where there is a fringe of islands along the coast in its immediate vicinity.
- Bay or river closing lines are straight lines drawn between the respective low-water marks of the natural entrance points of bays or rivers.

Waters on the landward side of the baseline are internal waters for the purposes of international law.

Coastal waters of the state

Coastal Waters is a belt of water between the limits of the Australian States and the Northern Territory and a line 3nm seaward of the territorial sea baseline². Jurisdiction over the water column and the subjacent seabed is vested in the adjacent state or territory as if the area formed part of that state or territory. This, and other arrangements for the management of offshore resources such as fisheries and petroleum, are defined by the Offshore Constitutional Settlement (OCS). The principal legislation implementing the OCS (*Coastal Water (State Powers) Act 1980*, *Coastal Waters (State Title) Act 1980*, *Coastal Waters (Northern Territory Powers) Act 1980* and the *Coastal Waters (Northern Territory Title) Act 1980*) entered into force in January 1982 and February 1983.

¹ Geoscience Australia. (2016). *Maritime Boundary Definitions*. Retrieved from <http://www.ga.gov.au/scientific-topics/marine/jurisdiction/maritime-boundary-definitions>

² The Territorial Sea Baseline used to determine Coastal Waters does not include low tide elevations greater than 3nm from the coastline or islands.

Coastal waters as defined in the Act

In the Act coastal waters means the coastal waters of the State, and includes other waters within the limits of the State that are subject to the ebb and flow of the tide.

Maritime Boundaries Map

