

Response to:

Bayside City Council
Bicycle Strategy
(Draft 2003)
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RESPONSE TO BEACH ROAD BICYCLE STRATEGY

Executive Summary

Beach Road Cyclists (BRC), in reviewing the Bayside City Council *Bicycle Strategy Draft (2003)*, compliments the Council on a visionary document that supports community cycling.

As part of that review BRC has identified a number of issues that would strengthen the document. BRC has also conducted its own independent survey of the usage patterns and preferences of bicycle users of the Beach Road roadway and the Bay-Trail path. We have found that:

1. The cyclists who use the roadway constitute an independent group to those that use the Bay-Trail.
2. The cyclists who use the roadway constitute between 85-95% of all riders (numbering over 4,500 on the weekend), of whom 50% ride in bunches.
3. The cyclists who use the roadway are most unlikely to use the Bay-Trail as it is too narrow, slow and dangerous for the training cyclist.
4. Any measures aimed at supporting cycling on Beach Road or the Bay-Trail should consider the impacts of such measures on all cycling cohorts and especially the safety implications for training road riders.

To facilitate the use of the roadway, BRC has a number of recommendations to put to Council, the most important being:

1. That Bayside Council has a duty of care in establishing a safe cycling environment on Beach Road

The other recommendations are:

2. An allocation of a standard lane width to cyclists on both sides of Beach Road
3. That parking be prohibited
4. That heavy vehicle activity be prohibited
5. That traffic speed be reduced
6. That the vision for Beach Road is to be the “best cycling venue in the world”
7. No reduction in roadway width
8. Driver education
9. Increased signage on Beach Road
10. That the Bay-Trail be promoted as a recreational facility
11. That Victoria Police be encouraged to act against aggressive vehicle drivers

Introduction to the Organisation of the Document

This document is organised in the following sections:

1. Introduces the Bayside Council *Bicycle Strategy* document and makes general comment on the Strategy from the perspective of training/commuting/road cyclists.
2. Discusses six key points arising from the Strategy to which the road cycling community wish to respond.
3. Considers survey and count data obtained on Saturday 6th, Sunday 7th and Wednesday 10th of December 2003 and relates this data to the six key points introduced in the previous section.
4. Makes recommendations arising from the six key points resulting from the analysis of the survey and count data.

Authors and support

This submission has been prepared with the support of the majority of bicycle users engaged in cycling activities on Beach road, including but not restricted to:

- TBA

TABLE OF CONTENTS

1. BEACH ROAD BICYCLE USAGE PATTERNS – ROADWAY –v– BAY-TRAIL, AND THE STRATEGY DOCUMENT	6
2. KEY RESPONSE POINTS FROM THE STRATEGY.....	8
2.1 RECOGNISE PRINCIPAL BEACH ROAD BICYCLE USER GROUPS.....	8
2.2 QUANTIFY CYCLING ACTIVITY ON BEACH ROAD.....	8
2.3 UNDERSTAND WHY CYCLISTS RIDE IN BUNCHES.....	8
2.4 UNDERSTAND THE EFFECT OF PROPOSALS ON TRAINING/COMMUTING CYCLISTS.....	8
2.5 UNDERSTAND THE LIMITATIONS OF THE BAY-TRAIL.....	8
2.6 ADDRESS SAFETY ISSUES REGARDING CYCLISTS & VEHICULAR TRAFFIC ...	9
3. ROAD RIDERS, BAY-TRAIL RIDERS, AND NUMBERS.....	10
3.1 RECOGNISE PRINCIPAL BEACH ROAD BICYCLE USER GROUPS.....	12
3.2 QUANTIFY CYCLING ACTIVITY ON BEACH ROAD.....	16
3.3 UNDERSTAND WHY CYCLISTS RIDE IN BUNCHES.....	17
3.4 UNDERSTAND THE EFFECT OF PROPOSALS ON TRAINING/COMMUTING CYCLISTS.....	18
3.5 UNDERSTAND THE LIMITATIONS OF THE BAY-TRAIL.....	19
3.6 ADDRESS SAFETY ISSUES REGARDING CYCLISTS & VEHICULAR TRAFFIC ..	23
4. RECOMMENDATIONS	25
4.1 RECOMMENDATION 1: ALLOCATION OF A STANDARD LANE WIDTH TO CYCLISTS ON BOTH SIDES OF BEACH ROAD.....	25
4.2 RECOMMENDATION 2: THAT PARKING BE PROHIBITED.....	25
4.3 RECOMMENDATION 3: THAT HEAVY VEHICLE ACTIVITY BE PROHIBITED	25
4.4 RECOMMENDATION 4: THAT TRAFFIC SPEED BE REDUCED.....	26
4.5 RECOMMENDATION 5: THAT THE VISION FOR BEACH ROAD IS TO BE “THE BEST CYCLING VENUE IN THE WORLD”.....	26
4.6 RECOMMENDATION 6: NO REDUCTION IN ROADWAY WIDTH.....	26
4.7 RECOMMENDATION 7: DRIVER EDUCATION.....	26
4.8 RECOMMENDATION 8: INCREASED SIGNAGE ON BEACH ROAD.....	26
4.9 RECOMMENDATION 9: THAT THE BAY-TRAIL BE PROMOTED AS A RECREATIONAL FACILITY	27
4.10 RECOMMENDATION 10: THAT VCTOIA POLICE BE ENCOURAGED TO ACT AGAINST AGGRESSIVE VEHICLE DRIVERS	27
5. APPENDIX 1: SURVEY QUESTIONNAIRE.....	28
6. APPENDIX 2: SURVEY DATA	29
7. APPENDIX 3: WEEKEND COUNT DATA	36

1. Beach Road bicycle usage patterns, roadway versus Bay-Trail and the Strategy document

This document has been prepared in response to the *Bicycle Strategy* recently released by Bayside City Council aimed at fostering and supporting a cycling culture in the City of Bayside. Beach Road Cyclists (BRC) supports the aims and objectives of the Strategy wholeheartedly and considers the thrust of the document to be visionary. BRC feels that support of cycling in all forms of participation should be encouraged and any Government or community efforts aimed at promoting involvement and safety in cycling are to be applauded.

BRC also feels that there is a number of issues relating to training/commuting cycling that could be further considered and that incorporation of modified strategies for training/commuting cyclists will enhance and strengthen the document. Whilst the comments articulated here relate primarily to Beach Road and managing the training/commuting cyclist community on Beach Road, many of the issues and ideas might also be considered for other popular cycling locations in the City of Bayside.

Beach Road as a cycling venue

Beach Road, Melbourne, from Mordialloc to Port Melbourne, is without a doubt the most popular cycling venue in the greater City of Melbourne, which is clearly the cycling capital of Australia. A very large number of cyclists from a broad area of suburban Melbourne utilises this road and the associated 'Bay-Trail', with riders engaged in all forms of cycling activities.

Whilst the Bay-Trail offers an exceptional recreational outlet for a large number of social, recreational and family cycling groups, it is without a doubt the roadway proper that has become the focal point for a very large number of training, and commuter cyclists – fitting the Government's *Active for Life* concept. For the sporting and bicycle-racing fraternity this has been the case for decades but in the last ten, and especially the last five, years there has been extraordinary growth in the number of cyclists utilising this road for purely training/fitness and commuting purposes, and these riders are drawn from a wide catchment across the community.

Beach Road offers a scenic, relatively flat location for riding with a limited number of intersections, traffic lights and similar disturbances to traffic and bicycle flow. As a result it is also a relatively safe venue for cyclists where large numbers of riders can be engaged simultaneously, accommodating higher speeds and bunch riding.

The reputation of Beach Road as a cycling venue is well known both nationally and internationally and this road has provided a training venue for former World and Olympic champions, as well as current elite riders and aspiring Olympians. Beach Road is also a cornerstone of Bayside's active, café life-style and these large numbers of riders bring substantive economic benefit to the area. Beach Road has the potential to become the premier recreational parkway in Australia (a current vision of Bicycle Victoria (pers. comm. Bart Sbeghen, Bicycle Victoria)) and, in the opinion of Robert Crowe (former Olympian and TAC representative) "is the best cycling venue on the planet".

BRC feels, however, that the world-class nature of Beach Road as a cycling venue may not be fully appreciated at Bayside. BRC believes that the incorporation of strategies aimed at supporting and optimising cyclist usage of the Beach Road roadway will strengthen the Council's Strategy, and that Bayside City Council has an opportunity to establish a world's best practice for what is potentially the world's best training/road-cycling venue. We also note with some interest that one of the objectives of the Strategy is to "Incorporate cycling into Bayside's local tourism and heritage promotions" (Bayside City Council *Bicycle Strategy, Draft 2003*; section B-8 p.47) and we feel that there is a fantastic opportunity for Council to develop and promote Beach Road as an outstanding cycling tourist destination for Melbourne.

BRC feels that Council and the consultants may not be totally current with the demographics of user groups and especially the numbers involved in Beach Road cycling. Further, BRC feels that an apparent focus in the document to promote access to, and usage of, the Bay-Trail may not achieve desired outcomes, but may in fact restrict training and commuting activities on the roadway with no substantive gains in cyclist participation elsewhere. Finally, we believe that any actions undertaken on Beach Road without a clear understanding of the issues affecting the training and commuting fraternity on Beach Road may disenfranchise the largest *Active for Life* cycling cohort in Australia.

2. Key response points from the Strategy

In this section we introduce six key points that, when addressed, we feel will enhance the Strategy. Each key point is considered from the perspective of the training/commuting cyclists using the Beach Road roadway.

2.1. Recognise principal Beach Road bicycle user groups

The Strategy in its current form does not identify the principal bicycle user group on Beach Road — the training/commuter cyclists — who collectively constitute the overwhelming majority of riders. These cyclists clearly fit the Government's *Active for Life* concept. Identification of key user groups on Beach Road will enhance the Strategy and more clearly identify user group needs.

2.2. Quantify cycling activity on Beach Road

The Strategy does not adequately quantify cycling activity on Beach Road, nor does it quantitatively compare rider numbers on the roadway versus the Bay-Trail.

2.3. Understand why cyclists ride in bunches

The Strategy, whilst mentioning the presence of bunches or packs of cyclists on Beach Road, does not consider why cyclists choose to ride in bunches. We also suggest that the Strategy proposes inappropriate measures to unnecessarily limit bunch riding.

2.4. Understand the effect of proposals on training/commuting cyclists

The Strategy document proposes measures for optimising access to the Bay-Trail. These measures have the potential to dramatically impact on the roadway cyclists and may contribute to reduced rider safety.

2.5. Understand the limitations of the Bay-Trail

The Council may not be fully cognisant of the actual users of the Bay-Trail and as such may not fully appreciate the limitations of the Bay-Trail as a cycling venue.

2.6. Address safety issues regarding cyclist and vehicular traffic

The Strategy could more effectively address the safety issues regarding cyclist and vehicular traffic interaction on Beach Road. Similarly, the Strategy could offer greater scope for safer cycling into the future as the expanding popularity of cycling as a sporting, recreational and fitness activity continues.

3. Road riders, Bay-Trail riders and numbers

To address these issues BRC initiated two related studies of bicycle rider activity on Beach Road and the adjacent Bay-Trail. The first of these was a counting exercise where the number of bicycle riders on Saturday, Sunday and Wednesday mornings was documented on both the roadway and Bay-Trail, along with other users of the Bay-Trail. This was undertaken on the 6th, 7th and 10th December 2003, between the hours of 6:30am and 10:30am; anecdotal information clearly indicating that the bulk of riders on Beach Road (especially on weekends) are present between these hours. The second study was a survey of training/commuting riders that had completed rides and were present at cafes along the foreshore in the Elwood and St Kilda areas. (Having breakfast and tea/coffee being a somewhat popular pastime for cyclists having completed morning rides on Beach Road between Mordialloc and St Kilda.) A copy of the survey is attached at Appendix 1.

The results of these studies are presented in this section along with associated analyses and a discussion of the relevant issues that are either discussed or not adequately addressed in the Strategy. Each of the following sub-sections relates the data obtained from the studies to the six key response points introduced in Section 2.

On the morning of 6th December the counting study also addressed the 'nature' of the bike rider by scoring the type of bicycle being employed and the location where the rider was engaged in cycling. There is a large amount of anecdotal information to indicate that riders who are engaged in training/commuting/sporting activities on the roadway of Beach Road will in almost all circumstances undertake this activity on a conventional road-type bicycle, i.e. a geared 27inch or 700c wheeled bicycle with drop-type handlebars. The converse of this is the riders who are more social or recreational in orientation and are, in most circumstances, engaged in riding other forms of bicycles such as hybrids, mountain-bikes, BMX bicycles etc. While accepting that there is a degree of overlap in this assumption, it is common knowledge amongst the cycling fraternity that this is in fact the case. It is also widely accepted amongst the cycling fraternity that those riders engaged in cycling on the Bay-Trail are most likely to be riding on a non-road bicycle and engaged in slower, less training-oriented activity. The reasons for this are articulated later in this document.

For the purpose of counting and surveys, BRC has grouped the categories of riders in the *Bicycle Strategy (Training, Commuting, Recreational, Children and Getting-Around* (Bayside City Council *Bicycle Strategy, Draft 2003*; p.14)) into the following groups: the road-oriented training/ commuting riders into training/commuting and the other riders into social/recreational. This is undertaken solely as a means of distinguishing between roadway and Bay-Trail usage for counting and analysis purposes and is based on anecdotal information and observation as previously indicated.

Next, we summarise the responses to the second study (the survey data) described above. The response to the survey was strong with 78¹ respondents. The results of the survey are available in Appendix 2 with percentage outcomes indicated. Actual completed replies with names and suburbs of origin can be provided if required; a breakdown of suburb origin of riders is provided as Table 1 in Appendix 2. It is clearly apparent from their suburbs of origin that riders on Beach Road are drawn from over a large area of greater Melbourne supporting the observation in the foreword to the *Bicycle Strategy*, “This study also acknowledges the role and importance of the Bay-Trail and Beach Road for cyclists. Therefore, a responsible cycling Strategy will, to a certain extent have to also cater for people outside Bayside”, (Bayside City Council *Bicycle Strategy, Draft 2003*; p.3).

Almost 50% of respondents indicated that they cycle five days or more while all respondents indicated that a sporting/training/fitness orientation best described their cycling practices. The roadway was identified categorically as the preferred cycling venue at 100% although 5% also indicated occasional use of the Bay-Trail. Almost 80% indicated they rode in bunches with the mean bunch size being approximately 25, and bunch sizes ranging from 10 or less to 140 riders (the Black-Rock to Mt Eliza Hell Ride constituting an outlier at 200 riders). The major issues that confront training/commuting riders were improved driver education (40%), eliminating parking on Beach Road (20%), eliminating bottlenecks to traffic flow (17%) and eliminating trucks (14%). Mechanisms to improve safety on Beach Rd were identified as elimination of parked cars (34%), dedicated lane for cyclists (24%), improved driver education (18%), increased signage supporting cyclists (15%) and elimination of trucks (14%). A range of other problems and safety issues were identified, these are articulated in Appendix 2, and the major issues will be addressed later in this document.

¹ Another 50+ responses were obtained via email after analysis was completed.

In the following sections we shall relate the data collected from the counting study and the survey to the key response points of the Section 2. The aim is to support our position in each of the six key response points using the data we have collected.

3.1. Recognise principal Beach Road bicycle user groups

Key point 2.1 states:

The Strategy in its current form does not identify the principal bicycle user group on Beach Road — the training/commuter cyclists — who collectively constitute the overwhelming majority of riders. Identification of key user groups on Beach Road will enhance the Strategy and more clearly identify user group needs.

It is suggested here for the purpose of roadway versus Bay-Trail usage that two groups of riders can be identified: the first (and in the overwhelming majority) is the road-oriented cyclists engaged in training/commuting activity, often riding in a bunch (see section on bunch riding) and in most circumstances riding a road bicycle. The second group of riders consists of those riding bicycles other than a road bike and who normally use the Bay-Trail.

The results of the counting study indicate very clearly that the overwhelming majority of riders on Beach Road are the training/commuting riders (using road bikes) who outnumber the Bay-Trail riders by an order of magnitude. These findings are presented in graphical format in Figure 1 to Figure 3 and indicate an average for the Saturday/Sunday mornings of approximately 2300 riders on the roadway and 97 on the Bay-Trail at Black Rock, and 2090 and 134 on the road and Bay-Trail respectively at South Road. For the Wednesday morning there were fewer riders utilising each venue than for the same time period on the weekend, however there was still an order of magnitude difference between the two cycling locations. Between 6:30am and 10:30am at South Road and Black Rock, there was an average of 465 and 61 cyclists utilising the roadway and Bay-Trail respectively.

Figure 1: Breakdown of cycle usage at Black Rock on Saturday and Sunday. 'Road on Road' means road bikes on the roadway; 'Road on Trail' means road bikes on the Bay-Trail.

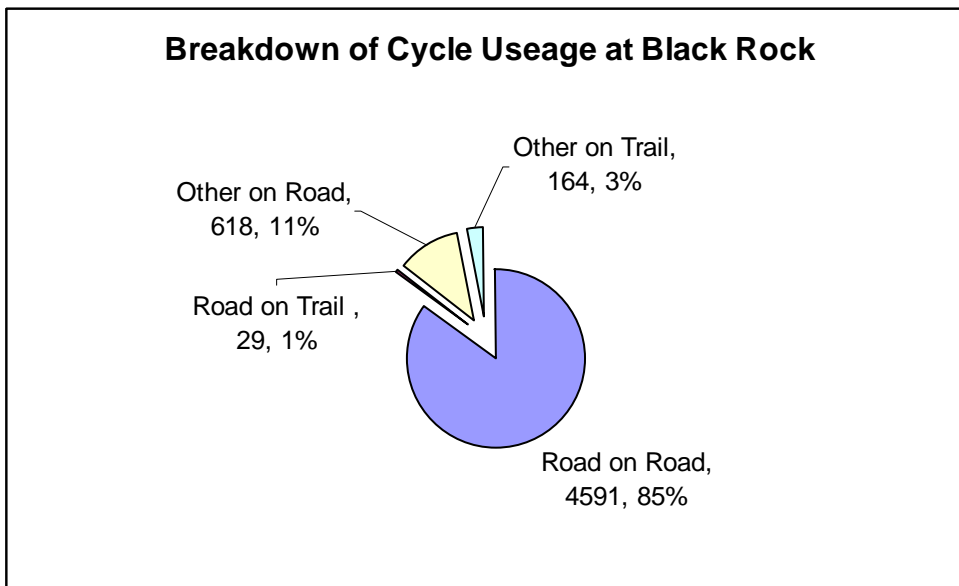


Figure 2: Breakdown of cycle usage at South Road on Saturday and Sunday. 'Road on Road' means road bikes on the roadway; 'Road on Trail' means road bikes on the Bay-Trail.

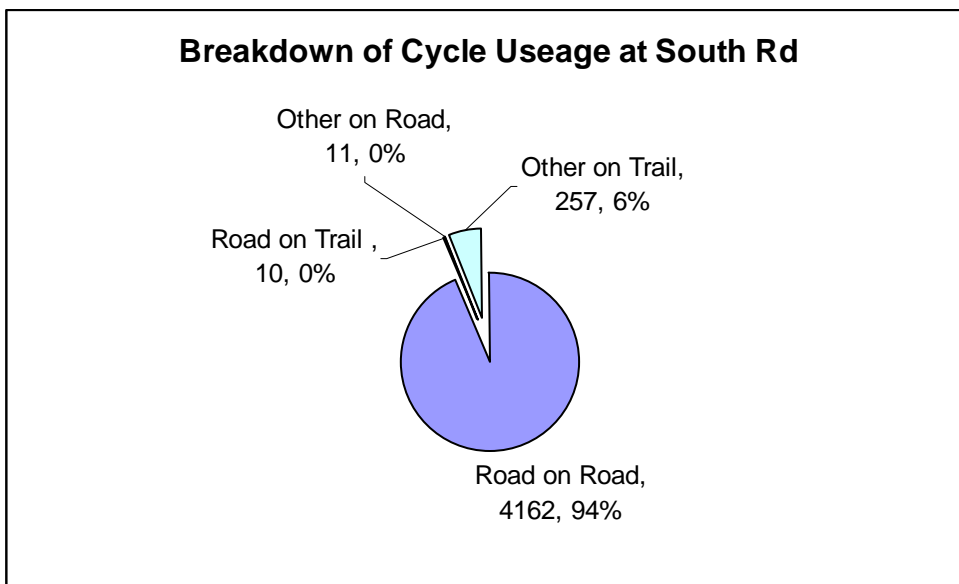
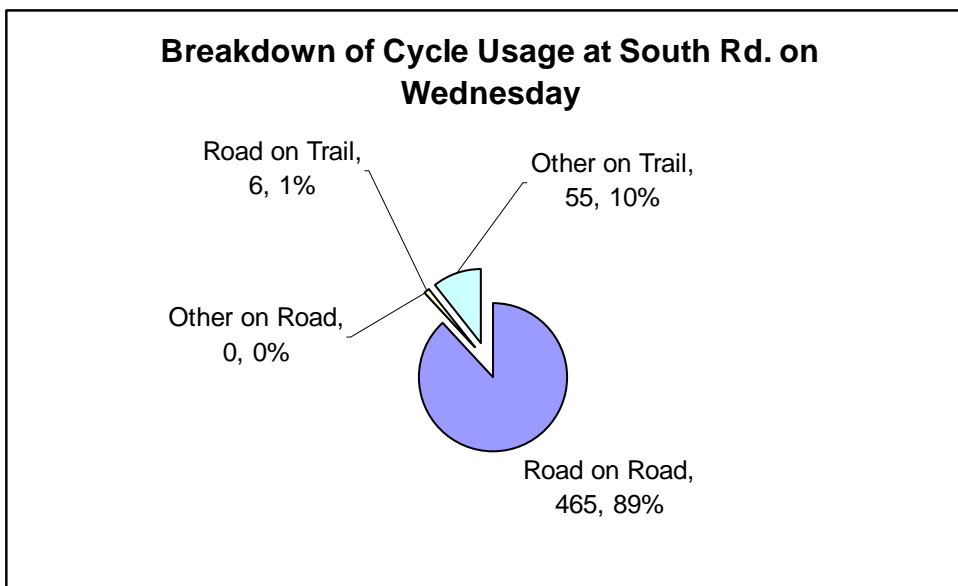


Figure 3: Breakdown of cycle usage at South Road on Wednesday. The usage %s are very similar to weekend usage. 'Road on Road' means road bikes on the roadway; 'Road on Trail' means road bikes on the Bay-Trail.



When considered on the basis of number of riders on the roadway as a function of time, for the weekend between the hours of 6:30am and 10:30m there were approximately 137 riders going in either direction at each of the two locations every 15 minutes; or almost 10 riders every minute! This compares to the Bay-Trail with less than one rider every two minutes. The number of riders on the roadway when considered in time intervals between 6:30am and 10:30am for both days, also follows a normal or bell-shaped distribution with a peak of approximately 235 riders for the 15 minutes between 8:45am and 9:00am for both days; i.e. 16 riders per minute at each location! This finding is entirely consistent with anecdotal observations of rider activity and numbers assessed over a considerable time-frame prior to undertaking the counts².

On the Saturday morning of the counting exercise the type of bicycle being utilised by the riders was also assessed and the findings were then analysed to ascertain if there was indeed a difference between the two groups, in essence: is there a preferred cycling venue for riders using road versus non-road bicycles? (The possible reasons for this are considered later with reference to the questionnaire outcomes.) The data was analysed statistically using a Chi-square 2x2 contingency table analysis to assess whether there is a difference in rider usage of the two surfaces based on rider/bike type (refer Zar 1984: Bio-statistical Analysis, Prentice Hall; New Jersey USA). The results for both locations indicated very clearly that there is in fact a difference in surface usage based on bicycle type, with a likelihood of less than 0.01 (i.e. 1 in a 100) that the findings are incorrect.

² On the Sunday morning of the counting exercise it is also perhaps pertinent that the numbers may have been affected/reduced due to the presence of a triathlon being conducted on the southern section of the Beach Road roadway near Mentone.

The results of this analysis when considered alongside the summary data for the counts indicate that there are two principal groups or cohorts of riders on Beach Road – at least on the mornings of weekends – with the training/commuting group riding road-bicycles on the roadway and in the overwhelming majority. This also complements results of the questionnaires where all riders described themselves as sporting/training/fitness oriented with 100% indicating they primarily use the roadway as their preferred cycling venue.

The principal issues confronting road cyclists, as indicated in the questionnaire have previously been articulated and manifest as:

A. Driver education

It is the premise of BRC that a significant issue confronting cyclists is the lack of awareness on the part of drivers as to the rights of cyclists and driver obligations regarding slower traffic. Moreover, these issues might be resolved and avoided through education of all road users as to the rights of different forms of traffic (cyclists included) and emphasising to drivers their obligations to other forms of traffic. The current Code of Conduct for cyclists being promoted by the TAC (refer Mr Robert Crowe) is an excellent example of how this might also be achieved for the drivers of cars and heavier vehicles.

A very significant issue confronting any cyclist on the road, and especially training/commuter cyclists, is avoiding interaction with vehicular traffic. A 'coming together' or accident with any form of vehicular traffic is extremely bad for any cyclist and will in many instances result in major injury and occasionally the death of the cyclist. Cyclists therefore (and especially training/commuter cyclists) are very conscious of traffic and will endeavour wherever possible to minimise such interaction. However, when traffic is heavy, roads are narrow, or constrictions in the roadway limit roadway availability (i.e. traffic bottlenecks), the potential for interaction is enhanced.

In these circumstances the flow of vehicular traffic is often slowed as traffic is required/forced to overtake the slower moving cyclist(s.) This quite frequently results in frustration on the part of drivers who, unaware of their obligations to slower traffic, may endeavour to overtake close to the cyclist(s) and without changing lanes or, as occurs in many instances, behave in a belligerent manner using their vehicle in such a way as to present a danger to the cyclist, or to engage in verbal abuse. These practices are very common and constitute nothing less than road-rage, and there are circumstances (due to personal communications) where situations have escalated to physical confrontation.

We note with a great deal of enthusiasm that education programs can be identified as a major element of the Strategy (Bayside City Council *Bicycle Strategy, Draft 2003*; p.4 & C-2 p.49), and would iterate here that the development of a safer and more friendly cycling environment will be underpinned by educating drivers as to their legal obligations to slower cyclists.

B. Car parking on roadway and traffic bottlenecks

Consistent with previous comments, the parking of cars on the roadway and traffic bottlenecks such as traffic islands have the potential to effectively decrease roadway width and push cyclists and vehicular traffic closer together. The mere presence of parked cars creates a further hazard from car doors which, when opened onto the roadway without adequate concern for approaching cyclists, create an extremely dangerous scenario for the bicycle rider. Almost all riders are aware of this danger and where parked cars are present riders will normally attempt to ride at least a door width away from the parked vehicle, effectively pushing them further onto the roadway and increasing the potential for interaction with traffic. It may be of interest here that in the European capitals (i.e. Copenhagen, Amsterdam) where cycling is a major (and quite often the dominant) form of transportation, dedicated and wide cycling paths are frequently provided for commuters on both sides of the road between the footpath and the parked cars thereby overcoming these problems. Whilst this might not be possible or desirable for Beach Road it would certainly offer a much safer option for cycle paths/routes on other roads.

C. Trucks

Large vehicles such as trucks and buses present a much greater problem than cars for cyclists unless they are kept well clear of riders. Such large vehicles require a greater share of the roadway relative to cars and any circumstance where constriction of traffic flow brings trucks/buses closer to bicycle riders is extremely dangerous. Requiring a greater share of the roadway also necessitates that these vehicles must change lanes to avoid riders and where this practice is not followed cyclists are often placed in difficult circumstances. Whilst the majority of heavy vehicles do indeed take adequate and appropriate action to avoid riders, there are quite often circumstances where this does not happen and drivers may engage in belligerent behaviour. When this happens the outcomes for cyclists can be unpleasant. This again relates to the need for driver education as previously articulated.

3.2. Quantify cycling activity on Beach Road

Key point 2.2 states:

The Strategy does not adequately quantify cycling activity on Beach Road. nor quantitatively compare rider numbers on the road versus the Bay-Trail.

The Strategy in its current format does not in any way offer an accurate insight into the true usage patterns of Beach Road by cyclists. With the information provided here it is clear that the dominant users of Beach Road for cycling activities are the training enthusiasts and that the users of the Bay-Trail are not only in the (significant) minority but they are almost certainly drawn from an entirely different population or group of riders, with what are probably quite different motivations regarding their cycling experience/activity. The focus of the users on the Bay-Trail would seem to be social/recreational and the requirements of this group are quite

different from those engaged on the roadway in training/commuting activities and bunch riding. In light of this, BRC suggests improving the Strategy by Council to develop a better perspective on the true usage patterns of Beach Road cyclists, and to perhaps address the issues confronting all stake-holders.

3.3. Understand why cyclists ride in bunches

Key point 2.3 states:

The Strategy, whilst mentioning the presence of bunches or packs of cyclists on Beach Road, does not consider why cyclists choose to ride in bunches. We also suggest that the Strategy proposes inappropriate measures to unnecessarily limit bunch riding.

The findings demonstrated here show clearly that a very significant proportion of the cyclists using Beach Road choose to ride in bunches. Our data tells us that, for both survey locations on Beach Road, riders engaged in bunch riding constituted 58%, 40.5% and 40% for the Saturday, Sunday and Wednesday respectively. From the questionnaires, 80% of riders indicated they ride in a bunch; 20% indicated they ride in both a bunch and with a small number of friends; while less than 5% indicated a preference for riding with a small bunch of friends alone.

Riders engage in bunch riding for three principal reasons: social, safety and efficiency. The social aspect is self-explanatory with an enhanced capacity to catch up with friends and meet other riders whilst engaged in a sporting or training activity. Riding in bunches is more efficient from the point of view of speed and distances that can be ridden as riders can share the effort of riding on the front and 'breaking the wind'. This is a very common method of riding in all parts of the world and is an intrinsic part of training/fitness cycling. The safety aspect of bunch riding is perhaps less clear to the non-rider and is also a factor contributing to frustration on the part of drivers of cars, trucks etc. Riders in bunches are much more visible than riders on their own or even in small groups. When cyclists are riding alone they are less visible, more likely to be hit from behind and much more easily passed within the left hand lane of the roadway – a situation where they can be squeezed off the road or pushed into parked cars. It is much safer in most circumstances for riders to ride two-abreast as they take up more of the roadway, necessitating movement by drivers out of that lane when carrying out a legal overtaking manoeuvre. When in bunches the larger number of riders provides a much greater visual reference for drivers, and the greater the size of the bunch the greater the extent to which overtaking traffic must move away from the bunch and into the adjoining lane (as required) whilst overtaking. As stated this does in some circumstances lead to frustration on the part of some drivers and highlights the need for driver education to avoid accidents and incidents of road-rage. It is both legal and desirable to ride in this manner - in bunches - as long as the riders obey other road laws.

The Strategy suggests that a possible measure to limit bunch sizes be 'licensing' of riders (Bayside City Council *Bicycle Strategy, Draft 2003*, Section A-5, p.34). BRC suggests that this would not work in any way, and to limit bunch sizes is unnecessary and quite farcical. Bunches could be described as an organic entity: the number of riders who set out on a bunch ride has no bearing on the number of riders who will complete the ride, with riders joining and leaving the bunch as the ride progresses. Likewise the speed at which the bunch travels will often vary according to the number of riders who 'get on', and the destination may change as the rider numbers change. Quite often several smaller bunches will join together to form large bunches then break up towards the end of the ride.

In view of this, it is questionable how a maximum number of riders in a bunch can be accommodated or established; it is also questionable whether there is in fact an issue that needs to be addressed. The average size of bunches during peak usage by cyclists on the roadway on Saturday and Sunday is approximately nine with very large bunches of greater than 50 riders being in the minority. Further, a bunch of 50 riders still constitutes only 25 pairs of riders two-abreast and, if these riders are obeying road laws, there is no issue. Education and a co-operative approach would seem to be the most appropriate mechanism to moderate behaviour of bunches such as the Hell Ride (which constitutes an exception to both the numbers of riders in a bunch and behaviour of riders).

With specific regard to the concept of 'Bunch Licences': what form might a 'Bunch-Bicycle Licence' take? An endorsement on a driver's licence; a special rating for very large bunches; or perhaps anybody riding in a group of more than three riders? At what age must individuals apply to get a licence? How would the regulation be enforced and who would enforce it? How do we stop larger bunches forming - check for licences? Almost all riders currently possess a driver's licence, and registered, competitive riders carry a VCI/club licence as well. Finally we would argue that, if such an option was entertained, 'licensed' bunches could be afforded the same legal status as long vehicles, and when a licensed bunch enters an intersection that the bunch be considered as a single vehicle from the perspective of traffic laws and traffic lights.

3.4. Understand the effect of proposals on training/commuter cyclists

Key point 2.4 states:

The Strategy proposes measures for optimising access to the Bay-Trail. These measures have the potential to dramatically impact on the roadway cyclists and may contribute to reduced rider safety.

Key points in the Strategy involve increasing the number of 'pedestrian' crossings for cyclists and constructing pedestrian/bicycle refuges to provide enhanced access for users of the Bay-Trail. Whilst there seems to be some uncertainty at this juncture as to the physical dimension of these refuges, based on previous documentation they would appear to occupy approximately 2.5 metres of available roadway (*Beach Road Safety Review 2001*; Table 1, pp24-25).

BRC suggests that, unless a further 2.5 metres of roadway is made available where these refuges are installed, these structures have the capacity to produce the very sort of traffic bottleneck indicated previously and will therefore reduce safety for cyclists on Beach Road. Currently the most dangerous location for cyclists on Beach Road is the intersection with Charman Road at Mentone where the narrowing of the road acts as a major bottleneck and effectively pushes cyclists and traffic together. Any structures which act in a similar manner should not be considered unless concomitant measures are taken that mitigate against such an outcome.

Similarly BRC would oppose the addition of further traffic/pedestrian lights along Beach Road as this has the potential to increase frustration for drivers and provide a focal point where cyclists and vehicles accumulate, further limiting both bicycle and vehicular traffic. BRC argues that other measures such as greater usage of existing crossing points, limiting traffic speed, limiting or eliminating parking, and restrictions on heavy traffic would better accommodate both access to the bicycle path and bicycle use of the roadway.

It is also proposed that, if an increase in pedestrian crossings is undertaken, the Council should employ the model proposed in the Council's own *Beach Road Safety Review 2001* (John Piper Traffic 2001), of using pelican crossings "which is a more sophisticated form of crossing. During the flashing red man phase, the light facing the motorists flashes amber. This allows the motorists to proceed but they are still obliged to give way to pedestrians who remain on the crossing. This allows a better sharing of time between pedestrian and motorist." (*Beach Road Safety Review 2001*: p.25) This also accommodates ease of bicycle traffic flow.

3.5. Understand the limitations of the Bay-Trail

Key Point 2.5 states:

That the Council may not be fully cognisant of the actual users of the Bay-Trail and as such may not fully appreciate the limitations of the Bay-Trail as a cycling venue.

The Bay-Trail is a most unsuitable venue for riders who fit into the training/commuting group of riders and is primarily a venue for much slower speed social/recreational riders (riding non-road bicycles) and a host of other non-cyclist traffic. This is clearly evident from the count data for both weekends and mid-week where the dominant users are pedestrians, joggers, dog walkers etc (refer Figures 4,5 & 6).

Figure 4: Bay-Trail usage at Black Rock on Saturday and Sunday

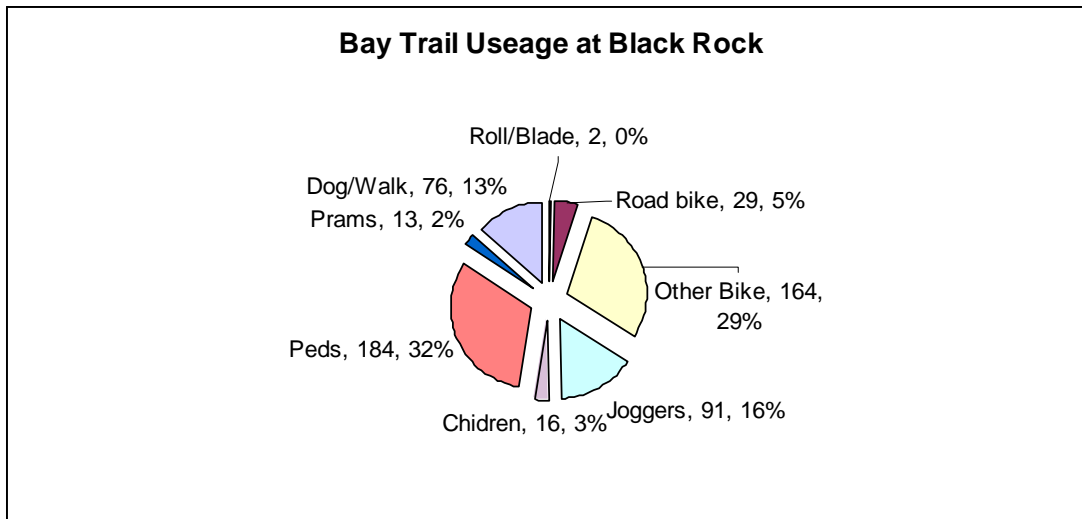


Figure 5: Bay-Trail usage at South Road on Saturday and Sunday

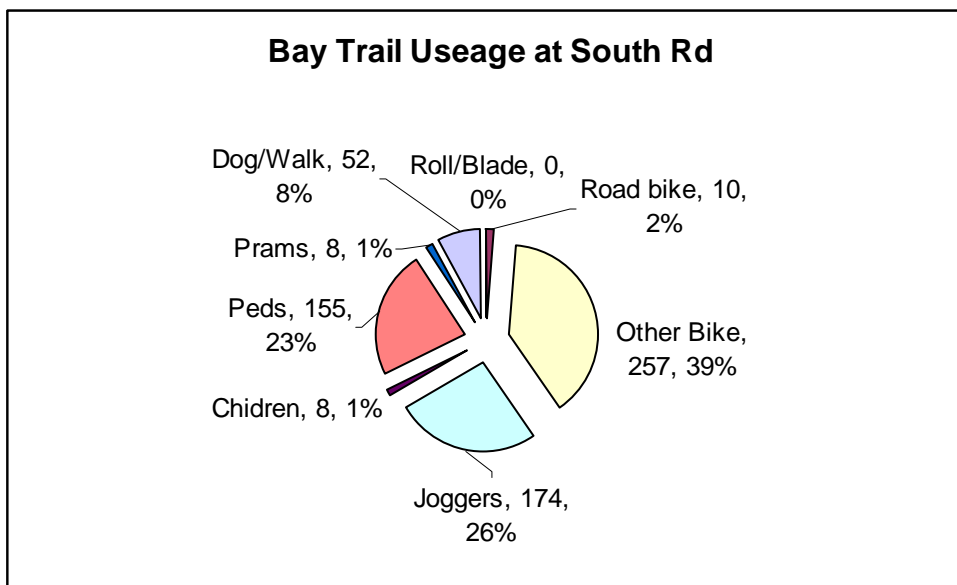
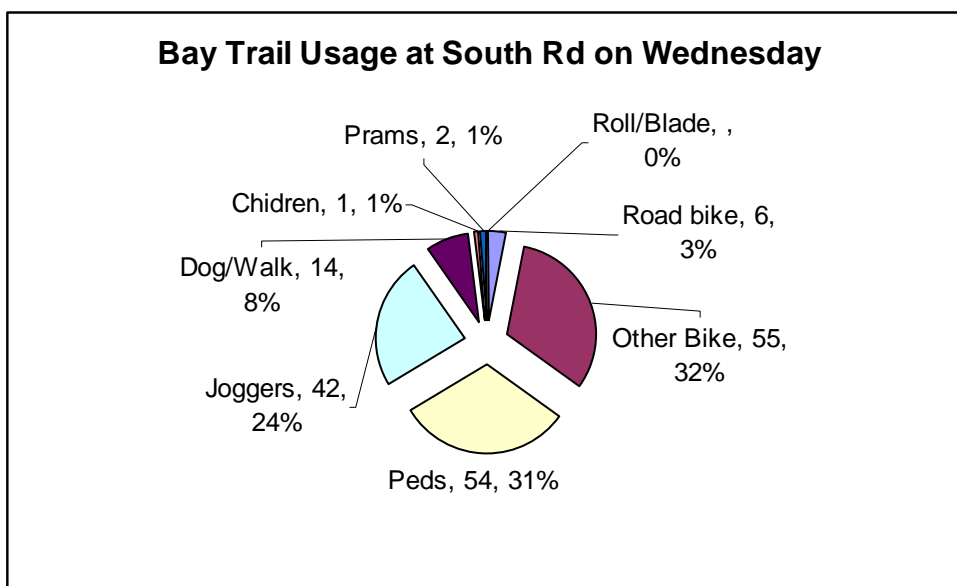


Figure 6: Bay-Trail usage on Wednesday at South Road, with similar usage patterns as to the weekend



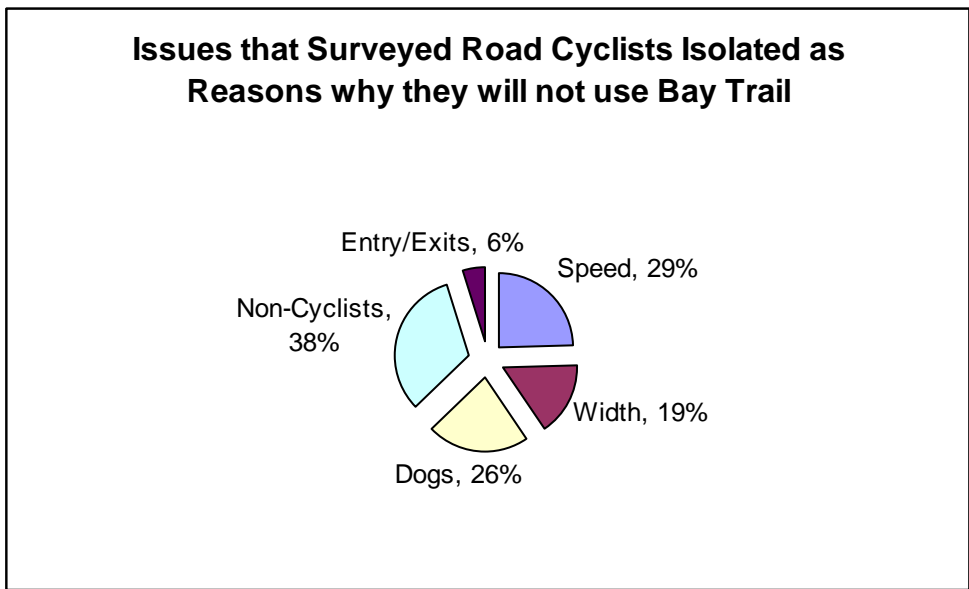
Cyclists on the Bay-Trail are clearly in the minority and, in the absence of steps being taken to drastically limit non-cyclist traffic, it is most unlikely that this situation will change.

The results of the survey indicate the reasons training/commuter cyclists are reluctant to utilise the Bay-Trail (Figure 7), with the issues of slow speed, narrow width, and non-cyclist traffic being in the majority; in effect the ‘bicycle-path’ is too slow, too narrow and too dangerous!

The *Beach Road Safety Review 2001* (p.25) also indicated that “training/commuter cyclists prefer to use the carriageway”, and further suggests that, where possible, additional lane width should be provided for these cyclists. The Strategy itself indicates (in section A-6; p.34) that there are substantive conflicts associated with bicycle activity and other users on the Bay-Trail and also suggests that the Bay-Trail “is a good example of a recreational route”, (Bayside City Council *Bicycle Strategy, Draft 2003*, p.10).

Personal experience and communication from riders indicates that commuters overwhelmingly use the roadway, as commuting on the Bay-Trail is both too slow and, as indicated, is too dangerous. The only exception to this is the section of the Bay-Trail alongside Beaconsfield Parade west of St Kilda. In peak-hour traffic a relatively larger number of riders will ride on the Bay-Trail at this location, there being in mid-week commuter times much less non-cyclist activity on this section and the straight pathway accommodates easier accident avoidance. On weekends non-cyclist activity on this section of the Bay-Trail precludes significant (road) bicycle activity, as indicated by the ‘SLOW’ signs painted on the trail surface here.

Figure 7: Pie chart showing the major issues explaining why road cyclists are reluctant to use the Bay-Trail



BRC strongly supports the concept of the Bay-Trail as a community resource. We feel that the Trail provides an excellent facility for recreational activity of a number of forms - especially for families and children - and greater usage of the Bay-Trail should be encouraged. However, this should not be at the expense of the riders utilising the roadway who are in the overwhelming majority.

BRC also acknowledges (again from personal experience and communication) that the riders utilising the Bay-Trail are in the main likely to be shorter distance riders, and usage is likely to be associated with residential location and possibly beach-access. Improved access may therefore increase local traffic on the Bay-Trail, but whether this will accommodate greater cyclist activity or simply increase pedestrian and jogger traffic is uncertain.

One issue that presents for the road cyclist – and especially in locations like Beach Road where there is a facility such as the Bay-Trail adjacent to the roadway – is the car and heavy vehicle drivers who become frustrated at delays due to the cyclist’s presence on the roadway. These drivers frequently become abusive and threatening, suggesting in rather unpleasant terms that the cyclist might be better off engaging in their cycling habits on the bicycle path. In the absence of driver education this lack of understanding of the issues associated with road cycling versus the bicycle path concept creates a scenario for conflict and needs to be addressed in Council’s approach to both bicycle path promotion and driver education.

3.6. Address safety issues regarding cyclist and vehicular traffic

Key Point 2.6 states:

The Strategy could more effectively address the safety issues regarding cyclist and vehicular traffic interaction on Beach Road. Similarly, the Strategy could offer greater scope for safer cycling into the future as the expanding popularity of cycling as a sporting, recreational and fitness activity continues.

It is clearly apparent to even the most disinterested observer that cycling activity on Beach Road has undergone a major transformation over the past ten, and especially the last five, years. The apparent increase in number of weekend riders from 1000 in 1999 (Beach Road Safety Review Data) to at least 4500 in 2003 (approximate numbers for entire weekend, 6:30-10:30am, one location) is indicative of increasing cycling popularity and suggests that measures to support cycling and cycling safety would be both appropriate and timely. The Council has available documentation in its own reports to address the safety issues articulated here previously, and BRC feels that these options could be explored further.

BRC suggests that the *Bicycle Strategy* could be dramatically enhanced by taking major initiatives to further separate bicycles and vehicular traffic with especial focus on providing dedicated and substantial roadway space for bicycles on not only Beach Road but also on other popular and heavily used roads in the City of Bayside. While the Strategy does not clearly identify separation of traffic and riders as a major safety issue, BRC recognises that this is to an extent implicit in the document. Examples of this can be found in the Strategy and especially at "Example 4, Creating Space for cyclists on existing roads", "Vic Roads provides guidance on methods to create space for cyclists on existing roads to increase cyclists' safety, improve traffic flow and improve the overall performance of the road. Options for providing for cyclists depend on the (a?) number of factors such as cost and include:", relevant points, "1. Reduce width of traffic and/or parking lanes;... 4. Prohibit car parking;... 6. Widen road into the nature strip;... 8. Remove traffic lane;...9. Provide high standard off-road path." (Sourced from: *Cycle Notes No. 9, VicRoads, April 2001: Bayside City Council Bicycle Strategy, Draft 2003*; p.30).

In the *Beach Road Safety Review 2001* prepared for the Cities of Port Phillip and Kingston, Bayside City Council and Vic Roads one of the major thrusts of the document was to increase the roadway available to cyclists and to eliminate interaction between vehicular traffic and parked cars. "The Strategy recognises The Beach Road's important role as a major recreational and tourist route providing access to Melbourne's more popular bayside beaches". "The Beach Road's role as a popular cycling route used by both recreational and training/commuter cyclists is recognised". With reference to training/commuter cyclists; "The Strategy, where possible, provides additional lane width to cater for these cyclists" (*Beach Road Safety Review 2001*; John Piper Traffic, p.25).

Under section 7.2 (p.25) *Facilities for Cyclists* the Report makes the following points: “Where feasible provide separate on-road facilities for cyclists segregating them from the higher speed traffic”, “Training (or commuter) cyclists should be catered for on the carriageway within a widened kerbside lane”. Presumably this increased lane width for cyclists would come from roadway currently used by parked cars as the report also suggests that for the roadway north of Sandringham, “A major conflict is the potential to set aside a through lane permanently for cyclists whereas previously this lane may have (been) used by parked vehicles”, (*Beach Road Safety Review 2001*; John Piper Traffic, p.25).

The separation of bicycles and vehicular traffic, especially on Beach Road, sits very well within the issue of rider safety and the overall objectives of the *Bicycle Strategy* to: 1. “Create a physical environment and community spirit that makes cycling the mode of choice for more people, on more journeys, more often across more of Bayside”, and 2. “Successfully make Bayside more cycle friendly”. As the dangers associated with vehicular traffic (pers. comm(s)) form the key issue discouraging individuals from riding bicycles, and especially commuting, the separation of bicycles and vehicular traffic would be a key element in fulfilling these two objectives.

Taking action to separate bicycles and traffic on Beach Road would also seem to be critical if the Council is to achieve the stated aims of the Strategy of achieving a decrease in cycling accidents by 15% each year with a concomitant 20% increase in cycling volume by 2008 (Bayside City Council *Bicycle Strategy, Draft 2003*; p. 5). Based on the numbers generated here, a 20% increase in cycling on Beach Road would mean on weekends alone a potential increase of 1000 cyclists for the two days between 6:30am and 10:30am; or, an extra 31 cyclists every 15 minutes! (We would suggest that based on prior experience these numbers are likely to be conservative.) As cyclists currently account for 15.4% of all accidents on Beach Road compared with 3.8% in metropolitan Melbourne (Bayside City Council *Bicycle Strategy, Draft 2003*; p.5) there would appear to be a very pressing need to dramatically improve rider safety on Beach Road without even considering the ramifications of the desired 20% increase in cycle volume!

4. Recommendations

In this section, we take all the analysis completed in the previous sections and make the following recommendations:

Recommendation: Council's duty of care in optimising safer cycling on Beach Road

That Council has a duty of care in developing and maintaining a safe cycling environment on Beach Road and especially on the Beach Road roadway proper. The much greater incidence of accidents involving cyclists on Beach Road is indicative of both the popularity of Beach Road for the training/commuting cyclist and also the existing hazards facing cyclists on Beach Road. Any action taken to promote or modify the cycling environment on Beach Road must be taken to ensure the safety of cyclists and to promote a safer cycling environment.

4.1. Recommendation 1: allocation of a standard lane width to cyclists on both sides of Beach Road

Allocation of a standard (roadway) lane width to cyclists on both sides of Beach Road, for the sole use of cyclists from Mordialloc to Port Melbourne. If this cannot be accommodated for all day, every day, that this lane be provided for peak cycling periods between 6:00am to 9:00am and 4:00pm to 6:00pm week-days and 6:00am to 12:00pm on both days of the weekend.

4.2. Recommendation 2: that parking be prohibited

That in the allocation of an entire lane width to cyclists, parking be prohibited on the roadway of both sides of Beach Road at all times but especially during the time periods indicated in recommendation 4.1. Car parking would be better accommodated in the car parks available along Beach Road.

4.3. Recommendation 3: that heavy vehicle activity be prohibited

That heavy vehicle activity be totally prohibited along Beach Road and especially during the time periods indicated in recommendation 4.1.

4.4. Recommendation 4: that traffic speed is reduced

In the absence of a total prohibition of heavy traffic on Beach Road that consideration be given to reducing the speed of traffic on Beach Road to 50km/hr as a means of reducing traffic flow. This would better accommodate safe cycling and access by pedestrians/cyclists to beaches and the Bay-Trail than any pedestrian/cycle refuges or further pedestrian crossings.

4.5. Recommendation 5: that the vision for Beach Road is to be the “best cycling venue in the world”

That the Council recognises the significance of Beach Road as a major tourist attraction for local, national and international cycling activities and provides further support to foster and encourage cycling activities consistent with this vision. An essential part of this vision is the recognition by Council of the inappropriateness of heavy traffic flow on this road, and especially the use of Beach Road by heavy traffic and trucks not engaged in local activities. A longer-term objective would be the development of Beach Road as a ‘Cycling Parkway’.

4.6. Recommendation 6: no reduction in roadway width

That any modifications undertaken to Beach Road in the form of pedestrian/cyclist refuges be undertaken so as to not reduce the roadway width available to both cyclists and vehicular traffic. That the addition of further pedestrian crossings/lights be avoided but, where necessary, that they be designed to minimise interference with vehicle and cyclist flow.

4.7. Recommendation 7: driver education

That a much greater emphasis be placed on educating drivers of cars and heavier vehicles as to the rights of cyclists and the obligations of drivers with regard to both pedestrians and cyclists.

4.8. Recommendation 8: increased signage on Beach Road

That Council increases signage on Beach Road in recognition of Beach Road as a cycling/training venue and as a means of further educating vehicle drivers. This could also be accommodated through further TAC activity aimed at ‘Mutual Respect’.

4.9. Recommendation 9: promotion of the Bay-Trail as a recreational facility

That Council, in promoting the Bay-Trail as a cycling venue, undertakes to make the general populace and especially vehicle drivers more aware of what the Bay-Trail actually constitutes as a cycling venue; that it is a recreational facility for perhaps all users and not a 'bicycle path' per se.

4.10. Recommendation 10: that Victoria Police be encouraged to act against aggressive vehicle drivers

That consultation with Victoria Police be entered into with the objective of encouraging the police to act against vehicle drivers who engage in acts of road-rage against cyclists.

Appendix 1: Survey Questionnaire

Cyclist usage patterns for Beach Road roadway versus bicycle path

Name:

Residence/suburb:

1. How many days per week do you engage in cycling on Beach Road roadway or bike path?
2. Which of the following groups do you feel best describes your cycling practices?
A: Sporting/Training/Fitness oriented
B: Casual/Recreational
C: Other If (C) other indicate very briefly how you would describe your cycling habits:
3. When engaged in cycling on Beach Road do you ride on:
A: The roadway
B: The bicycle path
C: The footpath
4. Do you usually ride in a bunch/pack or do you ride on your own or with a small number of friends? If you ride in a bunch how many riders would normally be in the bunch?
5. What do you feel are the major issues confronting cyclists using the roadway of Beach Road?
6. How do you feel the roadway of Beach Road could be made safer for cyclists and more conducive to cycling overall?
7. What modifications do you feel could be made to Beach Road to encourage greater cyclist use of the bicycle path?
8. What are the safety issues you see (if any) preventing greater cyclist use of the Beach Road bicycle path?

6. Appendix 2: Survey Data

Analysis of the suburbs in which road cyclists live

From Table 1 we can see that the cyclists who use Beach Road on Saturday mornings come from suburbs all over Melbourne. There are in fact 44 suburbs in which surveyed cyclists live.

Table 2 shows those suburbs where two or more cyclists live. The beachside suburbs are a feature: approximately 10% of the sample resides in Elwood and St.Kilda.

Table 1

List of all surveyed cyclists suburbs

Suburb		
Albert Park	East Brunswick	Ormond
Armadale	East Malvern	Parkdale
Beaumaris	Edithvale	Port Melbourne
Black Rock	Elsternwick	Richmond
Boronia	Elwood	Sandringham
Brighton	Glen Huntly	Seddon
Burwood	Glen Iris	South Yarra
Camberwell	Glen Waverley	St Kilda
Canterbury	Hawthorn	St Kilda East
Caulfield	Lower Templestowe	South Melbourne
Caulfield North	Malvern	Toorak
Chadstone	Middle Park	Vermont South
Dingley	Murrumbeena	
East Bentleigh	North Carlton	Williamstown
East Brighton	Oakleigh	

Table 2

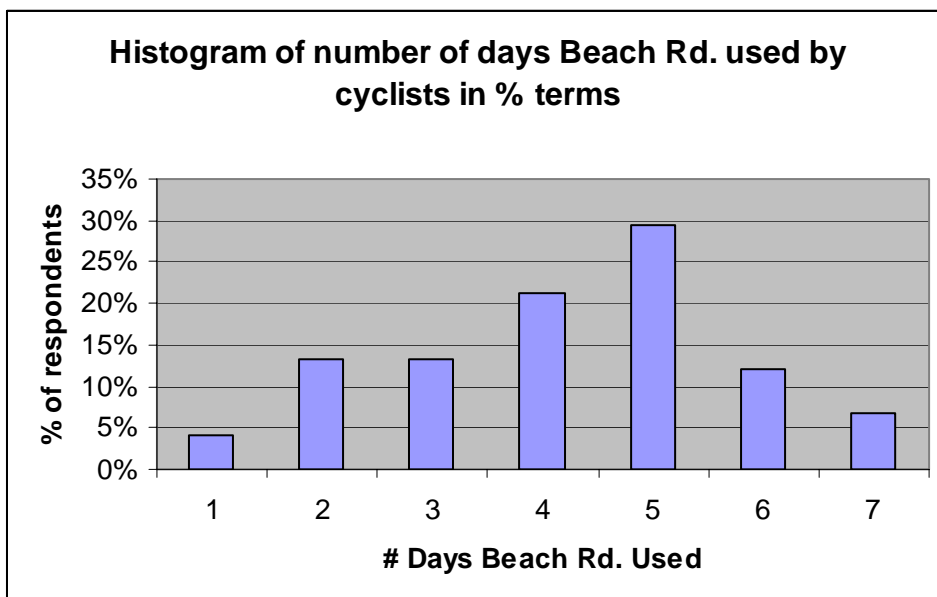
Suburbs where ≥ 2 surveyed cyclists live

Suburb	#	%
Armadale	2	3%
Beaumaris	2	3%
Brighton	4	5%
Caulfield North	4	5%
East Brighton	2	3%
Elsternwick	3	4%
Elwood	8	10%
Glen Iris	2	3%
Middle Park	2	3%
Richmond	2	3%
South Yarra	2	3%
St Kilda	8	10%
St Kilda East	2	3%
Total		55%

QUESTION 1: How many days per week do you engage in cycling on the Beach Road roadway or bike path?

The average number of days that Beach Road is used for cycling by our respondents is 4.2. The histogram is presented in Figure 8.

Figure 8: Histogram of days Beach Road used by respondents



QUESTION 2: Which of the following groups do you feel best describes your cycling practices?

- A: SPORTING/TRAINING/FITNESS ORIENTED**
- B: CASUAL/RECREATIONAL**
- C: OTHER**

100% of respondents felt that category A best described their cycling practices. (1% of cyclists felt they were either B/C too).

QUESTION 3: When engaged in cycling on beach road do you ride on:

- A: THE ROADWAY**
- B: THE BICYCLE PATH**
- C: THE FOOTPATH**

100% of respondents felt that category A best described their cycling practices. (5% of cyclists indicated that they used the bicycle path too).

QUESTION 4: Do you usually ride in a bunch/pack or do you ride on your own or with a small number of friends?

Figure 9 shows that almost 80% of respondents ride in a bunch and almost 20% ride in BOTH a bunch and with a small number of friends. Few (<5%) ride with a small bunch of friends alone.

Figure 10 shows the histogram of bunch size. The average bunch is almost 43 people, with approximately a third of respondents riding in a bunch size of between 20-30 people.

Figure 9: % of respondents who ride in 1-bunch, 2-group of friends, 3 – both

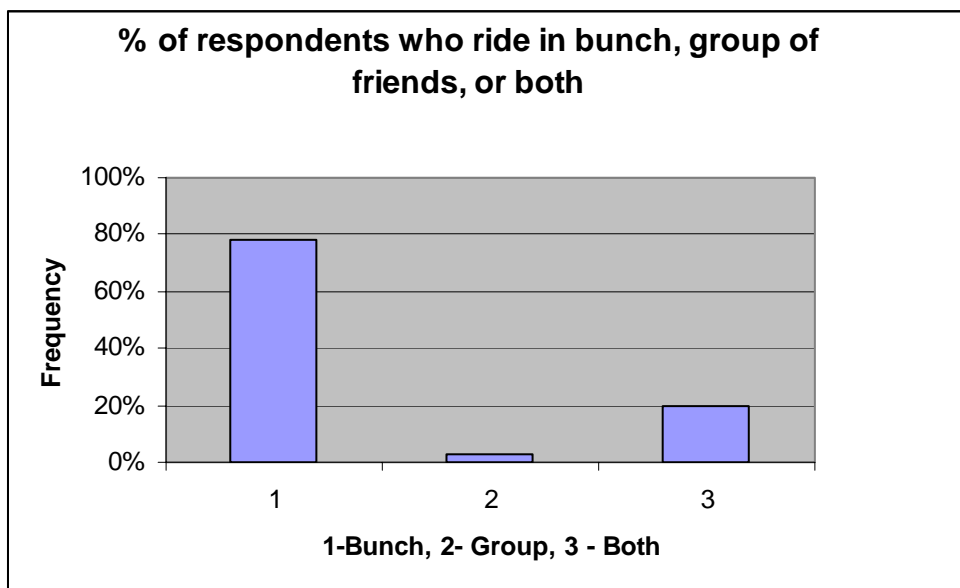
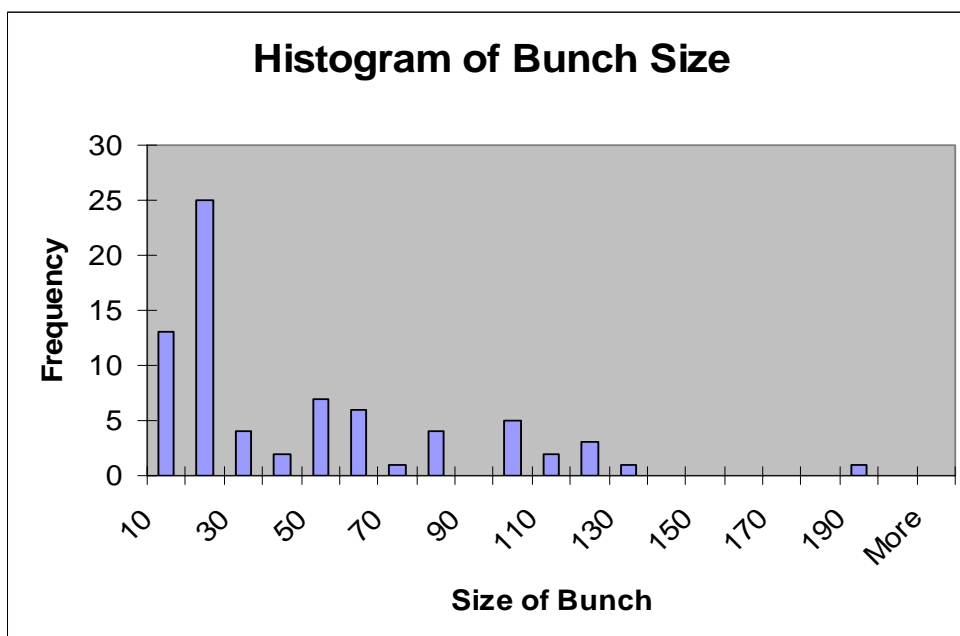


Figure 10: Histogram of bunch size



QUESTION 5: What do you feel are the major issues confronting cyclists using the roadway of Beach Road?

Respondents felt (see Table 3) that the major issues (i.e. >10% of respondents) were:

1. Improving driver education (40%)
2. Eliminating parking on Beach Road (20%)
3. Eliminating “tight portion(s)” of Beach Road (17%)
4. Eliminating trucks (14%)

QUESTION 6: How do you feel the roadway of Beach Road could be made safer for cyclists and more conducive to cycling overall?

Respondents felt (see Table 3) that the major issues (i.e. >10% of respondents) were:

1. Eliminating parking on Beach Road (34%)
2. Creating dedicated lane for cyclists (24%)
3. Improving driver education (18%)
4. Increasing signage for cyclists (15%)
5. Eliminating trucks (14%)

Table 3: QUESTION 5 & 6 Responses

	Issue	% Q5	% Q6
1	Traffic lights	5%	4%
2	Create dedicated lane during peak usage	1%	24%
3	Eliminate trucks	14%	14%
4	Improve driver education	40%	18%
5	Eliminate traffic islands	4%	6%
6	Eliminate parking	19%	19%
7	Eliminate roundabouts	3%	0%
8	Eliminate tight roads	17%	5%
9	Increase signage for cyclists	0%	15%
10	Improve cyclist education	8%	8%
11	Improve roadway	6%	4%
12	Extend clearways	1%	3%
13	Build pedestrian overpass/underpass	1%	0%
14	Lower speed limit	3%	5%
15	Converging traffic	1%	1%
16	Promote cycling on Beach Road	1%	3%
17	Impending change to road conditions	1%	0%
18	Restrict left hand	0%	1%
19	Bike/vehicle traffic issues	10%	0%
20	Require dedicated lane	3%	14%
21	Pack not react as one vehicle	3%	0%
22	Large bunches more than 30	3%	0%
23	Safety	1%	0%
24	Warning signs for motorists	1%	3%
25	Inexperienced riders in bunches	1%	0%

QUESTION 7: What modifications could be made to Beach Road to encourage greater use of the cycling path?

Only one response rated above 10% of the entire sample (see Table 4): 35% of respondents felt that it was NOT appropriate for road cyclists to use the bike path.

Table 4 Responses for Q7

	Issue	%Q7
1	Not appropriate for cyclists to use bike path	35%
2	Fewer traffic lights	5%
3	Improve signage	8%
4	Fewer roundabouts	1%
5	Bike-lane	6%
6	Under/overpass access	5%
7	Lane for cycling at peak time	3%
8	Restrict truck access	3%
9	Widen paths	9%
10	Removal of recreational users & dogs	3%
11	Education for users	1%
12	Make inner lane a bike path	1%
13	Speed limit	3%
14	Remove car parking	1%

QUESTION 8: WHAT ARE THE SAFETY ISSUES YOU SEE (IF ANY) PREVENTING GREATER CYCLIST USE OF THE BEACH ROAD BICYCLE PATH?

Respondents felt (see Table 5) that the major issues (i.e. >10% of respondents) were:

1. Non-cyclists on path (38%)
2. Training cyclist speed too great for path (29%)
3. Dogs on path (26%)
4. Path too narrow (19%)

Table 5 Q8 Responses

	Issue	%Q8
1	Training cyclist speed too great	29%
2	Too narrow	19%
3	Dogs on path	26%
4	Non-cyclists on path	38%
5	Car park entry/exits	6%
6	Cars are aggressive to individuals	4%
7	Overpass/underpass	1%
8	Better signage	3%
9	Car speed limit	1%

7. Appendix 3: Weekend Count Data

Table 6: Black Rock Count Data for Saturday

BLACK ROCK											
	ROADWAY			BAY-TRAIL							
TIME	Road Bike	(Bunches)	Other	Road Bike	Other	Peds	Joggers	Dog/ Walk	Children	Prams	Roll/ Blade
6.30-6.45	46			1	5	5	4				
6.46-7.00	139	7 (12)		9	5	7	2	3			
7.01-7.15	302	6 (47)	1		1	4	5				
7.16-7.30	127	7 (8)	4		3	4	4	8			
7.31-7.45	186	11 (11)	3		8	4	9	1			
7.46-8.00	131	14 (6)	1	3	3	4					
8.01-8.15	210	18 (8)	1		3	8		1		2	
8.16-8.30	197	12 (10)		4	3	5	1	3			
8.31-8.45	352	15 (16)	2	4	2	2	1				
8.46-9.00	230	15 (10)		1	2	4	3	1			
9.01-9.15	147	11 (9)	1	2	8	8		3			1
9.16-9.30	139	11 (5)	1	2	3	5	6	4		1	
9.31-9.45	124	6 (7)		1	7	10	3	2			
9.46-10:00	79	3 (5)	2	2	4	3	5	6	2	1	
10.01-10:15	130	3 (13)	2		6	6	1	5	1	2	
10.16-10:30	43		3		5	2	3	3			1
TOTALS	2582	139 (12)	21	29	68	81	47	40	3	6	2

Table 7: South Road Count Data for Saturday

SOUTH ROAD											
	ROADWAY			BAY-TRAIL							
TIME	Road bike	(Bunches)	Other	Road bike	Other	Peds	Joggers	Dog/Walk	Children	Prams	Roll/ Blade
6.30-6.45	142	5 (19)	3		6	1	3				
6.46-7.00	75	4 (9)			4	3	1				
7.01-7.15	102	7 (8)	5	1	10	3	4	1			
7.16-7.30	125	11 (8)		1	2	4	8				
7.31-7.45	149	14 (6)			5	8	3				
7.46-8.00	199	12 (13)	3	2	3	2	3	2			
8:01-8:15	151	15 (8)		2	5	3	4				
8:16-8:30	186	13 (9)			2		1	3			
8:31-8:45	232	15 (8)			3	3	2	2		1	
8:46-9.00	232	14 (14)			9	1	7				
9:01-9:15	164	12 (9)			3	3	3	4		2	
9:16-9:30	126	6 (10)			8		9	2			
9:31-9:45	108	7 (8)		4	6	2	5	4			
9:46-10:00	86	2 (5)			9	4	3	2	2		
10:01-10:15	60	2 (6)			3	8	3	1	1		
10:16-10:30	112	5 (5)			14	6	16	2			
TOTALS	2249	144 (9)	11	10	97	51	75	23	3	3	

Table 8: Black Rock Count Data Sunday

BLACKROCK											
	ROADWAY			BAY-TRAIL							
TIME	Road bike	(Bunches)	Other	Road bike	Other	Peds	Joggers	Dog/Walk	Children	Prams	Roll/ Blade
6.30-6.45	33	2 (11)			1	1					
6.46-7.00	43	3 (8)			3	3		1			
7.01-7.15	76	4 (10)			1	3					
7.16-7.30	91	6 (5)			4	4	2	1	1		
7.31-7.45	105	7 (7)			2	1	6			1	
7.46-8.00	183	7 (18)			5	3	1				
8:01-8:15	112	5 (5)			10	5	4	2			
8:16-8:30	234	8 (18)			5	6	2	3			
8:31-8:45	161	7 (8)				7	4	2			
8:46-9.00	196	6 (13)			7	8	6	3	4		
9:01-9:15	164	6 (9)			5	3	2	5	1	1	
9:16-9:30	170	6 (9)			7	12	3	3			
9:31-9:45	136	4 (8)			7	7	5	2	2	2	
9:46-10:00	111	4 (4)			11	10	1	9	5	3	
10:01-10:15	98	2 (9)			11	10	5	2			
10:16-10:30	96	3 (7)			17	10	3	3			
TOTALS	2009	80 (9)			96	103	44	36	13	7	

Table 9: South Road Data for Sunday

SOUTH ROAD											
	ROADWAY			BAY-TRAIL							
TIME	Road bike	(Bunches)	Other	Road bike	Other	Peds	Joggers	Dog/Walk	Children	Prams	Roll/Blade
6.30-6.45	31	1 (8)				4	1	2			
6.46-7.00	61	1 (5)			1	6	4				
7.01-7.15	88	4 (5)			6	3	2	3			
7.16-7.30	105	10 (5)			6	1	5	4			
7.31-7.45	121	7 (9)			5	7	3				
7.46-8.00	151	12 (8)			7	7	8	4			
8:01-8:15	161	8 (10)			3	6	7	1		3	
8:16-8:30	208	14 (10)			7	5	1	5			
8:31-8:45	184	13 (5)			6	13	7	3	2	1	
8:46-9.00	134	6 (8)			6	4	5	1			
9:01-9:15	189	11 (8)			13	7	10	1			
9:16-9:30	153	10 (9)			9	9	4	1	1	1	
9:31-9:45	98	8 (7)			30	1	17	1			
9:46-10:00	137	9 (8)			25	7	9	1	2		
10:01-10:15	97	5 (5)			16	12	8	2			
10:16-10:30	74	3 (5)			20	12	8				
TOTALS	1913	122 (7)			160	104	99	29	5	5	

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Put in organisations in support

If simple changes can be accommodated incorporate them

Logos on the front or wherever

Put in Bicycle Victoria's Email as an appendix but not cited (include in table of contents)

Renumber front few points

Names of people who helped (from Marcel)