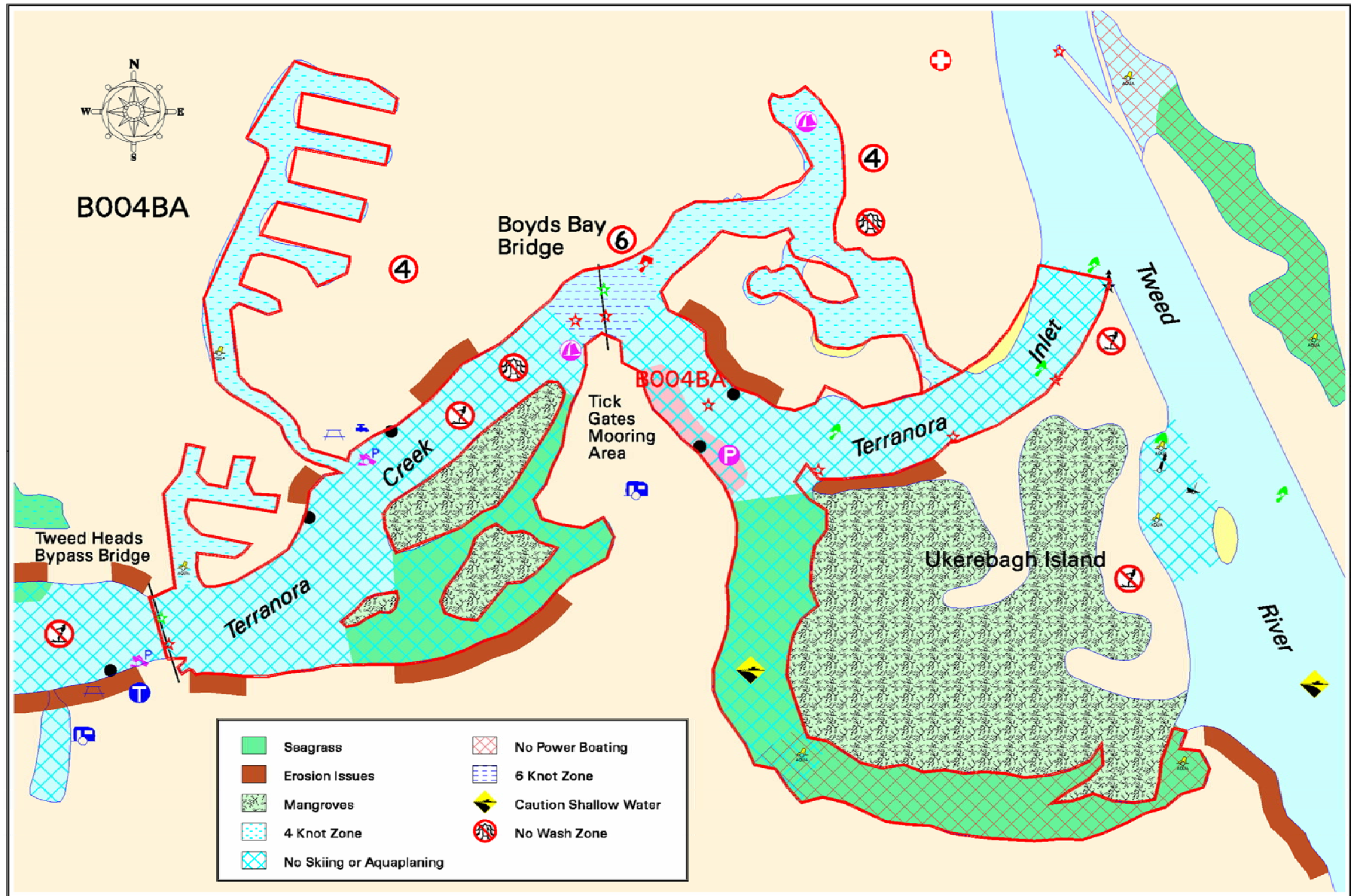


**B004BA**

TERRANORA INLET TO DRY DOCK



## 17 TERRANORA CREEK / TWEED RIVER CONFLUENCE TO DRY DOCK (B004BA)

### 17.1 Description:



This section of the Tweed Estuary runs from the entrance to Terranora Inlet at the north-east corner of Ukerebagh Island, including Ukerebagh Passage, through to Dry Dock immediately east of the Tweed Heads Bypass Traffic Bridge. It includes the Southern Boatharbour (the homeport of the Tweed commercial fishing fleet), canal-style housing estates, and Ukerebagh and Boyds Islands. Also, located at the area known as the Tick Gates is the only significant site currently dedicated to swing mooring licences.










### 17.2 Navigational Restrictions

- This entire section of the estuary is a dedicated No Skiing or Aquaplaning area.
- Shallow water along the length of Ukerebagh Passage.
- Four knot and No Wash restrictions in the Southern Boatharbour.
- Six knot restriction either side of Boyds Bay Bridge.
- No Wash restriction from Boyds Bay Bridge along the Northern side of Boyds Island.
- The narrow spacing between the pylons of Boyds Bay Bridge.

### 17.3 Navigational Aids

At the time of writing this plan, the existing navaids consisted of:

Navaid Type	Location	Navaid Type	Location
 Starboard GRP Buoys	⇒ Marking the channel along the northern end of Ukerebagh Island to the Terranora Inlet / Tweed River confluence. (4 each)	 Yellow Aqua Marks	⇒ Four knot buoy at the entrance to Crystal Waters canal estate ⇒ Ukerebagh Passage denoting "No Power Boating" zone.

 Lit Port Beacons (no top mark)	⇒ Marking the channel along the northern end of Ukerebagh Island to the Terranora Inlet / Tweed River confluence. (3 each)	 No Skiing or Aquaplaning Signage	⇒ The extent of this section of the Inlet
	⇒ Channel marker at the Tick Gates ⇒ Western side of Boyds Bay Bridge ⇒ Tweed Heads Bypass Traffic Bridge	 No Anchoring in Channel Signage	⇒ Channel along the northern end of Ukerebagh Island.
 Lit Port GRP Buoy	⇒ Marking the channel east of Boyds Bay Bridge at the entrance to the Southern Boatharbour	 Six knot signage	⇒ Boyds Bay Bridge area
 Lit Starboard Beacon (no top mark)	⇒ Tweed Heads Bypass Traffic Bridge	 No Wash signage	⇒ Southern Boatharbour
 Lit North Cardinal Beacon	⇒ North-east point of Ukerebagh Island	 Four knot signage	⇒ Southern Boatharbour ⇒ Endless Summer Canal Estate ⇒ Crystal Waters Canal Estate

## 17.4 Compliance History

This section of the river has more complaints registered with Maritime than any other section. Figure 21 shows that the majority of these are for speed, safety and wash issues. Factors contributing to the higher level of complaints include:

- More vessel activity in and around the Kennedy Drive Boat Ramp
- Proximity to the main river entrance which is popular with recreational fishermen

- Dense residential areas within close proximity to the river
- Interaction of recreational vessels with the commercial fleet in and around the Southern Boatharbour

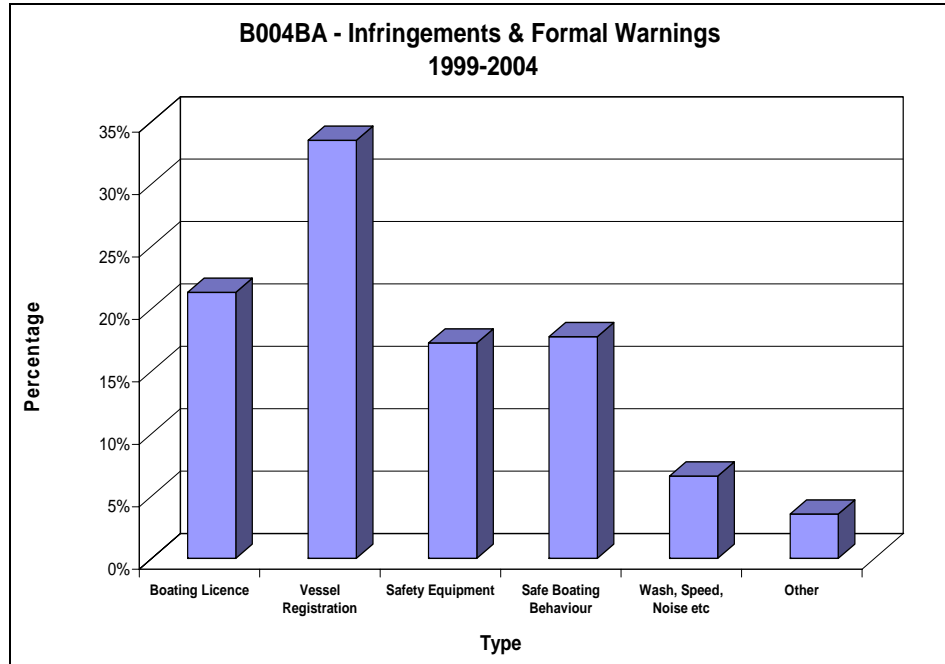


Figure 24

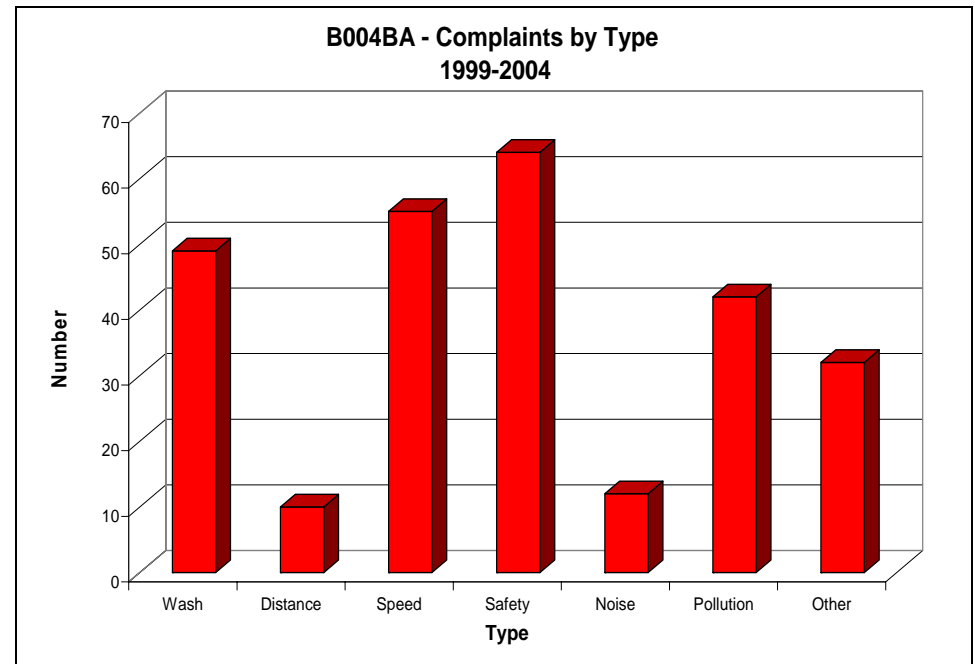


Figure 25

## 17.5 Boat Ramps

**Kennedy Drive** - Kennedy Drive is a 2 lane ramp complete with a public jetty and pontoon, car and trailer parking, and recreation area. It is a very popular ramp with the number of users at any one time being significantly more than the available designated parking. The number of dedicated car/trailer spaces is 14, however there was an average of 38 cars/trailers found at the ramp, along Kennedy Drive and in the surrounding streets during the survey period (70% of which were registered in QLD).

The existing facilities are of high quality compared to some of the other ramps. The adjacent jetty and pontoon, and sandy beaches offer additional pick-up and set-down points for boaters and passengers.

**The Boyds Bay Caravan Park** - the Boyds Bay Caravan Park is located on the spit on the southern approaches to Boyd's Bay Bridge. This private ramp has two lanes and a sandy beach in a small bay east of Turners Island.

### 17.6 Other Infrastructure

- **Southern Boatharbour:**

- A professional fishing wharf with nine fingers providing berths for 18 larger fishing boats. In busy periods up to 30 boats – 3 to a pen & one on the end can be accommodated here. It is serviced by forty eight car/truck parking spaces & a vehicle loading bay at the end of each finger.
- A jetty used by Maritime and NSW Fisheries.
- A small public jetty with two pontoons used by commercial operators, Tweed Endeavour Cruises.
- A slipway mainly utilised by commercial fishing industry (currently unserviceable).

- **Boyds Bay Finger Wharf**

A wharf with 30 berths and available parking and administered by a local committee overseen by the Lands Department.

- **“Tick Gates”**

- Foysters Jetty is located near the Tick Gates. It is a public wharf and pontoon with an adjacent landing beach and a sullage pump-out facility.
- Thirty private and commercial swing moorings under licence from Maritime are located in this area.

- **Crystal Waters**

A jetty generally used for fishing is located at Crystal Waters. Parking is available in the adjoining street.

## 17.7 Values

- ◆ Stakeholders value the Ukerebagh Island and Ukerebagh Passage precinct as a sensitive environmental area and an important habitat for a variety of aquatic, avian and terrestrial species.
- ◆ This section of the estuary is also valued not only as an area within which to pursue recreational activities but also as a safe conduit for vessels entering and leaving the estuary.
- ◆ Stakeholders enjoy the amenity of waterside living.
- ◆ All stakeholders identify the Tweed Estuary as one of the area's greatest assets. They value a healthy waterway free from pollutants enabling safe and enjoyable use while maintaining a delicate balance with the local native flora and fauna.
- ◆ Boating stakeholders value improved land-based facilities such as boat ramps, moorings, wharves and jetties, and the sewage pump-out system.
- ◆ The heritage value of TS Vampire Dry Dock is recognised, and will be considered in all planning in this section of the estuary.

## 17.8 Issues

- ◆ Ukerebagh Passage to be promoted as an important bird roost site and fish/prawn nursery. The passage has significant seagrass beds and provides a natural navigation restriction for all but the smallest of vessels due to the shallow water extending throughout its length.
- ◆ Apparent overcrowding of Terranora Inlet, especially the main navigation channel running along the "Tick Gates". Continued shoaling impacts on access for larger vessels that are negotiating the channel to and from the Southern Boatharbour. In addition, safety concerns were raised due to "the extraordinary increase in the number of vessels moored" in the "Tick Gates" area and the need to maintain the navigation channel.
- ◆ The number of houseboats at anchor adjacent to the Tick Gates mooring area and the entrance to Ukerebagh Passage is a safety issue. Encroachment on the channel and the adjacent Tick Gates mooring area represents a potentially hazardous situation for all boaters. Provision for safe navigation needs to be maintained at all times.

- ◆ Bilge water and sewage is an issue, particularly as the Terranora Inlet is subject to high level commercial activity such as commercial fishing vessels, charters and houseboats.
- ◆ Erosion issues, particularly on the north-western corner of Ukerebagh Island, the beach area adjacent to Kennedy Drive Boat Ramp and on the southern bank opposite Turners Island.
- ◆ Safety issues relating to vessel activity at the Boyd’s Bay Bridge. A number of incidents and accidents have been recorded here and generally relate to vessel speed, line of sight and anchoring issues. Spear fishing is also popular under the bridge which, given the high level of vessel traffic traversing the area, can be potentially hazardous for both divers and boaters.
- ◆ Conflict issues relating to the area from Kennedy Drive Boat Ramp to the Terranora Inlet / Tweed River confluence. Conflict occurs between power boats, generally with an offshore destination, and local aquatic sport users including dinghies, sailors, rowers and users having estuary foreshore destinations.

## 17.9 Management Strategies and Action Plan

Outcome	Strategies	Actions	Timeframe
Reduce the impact of power boating in the Ukerebagh Passage.	<ul style="list-style-type: none"> <li>▪ Education and boating restrictions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Prohibit all power boating (electric motors permitted) from the confluence with the Tweed River to a point adjacent to the intersection of Water Street and the Pacific Highway.</li> <li>▪ Install signage and aquamarks stating “No Power Boating (electric motors permitted)” and “Passive Recreational Use Only” at both ends of the restricted zone.</li> <li>▪ Encourage relevant agencies to install interpretive signage.</li> </ul>	<p>Medium term</p> <p>Medium term</p> <p>Medium term</p>

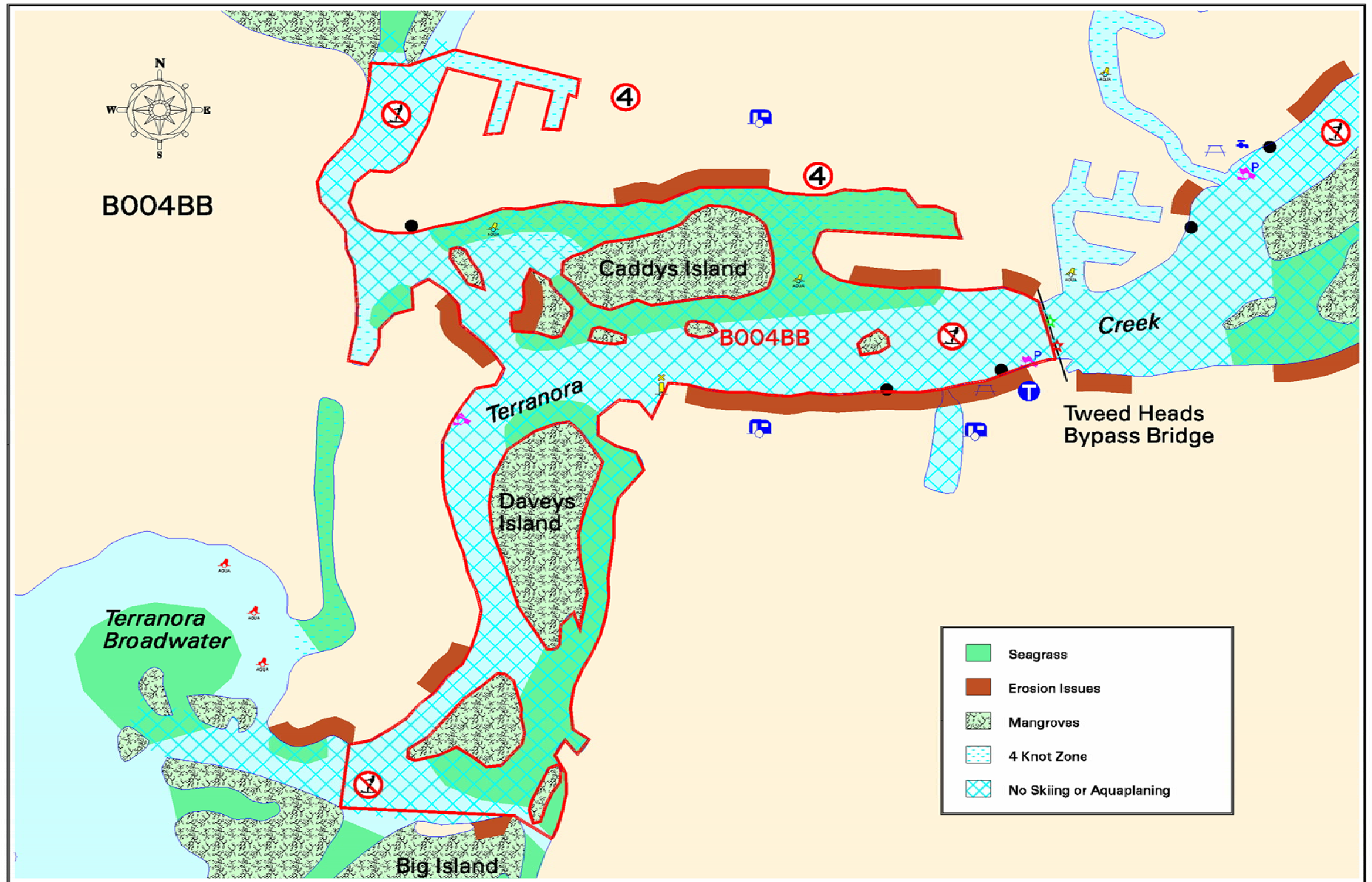


Outcome	Strategies	Actions	Timeframe
Minimise the risk of bilge water and sewage pollution.	<ul style="list-style-type: none"> <li>▪ Strategies covering the issue of bilge water and sewage are covered in <b>River Health – Section 6.1</b> of the plan</li> </ul>		Ongoing
Mitigate potential navigation hazards due to overcrowding in and around the “Tick Gates” area. It is essential that safe navigation in both the channel and mooring areas, as well as access to the public wharf be maintained.	<ul style="list-style-type: none"> <li>▪ Education and liaison with houseboat operators to reduce and eliminate the numbers of unoccupied houseboats anchored in this section of the river.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Liaise with the houseboat operators during the development of the Mooring Management Plan to identify management options.</li> <li>▪ Tweed Shire Council and NSW Maritime to review all future applications for additional houseboats.</li> </ul>	Medium - Long term  Ongoing
Determine optimal mooring configuration for the estuary.	<ul style="list-style-type: none"> <li>▪ Mooring management planning.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develop a mooring management plan as an addendum to this boating plan, taking into account availability of suitable sites, areas of cultural and historical significance, and the potential impact on the environment. Also consider projected demand after the completion of the new Southern Boatharbour Marina and any outcomes concerning the proposed marina at Chinderah.</li> </ul>	Short to Medium term
Mitigate the impact of vessel wash on banks at the northern end on Ukerebagh Island, the beach adjacent to Kennedy Drive Boat Ramp, and the southern bank opposite Turners Island.	<ul style="list-style-type: none"> <li>▪ Educate and where necessary enforce compliance.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review existing No Wash signage. Where necessary install aquamarks at appropriate distance from threatened banks.</li> <li>▪ Monitor and review.</li> </ul>	Medium term  Ongoing

Outcome	Strategies	Actions	Timeframe
Maintain an adequate navigation channel from the Southern Boatharbour to the main Tweed River.	<ul style="list-style-type: none"> <li>▪ Monitor and review.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Undertake ad hoc depth soundings and where necessary recommend maintenance dredging to Tweed Council and Department of Lands through the Tweed River Committee.</li> </ul>	Ongoing
Reduce the risk of accidents and incidents at the Boyd's Bay Bridge.	<ul style="list-style-type: none"> <li>▪ Navigation restrictions, education, signage and where necessary enforce compliance.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Install a 6 knot restriction from the red beacon immediately upstream from Boyds Bay Bridge to Terranora Inlet.</li> <li>▪ Install navigation lighting on both sides of the bridge.</li> <li>▪ Designate one span each way for river traffic.</li> <li>▪ Enforce "no anchoring in channel" regulations.</li> <li>▪ Liaise with NSW Fisheries and recommend restrictions on spear fishing under and around the Boyd's Bay Bridge.</li> <li>▪ Monitor and review</li> </ul>	} } } Short } term } } Medium term Ongoing

**B004BB**

DRY DOCK TO BIG ISLAND



## 18 DRY DOCK TO BIG ISLAND (B004BB)

### 18.1 Description:







This section of the Tweed Estuary runs from the Tweed Heads Bypass Traffic Bridge through to Big Island at the entrance to Terranora Broadwater. It includes Wyuna Bay, and Caddys, Daveys, Meebun and Big mangrove islands.


### 18.2 Navigational Restrictions

- This entire section of the estuary is a dedicated No Skiing or Aquaplaning area.
- Four knot and No Wash restrictions apply in Wyuna Bay west to Cobaki Creek and north of Caddys Island.
- Tweed Heads Bypass Traffic Bridge.
- A number of mangrove islands including Caddys, Daveys, Meebun and Big Islands.

### 18.3 Navigational Aids

At the time of writing this plan, the existing nav aids consisted of:

Navaid Type	Location	Navaid Type	Location
 Lit Starboard Beacon (no top mark)	⇒ Tweed Heads Bypass Traffic Bridge	 No Skiing or Aquaplaning Signage	⇒ At various points along this section of the creek.
 Lit Port Beacon (no top mark)	⇒ Tweed Heads Bypass Traffic Bridge	 Special Pile Beacon	⇒ At Philp Street on the southern foreshore of Terranora Creek, opposite Caddys Island.
 Four knot signage	⇒ Wyuna Bay.	 No Wash signage	⇒ Wyuna Bay.

 Yellow Aqua marks	⇒ One each at the western and eastern extremities of the 4 knot zone from Wyuna Canal, north across Caddys Island and west to Cobaki Creek.
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### 18.4 Boat Ramps

- **Dry Dock Road**

The Dry Dock Road ramp is very popular for boaters with demand for dedicated parking far outweighing supply. There are five formal and 2 informal (off-road) parking spaces, yet there were an average of 24 cars/trailers located in the immediate vicinity over the Australia Day Long Weekend. There is a good holding jetty, a small sandy beach and toilet facilities in the immediate area. Vehicle traffic congestion, both in terms of the ramp and the surrounding streets is a concern. A jetty (remnants of the old traffic bridge) is located adjacent to the boat ramp.

Maritime has recently approved the allocation of 50% grant funding under its Asset Development And Management Program (WADAMP) in supporting the Tweed Council's upgrade of the Dry Dock Road Boat Ramp.

- **Lakes Drive Boat Ramp**

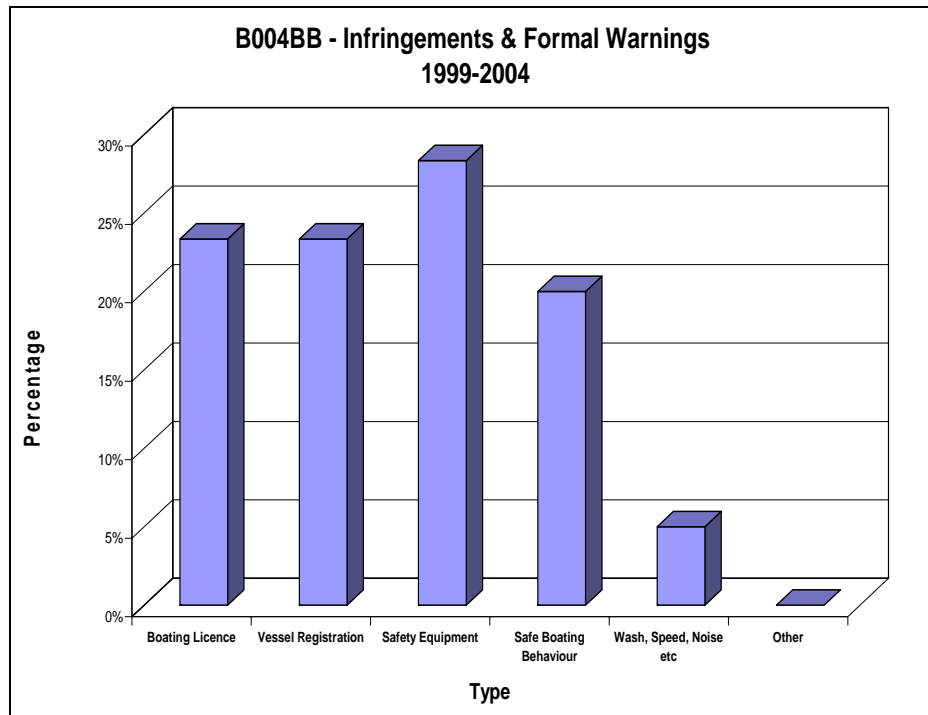
Situated in the Seagulls Housing Estate, this boat ramp has no formal parking spaces and only limited off-street parking. During the Australia Day Long Weekend there was an average of only one car/trailer parked at this ramp.

The apparent lack of ramp traffic could be seen as an opportunity to relieve the demand at ramps such as Kennedy Drive and Dry Dock Road, however, the issue of available parking needs to be addressed.

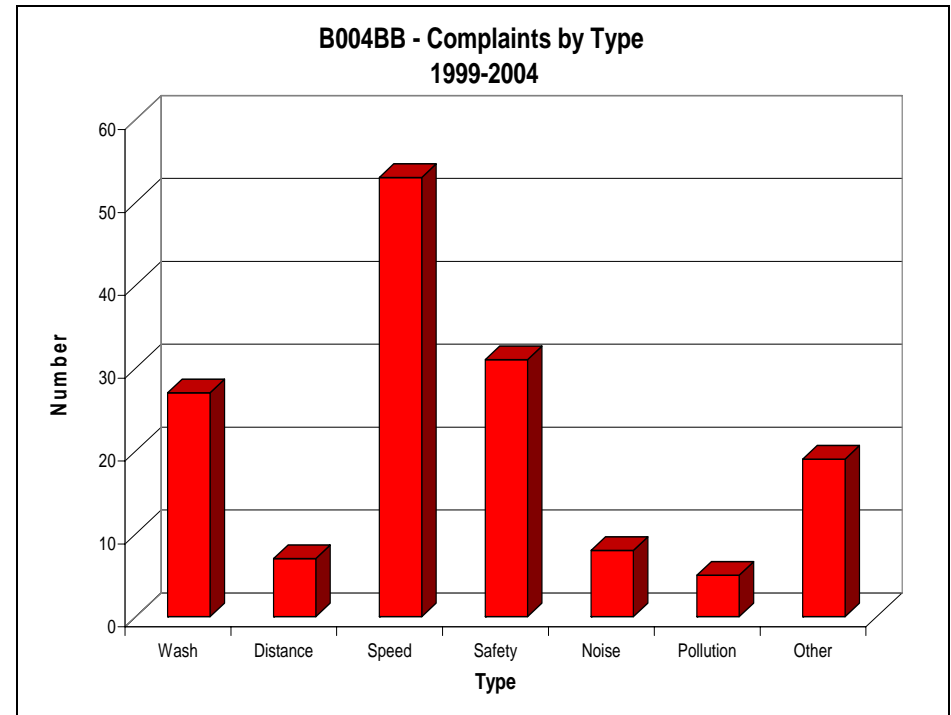
- **Philip Street**

Located at Philip Street upstream from Dry Dock is a small sand ramp suitable only for small craft. There is limited off-street parking and no other facilities.

## 18.5 Compliance History



**Figure 26**



**Figure 27**

The large numbers of complaints concerning wash, safety and speed issues illustrated in Figure 23 emanate from the populated areas of Seagulls and Wyuna housing estates and are consistent with complaints patterns associated with other residential areas.

## 18.6 Values

- ◆ This section is valued for its significant seagrass meadows and mangrove islands that provide habitat for abundant benthic communities and a high concentration of shorebird roost and foraging sites.
- ◆ Boaters value Terranora Creek as an area where they can enjoy safe recreational activities.
- ◆ Residents value the amenity of canal-estate living.

## 18.7 Issues

- ◆ The impact of boating and other human activities in this area and its retention as a relatively low usage recreation area, thus encouraging the extension of seagrass meadows and ongoing use of the area by birds.
- ◆ Conflict between water-craft and residents relating to noise and wash, particularly in the more dense residential areas adjoining this section of the estuary. (See Figure 23).
- ◆ The possibility of sewage being discharged from charter vessels operating in the Tweed West Reach area.
- ◆ The issue of charter vessels nosing into mangrove islands and dropping their bow ramp during charter operations.
- ◆ The area from and including Wyuna Canal and stretching west past Caddy's Island to the confluence with Cobaki Creek is an area of limited navigation due to shallow water. It contains significant seagrass beds, is an important benthic nursery and has areas with varying degrees of erosion.
- ◆ A potentially hazardous area of the Lakes Drive Boat Ramp due to a covering of marine slime up to the high tide mark. Boaters are at risk of slipping and falling while launching their vessels. Rocks and rubble littering the launching area also present a potential for accident and injury. There is no area to leave the vessel while the crew retrieve the vehicle and trailer.



## 18.8 Management Strategies and Action Plan

Outcome	Strategies	Actions	Timeframe
<p>Reduce the effect of boat wave action on mangrove islands and banks. Shallow water adjacent to a number of these areas provides a natural navigation restriction for large wake producing vessels.</p>	<ul style="list-style-type: none"> <li>▪ Continue existing management strategies of:                             <ul style="list-style-type: none"> <li>○ No skiing, aquaplaning or wakeboarding in this section of the estuary.</li> <li>○ Enforcing regulations concerning distance-off and irregular driving (freestyling).</li> <li>○ Reviewing existing "No Wash" signage.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Maintain, monitor and review existing management strategies.</li> </ul>	<p>Ongoing</p>
<p>Minimise the risk of bilge water and sewage pollution.</p>	<ul style="list-style-type: none"> <li>▪ Strategies covering the issue of bilge water and sewage are covered in <b>River Health – Section 6.1</b> of the plan.</li> </ul>		<p>Ongoing</p>
<p>Maximise boater safety while minimising boating impact on the area from Wyuna canal to the Cobaki Creek / Terranora Creek confluence.</p>	<p>Education, speed restrictions and compliance.</p>	<ul style="list-style-type: none"> <li>▪ Creation of a 4 knot speed restriction in the area from Wyuna Canal to the Cobaki Creek / Terranora Creek confluence, north of Caddy's Island.</li> <li>▪ Install signage and aquamarks at the east and west boundaries of the restricted area.</li> <li>▪ Monitor and review</li> </ul>	<p>} } Medium } term }  Ongoing</p>

## NSW Maritime

Outcome	Strategies	Actions	Timeframe
Minimise damage to banks, mangroves and seagrasses due to charter vessels' bow ramps.	Liaison with relevant agencies.	<ul style="list-style-type: none"> <li>▪ Refer concern relating to the effect of landing on mangrove islands and seagrasses to NSW Fisheries.</li> </ul>	Short term
Reduce the risk of accidents and incidents at the By-Pass Traffic Bridge.	<ul style="list-style-type: none"> <li>▪ Navigation restrictions, education, signage and where necessary enforce compliance.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Install navigation lighting on both sides of the bridge.</li> <li>▪ Enforce "no anchoring in channel" regulations.</li> <li>▪ Monitor and review</li> </ul>	Short term Ongoing