



Australian Bicycle
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www.dotars.gov.au/abc

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The Secretary
Standing Committee on Environment and Health
House of Representatives
Parliament House
Canberra ACT 2600

Inquiry into Sustainable Cities

Dear Sir/Madam

I am presenting this submission on the Consultation Paper *Sustainable Cities 2025* on behalf of the Australian Bicycle Council (ABC).

The ABC is the national body that manages and coordinates implementation of *Australia Cycling - The National Strategy 1999-2004*. It is also the Bicycle Reference Group for Austroads, the association of Australian and New Zealand road transport and traffic authorities.

The ABC's objective is to increase safe cycling and remove impediments to cycling. Its role is to oversee and coordinate implementation of the national cycling strategy and thereby contribute to the achievement of *Australia Cycling's* vision: *Increased cycling for transport and recreation to enhance the well-being of all Australians.*

The ABC offers the following input to the Sustainable Cities Inquiry consequent to its brief in managing the implementation of the *Australia Cycling*.

As the topic of the inquiry is very broad, we have confined comments to the potential role and importance of cycling as a sustainable transport mode. This will however include comment on cycling's linkages with other sustainable transport modes, principally walking and public transport.

Yours sincerely,

Paul Magarey
Chair
Australian Bicycle Council

31 October 2003

Australian Bicycle Council

SUBMISSION

to

**The House of Representatives
Standing Committee on Environment and Heritage**

on the

Inquiry into Sustainable Cities

October 2003

Introduction: The Australian Bicycle Council (the Council) applauds the Standing Committee for holding the Sustainable Cities 2025 inquiry. The Council believes there is a need for strong leadership to ensure Australia sees an increase in cycling as a mode of transport, for the benefit of our environment, our health and our economy.

Australia Cycling – the National Strategy 1999-2004 (available at www.dotars.gov.au/abc/auscycling.pdf) submits that an increase in active transport (cycling and walking) will improve transport access for many Australians, increase levels of individual physical and mental wellbeing, lower health costs and reduce greenhouse emissions, air pollution and congestion. This will help to make our cities more sustainable.

Australia Cycling has six objectives covering improvements to cycling in the areas of coordination, integration, facilities, safety, information and education. Objective 2 is *Policy and planning integrates cycling as a valued element*. Through this objective, the *Australia Cycling* ‘seeks to recognise cycling as an activity with considerable benefits to our quality of life’. In the light of this objective, the Council regards cycling as an activity that ‘can contribute to the goals of organisations involved in transport, health, environment, urban development, tourism, community, education, and recreation, and should therefore be included in their policies and plans’. Such planning will obviously contribute to meeting the future needs of our community.

The Council regards community concerns about the lack of safe cycling routes, the exposure to vehicles travelling at excessive speeds and the exposure to noxious exhaust fumes as major obstacles to greater use of the bicycle as a mode of transport.¹ Further, physical inactivity is now recognised as one of the most significant health risks to the Australian community, second only to smoking.

Environmental Health: The ABC is concerned with promoting the environmental health benefits of active transport (cycling and walking) relating to both air and noise pollution. The promotion of cycling in particular contributes to improved air quality through reduced congestion and car emissions. This applies particularly when walking or cycling replace short, cold start, car trips which contribute disproportionately to pollution, since catalytic converters take time to reach their operating temperature. Recent research indicates that the health consequences and costs of motor vehicle air pollution may exceed those of motor vehicle crashes², which in Australia are estimated at over \$15 billion per year.³ This mortality

¹ Sample references:

- Glazebrook, G., “Local Strategies for Sustainable Development”, *Sustainable Transport - Let's Make it Happen* Seminar proceedings, The Warren Centre, Sydney, November 2002;
- Katz, R., *Bikeplan 2010: The state of cycling – a review of data and research*, Roads and Traffic Authority of NSW, July 1998, available at <http://www.rta.nsw.gov.au/trafficinformation/downloads/bp2010re.pdf>;
- Unwin N.C., “Promoting the public health benefits of cycling”, in *Public Health*, 109(1): 41-6, 1995;
- Wilson B., “The role of road engineering in highlighting the functions of public roads”, pp71-78 in *Proceedings of the Bicycle User Groups Forum and Safe Cycling Symposium*, November 25-27, Brisbane, State Cycle Unit, Queensland Transport, 2000.

² For example see:

- Kunzli, N. et al, Public-health impact of outdoor and traffic-related air pollution: a European assessment, *The Lancet* Sept 2, 2000 v356 i9232 p795
- Fisher, G.W. et al, Health Effects due to Motor Vehicle Air Pollution in New Zealand, Report to the Ministry of Transport, January 2002;
- Arden Pope, C. et al, “Lung Cancer, Cardiopulmonary Mortality and Long term Exposure to fine particulate air pollution”, *Journal of the American Medical Association*, March 6, 2002

and morbidity will impact mostly on the young and the elderly. Smog has frequently been linked to asthma, particularly in the young.⁴ In surveys conducted by the Australian Bureau of Statistics, air quality rates highest among the environmental issues of concern to the Australian public. Interestingly, while cyclists would appear to be more immediately exposed to exhaust fumes, several studies have revealed that motorists are subject to equivalent or higher levels of air pollution than a cyclist, even when the actual physical effort is taken into account^{5,10}. Physical exercise also appears to strengthen the ability to resist the effects of pollution.⁶

With regard to ambient air quality, the ABC particularly supports the Environment Protection and Heritage Council's (EPHC) *National Environment Protection (Ambient Air Quality) Measure, Impact Statement for PM2.5 Variation: Setting a PM2.5 Standard in Australia*⁷. Diesel exhaust was listed as a toxic air contaminant by the California Environmental Protection Agency's Air Resources Board in 1998⁸.

Physical Activity through Active Transport: A sustainable transport system is also a physically healthy transport system: Physical inactivity is now recognised as one of the most significant health risks to the Australian community, second only to smoking. The individual and environmental health and cost benefits of physical exercise from active transport are well documented through the National Public Health Partnership (NPHP) and the Strategic Inter-Governmental forum on Physical Activity and Health (SIGPAH) publications such as *Promoting Active Transport*⁹ and *Getting Australia Active*¹⁰ amongst many other resources.¹¹ More recent statements by Senator the Hon Kay Patterson, former

³ (BTE 1) Bureau of Transport Economics, Road Crash Costs in Australia, Report 102, 2000, p xi.

⁴ e.g. http://www.abc.net.au/science/news/health/HealthRepublish_873781.htm

⁵ Chertock M, Voukelatos A, Shephard V, Rissel C. Comparison of BTEX and NO2 exposure levels for commuting modes in Sydney - car, train, bus, bicycle and walking. Camperdown: Central Sydney Area Health Service, 2003.

⁶ e.g. see Van Wijnen/ Verhoeff/ Henk/ Van Bruggen, The exposure of cyclists, car drivers and pedestrians to traffic-related air-pollutants, 1995 Int. Arch. Occup. Environ. Health 67: 187-193

⁷ October 2002, available at http://www.ephc.gov.au/pdf/Air_Variation_PM25/draft_variation_is.pdf

⁸ see <http://www.arb.ca.gov/newsrel/nr082798.htm>

⁹ Strategic Inter-Governmental forum on Physical Activity and Health (SIGPAH), *Promoting Active Transport: An Intervention Portfolio To Increase Physical Activity As A Means of Transport*, National Public Health Partnership, 2001

¹⁰ Bauman A, Bellew B, Vita P, Brown W, Owen N, *Getting Australia active: towards better practice for the promotion of physical activity*, National Public Health Partnership, Melbourne, Australia, March, 2002

¹¹ Good examples specifically relating to cycling being:

- British Medical Association, *Cycling: towards health and safety*, Oxford University Press, 1992
- Ian Roberts, Harry Owen, Peter Lumb, Colin MacDougall, *Peddalling Health: Health Benefits of a Modal Transport Shift*, 1995, ISBN 07308 0741X. This publication estimates that if 40% of the population cycled or walked for transport, health costs would be reduced by \$6.5 million every day.
- Victorian Department of the Transport, Environment and the Regions, *Cycling for Better Health*, December 1999.
- Steindorfl, Karen, Schmidt1, Martina, Kropp, Silke, Chang-Claude, Jenny, "Case-Control Study of Physical Activity and Breast Cancer Risk among Premenopausal Women in Germany", *American Journal of Epidemiology*, 157:121-130, 2003

Minister for Health and Ageing, support the concept of preventative health measures such as the encouragement of physical exercise and active transport as “the fourth pillar of Medicare, alongside the Pharmaceutical Benefits Scheme, the Medicare Benefits Scheme and the provision of public hospitals.”¹²

Where many adults would remember walking or cycling to school, most children today are driven in private cars despite the majority living within walking distance¹³. The general increase in use of private motor vehicles contributes not only to health problems associated with air pollution, traffic congestion and road safety hazards, but also to those resulting from physical inactivity. Childhood obesity and overweight are significant public health concerns. Travel behaviour patterns are formed as children, and cycling, walking and public transport as part of the journey to and from child-care or school represents an opportunity to promote regular physical activity for many pre-school and school age children. It should be noted also that mental health is also influenced by levels of physical activity with exercise acknowledged as an effective treatment for depression.

Benefit-Cost: Nationally, the annual direct health care cost attributable to physical inactivity has been estimated at \$377 million per year¹⁴. The cost of obesity in Australia has been estimated at between \$680 and \$1,239 million per year¹⁵. Besides cost savings in our health and infrastructure budgets available through increased use of active transport, evidence from the United States shows that on the micro scale, transportation costs are now just below housing costs as the leading household expenditure item¹⁶. Australia is undoubtedly following this trend as we see the creation of poverty traps and poor childhood environments for low income families that are denied access to safe active transport or public transport facilities and therefore become dependent on their cars.

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- Stephenson J, Bauman A, Armstrong T, Smith B, Bellew B. The cost of illness attributable to physical inactivity in Australia - a preliminary study, Canberra: Centre for Disease, Health and Aged Care, 2000.

Relating to walking, further references are available on request. Note also the recent Commonwealth Government’s Green Paper *Auslink: Towards the National Transport Plan*, Department of Transport and Regional Services, November 2002 estimates the monetary cost of road crashes at approximately \$15 billion per annum.

¹² See:

- Speech by Senator the Hon Kay Patterson, Minister for Health and Ageing to the *Hospital and Healthcare Facilities Summit*, The Australian Financial Review, Hotel Inter-Continental Sydney, 25 November, 2002, available at <http://www.health.gov.au/mediare/yr2002/kp/kpsp021125a.htm>;
- Media Release from Senator the Hon Kay Patterson, Minister for Health and Ageing, *Modest weight loss can help in the battle against obesity*, 8 December 2002, available at <http://www.health.gov.au/mediare/yr2002/kp/kp02142.htm>

¹³ e.g. see

- Merom D, Bauman A. Active commuting to school –habits, level of physical activity and influences – NSW primary school children, NSW Department of Health, 2002.
- CSAHS Health Promotion Unit, Leichhardt Council and Forest Lodge Public School *Walk to School Project (unpublished report)*, 2001.

¹⁴ Stephenson J, Bauman A, Armstrong T, Smith B, Bellew B. The cost of illness attributable to physical inactivity in Australia- a preliminary study. Canberra: CDHAC, 2000.

¹⁵ NSW Health Department. *NSW Childhood Obesity Summit Background Paper*. August 28 2002.

¹⁶ <http://www.transact.org/library/factsheets/Transportation%20and%20Housing.DOC>

RECOMMENDATIONS:

Possible Intervention Strategies are numerous. They should include:

- **Transport Policy and funding of the implementation of *Australia Cycling: the National Strategy 1999-2004*:** Develop a national transport policy that incorporates sustainability principles and goals. This should ensure there is adequate funding given to the Australian Bicycle Council to implement the national cycling strategy, *Australia Cycling: the National Strategy 1999-2004*.
- **Urban design:** environmental safety and active transport infrastructure audits by the local councils with corresponding road safety improvements around schools, playgrounds, and community centres. The focus should be on urban amenity and traffic calming. This should be linked to targeted funding for safety improvements for active transport infrastructure and facilities through the Black Spot programme, consistent with *Australia Cycling Strategy 4.3: To ensure that [transport] safety initiatives such as safety audits and identification of blackspots include consideration of cycling*.
- **National land transport infrastructure:** Funding of all new projects under Auslink (including public transport infrastructure) should be contingent upon plans taking appropriate account of local cyclists and pedestrian movements, with measures provided to counter any negative impacts. Further, AusLink project evaluation should include assessment of how well projects support broader areas of Australian Government policy including but not limited to: sustainability, health, greenhouse, environment and safety issues, social equity and favouring sustainable transport modes such as cycling and walking.
- **Public Transport and Cycling:** The role of cycling in expanding public transport catchment areas should be recognised. Provision of secure cycle parking facilities at all public transport locations will increase the viability of those services. There should be continued support for the Australian Government's Sustainable Cities \$2.4 million public transport interchange bicycle lockers initiative beyond the current four year commitment.
- **Leadership:** Community interests favourable to sustainable and active transport should be represented on the proposed National Transport Advisory Council (NTAC). In light of impending risks faced by Australia due to its oil vulnerability, the NTAC should be directed in suggest practical ways to implement congestion pricing for cities and mass distance pricing for our truck fleet. Additionally, popular champions for active transport should be identified and used in the media to promote cycling and walking.
- **Promotion:** Market research by the WA Department of Transport has indicated that the best way to market cycling is by promotion of its health benefits and its role as a family activity. However public education should be multi-dimensional, conducted at a sufficiently significant level and sustained. Collaboration between government, NGOs and the private sector may be required to generate the required level of influence.
- **Container Deposit Legislation:** Instituting national container deposit legislation would have environmental benefits in addition to removing much of an existing barrier (in the form of broken glass on bike lanes and bike paths from discarded bottles) to increased cycling.

- **Roads to Recovery Programme:** The Roads to Recovery programme is excellent at delivering benefits directly to communities through local government. This programme should be continued and expanded with an additional programme for councils specifically to invest in improving non-motorised transport infrastructure to encourage sustainable modes for local travel.
- **Cycle Tourism:** Urge a national commitment to, and investment in, encouraging a more sustainable tourism market by providing for cycle tourism.
- **Monitoring and Evaluation:** Outcome measures should be monitored on a national basis and should include:
 - **frequency** of cycling or walking trips
 - **knowledge** of health benefits of active transport
 - **attitudes** to active transport and level of physical activity
 - **infrastructure provision and promotion** by local councils, state/territory and the Governments to support active transport.

NOTES ON DISCUSSION PAPER

Re 1. Preserve bushland, significant heritage and urban green zones

Green Zones represent ideal opportunities to plan comprehensive cycling and walking routes. Where busy roads have effectively excluded cyclists and pedestrians in terms of transport and offer little in terms of recreation, parks and natural places provide both relief for these people passing through and a destination in themselves. With enormous pressure on urban land for development, transport corridors and parking, green zones are increasingly valued for their therapeutic effects and the profound contrast they bring to the high rise inner-city and the bland residential suburbs.

Re 2. Ensure equitable access to and efficient use of energy, including renewable energy sources

Cycling and walking use only food fuels the use of which ensures consequent health benefits. These modes of transport neither consume fossil fuel nor do they require the huge amounts of embodied energy represented in each motor vehicle. While foregoing a car is a difficult option for many families, a second or third car is clearly unnecessary if active transport or bicycle/rail or bicycle/bus combination are viable options. Of course, there is little encouragement, still less reward, for making this choice when urban form and infrastructure reinforce the dominant mode.

Re 3. Establish an integrated sustainable water and stormwater management system addressing capture, consumption, treatment and re-use opportunities

Bikes don't create heavy metal pollution in waterways or contribute significantly to the particulate pollution abraded from tyres and brake pads to be washed into city drains. Cars and oil are major sources of ocean pollution. The stormwater networks in some cities offer transport corridor opportunities for cycling and walking. Any reduction in the demand for road infrastructure can arrest the trend to pave even more urban surface area. The combination of roofs and roads direct an ever greater proportion of run-off into the stormwater systems, rather than to be absorbed in what remains of exposed earth and vegetation.

Re 4. Manage and minimise domestic and industrial waste

No comment.

Re 5. Develop sustainable transport networks, nodal complementarity and logistics

There are fine examples of support and integration of cycling and walking in highly urbanised countries like the Netherlands. In Denmark, with high quality bicycle facilities such as dedicated cycleways, secure bicycle parking and with integrated public transport, 60% of school-home journeys are made by bike¹⁷. In the Netherlands, with approximately 19,000 km of cycling paths and lanes, the proportion of trips made by bicycle in medium sized towns (population between 50,000 and 200,000) varies from 20% to 50%,¹⁸ with a national average of around 28%.¹⁹ Australia is warmer and drier than northern Europe and in many respects equally urbanised. There have been very significant improvements in freight logistics recently and the Australian Government has demonstrated what can be done when it becomes seriously involved in a core transport problem. This has drawn attention to the major factor affecting transport efficiency: private passenger vehicles and the congestion they cause. In addition, the amount of space taken up for roads and parking, at up to one third of a city's area, compromises the ability to have sustainable land use planning with walkable communities. Clearly, there are solutions available and cycling has a potentially large role if Australia is prepared to value the health, environmental and economic benefits that flow from recognising its importance as a transport mode in advanced societies. The NSW Government's *Integrated Transport Strategy for the Greater Metropolitan Region* reports that over half (55%) of car trips in Sydney are less than five kilometres and 33% are less than three kilometres²⁰. If most journeys of this length currently made by motorised transport were made by bicycle the percentage of all trips made by bicycle would increase to those levels seen in Holland and Denmark, amongst other European cities.

Re 6. Incorporate eco-efficiency principles into new buildings and housing

Planning regulations should require cycle parking facilities in all new buildings and housing. Where conventional car parking requirements apply, this provision adds significantly to the development cost. A combination of car share facilities in residential developments and end-of-trip facilities in workplaces can provide grounds for waiving a proportion of the car parking required for new buildings and release valuable land currently wasted storing commuter vehicles all day.

Re 7. Develop urban plans that accommodate lifestyle and business opportunities

In many European Cities, car-free residential developments are now fetching higher prices than conventional driveway homes.²¹ More people are beginning to value the quiet, safety and amenity of human-scale as opposed to car-scale development. Vehicle access is still possible but not at the expense of the streetscape. Medium density housing built close to public transport nodes can facilitate high levels of walking and cycling especially if there is a range of amenities close by, including employment and educational opportunities as well as retail services. Cyclists needing to travel to other centres could leave their bicycles stored securely or take them on the train or bus.

¹⁷ Energy Efficiency and Conservation Authority, NZ, News September 2000, "Virtuous Cycle" - see http://www.eeca.govt.nz/content/EW_news/67sep00/67cycle.htm

¹⁸ European Academy of the Urban Environment, *Delft: Promoting the use of bicycle by systematic town planning*, extract from the database *SURBAN - Good practice in urban development*, sponsored by: European Commission, DG XI and Land of Berlin, see <http://www.eaue.de/winuwd/78.htm>

¹⁹ British Medical Journal, *Cycling towards health and safety*. Oxford: Oxford University Press, 1992.

²⁰ NSW Department of Transport. *Integrated Transport Strategy for the Greater Metropolitan Region*. Sydney, 1995.

²¹ Project SceneSusTech, Literature Review: Car Systems in European Cities – Environment and Social Exclusion: Team Briefing. Maria Lohan, Employment Research Centre, <http://www.tcd.ie/erc/cars/reportspdf/RPWP11c1.pdf>