

# **WATERWAY USER MANAGEMENT PLAN**

## **BATEMANS BAY and CLYDE RIVER ESTUARY**

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**Prepared by**

**Peter Spurway & Associates Pty Limited  
495 Bingi Road  
Bingi NSW 2537  
in conjunction with  
WBM Oceanics Australia**

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# **WATERWAY USER MANAGEMENT PLAN BATEMANS BAY & CLYDE RIVER ESTUARY**

## **1. Background**

This document provides the basis for a Waterway User Management Plan that applies to all the waters of Batemans Bay and the Clyde River estuarine system including its tidal tributaries. This Plan is prepared as a sub-plan of the Estuary Management Plan for Batemans Bay / Clyde River.

Waterway User Management Plans are designed to:

- Protect the recreational and environmental values of a waterway
- Ensure that boating practices maximise user safety and enjoyment
- Provide a framework for consultation

The approach to waterway user management considers a number of factors. These are:

- i. Safety
- ii. Boat wash impacts
- iii. Bank erosion
- iv. Protection of environmentally sensitive areas
- v. Effects of propeller wake on subtidal seagrass beds
- vi. Noise and other forms of pollution
- vii. Water quality issues
- viii. Conflicts between differing user classes

Management 'tools' available to NSW Waterways include:

- Four knot speed limits
- 'No Wash' zones
- 'No Skiing' restrictions
- Distance-off marks
- Restricted access
- Allocation of time or space to conflicting user classes

Please note this Plan does not pretend to provide a list of all waterway facilities required on Batemans Bay / Clyde River. The Draft **Batemans Bay Waterway Infrastructure Strategy** addresses the need for public waterway infrastructure to assist in long-term waterway planning in far greater detail than this Waterway User Management Plan.

## 2. Site Description

Batemans Bay and the Clyde River Estuary is located in Eurobodalla Shire on the South Coast of NSW, 300 km south of Sydney. The Bay and River system is a focus for recreational boating in the north of the Shire.

The Clyde River has an overall length of 115 kilometres, and is tidal for approximately 40 kilometres upstream of the highway bridge. The river channel in its lower reaches is deep and incised, typical of a drowned river valley. Further upstream the river bed grades into progressively coarser sediment, and becomes shallower upstream of Cockwhy Creek.

Batemans Bay forms the drowned entrance to the Clyde River, extending over 8 kilometres from the Princes Highway bridge out to its mouth at the Tollgate Islands. At this point, it is over 6 kilometres wide.

Major sediment features of the river delta are:

- A deep main river channel immediately adjacent to the southern bank training wall
- A 'ramp margin shoal' flanking the channel along its northern side
- A well developed relatively shallow river-mouth bar

The estuary's major tributaries and approximate distances upstream of the Princes Highway bridge are:

- Cullendulla Creek
- Waterfall Creek (4.5 km)
- Buckenbowra River (6 km)
- Sheep Station Creek (11 km)
- Nelligen Creek (14 km)
- Cyne Mallowes Creek (15 km)
- Currowan Creek (28 km)
- Cockwhy Creek (31 km)

Each of these tributaries is tidal for some distance to the base of steeper catchment areas. The largest is the Buckenbowra River, which is tidal for some 11 kilometres from its confluence with the Clyde River. Where each tributary enters the river, a sandy / gravelly delta extends out into the river.

### 3. Waterway Usage & Facilities

#### Growth Projections

The Batemans Bay area is a focus for urban and rural residential growth. Batemans Bay is an area with strong links to its waterways. Predictably, boat ownership and waterway usage is on the increase. The waterways around Batemans Bay and the Clyde River are the focal point of the tourist industry.

Analysis of growth figures for registered craft has been carried out by council. These projections suggest an average annual growth rate of 3.9% over the last decade. Boat ownership per head of population appears to be growing with 1997 statistics suggesting 31.3 craft per 1000 people.

On the broader front, a number of issues may become relevant, dependent on the increased demand for some activities. Growth in tourism, as the shire's major industry is predicted. Tourist-related waterway uses such as ferry and charter boat trips and houseboat hire are expected to increase, and continuation of the trend of new vessels introduced onto the estuary is inevitable. In the case of some of these estuary users, there are water quality implications discussed later in this report.

#### Boat Launching

This estuary has a number of launching ramps, located around the estuary in order of usage as follows:

- The Regional Boat Ramp at Hanging Rock caters mainly for offshore boating users with some estuary users launching here. This ramp provides access to offshore fishing and diving sites. Waterways estimates peak user numbers at this ramp in 2002 to be about 400 vessels per day. This number would be exceeded on a major fishing tournament event. A need for toilet facilities has been identified.
- The old punt ramp on the southern shore at Lions Park is now used as a boat launching ramp and is most suited for estuarine users.
- On the northern shore, the punt approach is known as Jamiesons Ramp. This is known to be subject to constant sand build-up, which limits its use to four-wheel drive vehicles over most of the year.
- At Nelligen the four old ferry approaches on both eastern and western shores are utilised as boat launching ramps.
- A private facility at the Nelligen Van Park is a good quality ramp favoured by park users and water-skiers. It is available for public use for a small fee.
- On the Clyde upstream of Nelligen are a number of informal launching ramps in varying condition. These are mainly used by residents or in season by campers, many of who are water-skiers.
- At Maloneys Beach a board-and-chain ramp has provided ocean access at times. This is a no longer usable facility, following repeated episodes of beach erosion.

Council estimates the launching ramps on this estuary to have a maximum combined daily capacity of 360 to 480 vessels. Estimates of waterway usage at peak tourist time suggest a potential peak usage rate of up to 1100 vessels from the Batemans Bay area and Nelligen. There are currently about 400 registered craft at in the area from Maloneys Beach to Malua Bay (ESC 2002 estimates).

#### Wharves and Jetties

The following wharves and jetties are located on the estuary:

- Nelligen Wharf is of historical significance. It is used by the tourist ferries as a stopover. It was recently purchased by council and refurbished.
- Mays Wharf, near the Buckenbowra River entrance, is a historic feature under private licence.
- On the southern shore in the Batemans Bay CBD, in order from the bridge downstream, we have:

- o The Fishermans Jetty nearest to the bridge is owned by the Department of Lands. This working jetty was originally provided for commercial fishing and now is shared by a ferry, charter boats and fishing boats.
- o The Coalbunker Wharf is now closed to boating, with an unstable substructure. It previously serviced for boarding access for charter boats and ferries, which have relocated to the Town Wharf.
- o The private Innes Wharf adjacent the Innes fish shop services that family's seagoing fishing fleet and is a significant tourist attraction.
- o The Ampol Wharf (also known as the Town Wharf) serves as a loading and refuelling point for ferry cruises.
- o The Mara Mia Walkway Pier is utilised by charter boats for boarding, but its main use is as a tourist attraction and fishing platform in conjunction with the foreshore walkway.
- At the upstream end of Lions Park, a small pontoon is used by the Batemans Bay Oyster Growers. It is available for emergency services use.
- On the north shore at Wray St are a number of private jetties and boatsheds used by boat and houseboat hire businesses.
- The Regional Boatramp at Hanging Rock incorporates a small holding jetty and floating pontoon.

One feature lacking at the Batemans Bay CBD is a facility suitable for people with a disability, to assist with access to boating facilities. Small boat owners are also disadvantaged, with existing wharf facilities unsuitable for embarking or disembarking from small boats over a range of tides. The need for a new floating pontoon-style jetty (in addition to the one at Hanging Rock Boat Ramp) to overcome these shortcomings is identified in Council's Waterway Infrastructure Strategy (see following discussion).

### Infrastructure Upgrading Plans

The capacity of boat launching facilities, wharves and jetties is a major issue across the Shire, considered by council in its Waterways Infrastructure Strategy (June 2002). This strategy prioritises expansion works across the Shire for boat ramps, wharves and jetties.

It proposes, subject to funding, the prioritised upgrading of infrastructure on the estuary as follows.

Facility	Project	Estimated Cost	Priority
Maloneys Beach	Replaced damaged boards	\$ 5,000	1
Hanging Rock	Toilet block	\$ 50,000	1
Batemans Bay CBD	Demolish Coalbunker & Ampol Wharves and construct new wharf	\$100,000+	2
Nelligan	Jetty in conjunction with eastern ramps	\$ 25,000	4
Upstream of Batemans Bay Bridge	New disabled-friendly floating pontoon jetty	\$ 60,000	5

In the longer term, the capacity of broader waterway facilities in the study area will need to be addressed. Council has commissioned consultants Webb McKeown and Associates to produce a Batemans Bay Waterway Infrastructure Strategy. This strategy investigates potential growth and details projected infrastructure requirements over a 25 year timeframe.

Preparation of a Foreshore Masterplan for the Batemans Bay CBD is planned at present by council. This will further investigate a concept for upgrading the Coalbunker Wharf, and ultimately linking or consolidating the existing wharves in the area from Ampol Wharf to the Fishermans Wharf. The potential impacts of these facilities on the waters of Batemans Bay will require detailed investigation. The Waterway User Management Plan will require an update to reflect the Foreshore Masterplan, when it is adopted by council.

## Batemans Bay Marina

The Batemans Bay marina (Boat Harbour) occupies Port Reserve R180070 and is operated day-to-day by a user's co-operative as agent for the Department of Lands. The co-operative operates a slipway at the western end of the marina under Licence L303028 issued by the then DLWC. The Department of Lands has control of the marina leases.

Facilities available at the marina include pontoon berthing, a slipway and a drystand repair area. A marine pumpout system is proposed. Onshore toilets and showers are adjacent to the hardstand area at Rotary Park, which provides public carparking.

The marina has insufficient berths to meet current demand. Expansion is possible but limited funding for construction works has limited this growth.

Two levels of expansion are possible:

- About 10 more berths could be made available by an extension of the proposed finger wharf for the marine pumpout facility.
- A major downstream expansion of the marina onto the sandflat.

Expansion of the marina would slow the unsustainable growth in swing moorings and cater for the growth of boating on the south coast. The Department of Lands are currently considering a number of proposals for expansion of the Marina, including future Marina operation arrangements.

## Moorings

Moorings in Batemans Bay along the side of the channel up to the bridge are at full capacity. Sand movement along the northern (Wharf Road) shoreline is understood to have forced the temporary relocation of some moorings to upstream of the bridge.

In the event of a major river flood, boats on swing moorings in these localities are at risk. The shortage of suitable areas for expansion of moorings in Batemans Bay requires consideration in this Plan.

## Yachting

The Batemans Bay Sailing Club is a significant user of the estuary and contributor to the area's economy. The club has an active membership and sponsors both keel boat sailing and off-the-beach sailing. An annual 'off the beach' regatta attracted over 100 entrants in 2002. The club has 34 keelboats on its register that are kept in the estuary. It would typically hold some 30 events annually.

Four areas of the estuary are used by the club:

- Competitive sailing takes place south-east of Square Head and off Corrigan's Beach.
- Some events are held in the river between the bridge and the marina.
- The section from the bridge to the seaward side of the bar is used for access to the outer bay by keel boats.
- The river between the bridge and Nelligen is regularly cruised by members and visiting boats.

The club encourages cruising yachts to visit the estuary - these vessels average one a week and would commonly stay for one to a few nights. Re provisioning, repairs and maintenance add to the local economy.

Continued growth in sailing from both local and visiting boaters is expected.

## Personal Water Craft (PWC)

One of the more recent arrivals on the watercraft scene are Personal Water Craft (or PWC), the term used to describe craft with trade names such as Jet Skis, Waverunners and Sea Doos.

Boating regulations define legal operating conditions for PWC's. They are not permitted to operate irregularly within 200 metres of the shoreline where a residence is visible. They must maintain a minimum 60 metres from persons in the water including surfers, when travelling at speeds of 10 knots or more.

Formal complaints to Waterways of PWC activities provide an indication of levels of use in various areas around the bay. The following table represent the locality and numbers of formal complaints received by Waterways since January 2001:

Locality	Number of formal complaints (PWC's) since January 2001	Proportion of complaints
Corrigans Beach	8	47%
Maloneys Beach	1	6%
Surfside	1	6%
Other areas (within ESC south to Moruya)	7	41%
<b>Total</b>	<b>17</b>	<b>100%</b>

PWC use in the Shire is currently under review by a sub-committee of council. This committee in June 2002 invited and received over 50 public submissions from the public on PWC use across the Shire. Submissions relating to the Batemans Bay / Clyde River study area were received as follows:

Location of Submission	Number of Submissions
Clyde River Bridge to Shallow Crossing	1
Cullendulla	2
Surfside	2
Long Beach / Maloneys Beach	1
Corrigans Beach	7 + petition
Swimming Beaches across the Shire generally	10

Specific issues raised in submissions related to

- noise,
- petrol fume odours,
- reckless and dangerous riding, and
- environmental issues such as threatened species impacts, general pollution, spread of aquatic weeds, impact on seagrass and fish breeding and bank erosion.

This activity became popular at a PWC-hire area at Cullendulla some years ago, until the road access was closed. Reports of noise complaints were noted from Surfside residents at that time. Corrigans



Beach now provides a buoyed area 225 metres offshore for PWC hire craft. PWC use at this locality has been well regulated by Waterways in recent times.

Corrigans Beach, as the major area of PWC use by hire vessels in particular, now clearly attracts the majority of attention from the public. Issues here are both noise related and, in the past but less of an issue recently, safety issues such as distance from swimmers.

The local Waterways Boating Officer may direct non-hire PWC users to a number of locations considered suited to this activity, namely the Tollgates \*\*, Maloneys Beach, the middle part of Long Beach (away from houses), and the northern end of Corrigans Beach. This approach is supported while it remains practical, and PWC users have been cooperative over the past boating season. This management approach requires active monitoring and patrolling by a Waterways presence on the water over the holiday season in particular.

*\*\* NSW Fisheries note that the Tollgates have been listed as Critical Habitat for Grey Nurse Sharks under Part 7A of the Fisheries Management Act 1994.*

### **Other Water Craft**

A charter boat industry operates out of Batemans Bay, predominantly servicing demand for offshore fishing, diving and whale watching in season. This industry is a significant tourism attraction and contributes significantly to the local economy.

Two commercial ferries ply the river from Batemans Bay to Nelligen. Regular daily tours provide an opportunity for visitors to the area to view the estuary and hear some of the local folklore.

Houseboat and small 'tinny' self-drive hire businesses operate from just upstream of the Princes Highway bridge. These provide another significant attractor of tourists. Houseboats can use the river from the bridge to their upstream limit at the old jetty near Currowan Creek.

Estuary fishing tours provide advice on fishing techniques and 'hot spots', attracting locals and visitors alike.

Water skiing is common on the river's reaches that are more sheltered from prevailing winds, notably on the bends upstream of Nelligen. Most intense use is over January and Easter.

The upper reaches of the Clyde River above Cockwhy Creek provide an ideal environment for passive waterway uses such as canoeing and kayaking. These passive uses should be encouraged and should be possible in safety.

## 4. Issue Discussion and Recommendations

The following issues are relevant to this Plan. These issues have been raised by the committee over recent years or been identified by public submissions in May 2003 to the Estuary Management Study.

- Navigation
- Control of vessel speed for safety.
- Protection of shorelines from boat wash.
- Management of Personal Water Craft.
- Protection of sensitive and passive use areas.
- Signage.
- The Bar.
- Shortage of moorings.
- Batemans Bay Marina.
- Refuelling.
- Water quality considerations.

These issues are dealt with in the following discussion, which provides a background to the recommended actions listed in the next section.

### Navigation

Ease of navigation on the estuary below Nelligen has been a focus of Waterways over the past year. The channel is now well marked by a set of day leads and lit beacons from the Princes Highway bridge all the way to Nelligen. One final beacon on the bend just downstream of Nelligen will be installed shortly by Waterways. The lit markers are essential to cater for the growth in houseboat hire, waterway users typically unfamiliar with the estuary.

Navigation aids from the outer bay to guide mariners towards the bar leads may become a future issue. In particular, a mark at Acheron Ledge will warrant future consideration by Waterways as visiting mariner numbers increase. It is noted that Waterways plans in the near future for a mark on Snapper Island.

### Vessel Speed

Vessel speed is at present regulated to 4 knots in McLeods Creek and the oyster harvest area on the southern side of Budd Island. McLeods Creek is a very sensitive wetland with a quite narrow channel and healthy seagrass beds and mangrove communities. Their protection from wash or damage by a 4-knot limit is justified. However, a 4-knot limit in the concentrated oyster working area at Budd Island would be better replaced with a No Wash Zone. This would allow oyster growers to operate at speeds that do not cause wash, without unduly restricting their operations. It will also provide discouragement for private and hire vessels to enter this shallow and at times congested channel. A No Wash Zone at this location is to be recommended by this Plan.

The Batemans Bay Marina also is zoned with a 4-knot limit. Boating regulations limit speed adjacent to moored vessels in other parts of the bay, and at the bridges at Nelligen and the Princes Highway. These limits do not require signage.

A proposed 4-knot limit in Cullendulla Creek is further discussed in the following section - "Sensitive and Passive Use Areas".

## Boat Wash

There are shorelines along the Clyde River upstream of Nelligen that are susceptible to erosion. The Batemans Bay / Clyde River Estuary Processes Study concluded that for these areas of the estuary, the impact of boat wash on bank erosion is minimal. Other factors such as floods and natural meander processes are far more significant as the primary cause of this erosion. Secondary disturbances such as groundwater seepage, wind waves and boat wash may exacerbate the continuation of this erosion. However, the limitation of boating activity alone would have very little impact in the long term on erosion rates. There are no recommendations for boating controls due to bank erosion on the estuary upstream of Nelligen.

In the estuary downstream of Nelligen, submissions from oyster growers note damage to racks and trays from large displacement-hull vessels. Racks and trays would be particularly vulnerable at spring low tides. There may be scope on two levels to address this issue:

- Oyster growers with leases in the worst-affected locations to amend their work practices and/or install wave barriers;
- Schedules for these vessels could be varied fortnightly to avoid the lower end of spring tides.

These management aspects could be negotiated by the respective parties, with assistance from the committee if required. Intervention by legislative controls is not considered a practical option.

## PWC Usage

Much of Batemans Bay is considered ideal for this pastime by users of PWC's. Major use areas are:

- Corrigans Beach (PWC hire area and other PWC users)
- Long Beach
- Maloneys Beach
- Tollgates
- Nelligen and upstream reaches

The management of PWC use on the estuary has been closely monitored by Waterways in the past few years. The response of PWC owners has been encouraging. However complaints persist, mainly noise disturbance at Corrigans Beach, which is one of the focal points for the activity. Noise is an issue particularly for residents of the southern caravan parks and the elevated area of Batehaven south of Corrigans Beach when prevailing summer north-easters direct noise from boating activity including PWC use to the residential areas.

This issue is seemingly not possible to resolve by compromise. If PWC use continues, there will be occasions when noise from continual use will cause annoyance, even with legal PWC operations. If PWC use were banned, one local hire business would be closed or forced to relocate. There are no obvious alternative sites for this business.

It is to be recommended that PWC activities around Batemans Bay be permitted to continue but closely monitored by Waterways. Directing PWC users to suitable areas is supported. This approach is preferable to over-regulation of the waterway but it requires a regular Waterways presence on the estuary. If justifiable complaints were to increase to unacceptable levels, a more formal zoning system should be implemented by Waterways.

It is possible to lighten noise levels at Corrigans Beach by operating the PWC hire area 300 metres offshore. This should be trialled with cooperation from the hire proprietor next summer.

In conjunction with this action, Waterways is able to extend the standard setback distance from the shoreline of 200 metres a further 100 metres in order to also regulate non-hire PWC users in this area. It is recommended that Waterways extend the PWC exclusion zone to 300 metres, from the PWC hire area to the southern end of Corrigans Beach.

Council's PWC Committee is currently considering PWC controls on waterways in the Shire. Outcomes from this committee can update this Plan if necessary.

## **Sensitive and Passive Use Areas**

Sensitive environmental areas of the estuary are:

- Broad areas of healthy subtidal seagrass beds on the tributaries
- The upper estuary above Cockwhy Creek
- Cullendulla Creek

### **Seagrass Beds**

Seagrass beds provide highly productive fish nursery and feeding habitat. The disturbance or destruction of subtidal flora such as seagrass is considered possible when the underkeel clearance is reduced to less than 0.5 metres. Vessel access should be limited over these shallow areas.

The majority of seagrass is to be found in the mouths and sheltered waters of the estuary's many tributaries. Present usage in these areas is generally low, and boat speed in these tributaries is considered largely self-limiting, due to their entrance shoals, shallow depth and narrow channels. Four-knot zones are a future possibility, should usage increase, but for the above reasons are not proposed at this stage.

The impacts of this decision should be monitored to ensure the effective protection of these tributary areas from excessive boat speed. The preservation of seagrass beds can reasonably be assured by limiting speed, which can act as a deterrent to boating activity entering the tributary areas. If this does not prove successful, power vessel access can, in the extreme case of high activity and regular environmental damage, be limited or banned. This need can only be determined by vigilance and further seagrass health monitoring.

The exception is the Cullendulla Creek area, where seagrass loss has been noted by the Estuary Management Committee. This creek is proposed to be subject to a four-knot limit as discussed below.

Seagrass beds are located along the edge of Batemans Bay CBD. Impacts of wharves and jetties on seagrass beds is an issue for council's Foreshore Masterplan for the Batemans Bay CBD.

### **Upper Estuary**

The nature of the upper estuary beyond Cockwhy Creek is suited to passive use. The unspoilt estuarine environment is a natural attraction that is worthy of preservation.

This Plan has considered whether a 4-knot limit should be imposed over the upper estuary to provide a balance between power boating and activities that are more passive. This would serve to give additional notice to power vessels that the estuary is in parts shallow and unpredictable. It would also minimise any negative interactions between passive users and powerboats. A suitable location could be the just upstream of the old wharf, 1 kilometre upstream of the Cockwhy Creek junction.

We conclude that the estuary at this point is self-limiting for boat speed, with the shallow gravel bed and gravel shoals immediately obvious on approach. Furthermore, boating numbers in this part of the estuary are very low. There is, however, the potential for a future increase in powerboat use as boating traffic on the upper estuary increases. The usage situation should be monitored by Waterways and provide feedback to the Estuary Management Committee, should this low level of vessel usage change.

### **Cullendulla Creek**

Passive uses in accordance with the area's National Park status are appropriate on Cullendulla Creek. Unrestrained powerboat use in the creek is considered inconsistent with the area's natural values. It is proposed under this Plan to impose a 4-knot limit inside the mouth of Cullendulla Creek over its full navigable length. This will provide for quieter boating activities to reduce disturbance to wildlife in sensitive areas, reduce wash and allow boaters time to observe and avoid shallow seagrass beds.

The waters offshore from Cullendulla Beach are shallow with a flat bed, and better delineation of this hazard is recommended. A south cardinal mark is recommended (defining a line beyond which boating

activity shall be carried out with extreme caution) to limit vessel use adjacent to Cullendulla Beach. The line shall be defined approximately from Hawkes Nest to the southern extremity of the Cullendulla Shoal.

## Signage

One issue that has arisen on other estuaries and is considered relevant is undesirable proliferation of signage. Too many signs can be confusing and unsightly, particularly in the largely natural reaches of the estuary beyond Nelligen. It is accepted that regulation of heavy boating traffic below Nelligen requires both signage and channel markers.

For this reason, the signage proposed under this Plan on the estuary beyond Nelligen is recommended to be kept to a minimum required for safety and clarity of regulation. For instance, unmarked hazards in the shallow regions of the upper estuary or its tributaries, such as shoals and snags, are not considered an issue requiring signage or markers.

Waterways' Boating Plan indicates that caution must be shown upstream of Nelligen as shoals and snags are unmarked. The vessel master will be required to maintain a proper lookout in these areas.

## The Bar

Bar depth has been reported over the last few decades as varying between 0.6 metres deep up to 1.5 metres on rare occasions. The depth of water over the bar is about 1.1 to 1.2 metres below ISLW (i.e. 0.0 metres on the tide chart datum) (Waterways Boating Officer, pers. comm. May 2003). The Batemans Bay Sailing Club surveyed the bar depths in April 2003. The shallowest point on the best approach was 0.86 metres below 0.0m (tide chart datum). Club members confirm that the bar depth has slightly improved over the intervening period.

Bar depths at various tides are approximated as follows. MLW and MHW refer to Mean Low Water and Mean High Water.

Tide	Water Depth over Bar (metres)
ISLW (zero on tide chart)	1.1 to 1.2
MLW Springs	1.3 to 1.4
MLW Neaps	1.6
MHW Neaps	2.4
MHW Springs	2.7

The largest draft vessel presently on the bay is a yacht that draws almost 1.9 metres (Waterways Boating Officer, pers. comm.). A number of other yachts draw 1.7 metres. These vessels must avoid low tides before attempting a bar crossing.

Past dredging of the bar for navigation by the then Public Works Department was routinely carried out for coastal steamers until 1951. From 1951 to 1964, dredging was intermittently done on three occasions.

The bar was typically dredged to depths of 2.1 to 2.4 metres. Reports of these past dredging exercises confirm that the channel would shoal rapidly within 4 months to 1.5 metres depth; thence more slowly to 1.2 metres, a depth which was retained for several months. This behaviour is consistent with experience elsewhere and expectations based on the mobility of bar sediments under wave and current action. (WBM Oceanics October 1999).

Submissions to the Estuary Management Study have proposed further technical studies into bar depth and options for management intervention. There have been a number of technical studies of estuary processes and these would provide a useful basis for a scientific and cost-benefit analysis of bar dredging and/or other techniques of improving bar safety and depth. The Estuary Management Committee supports a study into enhancing the navigability of the Batemans Bay bar. This would

consider other initiatives to improve the safety of bar crossings including the local dissemination of information to mariners.

Precise (survey-accurate) bar soundings are not routinely gathered on the NSW coastline. Waterways take local soundings on a regular basis and in response to complaints. The sailing club routinely takes bar depths in the sailing season. It is suggested that, given the bar's dynamic nature, a proactive monitoring and reporting procedure should be formulated by the State Agencies responsible for small ports and marine safety. This information could provide regularly updated data to allow Waterways, or Royal Volunteer Coastal Patrol members, to respond in detail to requests for information on the bar, noting that charts recommend that mariners seek local information before undertaking a bar crossing.

It is noted that the eventual relocation of the RVCP headquarters will provide improved line of sight to vessels crossing the bar, allowing improved verbal assistance while crossing the bar. It will also improve response times in the case of incidents.

A further possibility is a web-based database of NSW bars, noting that legal liability issues make it essential to provide the best available information.

Lead lights marking the bar crossing location are in need of a larger range of movement. The current best channel alignment is currently just south of the new leads. Leads will continue to require regular reassessment by Waterways to reflect the latest bar dynamics. The information database referred to above would assist in identifying when leads require adjustment. Sensitive clearing of dunal vegetation will at times be necessary in accordance with past practice to maintain visibility.

### **Shortage of Moorings**

There is a shortage of moorings in Batemans Bay. The most recent moorings have been issued upstream of the bridge. If large vessels were routinely moored in this area, this practice could lead to increased demand for opening the Princes Highway Bridge. Further, large river floods would place these vessels at some risk. The practice is not considered sustainable for large vessels in the long term.

Consideration of a new mooring area for offshore users is warranted in the partial lee of Square Head, south of the end of the Cullendulla shoal. This area is considered suitable for approximately 20 new moorings (Waterways, pers. comm.). Impacts on seagrass along the edge of the shoal will need to be managed in the design of the mooring area. Environmental assessment procedures should be rigorous, considering both on-site and potential off-site aspects. Discussions should take place with staff from NSW Fisheries and other state agencies early in the concept design phase of this project, should this proposal proceed.

It is noted that this mooring area would provide offshore access without involving a bar crossing. However it has no nearby dinghy access or parking for vehicles. It would be ideal for those offshore vessels that may be used irregularly.

### **Batemans Bay Marina**

The marina has insufficient berths to meet current demand. Two levels of expansion are possible:

- About 10 more berths could be made available by an extension of the proposed finger wharf for the marine pumpout facility. This facility will provide two temporary berths for access to pumpout equipment and ultimately for refuelling. It is currently (June 2003) delayed pending resolution of non-domestic sewage connection approvals. This expansion would utilise the recently dredged area immediately upstream of the Harbour Marine lease site.
- A major downstream expansion of the marina onto the sandflat would require an Environmental Impact Statement addressing all environmental issues. It could either be motivated privately, which would require a public expression of interest process to initiate selection of tenderers for the project, or by a public trust. Ability to access major sources of funding will probably determine this issue.

Expansion of the marina would slow the unsustainable growth in swing moorings and cater for the growth of boating on the south coast. The Department of Lands are currently considering a number of proposals for expansion of the Marina, including future Marina operation arrangements. It is to be recommended that, given the recent growth of Batemans Bay as a regional centre, the expedited marina expansion be given the highest priority by the Department of Lands. It is considered that this expansion should only occur after sewage pumpout facilities are fully operational at the marina.

Previous discussions about a Trust to operate the marina have not led to any result. The concept of returning all revenue from mooring fees etc to the marina is sound. However, concerns about the age of the facility and the costs of essential repairs and maintenance have not been addressed. The concept of a trust for the marina should be further investigated after a detailed report has been prepared on the state of all marina assets. The trust format should allow primarily for the needs of the local boating industry.

## **Refuelling**

The issue of lack of refuelling facilities at the Marina is in need of attention. The proposed jetty to house the marine pumpout has been designed with allocated space for fuel bowzers. Harbour Marine previously had ownership of the only in-ground fuel tanks in the immediate locality. These have been removed under a Workcover requirement.

Once the pumpout jetty was completed, it would be timely to advertise for fuel supply businesses to tender for a card-operated bowser facility at the Marina. It is not clear who would have this responsibility. Certainly refuelling is an integral part of boat ownership, so it is suggested that the Marina owners should take a proactive role in encouraging the development of a suitable facility.

## **Water Quality Considerations**

The Clyde River is recognised by the NSW Government as one of the State's most pristine estuaries. It is the State's third-largest oyster producing estuary, an industry that relies on good water quality, with particularly human-sourced bacteria and viruses the major threat.

It is essential to actively manage these key attributes of the estuary and to reduce potential boating impacts on the waterway's excellent water quality record. The significance of the local oyster industry and the potential impact of increased waterway use must be carefully managed.

All boating activity is to comply with the Protection of the Environment Operations Act 1997 (PoEO Act) legislation. This makes it an offence to pollute the estuary. The issue is relevant for the Clyde River, the Estuary Processes Study pointing to areas above Nelligen as being particularly poorly flushed.

All boating activity is to be carried out on the estuary in compliance with the PoEO Act. Human waste in particular should be collected and disposed of responsibly. This is a major consideration for the granting of moorings for vessels involving human habitation that are new to the waterway.

NSW Waterways plans to introduce its Waterways Sewage Plan, which will prohibit disposal of untreated sewage. Commercial and recreational vessels will need to meet different requirements under the Sewage Plan. Waterways propose that, by the next peak boating season, the following controls on sewage pollution from vessels will be applicable:

- Commercial vessels (Class 1 and Class 4 eg ferries and houseboats) will need to install toilets and holding tanks. Commercial vessels were identified as posing the greatest sewage pollution risk as they carry a significant number of passengers on board, or as in the case of houseboats, have people living on board for extended periods.
- Owners / operators of Class 2 or 3 vessels (eg fishing vessels) will be required to undertake the necessary steps to ensure that no sewage is dumped in the water (eg: small portable toilet). Owners of Class 2 or 3 vessels will not necessarily need to install holding tanks.

- Recreational boaters are not required to install tanks or portable toilets. Where toilets are not available and the boat is to be used for a long period, recreational boat owners can take a small portable toilet such as those used for camping.

Existing houseboat hire businesses based at Batemans Bay are well serviced by pumpout truck, which operates on demand in line with the booking schedule. If further houseboat hire businesses are proposed in future, they should also have a sustainable method of waste disposal. As a minimum requirement, they should be located in areas with pumpout truck access. Ideally, they should install pumpout infrastructure.

Clearly in order for the Sewage Plan to be feasible, accessible infrastructure is required. The following points are relevant:

- The provision of a sewage pumpout facility at the Batemans Bay Marina is proposed shortly to address vessels based on the lower estuary.
- A new dump point for grey water and portable toilets should be installed to service the Nelligen area. The Nelligen toilet block has been suggested as an ideal location as, although unsewered, it incorporates a storage tank that can be accessed by pumpout truck.
- A second marine pumpout facility could eventually be located at the Fishermans Jetty to cater for larger vessels that cannot readily access the marina facility, should this prove necessary.
- In the longer term, should the demand arise, a third pumpout facility located at Nelligen would be warranted.

Monitoring by council of informal camping and associated toilet facilities should continue. This refers to those parts of the estuary foreshore upstream of Nelligen that are utilised as waterskiing camps.



## 5. Consultation and Review

Distribution of the Draft version of this Plan for the purpose of consultation was undertaken by Eurobodalla Shire Council as follows:

### **LOCAL**

Batemans Bay / Clyde River Estuary Management Committee  
Eurobodalla Tourism  
Coastwatchers Assn Inc.  
Batemans Bay Local Aboriginal Lands Council  
Council's PWC Advisory Committee  
Advertisement of availability for public comment in local newspapers

### **STATE AGENCIES**

Department of Infrastructure Planning and Natural Resources  
NSW Fisheries  
Waterways Authority  
National Parks  
State Forests

This final version of the Plan has been amended to reflect submissions made, with responses ratified by the Estuary Management Committee at its meeting of 11 March 2004.

The Batemans Bay / Clyde River Waterway Users Management Plan will be subject to review on a five yearly basis, both internally by Waterways and with reference to Eurobodalla Shire Council and the Batemans Bay / Clyde River Estuary Management Committee. If significant redrafting of the Plan and waterway restrictions were to occur, public comment may be sought at that time.

If the outcomes of Council's review of PWC activities by its PWC Committee were to propose revision of the content of this Plan, the appropriate revisions shall be made without further consultation. This Plan considers the level of consultation by this council committee to be representative and appropriate, given the level of public involvement to date.

## 6. Recommended Actions

Arising from this plan, the following actions are appropriate. Those actions located in the lower estuary are depicted on **Figure 1** at the end of this document.

1. Carry out a full Environmental Review for proposed new mooring area in the lee of Square Head south of the Cullendulla shoal.
2. Install a 4-knot zone in Cullendulla Creek.
3. Install south cardinal mark (defining a line beyond which boating activity shall be carried out with extreme caution) to limit boat and PWC use adjacent to Cullendulla Beach and Cullendulla shoal.
4. Convert the existing 4-knot zone south of Budd Island around the oyster sheds to a 'No Wash' zone and maintain 4-knot zone in McLeods Creek upstream of the entrance.
5. Extend the 200-metre exclusion zone to 300 metres from the PWC hire area to the southern end of Corrigans Beach. Relocate PWC hire area buoys to 300 metres off Corrigans Beach and assess impacts on PWC behaviour and noise.
6. Actively manage PWC usage and monitor complaint numbers by locality.
7. Monitor boat use in the estuary above Cockwhy Creek and in the estuary's tributaries.
8. Enforce the Waterways Sewage Plan when introduced.
9. Formulate a proactive bar depth monitoring and reporting procedure to provide RVCP with detailed bar depth and channel alignment information to pass on to mariners.

These actions fall under the operational jurisdiction of Waterways Authority. Action 9 may have additional funding or survey / data collection components associated with estuaries that involve the Department of Infrastructure Planning and Natural Resources.

10. Provide approval to Waterways for the sensitive clearing of dunal vegetation around the bar lead lights.
11. Make application for funding to install grey water / portable toilet waste dump point at the Nelligen public toilet block.
12. Consider in the longer term possible additional sewage pumpout facilities at Fishermans Jetty and Nelligen.
13. Continue to monitor camping and associated toilet facilities on those parts of the estuary foreshore above Nelligen utilised informally as waterskiing camps.
14. Support the Estuary Management Committee to seek agency funding for a study into enhancing the navigability and safety of the Batemans Bay bar.

These actions fall under the jurisdiction of Eurobodalla Shire Council.

15. Encourage the provision of a refuelling facility at the Batemans Bay Marina, once construction of the marine pumpout jetty is completed.
16. Given the recent growth of Batemans Bay as a regional centre, expedition of marina expansion should be given the highest priority by the Department of Lands. This should only occur once the marine pumpout facility is operational.

**NOTE:**

Although marina-refuelling infrastructure does not fall within any state agency's responsibility, it is logical for the Marina owner, i.e. Department of Lands, to be proactively encouraging environmentally appropriate infrastructure at a focus of boating activity.

## 7. References

Eurobodalla Shire Council	Eurobodalla Waterways Infrastructure Strategy June 2002
Eurobodalla Shire Council	Report to Works and Facilities Meeting 10 September 2002 - Control and Limitation on Use of Personal Watercraft (including summary of Public and Industry Submissions)
Sydney Ports Corporation	Review of Recreational Boating Controls on Moruya River 2002
Waterways Authority	Corindi River Boating Plan of Management November 2002
Waterways Authority	Web Site <a href="http://www.waterways.nsw.gov.au">www.waterways.nsw.gov.au</a> accessed May 2003
WBM Oceanics Aust.	Batemans Bay Clyde River Estuary Processes Study - Water Quality and Sedimentation Components October 1999
WBM Oceanics Aust.	Batemans Bay Clyde River Estuary Processes Study - Ecology Component 2000
WBM Oceanics and Peter Spurway & Associates P/L	Batemans Bay / Clyde River EMS Discussion Paper 2003
WBM Oceanics and Peter Spurway & Associates P/L	Batemans Bay / Clyde River Estuary Management Study Draft March 2004
Webb McKeown & Assoc.	Draft Batemans Bay Waterway Infrastructure Strategy (Draft Report prepared April 2002 for Eurobodalla Shire Council)



Proposed Actions Waterway Users Management Plan on Batemans Bay

Figure 1