

Options for sewage legislation compliance

Ships other than declared ships

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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)

Ships other than declared ships are all other ships, and include:

- all recreational ships
- 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 2 or 3
- other Queensland regulated ships regulated under the *Transport Operations (Marine Safety) Act 1994* and *Transport Operations (Marine Safety) Regulation 2016* designed to carry up to 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 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 reporting requirements.
- 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:

- always using shore toilets (such as toilets and showers) when berthed alongside
- encourage passengers to use shore facilities before heading out
- contain sewage in a suitable 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 Regulation (schedule 7) 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 (in order of the best to worse effluent quality characteristics).

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 following discharge requirements apply based upon the number of persons on-board the vessel. For ships with one to 15 persons on-board, it is illegal to discharge untreated sewage within 1852m (1nm) of the following:

- (a) a person in the water
- (b) aquaculture fisheries resources
- (c) a reef
- (d) the mean low water mark of the mainland.

For ships with 16 or more persons on-board, it is illegal to discharge any untreated sewage in Hervey Bay 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 (in order of best to worse effluent quality characteristics). 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

For ships with 1 to 15 persons on-board it is illegal to discharge untreated sewage:

- (a) within 926m (0.5nm) of a wharf or jetty (other than a jetty that is a marina)
- (b) within 1852m (1nm) of a person in the water or aquaculture fisheries resources (such as an oyster lease or fish farm).

Ships with 7 to 15 persons on board – restrictions apply as above, in addition it is illegal to discharge untreated sewage within 1852m (1nm) of either 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 in open waters (that is within a line 3 nautical miles seaward of the territorial sea baseline).

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 (in order of the best to worse effluent quality characteristics). Table 1 provides a summary of the discharge requirements for sewage into open waters.

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, unless the toilet is a composting toilet. A maximum penalty of 350 penalty units applies for non-compliance.

For ships other than declared ship, the ship's master must ensure sewage is not discharged from a toilet into coastal waters unless the sewage has passed through a macerator. A maximum penalty of 350 penalty units applies for non-compliance.

Sewage treatment systems

Requirements for on-board sewage treatment systems are as follows:

- section 51B of the Act requires the owner and master to ensure that the treatment system is maintained in proper working order
- section 44(2) of the Regulation requires those vessels with a treatment system on-board to also keep the treatment system documentation and system service manual for the treatment system on-board. The details to be kept as part of the treatment system documentation and system service manual are provided in section of the Regulation
- schedule 5 of the Regulation details the grades for treated sewage.

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

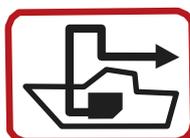
Sensitive area	Type of waterway				
	Prohibited discharge waters	Smooth waters	Hervey Bay waters	Northern Moreton Bay waters	Open waters
Person in the water	Treated and untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (illegal)	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m) & (illegal) [#]	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m) & (illegal) [#]	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m) & (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 (1852m) & (illegal) [#]	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m) & (illegal) [#]	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m) & (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 (1852m) & (illegal) [#]	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m) & (illegal) [#]	Grade A (0m) Grade B (700m) Grade C (926m) Untreated (1852m) [^] & (illegal) [#]
Mean low water mark of island or main land	Treated and untreated (illegal)	Treated (0m) Untreated (illegal)	Treated (0m) Untreated (illegal) [#]	Treated (0m) Untreated (1852m) & (illegal) [#]	Treated (0m) Untreated (1852m) [^] & (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) & (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

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:

- sewage treatment system manufacturer’s or supplier details (section 42 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).

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

Ships other than declared ships

Ships other than declared ships are all other ships, and include:

- all recreational ships
- 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 2 or 3
- other Queensland regulated ships regulated under the *Transport Operations (Marine Safety) Act 1994* and *Transport Operations (Marine Safety) Regulation 2016* designed to carry up to 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 47(2) of the Act, plus section 31 and schedule 2 of the Regulation — nil discharge waters. 	<ul style="list-style-type: none"> • Section 48(2) of the Act, plus section 32 and schedule 3 of the Regulation — nil discharge waters. • Section 44 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. 	<ul style="list-style-type: none"> • Section 40(3) of the Regulation— a ship to be fitted with a macerator if operating in coastal waters and the macerator cannot be bypassed prior to discharge. • Section 42 sewage treatment system documentation about performance • Section 44 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 1852m. 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 (TSB) 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.

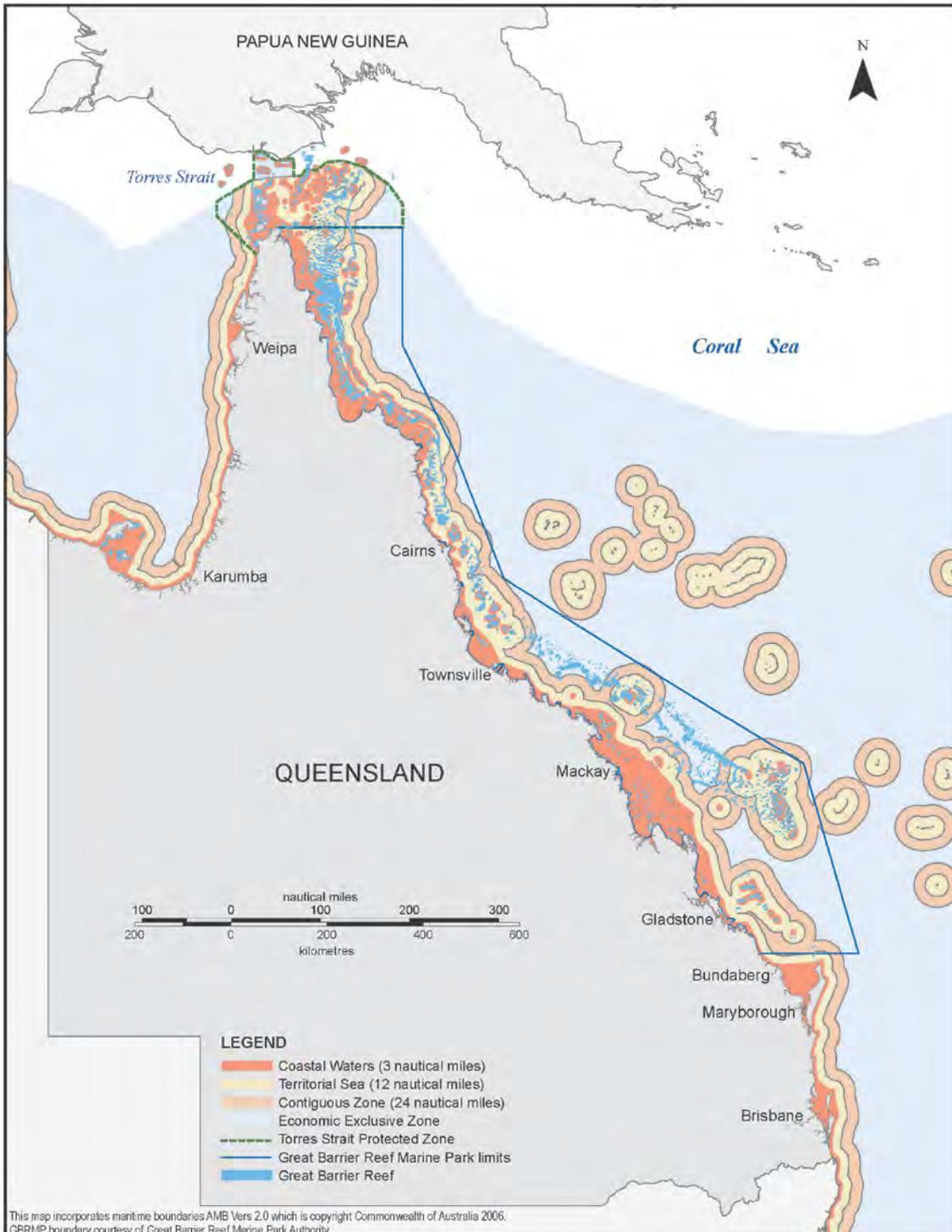
¹ Geoscience Australia. (2016). *Maritime Boundary Definitions*. Retrieved from <http://www.ga.gov.au/scientific-topics/marine/jurisdiction/maritime-boundary-definitions>

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



This map incorporates maritime boundaries AMB Vers 2.0 which is copyright Commonwealth of Australia 2006. GERMP boundary courtesy of Great Barrier Reef Marine Park Authority.

Map: S8mi-21

Horizontal datum: GDA94
 Projection: Mercator (world)
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MARITIME BOUNDARIES

QUEENSLAND

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