

Better Boating Victoria
Department of Transport
Email: BBV.communications@ecodev.vic.gov.au

PORT PHILLIP AND WESTERNPORT INFRASTRUCTURE MANAGEMENT REVIEW

Thank you for the opportunity to comment on the Port Phillip and Westernport Infrastructure Management Review. VRFish has been advocating that there has been an urgent and critical need to reform the governance arrangements in place for our boating infrastructure in Victoria.

VRFish congratulates the Victorian Government on their \$47.2 million investment in boating for 2019-2020, the establishment of Better Boating Victoria (BBV) and starting work on this important review.

VRFish was grateful at the opportunity to provide insights to the consultant in the preparation of the draft and to communicate key points of our Boating Infrastructure Position Statement.

In preparing this response, we have consulted our Access and Infrastructure Reference Group who have prepared responses to the focus questions in the review document and further detail can be found in Appendix 1 and 2. Please find attached:

1. Response to Focus Questions
2. Appendix 1: Parking at Boat ramps in the central region
3. Appendix 2: VRFish Boat Launching Facility Standards and Check List

As we embark on reforming the management of our boating infrastructure, VRFish urges that the desired performance measures and service level outcomes are also front of mind. As we reiterate within our response there is a need for another 3,500-car trailer unit parking spaces over the next 5 years and a desired service level of a maximum of 15 minutes waiting time when launching and retrieving.

Yours sincerely,



Rob Loats
Chair
Victorian Recreational Fishing Peak Body

10 January 2020

**Let's make fishing
better, for everyone.**

VRFish Response to Focus Questions:

Port Phillip and Westernport Infrastructure Management Review

Page 7 questions

- *What is my association with recreational boating in Port Phillip and Westernport Bays?*

VRFish is the peak body for recreational fishing in Victoria and has been operating since 1995. We have an active Access and Infrastructure Committee consisting of recreational fishing representatives. VRFish has advocated for improvements to the ramps in the central region for many years and we are very pleased that the Government is proceeding with this Governance review as it is sorely needed. VRFish completed the report "User Expectations and Improvements for Public Boat Ramps in Westernport and Port Phillip Bays" in 2010 which was adopted by the State Government and remains the definitive document cataloguing the ramps across the two bays.

We have a deep rooted and detailed knowledge of the issues around boat ramps and wish to support the review process to ensure that new governance arrangements succeed in delivering better services to the users who are predominantly our constituents.

- *What Facility do I most commonly use?*

VRFish is interested in seeing all facilities across both bays improved to deliver a better and more consistent service to users.

Page 8 questions

- *What should be included in a boating facility?*

All facilities need to be set up and managed to enable a quick and stress-free launch and retrieval of boats. The most essential assets are, that they are user friendly, do not damage boats and trailers and are safe to use. Facilities need:

- adequate parking;
- all tide/water level access;
- floating jetties;
- ramps that have at least 1 metre depth of water at the lowest water level with no risk that the trailer will drop off the end of the ramp;
- are easy to use after dark;
- have sufficient depth of water in the access channels to prevent motor damage.
- has webcams to allow the user to determine if congestion and parking will allow convenient use before setting out to the ramp

- have a sufficient number of ramps and parking to cope with peak demand.

During off peak periods in particular boat ramps are used by a variety of other users such as picnickers, dog walkers, cyclists, land-based fishers and many others. This means that there is demand for other infrastructure such as toilets, public BBQ's, seating and other facilities. While such facilities are certainly valuable in the vicinity of boat ramps they are not essential and BBV needs to be cautious about local land managers trying to cost shift such general public infrastructure into boat ramp budgets.

Regrettably, there needs to be some caution about the enthusiastic adoption of fish cleaning facilities at some boat ramps. Apart from the obvious cost and health and safety issues that arise with fish cleaning facilities, there is also the issue of congestion at peak demand times. It can be anticipated that some ramps would experience gridlock at peak demand if fish cleaning tables were to be provided and in such cases fish cleaning facilities should not be provided. Certainly, the priority has to be about increasing the capacity of boat ramps and adding fish cleaning facilities should be considered on a case by case basis along with wash-down facilities.

- *What assets are most essential?*

All of the assets that are required to get a trailer boat from the public road onto the water and the on water destination and back again without undue delays are the essential components of a successful boat launching facility.

Page 9 questions

- *Is there a facility that sets high standards for condition and management?*

The standards rating for a facility is in the eyes of each user. The opinion of a person launching a personal water craft would be very different to a person launching a large boat at a facility. The PWC requires a steeper ramp than a conventional boat. The car towing the PWC often needs to be backed into the water on a 1 to 8 sloped boat ramp. Some boating facilities are better than others in the two bays. Some have more good elements than others.

Launching Way is the ramp that the inaugural RACV boat ramp survey of 2019 voted as the best in Victoria. A key to this success is that the facility has manned access and traffic management in place and this helps to facilitate smooth operation even when the facility is operating at peak demand. Furthermore the facility manager acts as the chief advocate for the facility and is able to provide fully detailed advice to ensure that the infrastructure is managed to meet user needs. This result is a significant endorsement of the management because Launching Way is the largest facility in Australia and is land locked in a medium density suburban environment where overflow parking is traffic are both potential bottlenecks.

- *What features are important to me?*

All features that are required to get a trailer boat from the public road onto the water and the on-water destination and back again without undue delays are the essential components of a successful boat launching facility.

- *What capabilities and resources would a facility manager need to do their job better?*

The style of management comes from the attitude and skills of the person who manages/is responsible for the facility. If they do not own a boat and do not participate in water recreation or sports then their attitude to make the facility function better and the level of support offered is often less than a person who does. As soon as that person is replaced, the new person brings a new management approach. This is indicative of poor and inconsistent governance system.

What is needed is a manager and management system that embraces the value of boating and boating facilities and who has both the expertise and attitude to want to make the facility work. Boating facilities need to be their prime focus. The big problem with the old system was that the "Facility Manager" was a conglomerate of government departments, local government or a foreshore committee overseen by government departments. Boating facilities were not their prime focus or their skill base. Boating facilities are worth many millions of dollars to the economy of the state and the recreational health and wellbeing of many thousands of users, they need to be managed by a manager whose prime focus is boating facilities and that they are skilled at this.

Facility managers also need to be supported at the State Government level by specialists who can deliver the expertise needed to conceive, design and implement facilities that are fit for their intended purpose. They also need to obtain information about the usage of their facility so that appropriate planning and investment can be implemented. Again, this is a reason that webcams with appropriate software to count and record usage of facilities needs to be implemented.

Page 11 questions

- *What is your understanding of the role and responsibility of a facility manager?*

The role and responsibility of a manager should be:

- Ensure that the facility has good functional design/layout
- The facility is user friendly to all users
- The facility is safe for all users

Whether it works is based on their skills, attitude and the importance rating they give to the task.

- *What additional support do they need?*

Regular feedback from users of the facility. Central standards and procurement of special boating specific goods and services such as pontoons and dredging. It needs to be noted that Australian Standards are not adequate to provide users with the standards required to meet their needs.

- **Priorities for boating investment**

- all facilities are under the control of one body whose primary focus is on the facilities and in making them work. The Victorian economy needs this.

- allocation of project funding needs to be based on an assessment rating of the business cases for all proposed facility improvements/operation. Assuming all else is equal, priority will be

given to projects that create more capacity and reduce delays in launching and retrieving. Demand information from webcams is necessary to do this effectively and efficiently,

- The controlling body needs input and feedback from the users to ensure that spent money is providing the expected good outcomes.

Page 12 questions

- *What information do you want to know before using a facility?*

The most important information needed by the user is whether there is congestion at the facility and whether parking is likely to be available. The other information that is of interest is the wind speed, barometric pressure and the tide. Current fishing reports are also of great value.

- *Preferences for receiving information and providing feedback*

Preference is to access the information from a readily accessible website. Feedback could also be through a website.

- *Who should be responsible for collecting and assessing feedback?*

BBV should be responsible for collecting and assessing feedback as part of their decision-making process.

Page 18 questions

- *What are the other states doing well?*

The other states are providing much better outcomes than Victoria. A trip to the other states shows far better outcomes and boating facilities than we have here. They have had much better long-term funding arrangements than Victoria who have until recently used most of the funds raised from boating licences and registrations for general revenue.

- *What are the other states doing poorly?*

Generally, they are doing better than Victoria. However, there are several areas where we can lead rather than just follow their lead. One of these is in the area of using reserves for overflow parking. Because of our history of charging launch fees there has been experience gained in the use of manned facilities with controlled access and traffic at some ramps. This experience lends itself to controlled access being used more broadly at other ramps where nearby public reserves can be utilised at peak times to relieve parking and congestion. This development is particularly relevant to the central region and has the potential to be the lowest cost and impact approach available to achieve significant increases in car trailer parking capacity. Appendix 1 provides more detail about this opportunity.

Similarly, our interstate cousins do not appear to have done much in the space of providing webcams at their facilities. Because of the fact that we have such a large gap between demand and capacity at our central ramps, this is the lowest cost and easiest way to enhance the user experience while at the same time mitigating demand.

Interestingly webcams are also likely to lead to better overall capacity utilisation because users who have sworn never to launch on a weekend again due to past bad experiences may be persuaded by an on line image that shows they can in fact launch without delay during a supposed peak period.

Webcams will also provide the missing link of usage data which is essential to inform project prioritisation and planning.

Unlike our interstate counterparts, we do not have a group of experienced boating infrastructure specialists at the State Government level. This means that we have to rely on standards to inform decisions on how to design and implement boat ramp improvements. Unfortunately Australian Standards are out of date and do not deliver the facilities that users require so there is a need to develop standards outside the AS umbrella that do deliver what is needed. VRFish has knowledge of such standards and have provided Appendix 2 as a draft of a document that can be adopted for this purpose.

- *Any other feedback?*

The new management structure must have a panel of boating facility users to help it set work priorities and assess projects for funding. The structure of the panel needs to reflect the user profile of boating facilities and it needs to be expertise based.

BBV needs to have the ability to contract out parcels of specific works common to facilities across the state that will best be delivered by supply contracts administered by BBV. These are more specialised works of installing and maintaining boat buffers, pontoons, dredging of channels, cams for facilities, extending boat ramps etc. The past practices of various government departments having various duties and carrying out these works when and how they consider it necessary will not give a user-friendly outcome because boating is not their prime objective.

VRFish has been funded by the government to represent 838,000 recreational fishers, many of whom are boaters. It is mainly composed of volunteers. It has a component of volunteers who have promoted and dealt with boat facility issues for many years. Some other advisory groups have similar skills. BBV needs harness this experience and knowledge to develop its skills to move forward.

Obtaining advice from user groups is most important as the facilities are built for them to use. There is no single approach to get advice from all user groups in the state. BBV will need to develop its processes to establish relationships and get regular advice from user groups. This will take time and effort and is essential.

Appendix 1: Parking at Boat ramps in the central region

The VRFish position statement defines our views of the overall boating infrastructure for Victoria and it defines the need for another 3,500-car trailer unit parking spaces over the next 5 years to meet the desired service level of a maximum of 15 minutes waiting time when launching and retrieving. If these are adopted as the BBV targets for the region, it raises the very large question of how these additional parking spaces are going to be delivered. While there are obviously other upgrades and maintenance to boat ramps required to meet the overall demand, this is by far the most challenging aspect.

Provision of additional car/trailer parking can be delivered in a number of ways;

1. Additional formal parking bays at existing ramps using optimisation of available space to create additional parking.
2. Use of demolition waste or other clean fill to extend foreshore areas to enlarge the area available for parking.
3. Building new greenfield launching ramps.
4. Extend options for on street parking.
5. Utilise other nearby public parking capacity such as railway stations, sports grounds and educational facilities.
6. Re-configure nearby public reserves for controlled access overflow parking on peak demand days only.

We add some detail about each of these options as follows:

1. Additional formal parking bays at existing ramps using optimisation of available space to create additional parking.

The long term peak period congestion at many boat ramps means that this is nearly always going to be a zero sum gain with gains for trailer parking coming from losses for other users. Also if it results in permanent formal car trailer parking it tends to propagate ugly line marked and sign posted bitumen and concrete areas which are not ideal for near foreshore areas. For these reasons this is not likely to be a solution that brings any significant increase to peak period trailer parking capacity in foreshore areas.

2. Use of demolition waste or other clean fill to extend foreshore areas to enlarge the area available for parking.

This has been used successfully at Clifton Springs, Limeburners and St Helen's which are reclaimed foreshore areas where parking has been increased by approximately 300 car trailer units. Some other ramps in the central region could use this method to enlarge their trailer parking, although there is likely to be opposition from some on environmental grounds. Nevertheless, this is a relevant option that can be used to provide a cost-effective expansion of trailer parking at some ramps.

3. Building new greenfield launching ramps.

Any new greenfield ramps in the region will need to come with significant parking to be effective at delivering the increased capacity required. However, even if an aggressive campaign to deliver new

ramps is adopted, only hundreds rather than thousands of additional parking spaces can be expected. Therefore, greenfield ramp construction alone cannot deliver the scope of the capacity increase required. With population growth, potential greenfield sites should be identified and secured post haste.

4. Extend options for on street parking

Some by laws are being used by some councils to restrict trailer parking in residential streets. If all such restrictions are removed and on street parking near boat ramps is configured to allow effective parking of boat trailers, this would have a profound impact on overflow parking. It should be noted that neither residents nor boaters are particularly fond of on street parking but if there is no other option it is still better than leaving the boat in the garage.

5. Utilise other nearby public parking capacity such as railway stations, sports grounds and educational facilities.

There are often public parking facilities located within walking distance of boat ramps. If these are designed to facilitate trailer as well as car parking they can become multipurpose parking as peak usage for boat ramps is on weekends and holidays when other uses are off peak. This is potentially a way to increase parking capacity significantly on a no regrets basis with very little cost and could deliver significant capacity in some instances.

6. Re-configure nearby public reserves for controlled access overflow parking on peak demand days only.

This option is the most promising one for large amounts of very practical and low cost additional capacity. Many ramps have adjacent public reserves that are used as open green space. If controlled access can be obtained and operated accordingly this could deliver literally thousands of spaces across the region. In many cases this controlled access would cost relatively little other than some gates, roadways and drainage and it would allow the public reserves to maintain their public green space character and use for all but a few peak days of the year.

Implementation of this option does require engagement of intelligent operators who are able to forecast peak usage and be prepared to control access as required by users. This option is effectively useless if it is not operated in tune with user needs.

Discussion

There have been no new greenfield boat ramps built in the central region for over 50 years (with the exception of the Warmies at Newport that was built in 1980 but it replaced other ramps in nearby Williamstown so no net increase in ramps). In fact, some of the long established formal and informal ramps such as at Campbell's Cove and Queenscliff Abalone Shed and ramps in Williamstown and Ricketts Point have been closed so there has been a net reduction in the total number of boat ramps in the central region over the last 50 years.

When these ramps were first established they were often makeshift affairs and there was little or no formal ramp parking. This meant that the mostly semi-rural areas around these ramps had no formal

parking but there was unimpeded parking access to the informal reserves around these ramps. Over the decades these informal reserves have been replaced with much smaller formal trailer parking areas as well as areas reserved for other uses and “green” reserves. In some cases, such as North Road these changes have effectively rendered the ramp useless with only a handful of trailer parks available.

It is important to recognise that when we advocate for the use of adjacent reserves for overflow peak trailer parking purposes, we are in fact arguing for re-instatement of parking access where it had been when the ramps were first conceived and constructed.

Appendix 2: VRFish Boat Launching Facility Standards and Check List

The following is a *draft* report written for the VRFish Access and Infrastructure Reference group only to consider and evolve.

The Purpose of this Report

The purpose of this report is to create a VRFish document that assists VRFish volunteers involved in boating facility redesign processes and helps establish the VRFish approach to the new environment. It also covers the reality that Australian Standards do not ensure that users' needs are met at boat ramps.

The New Environment

In the past there was no single coordinating body for boating facilities. A range of Government departments were responsible for administering various aspects of boating facilities. The State Government has now created Better Boating Victoria to take over most of these government duties. Local Government and Foreshore Committees carried out most of the day to day duties and at present still do. Many Foreshore committees are currently under Government review. VRFish is currently reviewing its approach to the new arrangements and is working with Better Boating Victoria to best represent recreational fishers in Victoria. We need to encourage Better Boating Victoria to adopt a user-friendly approach based on experience of users and build them into their policies and documents as they develop them. This will reduce the future work load of VRFish.

VRFish is seeking that all Boating Facilities

- **Have good functional design/layout**
- **Are user friendly**
- **Are safe**

A. Functional design

Each site has its own range of functional use parameters. An in-depth understanding is needed of the various users of the facility and when they use the facility. An understanding is needed of others who may access the facility for other reasons and all other uses of the surrounding area, i.e. community markets, playgrounds, pedestrians, busy roads, environmental constraints etc. when assessing new or improvement boating facility proposals. Often special local council functions which compete for the overflow areas occur at the peak time boat use times i.e. Christmas. The Rhyll Boat Launching Facility is the drop off point for sick and injured passengers from the many cruise ships that visit Phillip Island to get the people in need off the water and into ambulances. We need to have a good understanding of what happens and when it happens.

A1 - Parking Capacity and Webcams

The number one priority for boating facilities is to have sufficient parking capacity for facility users when needed. A well designed and very functional facility is of little value if the users have nowhere to park while out on the water. Every facility review must include an analysis of the parking and if insufficient, examine all possibilities, no matter how difficult, to provide sufficient parking for the design life of the facility. In some cases, there may be surrounding land which may be negotiated to use only at peak times. Land use is at a premium around Melbourne and land managers do not want to open land to the public which only is needed at peak times and then suffers abuse from others

when it is vacant. Filling out over existing tidal areas to expand parking needs a rethink and more support. Past requests have often been rejected. Westernport bay is a Ramsar site for wading birds and needs boating facility carparks to be expanded. We really do need to get others to think outside their comfort zones and get politicians on side. Finally, in the last 50 years, the number of boat ramps and the amount of area for parking has decreased. We now need to reverse this trend and catch up with the growth in population over the last 50 years and plan for the future.

To best help users, webcams need to be installed at all boat ramps to show the level of parking in overflow carparks as well as the main parking areas. In busy facilities, the main parking areas are often full during high use times. While a view of the ramps and traffic is of some general interest it is the parking capacity that users need to know before committing to launch at a particular ramp.

A2 – Sufficient Depth of Water at the End of the Boat Ramp

Boats ramps should have at least 1m depth of water at the lower end of the ramp at all times/low tides. This is not possible at all ramps but needs to be a high priority design and operating function of boating facilities. Each ramp needs to be extended into the water as far as possible/necessary (eg 15m from low water mark). In tidal zones, large boats need to be able to use the ramps at low tides and in water impoundments, lakes and rivers the ramps need to be able to be used as the water levels rise and fall. Trailer wheels backed over the end of a short ramp often causes considerable damage to trailers and boats and places users at risk of injury when trying to recover the trailer. It is a safety issue when boats returning to the facility cannot access the facility at low tides when the weather is deteriorating.

In Victoria most experienced users use drive on and drive off techniques to launch and retrieve their boats. The increased sales of various types of boat catches is a testament to this trend. This practice has several distinct advantages over conventional launch and retrieval practices. The most important is that it allows the launch and retrieval process to be completed much faster than the float off and winch on practice. Secondly the propeller wake has the effect of scouring sediment from the base of the ramp which can reduce or eliminate the need for dredging. In addition boats that have crews greater than one can drive on and off without requiring berthing capacity.

Slab type ramps of sufficient length to avoid drive unit damage are required for drive on and off to be safe and convenient but this is a small price to pay for the overall reduction in ramp lanes and berthing that would be required otherwise. Simply put this means that increases in drive on and drive off reduces the cost of the physical infrastructure required for a given amount of users.

In NSW they encourage users not to drive on and off and it is understood that in part this relates to the risk of disturbance of polluted sediments and also because ramps are not necessarily designed to cope with the propeller wash. We should not follow this practice because we can achieve the desired user service level sooner by encouraging users to drive on and off and designing ramps accordingly.

A3 – Pedestrians and other Car Users

Boating facilities are built on the edge of the water and at a location which is often very appealing to others and has easy access. Pedestrians and other car users need to be separated from cars/trailers especially when they are being reversed. In very appealing locations this is very difficult but must be addressed. At high use ramps in attractive areas, pedestrian paths need to be clear of traffic or constraints such as fences need to be considered. The driver reversing a large boat has very poor vision behind the boat.

Design of boat ramps should include where possible a facility to control vehicle access. At peak times this can be used to turn away single cars for which no parking is available to reduce traffic and parking congestion.

A4 – Queuing at boat ramps

There needs to be equity in queuing at boat ramps so that the first car trailer unit to arrive in the queue is the first to have access to the ramp. Some ramps are not designed with this in mind and it risks serious issues of ramp rage if users have been queuing for a long time and are jumped by an arrival from the opposite direction.

A5 - Boating facilities need to be safe to use during dangerous water/weather conditions

This is a long-term VRFish goal. Many boating facilities have been constructed piecemeal over a long period of time by a range of authorities. Some give good protection from bad weather while others do not. The use of rock walls to shield seas in bad weather times is very costly and can generate substantial silting issues and on the other hand can offer very good protection when the local currents and parameters work with them. All boating facility reviews need to consider this issue and do what is possible to best achieve this goal.

A6 – Channel Dredging

This is a necessary and costly component of some boating facilities. It is of high priority that boating facilities are accessible at all times and that channel dredging is carried out promptly by the responsible authority when it is needed. Where possible, facilities need to be located, designed or modified to minimise the need for channel dredging.

A7 - Floating jetties are preferred instead of fixed high pier structures

Floating jetties at boating facilities are much safer and more user friendly for boaters to access than having to climb a ladder to access a fixed high pier structure. In tidal zones the ladders are immersed in water during each tide, grow slippery marine plants and are not safe for older boaters to use. Strong side currents pose a risk for floating jetties.

A8 - Walking distance to the parking areas

The walking distance to parking areas for boat facility users needs to be minimised. The longer it takes the user to park or retrieve their vehicle, the longer their boat is sitting idle at the ramp blocking other users. This lowers the efficiency of the boating facility and can be an issue for the user if their health is poor. If the overflow parking areas are a reasonable distance from the facility then we need to consider long boat holding areas for this delay. If possible, some disabled parking bays near the ramps may be beneficial especially if the parking areas are on higher level ground.

A9 – Fish Cleaning Facilities

There is no one easy answer for fish cleaning facilities.

Fish cleaning facilities need parking close by for the users. In very busy boating facilities, the parking needed for fish cleaning structures may inhibit the traffic flows and onsite fish cleaning may not be viable.

Fish cleaning facilities next to the water encourage users to throw their fish waste into the water. In a marine environment, this can attract marine animals such as seals which can be very aggressive.

Often the site is littered with fish frames and offal. The marine environment in shallow inlets may not be able to cope with the influx of this fish waste.

The cleanest way is to locate the facilities away from the water, connect it to the sewer or a local treatment plant and have the frames and offal placed in rubbish bins that are cleared daily by the council. The viability, location and size of fish cleaning facilities needs to be made on the local conditions and the volumes and types of fish being cleaned.

A10 - Facilities and Disabled Users

Facilities for disabled users vary from disabled parking bays to grab rails to help people pull themselves from the boat onto a floating jetty to lifting structures which lift wheel chairs in and out of boats. There needs to be enough disabled persons wanting to go fishing to justify the more expensive options. Better Boating Victoria needs to establish parameters and priorities for when facilities are constructed for disabled users.

A10 – Ramp Rage

Finally, ramp rage. Ramp rage comes from different circumstances. Some people become frustrated when the user ahead of them is inexperienced, very slow or is not prepared for the launching. The main one is when too many users want to use the ramp at the same time. Each launch/retrieval takes 3 to 6 minutes on the ramp. If 20 users want to use a ramp at a similar time, this will take 1 to 2 hours to clear the queue. Very busy facilities which experience multiple users at the same time need more ramps than specified in the Australian Standards. A dramatic weather change will often overload a busy facility as everyone wants to leave the water at a similar time. Two possible solutions are to build more ramps than specified in the Australian standards at high use facilities or to have a person at the ramp to help/ direct slow and inexperienced users during busy times.

B. User Friendly Assessment

Most boats are used for recreation pursuits. Boating facilities need to be easy and relatively quick to use and be stress free. This is not possible at all facilities especially during peak times but this needs to be the goal. When assessing new or improvement proposals include considering the following

VRFISH USER FRIENDLY ASSESSMENT			
Assessment Issues	Suggested standards	Facility Recommendations	Comments
B1 SIGNAGE			
	All signs need to be light reflective suitable for night use		
B1.1 Directional signage to guide users to the facility			
B1.2 Overflow Signage to guide users to specific external parking areas when the facilities parking is fully used			

B1.3 Warning signage where trailers can be reversed over the lower end of the ramp at lower tides which can entrap the trailer			
B1.4 Water speed limit signage if required			
B1.5 Shallow water signage if required for access channels especially if tidal			
B1.6 Parking Signage for securing boats to trailers and when using fish cleaning areas			
B1.7 Restrictive parking signage to prevent cars only from parking in car/trailer sites	For the local laws officers to book offending cars, the local council needs to enact parking bylaws		
B2 LAUNCHING AIDS			
B2.1 Light reflective line marking to help users reverse over the top of the ramp to the water and stay within their lane after dark.	Use of glass beads in the line marking paint, Preferably applied to the top of a kerb used to separate multiple lanes.		
B2.2 Flexible marker posts to designate lanes at the top of the ramp.	Can be considered		
B3 SECURING BOATS			
B3.1 Sufficient cleats/tie down points to secure the back and front of each boat to the holding jetties	Spacing 6m		
B4 PREVENTING DAMAGE TO BOATS			
B4.1 Boat buffers on the sides of floating jetties and piers to prevent damage to boats especially when exposed to cross currents, waves and wind.			
B4.2 Posts to prevent boats being entrapped under variable height connecting walkways and piers. To prevent boats being swept or blown	Posts at 1.5 metre spacing with buffer strips		

under structures especially when being pulled by a walking person.			
B5 ACCESSING AND EGRESSING FROM BOATS			
B5.1 Ladder spacing On fixed height piers, a ladder for each boat is needed for the operator to access the pier from their secured boat.	Say 5 metre spacing		
B5.2 Safe ladders with nonslip flat footsteps and hand rails			
B5.3 Disabled hand grab rail on floating jetties for infirm users or with poor balance to hold when accessing and egressing boats.	One located on the low use side of the floating jetty at each high use facility.		
B6 LIGHTING			
B6.1 Adequate facility lighting for after dark use. The lighting needs to be located and designed to minimise glare for drivers especially when reversing boats/trailers and approaching the facility by boat.	To Australian Standards of Lighting		
B6.2 Reflective markings or lights on channel marking posts			
B7 LANDSCAPING AND VEGETATION			
B7.1 Use of vegetation and landscaping that will not overhang access roads and parking to prevent damage to cars and boats especially gear and equipment on top of larger boats			

Max Fletcher 30/12/2019