

## **FEEDBACK TO THE BASTION POINT ALTERNATE OPTION H2 AND DEVELOPMENT COMPARISON 11 March 2012**

### **SBPC position statement**

- A low impact upgrade at the site of the existing ramp and without a breakwater as per the Panel's recommendations has always been the preferred outcome of our supporter base.
- We reiterate that the high impact Option 3b would not be accepted by the community and are pleased that the Government seems reluctant to ever approve this option.
- We commend the Government's recognition of our concerns with any high impact development at Bastion Point.
- We are concerned that the later Alternate Option H2 was not the subject of the Multi Criteria Analysis (MCA) and doubled the length of the proposed breakwater. This is unacceptable.
- Should the Alternate Option continue to prove unacceptable after further investigation, the initial Alternate Option H2 would appear to have scope for further discussion and negotiation.

### **Introduction**

SBPC acknowledge the work done by the project team to review the Bastion Point Project, and appreciate their willingness to look at alternative designs in order to find an acceptable solution to improved ocean access at Bastion Point.

We welcome the shift from Option 3b. Alternate Option H2 has distinct advantages in that it does not require a 100m road along the beach, does not involve major destruction of rocky reef habitat to create a channel, does not involve as much loss of native vegetation, has a less intrusive car-park, and cultural heritage archaeological sites are not as severely impacted. These are all positive advances, and the Bastion Point Project Team and Government are to be congratulated for affecting these changes.

We do however have a number of concerns with Alternate Option H2 which are deemed unacceptable by our supporter base. These are addressed in our submission.

### **Feedback to Alternate Option H2**

#### **A. Australian Standards**

We believe it is not appropriate to rigidly adhere to the boat ramp being sheltered from waves larger than 0.2metre height at the toe of the ramp as per the Australian Standards - Guideline for

Marinas AS3962-2001. We question the relevance, given that Bastion Point is not a marina, nor ever could be. We are also concerned about unforeseen consequences.

- The Standard referred to is a guideline only that leaves some room for variation in consideration of individual circumstances. The AS3962-2001 states that *“This document is intended for use as a guideline and should not be used as a design specification”*<sup>1</sup>
- Furthermore, the Inquiry Panel Report stated *“The Panel considers that this Standard does not apply well to ocean boat ramps and provides guidelines only, not specifications.”*<sup>2</sup>
- There are many ocean access and sheltered water boat ramps that would struggle to meet this Standard.
- If this Standard is stringently applied at Bastion Point, it will set a precedent for every future boat ramp proposal across Victoria at enormous expense.
- If this were to become the Standard for all boat ramps it may set the foundation for a legal argument around any incidents that occur at existing ramps that are found not to comply.

### Recommendation

1. AS3962-2001 to be used as a guideline for the boat ramp only. Other design details that take into consideration local needs and conditions which determine the use limitations of Bastion Point should be used.

### **B. 90% Usability**

We question the rationale for attempting to achieve 90% usability for an ocean access facility in this location.

“All weather all tide ocean access” was a design requirement issued to Coastal Engineering Solutions to inform the design of an ocean access facility at Bastion Point. This objective was unreasonable and resulted in the design of significant and inappropriate engineering structures, namely Option 3b. Similar to the Panel findings regarding Option 3b<sup>3</sup>, as a large structure purported to be a safe ocean access with 90% usability, Alternate Option H2 with its large breakwater *“will be attractive to inexperienced boaters and lead them to put to sea in conditions that are, or may become dangerous.”*

As part of this current review of possible options for Bastion Point, we urge that consideration be given to the fact that the open waters offshore from Mallacoota are accessible for as little as 60%

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<sup>1</sup> AS3962-2001, page 5, 1.1 SCOPE, Note 1.

<sup>2</sup> Ocean Access Boat Ramp, Bastion Point Mallacoota, Panel Report, October 2008, p 44

<sup>3</sup> Ibid, p 148

of the time. Wind strengths at Gabo Island and Mallacoota, over a 20 year period of records<sup>4</sup>, should be carefully analysed to realistically determine the % usability design parameters and subsequent safety analysis for Bastion Point.

### Recommendation

2. 90% usability needs to be replaced by design parameters based on a realistic assessment of prevailing weather conditions suitable for boating in local coastal waters.

### **C. Safety**

- Bastion Point has a good safety record as identified by the Inquiry Panel<sup>5</sup>. Drawing on yachting incident data and incident data from across the State to inform the Safety Audit seems largely irrelevant in determining ocean access requirements for Bastion Point.
- Bastion Point has an outstanding history of self regulation which should be recognised when making decisions about any new infrastructure, its design and associated risk management practices.
- Mallacoota does not have an adequate ocean rescue service and currently can only service incidents in daylight hours in moderate conditions. This factor has been disregarded in the risk analysis. Whilst risks associated with offshore boating are seen as being consistent with any ocean access facility at the site, the likely increased usage levels resulting from a significant upgrade will markedly augment the likelihood of serious incidents.
- There are inconsistencies in high risk ratings between H2 and 3b. The risks of *“breaking waves causing vessel to collide with other vessels and – causing vessel to capsize”*<sup>6</sup> are consistent with all options and are only likely to occur during larger swells or storm events when boats should not be using the facility. The revised risk tables show that this risk has been removed from Option 3b, when this situation is likely to result at all proposed facilities. This has further weighted the high risk ratings in favour of 3b. Furthermore, the assumptions quoted in the Revised Risk Tables<sup>7</sup> for both 3b and H2 indicate that *“wave conditions at the entry are relatively benign, sand build up will be handled by the proposed dredge, and good surfing conditions will not occur near the entrance to the channel.”* Consequently, extending the breakwater by 70 metres to increase sheltered water for boats during a mass return cannot be justified on these grounds.
- Prevailing weather conditions that could generate a mass return would be a sudden change from the west/southwest. The Bastion Point headland provides good shelter for some distance in the whole of its lee during these winds. This sheltered area gives vessels ample room in

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<sup>4</sup> Wind strength records are readily available from the Bureau of Meteorology

<sup>5</sup> Op.cit. Panel Report, p 50

<sup>6</sup> Alternate option H2, Final report, page 20, risk commentary, 6n, 6o.

<sup>7</sup> Revised Risk Tables, page 1 point 1,2&4.

which to comfortably “stand-off” while waiting for the opportunity to land and retrieve their boats. Relocation of the jetty will also increase the area available for vessels waiting to retrieve.

- We do not support the inclusion of navigation lights. They will encourage night boating - a highly dangerous practice and listed as a high risk activity.
- The distance from the car/trailer park for H2 is a significant improvement over 3b and provides much safer operating conditions.
- The designation of sheltered swimming beach and nursery surfing area are completely incorrect.<sup>8</sup> The area marked as sheltered swimming area is an area with rocks extending from the high water mark to a depth of about 1.5 metres and entirely unsafe for swimming. The main swimming beach is about 100 metres further west and the nursery surfing area is also further west.
- Locating the Jetty in the centre of the bay creates congestion and increases hazards by significantly restricting the manoeuvring area available for vessels departing the facility and also in the event of a mass return. Relocation to the east side of the bay and abutting the existing rock will relieve congestion and increase the area available for vessels waiting to retrieve.
- A heavily baffled jetty is likely to focus any refracted waves directly onto the ramp potentially creating serious risks.

### Recommendations

3. Assessments for Bastion Point should be made on the proposed boating facilities based on the requirements of the individual site, prevailing conditions, and usage patterns rather than incident data that is largely irrelevant.

4. The high risks associated with breaking waves in the vicinity of the entrance should be applied equally to all proposed upgraded facilities.

5. A search and rescue gap analysis on the projected increase in the number of boats accessing the ocean may be a requirement under The Australian Maritime Safety Authority Act 1990 and should have been subject to investigation for this proposal.

6. The risk analysis needs to include the limitations of the local rescue service.

7. We strongly contend that the jetty be relocated next to the east side of the boat ramp for the reasons outlined above.

8. The jetty should be closed to fishing to eliminate risk associated with fishermen using it as a fishing platform and any related hazards.<sup>9</sup>

9. The delineation of swimming/boating zone should be managed through well established and recognised management systems and regulations as occurs in most other locations where similar usage patterns occur.

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<sup>8</sup> Alternate optionH2, Final report, page 22, opportunities and constraints at the existing boat ramp.

<sup>9</sup>Alternate optionH2, Final report, page20, risk commentary, 11e

10. Navigation Lights should not be installed.

11. Further alternative mitigation measures for some of the high and medium risks should be investigated to find more appropriate solutions.

#### **D. Breakwater**

The presence of breakwaters in the design has caused much consternation: breakwaters introduce safety issues, visual amenity issues, and coastal process issues.

If breakwaters are deemed essential:

- The alignment of a breakwater along the existing rock platform is the preferred alignment as this will reduce construction and maintenance costs and be consistent with the natural rock structure thereby reducing the visual impacts.
- The length of breakwater determined by Cardno<sup>10</sup> is that all options tested will provide 90% usability. Consequently, options 2 or 3 at a length of about 70 metres would be the preferred choice in terms of minimising visual impacts.
- A reduced level of usability to around 60% would further decrease the requirements for the size of a breakwater.
- Any protective rock structure should not extend beyond the end of the natural rock to seaward.
- It appears that the first 50 or so metres from the ramp connection point to seaward is unnecessary as this area is protected by the existing natural rock structure and beach. Eliminating this section represents significant savings in construction costs and visual amenity.
- The outer end of the breakwater should be kept to as low a profile as possible (no more than 1.8 metre AHD.) and of an uneven alignment to reduce the visual intrusion of the hard and straight lines of a traditional breakwater structure, and to provide adequate sightlines for boaters in the interests of safer navigation.
- We strongly urge that the absolute minimum in terms of rock walls and structures be constructed in the short term as it will be much easier to extend or increase these structures if they are found to be inadequate than it will be to remove them if they are a complete failure or an onerous burden on the taxpayer as many contend.

#### Recommendations

12. That the breakwater be aligned to the natural rock.

13. That the size be limited to the shortest practical length and lowest practical height for the reasons outlined above.

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<sup>10</sup> Cardo, appendix A, Coastal Modelling, page 10

## E. Environment

H2 has reduced environmental impacts to a level that is far more acceptable. However, some concerns still remain.

### a. Landscape Values

- Bastion Point is part of a significant coastal environment which is recognised for its outstanding qualities in numerous Government documents. It also forms part of the Mallacoota and Inlet Foreshore, recognised by the National Trust (Vic) as a Classified Landscape. Classified landscapes are regarded by the Trust as essential parts of Australia's heritage which must be preserved. The Inquiry Panel stated:

*"It has not escaped the Panel's notice that the wilderness values, significant coastal landscapes and natural beauty of this area are given prominence in nearly all the policy documents sighted."*<sup>11</sup>

- Given the acknowledged significance of the area, and the importance of these landscape qualities to so many visitors and locals alike, we believe "visual amenity" deserves a far higher overall MCA weighting than the 3% it has been given. It seems extraordinary that it has received a far smaller rating than "usability" (10%). We draw your attention back to the Panel findings:

*".. that the landscape and visual values are very significant, and should be given considerable weight in the overall evaluation"*<sup>12</sup>

- Initially, the aim of H2 was to provide a "discreet" breakwater to improve the "usability" level of the Alternate Option. However, the resulting breakwater footprint of 130m length can in no way be called "discreet." By increasing the length as per the Bastion Point Boat Ramp Alternate Concept image, the Department has disproportionately prioritised safety over environmental concerns.
- The insertion of a 58 metre jetty into the middle of the bay represents a significant visual intrusion which we find unacceptable.

### Recommendations

14. Decisions concerning Bastion Point need to remain consistent with relevant coastal and environment policy. The National significance of the Bastion Point coastline warrants extraordinary measures to ensure that any structures that provide improved ocean access meet the highest standards of visual amenity.

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<sup>11</sup> Op.cit. Panel Report, p 24

<sup>12</sup> Ibid, p 88

15. We urge the Department to help correct the imbalance that has occurred, and give visual and environmental values their due weight when making final decisions on the project.

16. The visual amenity of construction techniques and associated infrastructure of any proposed development must be a prime consideration.

17. Landscape architects and community representatives must be involved in the very early concept design phase to ensure the best possible outcome in terms of minimising visual impacts on such a sensitive and highly valued coastline.

18. We urge the project team to place strong emphasis on best practice to reduce all visual impacts:-

- review the need for breakwaters and if deemed necessary, look at methods of reducing impacts by keeping length/height/width to an absolute minimum,
- choose rock or treatment plus alignment profile to blend in with the existing reef, and
- only place rocks in areas where they are required for protection of the ramp.

19. Relocate the jetty east to abut the natural rock platform so that it blends into the background as much as possible.

*b. Geological/geomorphological values*

Whilst it is claimed these recent studies have taken the Inquiry Panel findings into account, we find it remiss that the geological and geomorphological significance of the area and impacts on them by 3b (and to a much lesser extent H2) have not even been considered as part of the “environment” category in the MCA, and formed part of the subsequent assessment. To be noted:

*“the Panel considers the geomorphology and associated educational values as an important contribution to the overall landscape and significant natural features of Bastion Point”.<sup>13</sup>*

Recommendation

20. Geological/geomorphological values should be considered in further assessments, and given due regard as the project continues.

**F. Sand Management issues**

- Although sand issues will remain for all options, our concern is with the interference of coastal processes by breakwaters (3b and H2), and the uncertainty that surrounds the potential impacts.
- It is highly unlikely that a baffled jetty will assist in sand transport mitigation in any significant way unless the baffles have no gaps and are inserted into the sea bed. This construction

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<sup>13</sup> Ibid, p 86

technique would subsequently present serious issues with structural integrity during storm events.

- There are still scant details regarding dredging, the long term implications or where the dredge spoil will be discharged. We see the absence of detail in relation to sand transport and mitigation as an oversight in regard to the impacts of any development that includes breakwaters or alteration to natural sand movement.

#### Recommendation

21. That details of dredging be investigated to further inform any decisions related to breakwaters and other structures that may impede or alter natural coastal processes.

#### **G. Car/trailer Park**

- We congratulate the consultants on the improved parking design. It not only reduces the need for clearing of high quality vegetation, but it is a more appropriate size for Bastion Point.
- We support the concept of planning for average use. We consider 30 car-trailer parks appropriate due to safety considerations at the boat ramp facility.
- We commend the inclusion of a bio filtration pond to assist with the management of stormwater.

#### Recommendation

22. Retain the proposed size and layout of the car-trailer park. Resist any temptation to expand boat trailer parking to cater for peak use conditions. Some consideration of parking and traffic management for other day use visitors may be appropriate.

#### **H. Costs/Economics**

The following points arise from economic modelling of the various options as seen in Appendix A.

- The Benefit Cost Ratio for all options is well below 1, and do not suggest strong economic reasons for proceeding with any high capital cost developments.
- Such development indicates that taxpayers' money is being poorly spent.
- There is a likely net negative effect on tourism.
- The high ongoing operating costs (\$269,000) suggest unreasonable demands will be placed upon ratepayers. (from \$111-\$413 subsidy per launch)
- The Panel stated an important consideration when developing boating infrastructure is *"...not to create facilities that may be a drain on the public purse"*<sup>14</sup>

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<sup>14</sup> Ibid, p 24



## Recommendations

23. Decision makers should review whether they can justify spending money on a project with such a poor economic return to taxpayers, and whether they are willing to risk the long-term tourism future of Mallacoota.

24. The East Gippsland Shire Council needs to give careful consideration as to how they plan to recoup these costs, on an ongoing basis.

### **I. Other users**

The planning for an ocean access boat ramp and associated breakwaters has become the main focus of use at Bastion Point. Recognition must be given to the fact that Bastion Point is used by many other recreational groups, such as swimming, bushwalking, beach and rock pool rambling. We believe “whole of site” planning should be undertaken to ensure the experience of all users is enhanced.

## Recommendation

25. A boating facility should be part of overall site planning for the area, not dominate it to the exclusion of other users.

26. The needs and rights of surfers require full consideration in the Operational Management Plan.

27. Consider and implement the Panel’s recommendations<sup>15</sup> and suggestions for the Special Use Zone.

### **J. Conclusion.**

The preferred position of the SBPC, and thereby its supporter base, has always been for an improved facility at the existing site, without break-walls, as per the Panel recommendations. We reiterate here the Panel’s reference to boating policies:

*“Whilst there may be a need for upgraded boating facilities in areas of Victoria, the Panel considers issues such as boating safety, infrastructure maintenance and environment protection are referenced very strongly in both the VCS and Boating CAP. Thus the starting point is to avoid increasing risk; to protect the natural environment (environment including social and cultural issues); and not create facilities that may be a drain on the public purse in future.”<sup>16</sup>*

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<sup>15</sup> Ibid p 144

<sup>16</sup> Ibid, p 24

With modifications to our Alternate Option design and the introduction of improved management practices, this could still be the best option on safety, environmental and cost grounds. We request that you therefore give this further consideration.

Should any proposed low impact upgrades without breakwaters at Bastion Point be unachievable, after all risk mitigation measures have been thoroughly reviewed and exhausted, there is a number of mitigation measures that could be applied to the initial H2 design of the boat ramp and associated infrastructure. These we have suggested and outlined in this submission. We urge the Project Management Team to give careful consideration to the application of these measures to achieve a reduced impact which will be more acceptable to the majority of the community and visitors to Mallacoota.

## Appendix A: Analysis of Economic Features of Hyder Concepts

### Summary

The Hyder proposals for Bastion Point assess only the capital and yearly operational fees for the proposals for Bastion Point. This simplified analysis misses many of the aspects that should be considered in a benefit cost analysis of a project. We base our predicted number of new launches on our detailed counts of how recreational boating is distributed throughout the seasons. We find the benefit cost ratio (BCR) of the project to be 0.41 – not dissimilar to that found by the Inquiry Panel of at best 0.34. The best of the options was the Alternate option, however it still would not meet investment criteria of a BCR >1.

Of greatest concern is the likelihood that current visitors to Mallacoota would drop because of the decrease in amenity caused by breakwaters. In this analysis, we find that it would require a drop in current visitors of less than 1% for there to be a net negative effect on tourism in Mallacoota. This effect was noted by the Inquiry Panel.

The study finds that for the most likely maximum number of new boat launches attracted, the yearly subsidy by ratepayers will be \$413 per new launch. If existing commercial and recreational launches are included, this subsidy becomes \$111 for each launch. This is a high burden on ratepayers, and does not include depreciation.

This study finds that small changes in assumptions change the relative ratings of the options under the Multi-Criteria Analysis, such that if visual impacts were given a weighting commensurate to the loss in amenity, and small changes in capital costing for the Alternative Option were made, the analysis would rate the Alternate Option highest, followed by Alternate H2 and then Option 3b.

### Boating Demand

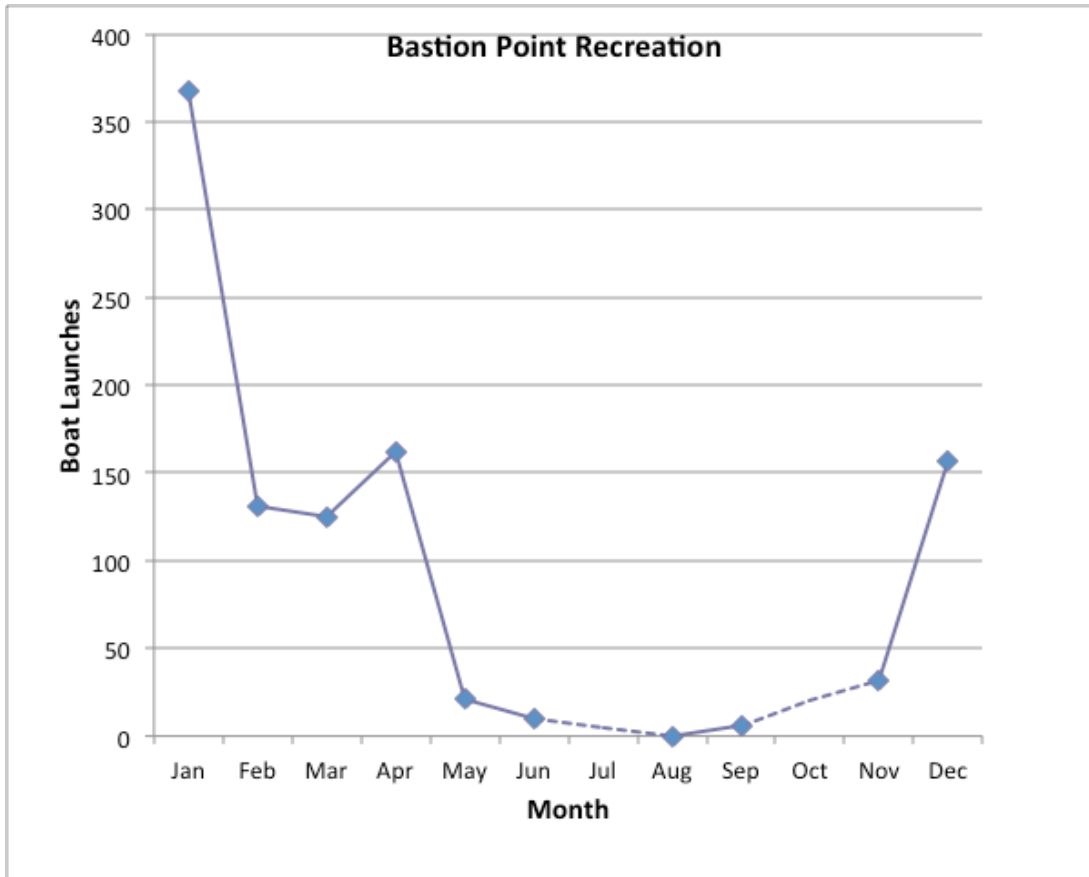
The projected demand is based on the results of the Boating Report completed by Save Bastion Point Campaign<sup>17</sup>. A table extract of current boating demand over the financial year July 2010 to June 2011 is shown in Table 1. The breakdown of the boat count for December 2010 (see Boating Report) shows that just 11 boats were counted in December until 25 December, and 148 were counted in the remaining days of December – an indication that ramp use is highly driven by holiday periods, rather than physical constraints of the ramp.

**Table 1: Boat counts for Bastion Point for year 2010/11**

2011							2010					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
367	131	125	162	21	10	5	0	6	20	32	157	1036

<sup>17</sup> Thyer, J and Parker J. Mallacoota Inlet and Bastion Point 2010-2011 Seasonal Boating Observations. [http://savebastionpoint.org/wp-content/uploads/2010/09/110829\\_Boating-report.pdf](http://savebastionpoint.org/wp-content/uploads/2010/09/110829_Boating-report.pdf)

This data is shown graphically in Figure 1.



**Figure 1: Bastion Point recreational launches August 2010 - July 2011 from Boating Report**

Adding all the launches from 26 December to 31 January gives 513 launches, which is 49.5% of all launches over the year occurring in just 37 days – with 530 launches occurring over the entire remainder of the year.

Given that the ramp options proposed by Hyder have a 30 concurrent boat limit, there is likely to be little or no gain in boating over the 26 December – end January peak, given the Boating Report found that the current ramp currently carries up to 64 boats concurrently on a peak day, and exceeded 30 concurrent boats on 5 days of the peak season. In addition, Mallacoota accommodation is saturated over this period, so it is unlikely that any significant increase in boating and tourism could occur over this period. If accommodation was expanded to cater for increased boating over this period, it would mean an increased surplus of accommodation would occur over winter.

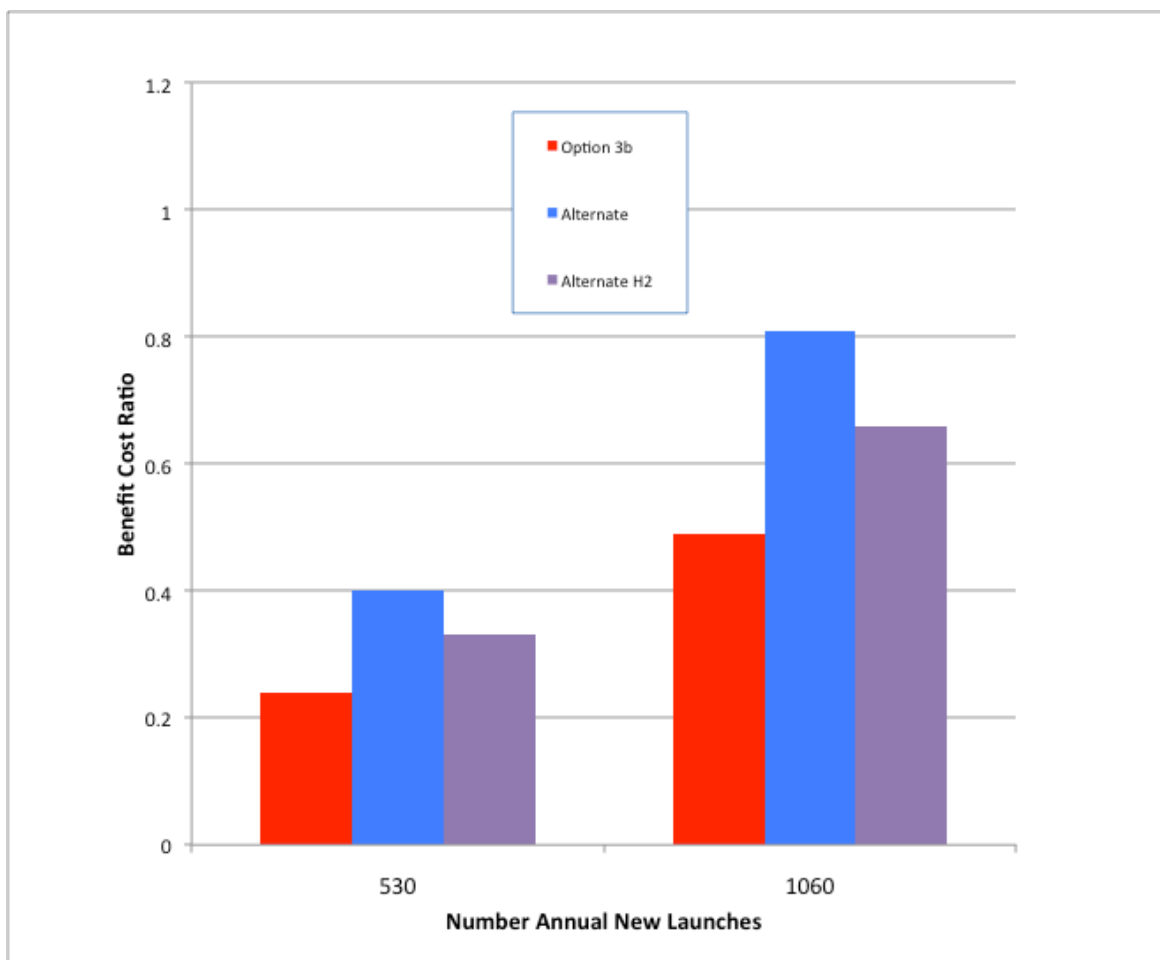
We thus see the months February to mid December as the months in which boating can increase significantly. In particular, there is little boating from May to mid December, and it is highly likely that this low use is driven by weather, the absence of holiday periods, and lack of fishing

opportunity. There is very limited game fishing in southern NSW over winter, and this period is likely to be longer in the colder Victorian waters.

It is thus most likely that the only months available for expanded ramp use are February to May. We consider that a doubling of the 530 launches that currently occur over the non-peak season is the maximum increase in boating likely to be achieved. We have also modeled a tripling of current boating as shown with 1060 boats, however we consider this scenario would be extremely unlikely given that it would need to increase demand over February to May to levels exceeding summer levels, and greatly increased boating over winter – with little current demand as discussed above.

### Benefit Cost Analysis

A benefit cost analysis has been done of the options using a discount rate of 6 %, in today's dollar terms can be seen from (Figure 2). The assumptions made in the calculations are listed in the Methodology.



**Figure 2: Benefit Cost Ratio of Options with 530 and 1060 new annual launches. It can be seen that none of the options reaches a level that gives an economic return on funds.**

It can be seen that all of these projects have a benefit cost ratio significantly below 1, with even the Alternate Option showing a 41 cent return on each dollar if the most likely maximum visitation rate

is achieved. As such all of these projects are a very poor return on public investment, but the Alternate Option performs best if it attracts the same number of new boat launches as the other options.

These returns on investment are similar to those calculated by the Inquiry Panel, who calculated a BCR of, at best, 0.34<sup>18</sup>.

### **Net loss to Tourism**

This evaluation goes beyond economic use of public money and into the likelihood that *real damage* could be done to the future economy of Mallacoota. The Inquiry Panel found<sup>19</sup> that for Option 3b, 'A 1% decrease in current visitors would wipe out any gains that are likely to be attracted through increased ocean access.'

The current analysis shows that this is a strong likelihood for the current proposal. If breakwaters in the Alternate H2 or Option 3b proposals caused a disincentive for people to come to Mallacoota – those who value the natural qualities of the beach, or with the possibility that surfing will be affected, there is quite likely to be a net negative effect on tourism in Mallacoota.

The raw figures from the analysis show that if boat launches are only doubled during the bulk of the year, from those 530 launches there will be the economic benefit of 2385 extra tourist nights in Mallacoota. The Buchan report<sup>20</sup> estimates that there are already 298,983 visitor nights in Mallacoota. If 1% of those existing visitors decide not to come to Mallacoota, there would be a reduction of 2,990 visitor nights – *a net negative effect on tourism*.

Therefore, it can be seen that the most likely increase in boating demand would be well surpassed by a small drop in current visitors.

The decision makers for this project must decide not only whether they condone spending public money on a project with a poor economic return to taxpayers – but they also must decide how much they are willing to risk the long term tourism future of Mallacoota, with the very real possibility that a 1% decline in visitors will outweigh gains in boating.

### **Cost to Ratepayers**

The economic cost for this boating is immense. All the options have a stated annual operating cost of around \$269,000, or this would be \$219,000 in new costs given the current ramp costs are \$50,000 per annum<sup>21</sup>. If the options were successful in doubling boating outside the Dec-January peak, there would be 530 new boat launches. The cost subsidy from East Gippsland ratepayers

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<sup>18</sup> Panel Report, October 2008, page 135.

<sup>19</sup> Ibid.p135.

<sup>20</sup> Buchan Report p 25. <http://savebastionpoint.org/wp-content/uploads/2010/07/Buchan-Rev-14-Nov-2010.pdf>

<sup>21</sup> Average cost of sand removal for current ramp, 2001 – 2011, obtained under FOI.

would be \$219,000/530, or \$413 per launch. In the unlikely event that boating was tripled, the ratepayer subsidy would be 269,000/1060, or \$206 per launch.

If this cost is spread to include all existing commercial and recreational launches (from the Boating Study this was found to be 839 and 1036 respectively), a total existing usage of 1875 is measured. If 530 new launches are added to this, the total number of launches becomes 2405. With an average subsidy per year of \$269,000/2405 = \$111 per launch. This is still a massive subsidy from ratepayers to commercial and recreational boat owners for each launch, and does not include consideration of depreciation/asset replacement, which is considerably higher for the breakwater options (Table 4).

**Hyder Analysis**

The construction cost of the Alternative Option is listed as \$2.4 million. Hyder increased this to \$3.2 million by adding the same high costs for project management that are applied to the more expensive \$6 million Option 3b. In addition, coastal modeling at a cost of \$250,000 appears expensive for the Alternate Option. It should also be noted that much of this work has already been done on Option 3b during the Environmental Effects Statement and follow-up design work.

If the capital cost of the Alternate Option was to fall below \$3 million, it would change the MCA ratings such that the Alternate H2 had a rating of 2.52, the Alternate Option had a rating of 2.46, and Option 3b a rating of 2.45. This immediately changes the way in which the options are ordered in preference (Table 2).

Further changes, such as the valid assumption that large breakwaters should receive the lowest score for visual weight (0.6%), and the Alternate Option receive the highest rating (the full 3%) would re-order the MCA such that the Alternate Option was the highest ranking option.

**Table 2: Effect on MCA of minor changes in assumptions**

	Hyder <sup>1</sup>	Capital <sup>2</sup>	Visual <sup>3</sup>	Vis & Cap <sup>4</sup>	Usability <sup>5</sup>
<b>Option 3b</b>	2.45	2.45	2.39	2.39	2.35
<b>Alternate</b>	2.36	2.46	2.39	2.49	2.46
<b>Alternate H2</b>	2.52	2.52	2.46	2.46	2.42

1. Based on Hyder figures. Note that Alternate Option increases to 2.36 as a result of uniform use of decimal places.
2. Deduction of \$250 detailed coastal modelling study for Alternate Option, and scaling of project management costs – raw rating for capital cost goes to 4.
3. Raw visual rating for Option 3b and Alternate H2 go to 1, Alternate Option goes to 5
4. Both changes as per 3. and 4. above.
5. Change Usability for option 3b and Alternate H2 to rating 4 (60-80% usability), change usability for Alternate to rating 3 (40-60%).

## Discussion and Conclusion

The BCRs of all the options do not suggest strong economic reasons for building a structure at Bastion Point with high capital cost, and high ongoing operating costs. It suggests that taxpayer, and ratepayer money will be poorly spent.

The economic case for the Option 3b development was made by the Buchan report<sup>22</sup>, which had relied on including existing recreational use as a benefit of Option 3b, and had included ramp usage and expenditure by Mallacoota residents as an additional input to Mallacoota – when in fact it can only be regarded as a ‘recycling’ of money within Mallacoota. The Buchan report also had an unexplained methodology for its demand forecast which lacked any consideration of seasonal boating demand, that the Boating Report shows is observable in Mallacoota Inlet, as well as Bastion Point.

The Marine Safety Victoria Boating Safety Funding Panel which recommended against funding Option 3b (but which was overruled by Minister Pallas) made the finding in relation to the economics presented in the Buchan report<sup>23</sup>: ‘The applicant has not established demand – the project does not respond to existing demand by recreational boaters but seeks to increase demand by its presence ....The case of demand from recreational boaters has not been made’.

This study of the economics of the current high capital cost large breakwater projects for Bastion Point (Option 3b and Alternate H2) is relevant to the findings of the Inquiry Panel, that found that for Option 3b, ‘A 1% decrease in current visitors would wipe out any gains that are likely to be attracted through increased ocean access.’

In addition (p3): ‘The Panel considers that the impact of breakwaters in the new proposals will have considerable impact on the wilderness and landscape values of Bastion Point and an overall net detriment to tourism’. If a net detriment to tourism occurs, not only will public money be wasted; there will be a poor outcome for the livelihoods of Mallacoota residents.

An adverse impact on other users must be expected for the large H2 and option 3b breakwaters, and this bodes poorly for a positive economic outcome from either of these developments.

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<sup>22</sup> Buchan Consulting, November 2010. Bastion Point Ocean Access Ramp. Economic Impact Assessment. <http://savebastionpoint.org/wp-content/uploads/2010/07/Buchan-Rev-14-Nov-2010.pdf>

<sup>23</sup> <http://savebastionpoint.org/2011/04/17/brumby-government-overrode-both-planning-and-safety-funding-panels-on-bastion-point-breakwater-to-secure-ingram-minority-vote/>



## Methodology of Analysis

A benefit cost analysis has been conducted for a project life of three boat ramp options for 30 years. The retention figure is the amount of tourism expenditure that is retained locally; for instance petrol/boat fuel has a low retention of around 7% (source ACCC), restaurant and groceries retention (Australian Bureau of Statistics) whereas for accommodation most tourism expenditure would be retained in local labour expenses (i.e. 86% retention). Where these figures could not be obtained independently they were estimated or drawn from previous economic reports on the development (Pryor 2005, CES 1998, Buchan 2010).

Direct boating expenditure is based on that supplied by Buchan.

**Table 3: Estimates of Expenditure retained in Mallacoota**

<b>Boating</b>	Expenditure \$	Retained	Net retained \$	Source
Fuel	80	0.07	5.6	ACCC
marine	50	0.4	20	Buchan
repair	50	0.8	40	Buchan
bait	30	0.36	10.8	CES(1998)
<b>Total per launch</b>	<b>210</b>	<b>0.4075</b>	<b>76.4</b>	
Accom	40	0.86	34.4	Pryor (2005)
Restaurant	30	0.5	15	ABS
Groceries	25	0.3	7.5	ABS
Recreation	15	0.8	12	estimate
Shopping	10	0.5	5	estimate
<b>Total per night</b>	<b>120</b>	<b>0.592</b>	<b>73.9</b>	

A 6% discount rate was used as per Treasury recommendations and as is standard for public infrastructure projects. Of note is that assumptions are constant between the three proposals examined, so any effect of their quantitative accuracy is reduced.

Tourism Victoria tourism expenditure figures of \$103 per night for Gippsland have been used<sup>24</sup> - however as these were for 2008, they have been increased to \$120 to account for 3 % CPI increases until 2012. This cost was used for campers, even though it would be an overestimate (recent research for East Gippsland Shire Council by Essential Economics<sup>25</sup> estimates this at the lower gross expenditure of \$70 per night for campers).

An average stay length 3 days has also been used given this is the average found by Tourism Victoria for Gippsland. Each boat was assumed to have three people, with two launches per 3 day period.

<sup>24</sup> <http://www.tourism.vic.gov.au/images/stories/Documents/FactsandFigures/gippsland-market-profile-2008.pdf>

<sup>25</sup> [http://www.eastgippsland.vic.gov.au/Your\\_Say/Mallacoota\\_Foreshore\\_Holiday\\_Park\\_Masterplan\\_-\\_Final\\_Draft\\_Issues\\_and\\_Opportunities\\_Report](http://www.eastgippsland.vic.gov.au/Your_Say/Mallacoota_Foreshore_Holiday_Park_Masterplan_-_Final_Draft_Issues_and_Opportunities_Report)

The capital and operating costs of all options are shown in Table 4. An asset replacement/depreciation cost set at 3% of the capital value, as suggested by the Department of Transport, is used for both options. Average annual costs for the current ramp (\$50,000) were subtracted from running costs estimated by Hyder for the three options.

**Table 4: Capital, Operational and Depreciation Costs for three options, used in discounted cash flow analysis**

	<b>Option 3b</b>	<b>Alternate</b>	<b>Alternate H2</b>
Capital cost	\$6,700,000.00	\$3,200,000.00	\$4,400,000.00
Running cost	\$219,670.00	\$216,270.00	\$219,670.00
3% depreciation /asset replacement	\$201,000.00	\$96,000.00	\$132,000.00
Total annual costs	\$420,670.00	\$312,270.00	\$351,670.00

The discounted cash flow analyses were run on the figures shown in Table 4. The Excel sheets used in the BCR may be obtained from SBPC on request, at [coordinator@savebastionpoint.org](mailto:coordinator@savebastionpoint.org) to enable entry of user defined variables such as launch numbers.