

ARE YOU A CYCLIST OR DO YOU CYCLE? THE LANGUAGE OF PROMOTING CYCLING

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Abstract

Promoting more cycling in New Zealand is still an exercise fraught with much adversity, both from the general public and from decision- and policy-makers. It is therefore crucial that anyone advocating for a better cycling environment is careful in how they present their case, lest they end up “scoring an own goal” or furthering existing mis-conceptions.

Some key examples of this include:

- Referring to “cyclists” rather than “people who cycle”, the former often conjuring up images of a relatively small bunch of “weird” people who only ever cycle.
- Asking to “provide cycle facilities” rather than “provide for cycling”, when many treatments that greatly benefit cyclists often involve no dedicated cycle facilities.
- Publicly highlighting safety problems for cyclists in an attempt to get improvements, when the net effect may be to increase the general perception of cycling as “dangerous”.
- Pushing strongly for on-road cycle provision, thus alienating the population who would prefer an off-road environment to cycle on; or vice versa.

This paper will discuss some of the potential pitfalls encountered by the author over the years and try to suggest the best way forward. Other subtle examples of unintended bias against cyclists, often communicated by public officials and documents, will also be highlighted.

About the Author

Glen has over thirteen years experience in the field of traffic and road safety engineering and research. He has a keen interest in sustainable transportation, particularly cycling, and is involved in delivering the national training course for Cycle Planning and Design. A former CAN Executive member and past Chair of the Spokes Canterbury advocacy group, Glen efforts to one day complete his PhD in rural highway safety continue to get thwarted by the two-wheeled monster that is cycling...

Introduction

Despite the relative improvements to the cycling landscape in New Zealand over the past five or so years, cycling still struggles against the inertia of historical motorist-friendly planning and policies. Promoting more cycling in New Zealand remains an exercise fraught with much adversity, both from the general public and from decision- and policy-makers.

It is therefore crucial that anyone advocating for a better cycling environment is careful in how they present their case. Yet, many times, agencies and individuals ostensibly supporting cycling seem to unwittingly end up “scoring an own goal” or furthering existing mis-conceptions about cycling.

This paper will discuss some of the potential pitfalls encountered by the author over the years and try to suggest the best way forward. Other subtle examples of unintended bias against cyclists, often communicated by public officials and documents, will also be highlighted.

Cycling versus Cyclists

The genesis for this paper actually came about from reading a couple of recent Christchurch City reports to Council. In the first, consultation on proposed changes to speed limits on some city routes was reported (CCC 2006a). Increased 60km/h speed limits on some central city roads in particular raised some concerns, as reported below:

*“It is understood that the medium support of 57% could be attributed by a campaign conducted through the **cycling fraternity** and had this not accrued the support could have been quite different.”*

This appears to belittle the submissions made by some people on account that they cycle. Given the relatively recent Council antagonism over cycling in Christchurch, lumping a number of submissions together in this manner was effectively a red rag to many bullish Councillors seeking to dismiss them. Apparently they had no similar problems with the reported feedback from the “motoring fraternity” (e.g. AA and RTA). It is interesting to note too that the proposals of concern by cyclists were the only ones also opposed by the Police and the local Community Board, suggesting that the “cycling fraternity” may have identified some valid points.

Only a month later, and another Council report documented the submissions on another contentious roading project featuring new cycle facilities (CCC 2006b). The consultation summary included this extract about one of the clusters of submissions:

*“Twelve submissions were received in support of the proposal, in particular the improved cycling facilities, including eleven from individual **cycling advocates** and one from Spokes Canterbury Inc.”*

Again, this appears to raise the terrible spectre of lots of cycling activists running around demanding everything and creating mayhem. Quite how the consultation reviewer knew the submitters were all dedicated cycling advocates and not just ordinary “people who cycle” is unclear...

The style of the above reporting was no doubt unintentional, but it can be simple descriptions like this that can subtly serve to question the rights of those who cycle. Humans, by nature, like to group similar people together, especially when trying to discredit them (e.g. “Asian drivers”, “Muslim terrorists”). A more objective way to deal with this is to refer to the **activity** rather than the people.

When it comes to cycle planning and policy, all parties involved (politicians, policy-makers, practitioners, advocates, etc) should remember that they are providing for “**cycling**”, not “cyclists”. The former term is an activity that virtually anyone can do under the right circumstances (and hence should be planned for), whereas the latter often gives connotations of a relatively small bunch of “weird” people who only ever cycle (and wear fluoro lycra and are all tree-hugging greenies, etc...).

¹ This raises another interesting side-debate about whether we should in fact use more informal descriptions like “**biking**” instead, with fewer of the serious connotations of “cycling” (which is the name of the sports activity). Unfortunately this is complicated by the fact that motorcyclists also often refer to themselves as “bikers”...

In fact, most “cyclists” are like the rest of the general public in also using private cars, public transport and walking on a regular basis. To put this at a personal level, I am often referred to as a cyclist; my involvement with CAN, the Cycling Advocates Network, would appear to be the main criteria for this distinction. Yet, as well as owning a bike, I also own a car, a bus card, many pairs of shoes, and am a paid-up member of both the Automobile Association and Living Streets Aotearoa. So am I a cyclist, a motorist, a bus-user, or a pedestrian?

People cycling also may not represent as small a minority as many think. For example, the latest Census figures show that about 6.5% of Christchurch commuters cycle to work in 2006 (Statistics NZ 2007), and official data like this are often bandied about when comparing modes. However a 2005 Council residents’ survey, found that **35%** of residents aged 15 years and over stated that they cycled at least once a month (CCC 2005). Given that this doesn’t include children under 15 years old, that translates to **over 100,000** people in Christchurch who regularly cycle. Suddenly cycling doesn’t seem like such a minority activity...

Providing for Cycling

Now that we understand that we’re trying to provide for cycling, not cyclists, what exactly does that mean? Again, many well-intentioned people often get tripped up about what to focus their efforts on here. With our conference here in Hawkes Bay, I don’t have to look too far to find examples of this, such as Napier’s “Bike It” Cycling Strategy (Napier CC 2001):

*“Aimed at improving on-road and off-road **facilities** for cyclists within the city... It is a commitment to various objectives and methods that will achieve Council’s policy of encouraging a decrease in the reliance on motor vehicles through the establishment of **cycleways**.”*

“Providing for cycling” is not the same as “providing cycle facilities”, although the latter is often assumed as equating to the first. There are many treatments that greatly benefit cyclists (and usually road users in general), yet involve no dedicated cycle facilities. UK’s Institution of Highways and Transportation (IHT 1996) proposed a “five-step hierarchy” of physical measures for cyclists. In order of priority they are:

1. **Reduce traffic volumes**, e.g. street closures/diversions or traffic restrictions
2. **Reduce traffic speeds**, e.g. traffic calming, lower speed limits
3. **Traffic management treatments**, e.g. intersection improvements, removal of “pinch points”
4. **Reallocation of carriageway/corridor space**, e.g. removal/re-marking of traffic/parking lanes
5. **Separate cycle facilities**, e.g. cycle lanes and off-road paths

A very noticeable feature about this list is that traditional “cycle facility” solutions are at the bottom, i.e. they should be the *last* thing to consider. Often, many of the other proposed options will “provide for cycling” in a much better fashion in terms of effectiveness and safety. They also tend to help encourage more walking-friendly environments as well.

However, again, “providing for cycling” needs to go further than just cycle-friendly infrastructure. Two other important approaches are needed to effectively provide for cycling:

1. **Promotion and marketing of cycling** is also very important (and associated travel behaviour change work). In renowned cycle-friendly locations such as in Europe, often **as much** will be spent on the “softer” side of encouraging cycling as is spent on the “hard” infrastructure; contrast that with our often token expenditure on cycling promotion here.
2. **Other “cycle-friendly” strategies and policies** need to be in place across the agencies involved. Cycling strategies do not exist in isolation from other policies and actions. The success of the former is greatly influenced by what is done in the latter area. Such an approach also helps to emphasise the fact that providing for cycling is not just an “add-on”, but also an integral part of all activities.

There are a wide range of cycle-specific promotional tools in the arsenal. These include:

- Cycle training of both school children and adults
- Road safety promotion campaigns (e.g. sharing the road, cycle light use)

- Development and marketing of cycling activities/events (e.g. Bike to Work Day, city fun rides)
- Marketing of cycling as an acceptable everyday activity
- Provision of information about cycle routes (e.g. cycle maps, route signage)
- Police enforcement of poor motorist-vs-cyclist behaviour
- Cycle touring promotion and information by tourism agencies
- Provision of high-quality cycle parking at key destinations (and priority parking at major events)
- Allowing bikes to travel on public transport, and more "park'n'ride" facilities
- Widespread training in cycle planning/design for practitioners, surveyors & developers
- Appointment of agency cycling "champions" to oversee relevant activities
- Setting up cycling advisory groups and bicycle user groups

Relevant agencies (councils, Govt Depts, etc) also need to seriously review their other strategies and policies to ensure that they are "cycle-friendly" (and usually "sustainable transport-friendly" in general). These may include strategies and policies covering:

- **General Road Construction & Maintenance;** such as incorporation of cycle facilities into other projects, cycle design training for staff, path/shoulder sweeping & maintenance, and consideration in temporary traffic management
- **Parks & Reserves Planning/Management;** such as path design standards, staff training in cycle planning, purchase of reserves and corridors, cyclist access to reserves, audit and maintenance of pathways, security improvements, and links with the on-road cycle network
- **Land Use and Development Planning;** such as mixed-use zoning, local community facilities, minimum cycle parking requirements, high-density developments, constrained urban areas
- **Speed Limits;** such as reviews of high speed limits, greater use of 30-40 km/h zones, traffic calming treatments, and part-time school speed limits
- **Local Area Traffic Management;** such as "living streets" treatments, street closures/diversions, neighbourhood "home zones", cyclist use of pedestrian areas, and one-way streets/entrances
- **Travel Demand/Behaviour Programmes;** such as employer/institution/school travel plans, safe routes to schools, "buddy" systems, and incentives for new/existing cyclists
- **Public Health & Recreation Programmes;** such as "green prescriptions", active living promotions, organised rides, and cycle riding/maintenance training programmes
- **Road Network Planning;** such as limited construction of new links, corridor capacity reductions, and road charging or congestion pricing
- **Parking Management;** such as kerbside prioritisation for cyclists, on-street parking controls, parking pricing policies, and parking supply restrictions
- **Tourism Promotion;** such as cycle touring maps, city cycle hires, provision of facilities for cycle tourists at regular intervals along tourist routes, and reporting/feedback systems.
- **Financial Mechanisms;** such as fringe-benefit tax exemptions for sustainable transport, work cycling mileage allowances, rating systems encouraging sustainable land-use, carbon taxes.

More information about many of these issues can be found in Koorey (2003). It is pleasing to see a number of more recent cycling strategies around the country incorporating many of these aspects in their thinking (e.g. Whangarei DC 2007, Wairoa DC 2006).

The "Dangerisation" of Cycling

If you ask many people why they don't cycle and they will respond "*because it's not safe*". While we probably all can think of particular cycling hazards in our districts, this perception of the danger of cycling is not helped by much of the discussion that goes with cycling, whether from advocates, politicians, professionals, researchers or the media.

For example, at various times, cycling advocates have used improving cycle safety as a war-cry for greater provision for cycling. I must confess to being guilty of this in the past too, e.g. my presentation to politicians and practitioners at the 2004 TRAFINZ conference highlighting the lack of attention paid

to cycle safety (NZ Herald 2004). There are far better, positive reasons to encourage cycling, in terms of public health, environmental sustainability, congestion relief, and personal/public economic benefits. Even attempts to correct misleading crash statistics can potentially backfire; for example, consider the lead paragraph of this recent CAN media release (CAN 2007)

“Recent media headlines suggest one in three cyclists had accidents last year. This is misleading, as about 1 in one thousand cyclists is seriously injured or killed per year, and cycling’s overall safety is comparable to other modes of transport.”

While the media release had a valid point; it may be that the only message the average reader takes from this news item is “cycling is dangerous”. Highlighting cycling-specific crash problems to relevant agencies is one thing (and should be continued); bringing them to the attention of the media and general public may not be so wise.

The media are also commonly guilty of emphasising the safety aspects of cycling. For example, in March this year, over half of the front page of the main Christchurch newspaper was devoted to coverage of two deaths and three serious injuries to cyclists the previous weekend (The Press 2007). At the bottom of this, a couple of paragraphs mentioned the fact that two other motor vehicle occupants had also died in New Zealand that weekend. And it was only on the inside page that details were given of a horrific two-car crash that saw nine people injured.

This is not an isolated case; many cycle deaths seem to make front page news (which perhaps reflects the relative rarity of such an event), whereas the countless other road deaths are mere column filler. Any road death is a tragedy but, with the relative prominence often given to cyclists killed, is it any wonder that many people are wary of getting onto the saddle themselves?

Some people might argue “sure, there’s not as many cycle fatalities or injuries, but the relative **risk** is higher than walking or driving”. Simple comparisons of overall crash rates however mask key differences within sub-groups (this is a whole paper in its own right). Children, for example, feature highly in cycle crashes, but obviously don’t contribute to driver statistics (if they could, things would be very chaotic!). Cyclists also don’t have access to safe, access-controlled, grade-separated facilities like motorways that motorists have, which naturally improves motor vehicle crash rates. Interestingly, based on travel survey data, 15-19 year-olds are in fact **less** likely to be injured or killed for every hour spent cycling rather than in a car (Frith 2000); perhaps another reason to raise the minimum driver licensing age?

Focusing on the apparent “danger” of cycling also ignores the interesting phenomenon that, by getting more people to cycle, we actually reduce the relative risk for each cyclist (independent of any improvements we also make to cycle facilities). This “safety in numbers” effect has been scientifically documented both here in New Zealand (Beca 2005) and overseas (it also seems to apply to encouraging more walking too). It largely stems from the “critical mass” of cyclists that develops, thus making motorists more conscious of their presence.

The other concern is the very narrow focus only on cycling road deaths, rather than the wider health picture. Two cyclists deaths in the same weekend was unusual (and unfortunately coming at the end of national BikeWise Week), but let’s put things into perspective:

- Over the past three years, there has been on average about **nine** cyclist deaths on the roads per year.
- During the same period, an average of **37** pedestrians and **361** motor vehicle occupants have been killed each year.²
- 2002 Ministry of Transport research estimates that about **300-500** premature deaths occur each year in New Zealand as a result of motor vehicle emissions (Fisher *et al* 2002).
- 2001 health research estimates that physical inactivity accounts for **at least 2600** deaths per year (Tobias and Roberts 2001).

² From LTNZ Crash Analysis System (CAS) data 2004-06

A similar line of thinking was evident in the landmark UK research that found the benefits gained from regular cycling in terms of life years gained outweigh the loss in life years from fatalities by 20 to 1 (Hillman 1993). Given the relative numbers, I think I know which side of the ledger I'd rather be on.

It seems especially ironic that The Press gave such coverage to the cycle deaths at a time when it was running a series on healthy lifestyles. Indeed, the *same* edition featured a profile about a 73-year-old who cycles virtually every day to keep in good condition. Highlighting the perceived danger of cycling at the same time seems to be an "own goal".

Even the demographics of the unfortunate victims of that weekend's cycle crashes highlight the relative rarity of cycle crashes. All of the killed/injured were over 50 years of age; probably most of them had spent much of their adult lives cycling. With good training and supervision, there's no reason why we can't expect our children to start cycling now and also lead long healthy lives.

All of this doesn't mean that we should do nothing to improve provision for cycling, by the various means mentioned previously. But they will be of little use if we continue to build an image of cycling as a dangerous activity. Given the societal and personal costs of an increasingly motorised society, it actually seems more dangerous *not* to cycle.

The On-Road vs Off-Road Wars

At the last cycle conference, I alluded to the growing debate here in New Zealand of whether to locate cyclists on or off road (Koorey 2005). As it happened, soon after I had proposed this paper, Christchurch was embroiled in a six-month long moratorium on cycle facilities while the City Councillors debated the merits of on-road cycle facilities, especially on arterial roads. These quotes from City Councillors are indicative of their thinking:

"To put a major cycle route down Riccarton Road and Blenheim Road is just crazy... If we're going to have cycleways, we're going to have to do it properly." (Christchurch Mail 2005)

"I can't vote to put children on a cycleway I know is unsafe" (The Press 2005)

Needless to say, there was a vociferous response against this moratorium from people who cycled (see Spokes Canterbury 2005). However, in amongst the debate, there were also other people that agreed about questioning the use of on-road cycle routes instead of off-road ones. Some interesting websites have even sprouted up discussing the question of how best to promote cycling (e.g. see Preston 2007).

This debate is useful and indeed necessary if good solutions for each situation are to be identified and all parties understand the implications of these decisions. However Spokes' key concern at the time was not about this debate, but the *process* the Council had used to introduce the moratorium. This highlights a couple of potential dangers that can occur when focused on the "on vs off" debate:

- Councils can slow down or halt their efforts to do *anything* for cycling, worried that they will make the wrong choice or introduce a facility that is "dangerous". During the Christchurch moratorium, the question was posed by many Councillors *"what if we provide an on-road cycle facility and then a cyclist has a crash there?"* This odd line of thinking seems to ignore the fact that cyclists will often continue to use the same route, cycle facility or not, and that the same question could be posed of all road facilities that motorists crash on. Efforts by elected members to demand "safe" cycle facilities are meaningless, as nothing is 100% safe; however it is certainly worth pursuing *safer* options (and most cycle provision options are safer than doing *nothing*).
- Cycling supporters and groups can do themselves a disservice by public in-fighting over how best to provide for cyclists. With my involvement of CAN and Spokes, I've sometimes been accused of only advocating for cycle facilities for "young, fast and fit urban road warriors" instead of for children or "ordinary" people who want to ride. This I find completely unfair, given my public advocacy for a wide range of options. I don't do road racing/training or mountain-biking, and I also have four children of my own learning to ride – how more "ordinary" do you want?

While such debate on options by cycling supporters is certainly useful, if it's all that external agencies hear about they can end up thinking "*why should we provide anything for cyclists; they can't even agree on what they want*". All of this ignores the reality that **cyclists are many and varied**, and no single solution is likely to meet all of their needs completely. So long as this is acknowledged and reasonably broad solutions are implemented, this shouldn't be an impediment to getting something done.

Given the often limited budgets available for cycle provision, some would argue that it's important to stop and make sure we are spending such limited funds wisely. Notwithstanding the argument that we should be spending *more* in this area anyway, this "paralysis by analysis" seems however unduly laboured for the sake of a few hundred thousand dollars of cycle infrastructure, when we barely seem to bat an eyelid for a few hundred *million* dollars on a new motorway.

If you want to debate the merits of different infrastructure options for cyclists, all well and good; I hope my previous paper on this (Koorey 2005) provides some useful pointers. But don't let that result in improved provision of *any* kind for cyclists grinding to a complete halt.

Other Items of Interest

There are other issues also that have been identified over the years that have not helped the case for cycling:

- I cringe every time I hear the term "**vulnerable road users**" when referring to cyclists and pedestrians. A quick search of central and local government agency websites found numerous references to this term, including road safety crash statistics, practitioner Traffic Notes, road traffic sign categories, ACC injury prevention programmes, and annual road policing programmes. Even the proposed LTNZ walking/cycling audit process is termed a "vulnerable road user audit", as opposed to the UK's more neutral "non-motorised user audit" (Highways Agency 2005).

As with the earlier discussion, the "vulnerable" term perpetuates the dangerous nature of these activities. Yet everyone who uses the land transport system is vulnerable to its harmful effects. For example, a person not properly restrained in a car is also a very vulnerable road user.

Similar concerns have been raised previously over other terms used to describe cycling, such as "alternative modes", "slow modes", or "transport disadvantaged." Even Government agencies use the absence of a motor vehicle in a household as part of its index of "social deprivation"! (Salmond & Crampton 2002)

A far more positive term to use (and just as brief) is "**active transport user**". This encompasses the positive, healthy aspects of walking and cycling, and automatically incorporates a wide range of other people horse-riding, skateboarding, jogging, etc who are not always remembered when people simply refer to "pedestrians" and "cyclists". Sport and health agencies have been the main promoters so far of "active transport"; now we need to encourage the term in all sectors, especially road safety. It is pleasing to see that some Councils have even adopted this term for their walking/cycling strategies (e.g. Timaru DC 2006, PalmNth CC / Manawatu DC 2007).

- The protracted debate on **cycle helmets**, both in this country and worldwide, has often expended a lot of people's time and efforts, with relatively little to show for it. In New Zealand for example, a (misplaced) perception that CAN was almost single-mindedly focused on repealing the 1994 cycle helmet legislation has seen some supporters of cycling refuse to join them.

My personal assessment of the situation, both in New Zealand and elsewhere, is that opposing parties have often been talking *past* each other; one faction usually espousing the safety benefits of helmet **wearing**, while another group points out the problematic ramifications of helmet wearing **legislation**. The analogy I liken it to is the precaution of wearing sunscreen when outside, but not making it mandatory to do so; I think most people would support *both* principles.

Probably the biggest issue relevant to this paper is again the "dangerisation" implied by having to wear a helmet (i.e. Formula One and rally car drivers wear a helmet, but ordinary motorists don't, so cycling *must* be dangerous). One has to wonder whether the potential safety benefits

derived from having the entire cycling population wearing helmets outweigh the benefits derived from encouraging more people to cycle without needing a helmet...

Helmet wearing rates remain the only official "safety" behavioural measure monitored by central Government, and many local "cycle safety" campaigns continue to be fairly one-dimensional in only focusing on helmet wearing. Not surprisingly, this results in the media attributing super-powers to helmets, with regular unsubstantiated "helmet saved my life" stories (ignoring all the cyclists killed while wearing helmets, and the fact that the human skull is actually a pretty tough nut to crack). This brief news item is typical of what often gets reported about cycle crashes:

"Cyclist [name withheld] of Waitara, was killed on Saturday night after a collision with a car in Waitara. Mr [xxx] was not wearing a helmet." (NZPA 2005)

Without any further details about the crash, the subtle message that comes through is "it was the cyclist's fault because he wasn't wearing a helmet".

But I suspect my discussion here is already too lengthy for some people, who have long tired of the pro/anti-helmet diatribes. It's an important issue to debate, but with the right audience.

- One final point to raise is another subtle one, but in a more visual way. Have a look at the various NZ "vulnerable road user" warning signs below. Which is the odd one out?



Answer: the cyclist sign is the only one *not* showing a person. We want motorists to make sure they don't hit the cyclist, not their cycle!

"Share the road" campaigns have been discussed in NZ and elsewhere, aimed at encouraging all road users to interact more courteously and safely with each other. In the US, a number of places have tried to reinforce this concept through signage. While they vary in their style, it is interesting to note that all of them feature **actual people** both driving and riding.



All this begs the question: should we look to develop similar signs for local use? Already a similar approach has been used in Taupo to encourage people driving to give cyclists plenty of space when passing (Bike Taupo 2007), as shown by the following sign:



Conclusions

You can perhaps think of some other personal “bugbear” that falls into a similar category as the above topics – I welcome feedback and hearty debate on some of these! Some of the issues raised above may seem a trifle pedantic, haggling over the interpretation of various phrases and so forth. But they are all symptomatic of the mindset that has caused so many difficulties getting cycling accepted in New Zealand (and many other societies worldwide). And when you’re struggling to make headway against the status quo, every little helps!

It may be relatively easy to change some, by virtue of simple “search & replace” editing; others may require some effort to put behind us our preset habits and embrace more positive ways of doing and saying things. And some will require the support of various government agencies, local councils and so on to introduce new practices and policies that better support CYCLING and not just CYCLISTS.

References

- Beca (2005). Predicting Accident Rates for Cyclists and Pedestrians. *Land Transport NZ Research Report No. 289*, Wellington.
Weblink: <http://www.landtransport.govt.nz/research/reports/289.pdf>
- Bike Taupo (2007). *Cyclists and Motorists still need to be Aware*, Sun 4 Mar 2007.
Weblink: <http://biketaupo.org.nz/content/view/264/48/>
- CAN (2007). *Cycling Far Safer than Reported*. Cycling Advocates’ Network Media Release, 7 Jun 2007. Weblink: http://www.can.org.nz/media/07-05-07_CyclingSafer.html
- Christchurch City Council (2005). *Market Research Report for: Cycling Monitor 2005*. Prepared for Christchurch City Council, Feb 2005. Weblink: <http://www.ccc.govt.nz/Cycling/Future/>
- Christchurch City Council (2006a). *Christchurch City: Proposed New Speed Limits*. Report to Council, 30 Nov 2006.
Weblink: <http://www.ccc.govt.nz/council/proceedings/2006/november/cnclcover30th/>
- Christchurch City Council (2006b). *Moorhouse Avenue/Barbadoes Street Intersection*. Report to Council, 20 Dec 2006.
Weblink: <http://www.ccc.govt.nz/council/agendas/2006/december/hagleyferrymead20th/>
- Christchurch Mail (2005). *Cycleway Strategy Change Urged*, Wed 22 Jun 2005, Christchurch.
- Fisher G, Rolfe K, Kjellstrom T, Woodward A, Hales S, Sturman A, Kingham S, Petersen J, Shrestha R, King D (2002). *Health effects due to motor vehicle air pollution in New Zealand*. Report to the Ministry of Transport, 20 Jan 2002.
Weblink: http://www.mot.govt.nz/downloads/niwa_report.pdf
- Frith W (2000). “What Travel Survey Information Tells us about Cycling and Cycle Safety in New Zealand”, 2nd NZ Cycling Symposium, Palmerston North, Jul 2000.
- (UK) Highways Agency (2005). Non-Motorised User Audits. *Design Manual for Roads and Bridges*, Part 5, HD 42/05.
Weblink: <http://www.standardsforhighways.co.uk/dmr/vol5/section2/hd4205.pdf>
- Hillman M. (1993). “Cycling and Promotion of Health”, *Policy Studies*, Vol.14, No.2, pp.49-58.

- IHT (Institution of Highways and Transportation), Cyclists' Touring Club, Bicycle Association, & Department of Transport (1996). *Cycle-friendly Infrastructure: Guidelines for Planning and Design*. London, UK.
- Koorey G (2003), "Why a Cycling Strategy on its own will NOT Increase Cycling", 4th NZ Cycling Conference, North Shore, Oct 2003.
Weblink: <http://spokes.org.nz/article/CycleStrategyPaper2003>
- Koorey G (2005), "The 'On-again/Off-again' Debate about Cycle Facilities", 5th NZ Cycling Conference, Lower Hutt, Oct 2005.
Weblink: <http://spokes.org.nz/article/OnVsOffRoadCyclingPaper2005>
- Napier City Council (2001). *Bike It – The Napier Cycling Strategy*.
Weblink: http://www.napier.govt.nz/council/docs/strategy/cycle_strategy.pdf
- NZ Herald (2004). *Expert calls for greater attention on cyclists and pedestrians*. Thu 22 Jul 2004, Auckland.
- NZ Press Association (2005). *Police Name Woman Killed In Car Crash*, 19 Dec 2005.
- Palmerston North City Council / Manawatu District Council (2007). *Manawatu Active Transport Strategy*, Apr 2007.
- Preston A (2007). *Utility Cyclism*. Weblink: <http://utilitycyclism.blogspot.com/>
- Salmond C, Crampton P (2002). *NZDep2001 Index of Deprivation*, Department of Public Health, Wellington School of Medicine and Health Sciences, August 2002.
Weblink: <http://www.moh.govt.nz/phi/publications#DeprivationIndex>
- Spokes Canterbury (2005). Christchurch CC Cycleway Moratorium webpages.
Weblink: http://www.can.org.nz/old/spokes_chch/moratorium/
- Statistics NZ (2007). *2006 Census data*. Weblink: <http://www.stats.govt.nz/census/>
- The Press (2005). *City Councillors Keep Brake on Christchurch Cycleways*, Wed 16 Nov 2005, Christchurch.
- The Press (2007). *Cyclists' Horror Weekend*. Mon 5 Mar 2007, Christchurch.
- Timaru District Council (2006). *Draft Active Transport Strategy*. Working Draft, May 2006.
Weblink: http://www.timaru.govt.nz/pdf/publications/doc_278773drafttransportstrategy.pdf
- Tobias M, Roberts M (2001). "Modelling physical activity: a multi-state life-table approach". *Aust/NZ Jnl of Public Health*, No. 25 pp.141-148.
- Wairoa District Council (2006). *Walking and Cycling Strategy*, Oct 2006.
Weblink: <http://www.wairoadc.govt.nz/documents/wdcwandcstrat.pdf>
- Whangarei District Council (2007). *Walking and Cycling Strategy*, Draft Jan 2007.
Weblink: <http://www.wdc.govt.nz/customerservice/?lc=reader&m=ts&i=1661>