

7. Port navigation and movement restrictions

Unless pre-approved, all vessels nominated to berth will be subject to a risk assessment approved by the Regional Harbour Master.

7.1 General

Loaded ships may be draught restricted. The design depth of the channel is 3.4 metres but may be less than this between scheduled dredging – refer to the latest [Notices to Mariners](#)

During floods and heavy rains, extra caution should be exercised when navigating within the pilotage area.

- Channel markers and buoys may be damaged, out of position or even missing;
- Flood debris, including trees, may cause navigation hazards; and
- Very strong currents within the river may be experienced due to outflow of freshwater from flooding;

All ships transiting the Karumba pilotage area are to keep a listening watch on VHF channel 16.

7.2 Speed

The [Transport Operations \(Marine Safety\) Regulation 2016](#) sections 81, 83, 84 and 85 apply and refer to ships not being operated at a speed of more than six knots when within 30 metres of any wharf, boat ramp or pontoon, a vessel at anchor or moored or made fast to a jetty.

7.3 Movement restrictions

Weather, tidal conditions or special circumstances may require a departure from these guidelines.

7.3.1 Under keel clearance (UKC)

Ships are not to enter, depart or manoeuvre within the pilotage area unless tide, weather, transit time and traffic conditions allow the minimum UKC to be maintained until the ship is clear of the pilotage area.

The Regional Harbour Master is to be consulted for determining the tidal window for the planned movement of a draught-restricted ship in the port.

The master is to ensure that the ship maintains a minimum UKC of at least 0.3 metres whilst alongside any berth; this may require loading operations to be adjusted to suit UKC conditions.

Vessels conducting dredging operations are exempt from Under Keel Clearance Restrictions. UKC limit for dredgers is set at 0.3 metre.

The following identifies the minimum under keel clearances vessels are required to maintain while manoeuvring with the pilotage area.

Under Keel Clearances (Metres)

<80 m LOA: UKC 0.6 metres in channel and 0.6 metres in swing basin.

>80 m LOA: UKC 0.9 metres in channel and 0.6 metres in swing basin.

7.3.2 Static under keel clearance (SUKC)

UKC calculations are based on:

Maximum draught = channel depth + tide (\pm residual correction) – required channel UKC (as per the above table).

An indication of tide height and residual may be ascertained on from the [Department of Environment and Resource Management](#) website.

7.3.3 Tug and barge movements

All tug and barge movements require a suitable workboat to be available to assist with manoeuvring the barge.

7.3.4 Tide rate restrictions

Movement of vessels greater than 50 metres in length will be restricted to tides having an hourly change of 30 centimetres or less. All movements will generally be conducted with the vessel stemming the tide.

7.3.5 Maximum draught movements

Ships at maximum draft for the tide are required to cross the Karumba Bar located on the two metre contour line at beacons number 3 and 4 one hour before the corrected published high water time.

An allowance needs to be made for non-tidal components of the tide for the following:

- Arrivals – the pilot will board 1.5 hours before the predicted time of high water.
- Departures – the pilot will board at the wharf two hours before the predicted time of high water.

7.3.6 Passing restrictions

Ships with a combined length greater than 110 metres may not pass one another in the Karumba Channel between beacon numbers 1 and 2 and beacon numbers 19 and 20.

Strong across channel tidal streams may be experienced between beacon numbers 1 and 2 and beacon numbers 9 and 10.

Mariners are advised that beacon number 10 (special mark) dries at low water and is intended to indicate the turn into Elbow Bank Channel.

Beacon number 10 should not be used as a lateral mark.

Beacon number 15 (special mark) indicates the turn into the inner channel.

Passing manoeuvres in the Karumba Channel should be agreed to and confirmed on VHF by the masters of both ships.

7.3.7 Weather restrictions

High sided (high windage) vessels may be restricted from navigating within the pilotage area in winds above 25 knots.

7.3.8 Berthing direction restriction

- Arrivals – ships will be berthed stemming the tide: port side to on the ebb tide and starboard side to on the flood tide. At the Raptis Wharf, Gulf Freight Services berth, the Minmetals Group minerals berth and the Karumba Livestock Loading Pty Ltd buoys, a vessel may berth with the tide astern providing that she has an operational bow thruster or twin screw and is at the pilot's discretion.
- Departures – all vessels should be stemming the tide. Twin screw ships may depart tide astern at the pilots' discretion.

7.4 Approaches to the Norman River

Much of the outeast Gulf country consists of low-lying tidal flats and mangrove swamps associated with extensive river systems. The approach to the Norman River has low lying sandy beaches and mangroves to the north and south. The most distinct and recognisable feature is the roof of the Minmetals stockpile shed which is located about 2.5 miles upstream from the river mouth. At night this area is well lit and visible from a long distance off. The north head of the Norman River entrance has buildings indicating the township of Karumba Point.

7.4.1 Dangers

It is recommended that mariners are aware of the zone of confidence (ZOC) diagrams on the local charts indicating the level of surveys in the surrounding area.

7.4.2 Sailing Directions

Mariners should be aware that the Karumba Channel is subject to extensive shoaling and siltation caused by extreme weather. The maintained depth cannot be guaranteed during the NW Monsoon season

The entrance to Karumba Channel is between beacons number 1 and number 2.

- Designed minimum depth, at Karumba Bar located on the two metre contour line at beacon numbers 3 and 4, is at 3.4 metres lowest astronomical tide.
- The Entrance Channel lies between beacon numbers 1 and 2 and beacon numbers 7 and 8. The designed minimum depth is 3.4 metres lowest astronomical tide. The channel has moved south due to siltation and mariners should use the special marks

to follow the dredged channel to Beacon number 10 which indicates the turn into the Middle or Elbow Bank channel.

- The Middle or Elbow Bank channel lies between beacon numbers 11 and 12 and beacon numbers 15 and 16. Designed minimum depth is 3.4 metres lowest astronomical tide. Special mark beacon number 15 indicates the turn from the Middle Channel to the Inner Channel
- The Inner Channel lies between buoy numbers 17 and 18 and extends inwards about four cables towards Alligator Point from beacon numbers 19 and 20. Designed minimum depth is 3.4 metres lowest astronomical tide.

For the current depths, consult [Notices to Mariners](#) or the duty pilot.

7.5 Advisory Note – Interaction with Marine Mammals

The presence of whales or marine mammals indicates that our ports are seen as environmentally attractive places.

The safety of life and the security of the environment from ship based incidents is paramount.

All vessel masters are required to fully comply with relevant marine mammal legislation, such as the provisions of the [Nature Conservation \(Animals\) Regulation 2020 Chapter 6 Part 1](#) which prescribes minimum approach distances and maximum speeds within proximity to whales as illustrated in the diagram below.

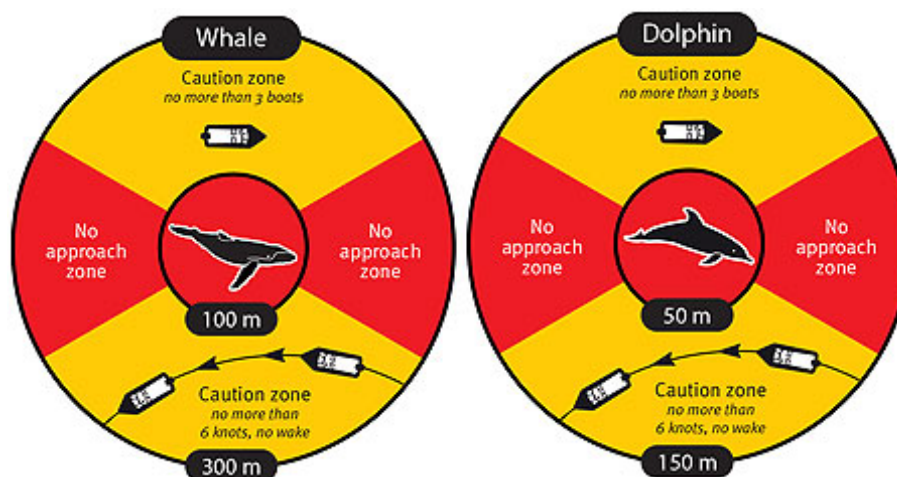


Figure 1 Minimum approach distances and maximum speeds within proximity to whales and dolphins.

When whales or marine mammals are reported in the vicinity of port areas and a risk to marine mammals is perceived, then every possible endeavour will be undertaken to manage shipping movements around the marine mammals to keep them safe, provided the safety of life, the ship and other environmental protection objectives are not threatened. Such action may include not commencing transits until the mammals are deemed clear.

In situations where a vessel is underway and restricted in its ability to manoeuvre or constrained to a channel and marine mammals are reported in the vicinity of the transit and a risk to marine mammals is perceived, the master must take all reasonable action necessary to keep them safe, without endangering the vessel, crew and the environment. Such action may include the reduction of speed to the minimum safe speed to safely navigate the channels.

Masters are required to report collisions with marine mammals to VTS and Department of Environment and Science **1300 130 372**

<https://www.desi.qld.gov.au/our-department/news-media/down-to-earth/stranded-marine-mammal>