

9.7 Area 7 – Upstream of Sunshine Motorway Bridge to Maroochy Bar

Area 7 of the Maroochy River is the section of the river from 500 metres upstream of the Sunshine Motorway Bridge at Maroochydore to the river's coastal bar at Cotton Tree. This section of the river is approximately 4.7 kilometres to five kilometres in length, depending on the course a ship takes to the river's mouth. Area 7 is very popular for all types of ship operations and activities, including speed boats, dinghies, personal watercraft, kayaks, canoes and sail boats.

Land uses along the river's banks in Area 7 are predominantly native vegetation, and residential and commercial development. The river's northern bank retains all of its riparian vegetation: the Maroochy River Conservation Park commences approximately 500 metres downstream of the Sunshine Motorway Bridge and continues along this bank all the way to the river's mouth; whilst the southern bank is the suburb of Maroochydore, the commercial and business centre of the Sunshine Coast. The river's southern bank has been heavily modified with concrete and revetment walls along most of its length. There are many dwelling houses within 100 metres of the river's banks. There are also numerous pontoons and jetties, particularly from Picnic Point to Cornmeal Creek. The section of Area 7 adjacent to Pacific Paradise forms part of the Maroochy fish habitat area under fisheries legislation. The boundary of the fish habitat area is the river's midstream.

The Reference Group is not aware of any environmental issues, such as erosion or bank instability, which may present a problem within Area 7.

There are two major canal systems that flow into Area 7: Twin Waters on the river's northern bank approximately 1.7 kilometres downstream from the Sunshine Motorway Bridge; and Maroochy Waters, which is almost opposite Twin Waters on the southern bank. A weir prevents ship access to Twin Waters.

There are three mid-channel islands within Area 7: Chambers Island, approximately one kilometre downstream of the Sunshine Motorway Bridge; and Channel and Goat Islands, approximately 2.3 kilometres downstream of the same bridge. The river divides into two channels at Channel Island: the main channel, which flows to the north of Channel Island to the Black Bank; and the south channel, which flows between Goat Island and the mainland.

Cornmeal Creek enters the south channel just over one kilometre upstream from the river's mouth. This creek is very narrow and shallow, and flows beneath the Sunshine Plaza shopping complex at Maroochydore. These waters are navigable by only the smallest of ships, such as dinghies, kayaks and canoes. A number of small paddle craft, water bikes and kayaks are offered for hire from a pontoon within the shopping complex.

The depth of navigable water in Area 7 varies considerably from about one metre or less at lowest astronomical tide near the river's mouth to more than six metres at lowest astronomical tide at the Cod Hole. The clearance height of the Sunshine Motorway Bridge is 8.6 metres at highest astronomical tide. The waters upstream of Chambers Island are navigable by larger ships up to 20 metres in length; however,

sand shoaling downstream of Chambers Island can make navigation by larger ships very difficult. For example, for a number of years, a 20 metre sailing ship was berthed alongside a jetty at Cotton Tree because it was unable to navigate safely out of the river.

The Reference Group noted that constantly changing sand banks at or near the Maroochy Bar can make crossing the bar very dangerous. The Maroochy Bar is a coastal bar for which a personal flotation device requirement under the *Transport Operations (Marine Safety) Act 1994* applies to ships less than 4.8 metres in length.

The width of navigable waters in Area 7 varies considerably:

- approximately 180 metres about 500 metres upstream of the Sunshine Motorway Bridge
- approximately 160 metres just upstream of this bridge
- more than 250 metres about 500 metres downstream of the bridge
- approximately 400 metres just upstream of Chambers Island
- approximately 200 metres off Picnic Point
- approximately 180 metres at the northern end of Channel Island
- less than 70 metres in the main channel near the Black Bank
- less than 50 metres in the south channel near Goat Island.

There is a series of aids to navigation from downstream of Chambers Island that mark navigable waters of the main channel to the Black Bank, and navigable waters of the south channel towards Cotton Tree.

There are also a number of signs in the south channel that warn of shoaling and constantly changing sand banks.

There is a series of speed signs that mark three 6 knots speed zones: one zone from the western to the eastern ends of Chambers Island; a second upstream from the entrance to Maroochy Waters; and a third downstream from the northern end of Goat Island to a beacon at Cotton Tree. The Reference Group could not accurately identify the boundary for the speed zone near the northern end of Goat Island because Channel Island and Goat Island now seem to form one landmass.

The Reference Group examined the features of the river adjacent to its southern bank from Chambers Island, to Picnic Point, across to Channel and Goat Islands, and through to Cotton Tree, as well as the existing speed limits of 40 and 6 knots. These waters of Area 7 are often subject to high levels of ship traffic and become shallow at low tide, which means that ship masters must exercise caution. The existing speed limit of 6 knots does not extend to the waters immediately adjacent to the Picnic Point public boat ramp. Some members of the Reference Group feel that a 6 knots speed zone is more appropriate for these waters.

However, Maritime Safety Queensland examined the 6 knots speed zones from Chambers Island to Cotton Tree separately, having consideration to the following:

- level and type of ship traffic
- character of the waters
- locations for speed related complaints

- channels of the river into Maroochy Waters, past Picnic Point and towards the Black Bank
- existing aids to navigation
- existing regulatory regime; in particular, operational speed limits and the freestyling restriction.

Maritime Safety Queensland observed that the existing 6 knots speed zones, together with the operational speed limits, the freestyling restriction and the water skiing prohibition, achieve an acceptable level of marine safety, and are consistent with the Reference Group's regulatory principles of minimal and targeted regulation.

In September 2008, Maritime Safety Queensland established the Maroochy River commercial personal watercraft area adjacent to the river's northern bank near Twin Waters. The anchoring, berthing, mooring or operating of ships is prohibited within the area from sunrise to sunset, except for certain personal watercraft registered as commercial ships. Basically, the area formalises a safer zone for the users of hire and drive personal watercraft separate from the operations of other ships. The area was re-configured in December 2010 following consultation with stakeholders. The area is now 460 metres in length, 120 metres in width at its upstream end and 80 metres in width at its downstream end, with a total area of 4.43 hectares. The area is marked with eight special mark buoys.

The establishment of the Maroochy River commercial personal watercraft area was part of a body of work for the better management of hire and drive personal watercraft on the Sunshine Coast. Other elements of this work included the standardisation of registration conditions, an exemption from the operational speed limit for personal watercraft of 6 knots within 60 metres of the shore when operating within the area, and consistent safety management plans by the providers of these craft.

Water skiing activities are prohibited on all waters of Area 7, as well as all watercourses and canals flowing into it.

However, as mentioned in section 9.6, the Reference Group noted the peculiar situation regarding the boundary of the water skiing prohibition downstream of 500 metres upstream of the Sunshine Motorway Bridge.⁷ For at least the past 11 years, the water skiing signs to mark this boundary were positioned approximately 250 metres upstream of the bridge. Maritime Safety Queensland repositioned these signs to 500 metres upstream of the bridge on 21 October 2008, as soon as the anomaly was identified.

The repositioning of the water skiing signs prompted an immediate response from some members of the Maroochy River Water Ski Association, who were extremely unhappy about this course of action.

Maritime Safety Queensland discussed this issue with representatives of the association on 15 December 2008. The following points were noted:

⁷ The prohibition was stated by a gazette notice published on 28 February 1997

- the width of navigable water between the position 250 metres upstream of the bridge to the position 500 metres upstream of the bridge is more than 160 metres
- the depth of navigable water between these positions is at least three metres at lowest astronomical tide
- the nearest pontoon is approximately 100 metres downstream from the 250 metres position
- the Cod Hole public boat ramp is approximately 85 metres upstream from the 500 metres position
- the long history and popularity of water skiing on this section of the river.

The Reference Group was unable to ascertain the reason behind the original positioning of the water skiing signs approximately 250 metres upstream from the Sunshine Motorway Bridge.

The Maroochy River Water Ski Association suggested that the boundary for the water skiing prohibition could be moved to 150 metres upstream from the Sunshine Motorway Bridge. Maritime Safety Queensland examined the location in June 2011, having consideration to the character of the waterway and the nearest pontoon, which is approximately 150 metres upstream from the bridge. The agency observed that a prohibition boundary at 200 metres upstream from the bridge affords a distance of at least 50 metres from the upstream end of the pontoon, with navigable waters of at least 150 metres in width.

The Reference Group considered the information provided by Maritime Safety Queensland and believes that a boundary for the water skiing prohibition at 200 metres upstream from the bridge provides a benefit to water skiers that does not compromise marine safety. Recommendation 41 is the administrative measure to state a new boundary in recognition of this.

There are two public boat ramps for Area 7: the Picnic Point public boat ramp at the end of Picnic Point Esplanade at Maroochy; and the public boat ramp at the end of Nojoor Road at Twin Waters.

Maritime Safety Queensland does not conduct regular hydrographic surveys of Area 7. The most recent survey was conducted during February 2001.

9.7.1 Waterway users and issues

The user density for Area 7 ranges from low to very high during weekends, public holidays and school holidays, depending on the time of day.

The waterway users of Area 7 are predominantly:

- dinghies and speed boats engaged in recreational fishing
- slower moving motor boats
- passenger vessels conducting environmental tours
- fast moving speed boats and personal watercraft
- slow moving passive craft, like small sailing boats, kayaks and canoes
- shored-based recreational fishers
- swimmers.

Until 21 October 2008, the ship traffic included fast moving speed boats and personal watercraft towing water skiers and wake boarders to within 250 metres upstream of the Sunshine Motorway Bridge.

The *Sunshine Coast Vessel Activity Survey 2009* reported 412 observations of ships on Area 7 during a 12 hour period on 11 April 2009. This number included 233 recreational speed boats, 59 recreational personal watercraft and 90 paddle craft, which represented about 34 ship movements per hour. Area 7 recorded the third highest number of ship observations for the Sunshine Coast during this survey.

The Reference Group identified a number of waterway issues for Area 7:

- interaction and congestion of different types of ships during weekends and holidays – anchored ships beneath the Sunshine Motorway Bridge
- passing and operating distances by some powered ships near launching areas, anchored boats and slow moving craft – contraventions of operational speed limits
- conflict between ship traffic and recreational fishers
- conflict between ship traffic and swimmers near the Black Bank
- contraventions of the freestyling restriction by recreational personal watercraft
- contraventions of speed limits by powered ships – from Picnic Point to Cotton Tree and in the Maroochy Waters canal system
- contraventions of the water skiing prohibition near the Nojoor Road public boat ramp
- contraventions by sailing boats entering the Maroochy River commercial personal watercraft area
- interaction of ship traffic with swimmers.

Maritime Safety Queensland has received 35 reports of marine incidents in Area 7 since July 2000. Eighteen of these happened on the Maroochy Bar, nine happened near Chambers Island and Picnic Point, and three happened near the Sunshine Motorway Bridge. Four of these events resulted in serious injuries to five people who required hospitalisation.

9.7.2 Existing legislative requirements

A general smooth water speed limit of 40 knots applies to all ships on certain waters of Area 7 (including the Maroochy River commercial personal watercraft area) because no other speed limit has been fixed for this section of the Maroochy River. The general speed limit was fixed by gazette notice on 21 May 2004.

A speed limit of 30 knots or less applies to all personal watercraft used for hire and drive operations, following recommendations from a coronial report in March 2010. The speed limit was fixed by gazette notice on 27 May 2011.

A speed limit of 6 knots applies to all ships on:

- certain waters to the south of Chambers Island
- certain waters to the west of Goat Island to Cotton Tree
- all creeks and waterways flowing into the Maroochy River downstream of the Sunshine Motorway Bridge.

These speed limits were fixed by gazette notice on 21 May 2004.

The operational speed limits provided by sections 127, 127A and 128 of the *Transport Operations (Marine Safety) Regulation 2004* apply.

The freestyling restriction provided by section 127B of the *Transport Operations (Marine Safety) Regulation 2004* also applies.

All waters of Area 7 are stated by gazette notice as waters where water skiing is an activity that endangers marine safety. The gazette notice was published on 28 February 1997.

The waters of all watercourses and canals flowing into Area 7 are stated by gazette notice as waters where water skiing is an activity that endangers marine safety. The gazette notice was published on 28 February 1997 as well.

The waters of the Maroochy River commercial personal watercraft area are stated by gazette notice as waters where the anchoring, berthing, mooring and operating of a ship from sunrise to sunset endangers marine safety, other than nominated personal watercraft, rescue ships and certain commercial ships. The gazette notice was published on 17 December 2010.

In conjunction with the commercial personal watercraft area, an exemption has been given to persons operating certain commercial personal watercraft within the area from the operational speed limit for personal watercraft of 6 knots within 60 metres of the shore, subject to certain conditions. The gazette notice was published on 17 December 2010.

Maritime Safety Queensland has received a number of complaints regarding excessive speed by speed boat and personal water craft, and noise from personal watercraft in Area 7, mainly from the residents of dwellings at Picnic Point to Cotton Tree.

9.7.3 Recommendations

Area 7 of the Maroochy River is a complex and dynamic waterway characterised by a system of broad and narrow channels, intertidal shoals and shallow sand banks. The area is often subject to very high levels of ship traffic on weekends, public holidays and school holidays, depending on the time of day.

The waters of Area 7 adjacent to the river's southern bank from Chambers Island to Cotton Tree are shallow, with continually changing sand banks presenting a hazard to navigation at low tide.

The Reference Group recognises the importance and popularity of Area 7 for many types of on-water activities, both active and passive uses. Generally, the group's members believe the existing water skiing prohibitions achieve an acceptable level of marine safety, to the extent that the boundary of the prohibition upstream of the Sunshine Motorway Bridge can be moved 300 metres closer to the bridge.

However, the Reference Group believes that high-speed ship operations on Area 7 downstream of 200 metres upstream of the Sunshine Motorway Bridge seriously compromise marine safety, because of the river's natural features and the level of

ship traffic. The group contends that a ship's master navigating these waters at high speed is unable to comply with the operational speed limits of the *Transport Operations (Marine Safety) Regulation 2004* and rules 6, 8 and 9 of the Collision Regulations.

Importantly, the Reference Group acknowledges that a contravention of any one of these legislative requirements may cause a marine incident, which in turn, may be evidence of a contravention of the general safety obligation imposed by section 43 of the *Transport Operations (Marine Safety) Act 1994*.

The Reference Group also believes, generally, that high-speed ship operations on waters of Area 7 adjacent to the river's southern bank from Chambers Island to Cotton Tree are unsafe.

Consequently, the Reference Group believes that the existing regulatory regime for Area 7 should be expanded to provide a better marine safety system, and therefore makes the following recommendations:

General recommendations

- 1 – Enforcement presence
- 2 – New speed limit of 6 knots for creeks and waterways flowing into Maroochy River
- 3 – Existing water skiing prohibition for creeks and waterways flowing into Maroochy River
- 4 – New speed signs
- 5 – New water skiing signs
- 6 – Update Beacon to Beacon
- 7 – Review of new speed limits and water skiing prohibitions by December 2012

Specific recommendations

36 – Maroochy River (Area 7) – existing speed limits of 6 knots

That the General Manager should maintain the existing speed limits of 6 knots for all ships on waters of all creeks and waterways flowing into Maroochy River downstream of Sunshine Motorway Bridge.

37 – Maroochy River (Area 7) – existing speed limit of 6 knots

That the General Manager should maintain the existing speed limit of 6 knots for all ships on waters of Maroochy River within the area bounded by an imaginary line from:

- *a point on the mainland adjacent to the intersection of Buna Street and Bradman Avenue at Maroochydore to*
- *the western extremity of Chambers Island to*
- *the eastern extremity of Chambers Island to*
- *the upstream point at the entrance to Maroochy Waters canal; and*

That the General Manager should maintain the existing speed limit of 6 knots for all ships on waters of Maroochy River within the area bounded by an imaginary line from:

- *a point on the mainland approximately 110 metres downstream of the boat ramp at Picnic Point (as marked by a speed sign) then*
- *along an easterly line to the landmass of Channel Island and Goat Island then*
- *along the western side of the island landmass to the southern extremity of Goat Island then*
- *in a generally easterly direction to the port lateral beacon on the end of the most downstream groyne at Cotton Tree.*

38 – Maroochy River (Area 7) – existing speed limit of 30 knots

That the General Manager should maintain the existing speed limit of 30 knots for certain ships on waters of the Maroochy River commercial personal watercraft area, namely nominated personal watercraft only.

39 – Maroochy River (Area 7) – new speed limit of 20 knots

That the General Manager should fix by gazette notice a new speed limit of 20 knots for all ships on waters of Maroochy River downstream from 200 metres upstream of Sunshine Motorway Bridge at Maroochydore, except for nominated personal watercraft on waters of the Maroochy River commercial personal watercraft area.

40 – Maroochy River (Area 7) – existing prohibition for operating etc.

That the General Manager should maintain the existing prohibition for anchoring, berthing, mooring and operating of all ships from sunrise to sunset on waters of the Maroochy River commercial personal watercraft area because those activities endanger marine safety, except for nominated personal watercraft.

41 – Maroochy River (Area 7) – new water skiing prohibition

That the General Manager should state by gazette notice a new water skiing prohibition for waters of Maroochy River downstream from 200 metres upstream of Sunshine Motorway Bridge at Maroochydore.

42 – Maroochy River (Area 7) – new warning signs

That Maritime Safety Queensland should erect four new warning signs at strategic locations in Area 7 to warn waterway users about obstructions and hazardous conditions that affect navigation:

- *at the public boat ramps at Picnic Point and Nojoor Road – two warning signs (one at each location) – BUSY WATERWAY (with graphical symbols for powered ship, personal watercraft, sailing ship and paddle craft) NAVIGATE TO CONDITIONS*
- *between Sunshine Motorway Bridge and Maroochy Bar – two warning signs – SAND BANKS / NAVIGATE WITH CAUTION.*

53 – Maroochy River (Areas 6 and 7) and Eudlo Creek – new education campaign

That Maritime Safety Queensland should develop and implement a new recreational boating education campaign for Maroochy River and Eudlo Creek to raise community awareness about:

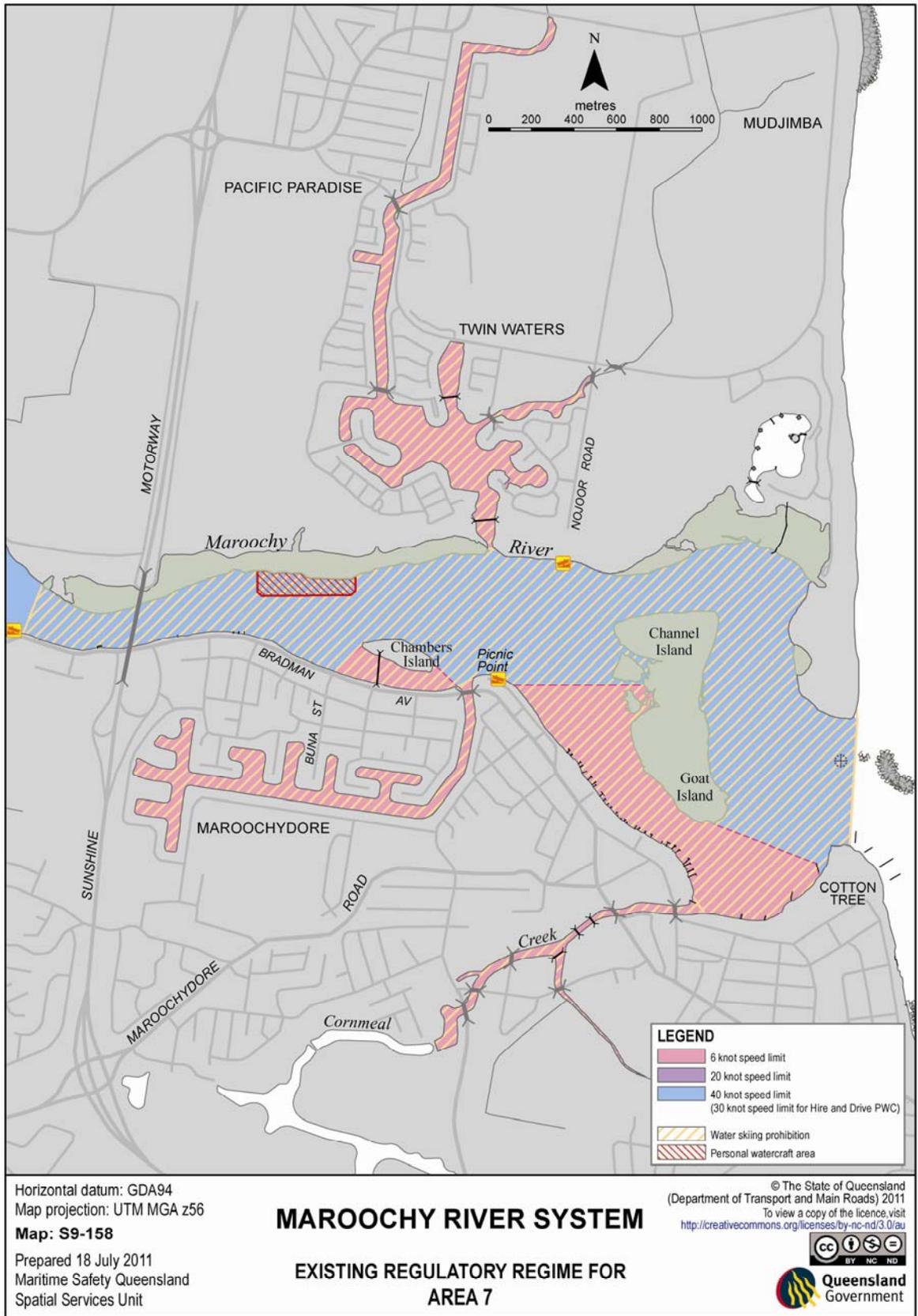
- *different types of ship operations and activities reasonably expected between Bli Bli and Maroochydore*
- *water skiing on Eudlo Creek (subject to recommendations 49A or 49B)*
- *freestyling restriction for personal watercraft*
- *operational speed limits for ships and personal watercraft.*

The education campaign could include:

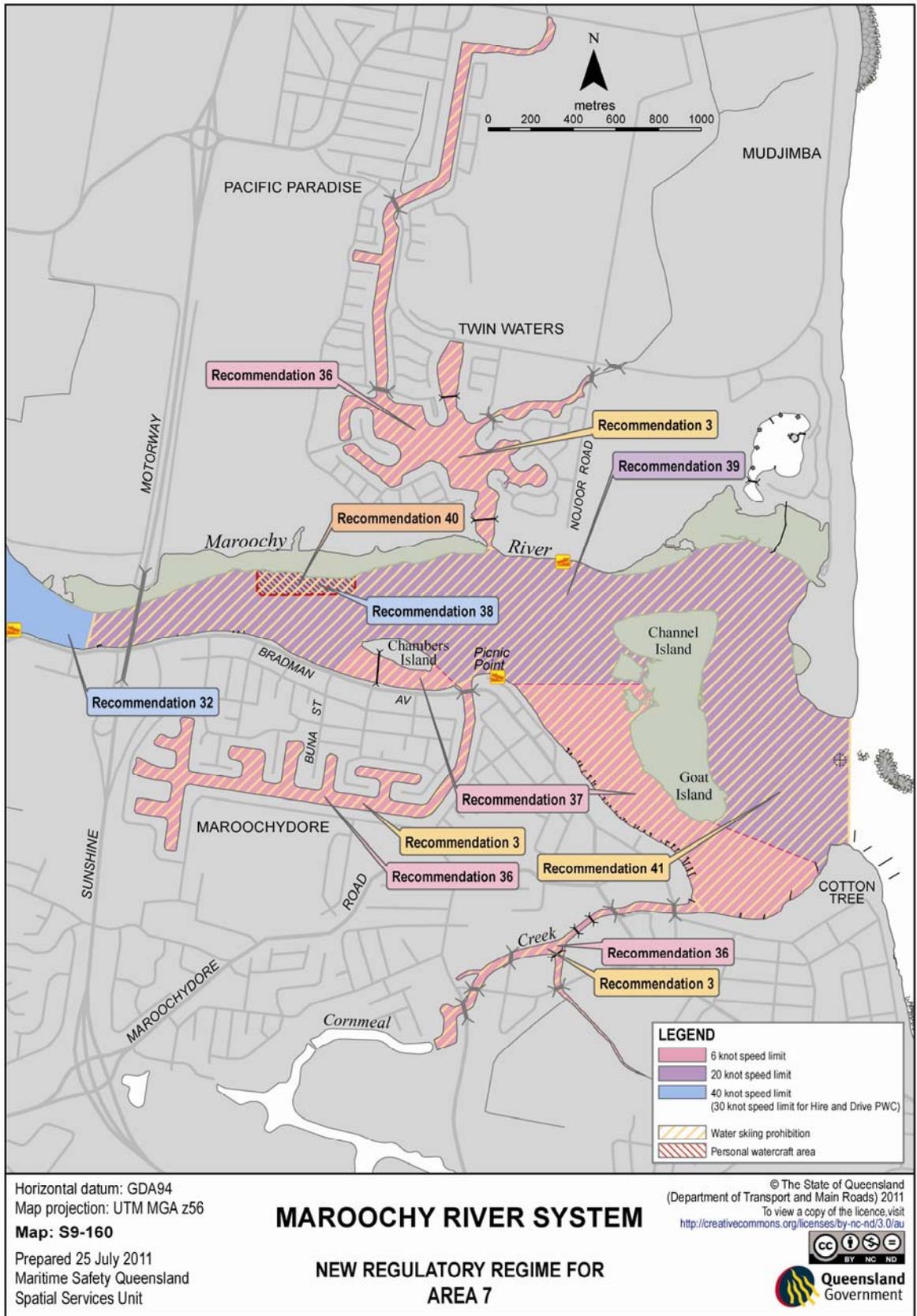
- information packs
- information on Maritime Safety Queensland's website
- information on Department Transport and Main Road's Facebook and Twitter pages
- links from Maritime Safety Queensland's website to other government websites
- links from websites owned by external entities to Maritime Safety Queensland's website (subject to approval where necessary)
- articles in Maritime Safety Queensland's publication *Seascope*
- notices to mariners.

The Reference Group did not identify any unresolved issues for Area 7.

Maps that depict the existing regulatory regime and the new regime recommended by the Reference Group can be found on pages 79 and 80.



Map S9-158 – Existing regulatory regime for Area 7



Map S9-160 – New regulatory regime for Area 7