

Submission to Legislative Council Inquiry into Environmental Design and Public Health



*Healthy Parks
Healthy People®*



June 2011

Terms of Reference

On 5 April 2011, the Legislative Council agreed to the following motion:*

That this House requires the Environment and Planning References Committee to inquire into, consider and report on the contribution of environmental design to prevention and public health in Victoria, and in particular:

- (1) review the evidence of the contribution of the natural and built environments to the promotion of health and well being;
- (2) identify and report on those elements of environmental planning and design which provide the most promising opportunities for improving health outcomes in Victoria;
- (3) assess the extent to which these factors are currently taken into account in environmental planning and design in both the public and private sectors, and their effectiveness, with particular reference to new growth areas;
- (4) determine opportunities to influence environmental planning and design for health, including consideration of the role of legislation, guidelines, and public-private partnerships, and the costs and benefits of various options; and
- (5) provide recommendations for future planning and investment; and that the Committee will consider:
 - (a) the effectiveness of the Environments for Health Municipal Public Health Planning Framework;
 - (b) the State Public Health and Wellbeing Act 2008, the Transport Integration Act 2010 and the Planning and Environment Act 1987;
 - (c) international experience such as the World Health Organisation's (WHO) Healthy Cities initiative;
 - (d) the consistency of policy approaches across the Victorian Government to promote health through evidence based environmental planning and design measures; and
 - (e) the role of public open space in promoting health;

and that the Committee present its final report to Parliament no later than 12 months after this reference is given to the Committee.

**Parks Victoria Submission to the Legislative Council Inquiry into Environmental
Design and Public Health**

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“Abundant evidence is available to substantiate the views of city planners, the medical profession and psychologists that proper outdoor recreation has a most beneficial effect on the health, morals and business efficiency of communities, and consequently, on national life.”

*Melbourne Town Planning Commission,
1929*

Terms of reference	Parks Victoria's response
<p>(1) <i>Evidence of the Contribution of the Natural and Built Environment to the promotion of Health and Well Being</i></p>	<p><u>Response:</u></p> <p>The following definitions have been used in response to this Inquiry:</p> <p>Natural Environment- <i>encompasses all species, habitats and landforms found on earth including natural resources such as air, water and climate. The natural environment does not originate from humans, although it may be subject to human intervention and impact</i></p> <p>Built environment- <i>refers to aspects of our surroundings which are created or modified by people rather than occurring naturally. It includes homes, workplaces, created recreation areas, transport systems and many other settings.</i></p> <p>Open Space- nature based spaces catering for formal and informal recreation, including regional scale nature based parks, shared trails, coasts and bays, waterways and areas of conservation and cultural significance managed by various agencies</p> <p>The natural and built environment can be a major determinant of health and how we live. Our surroundings can influence our health through a variety of channels including exposure to physical, chemical, and biological risk factors or by triggering behavioural changes. (2) Australians more than ever are living in urban areas making the quality and quantity of and access to green open space in urban environments even more critical.</p> <p>Substantial evidence supports the hypothesis that humans are dependent on nature for psychological, emotional and spiritual needs that are difficult to satisfy by other means. Research findings so far demonstrate that access to nature plays a vital role in human health, well being and development that has not been fully recognised. Research indicates that those using public open space are three times more likely to achieve recommended levels of physical activity than those who did not use these spaces</p>

Parks and nature are an important part of both improving and maintaining health, both for individuals and the community. Research has found the main health and wellbeing benefits of contact with nature include biological and mental wellbeing, social and community wellbeing, economic wellbeing, environmental wellbeing, life satisfaction and spiritual wellbeing.

Parks, open space and recreational services play a key role in the enhancement of health and wellbeing of Victorian populations through the following means (1);

➤ **Promoting physical activity**

- Providing spaces for physical activity that can prevent and improve a wide variety of health problems, such as cardiovascular disease, diabetes, depression and anxiety, overweight and obesity. Almost 9 million Australians do not undertake enough physical activity on a daily basis.
- opportunities for physical activities at little or no direct cost to users
- spaces for disadvantaged groups as an accessible and affordable option for physical activity despite inequalities in supply and access. Research suggests that a physical environment that promotes good health may be an important tool in reducing health inequalities.
- research overseas indicates a significant relationship between the percentage of open space within a one or three kilometre radius of residential areas and self assessed health.
- People with access to attractive and large public open spaces are 50% more likely to have high levels of walking (defined as at least 6 walking sessions per week, totalling 180 minutes) (5)
- Australian Institute of Health and Welfare data indicates that inadequate physical activity is associated with an increased risk of ill health and death, and has been linked to increased rates of overweight and obesity, cardiovascular disease, diabetes and some cancers (2)
- World Health Organisation (WHO) data indicates that physical activity is one of the leading causes of death in developed countries, responsible for an estimated 22-23% of coronary heart disease, 17% of colon cancer, 15% of diabetes, 12% of strokes and 11% of breast cancer (7)

➤ **Enhancing mental wellbeing**

- Contact with nature provides a sense of wellbeing and positively influences cardiovascular function
- Views of nature improve psychological health, particularly emotional
- Nature and parks promote healing in patients suffering from severe trauma, cancer, depression, anxiety and other life altering afflictions
- Views of nature reduce self reports of illnesses such as headaches and digestive disorders in people who work in confined indoor spaces (e.g. offices and prisons)
- Contact with nature improves self-awareness, self esteem, self concept and positively effects mood.
- Contact with nature is effective in alleviating the symptoms of anxiety, depression, irritability, restlessness, insomnia, tension, headaches and even indigestion.
- The annual prevalence for 15 out of 24 diseases has been shown in one study to be lower in people living in environments with more green space in a one kilometre radius (5)
- Studies have shown that contact with nature helps reduce stress and build resilience, enabling people to cope with and recover from stressful episodes. The new Victorian Royal Children's Hospital has 80% of recovery rooms facing Royal park for this very reason.

➤ **Promoting social and community wellbeing**

- Natural environments foster social capital within neighbourhoods by providing publicly accessible settings for groups to meet formally and informally for recreation or leisure pursuits
- Research indicates that where community members are engaged in civic environmentalism (e.g. Friends Groups) there are significant benefits for social connectedness and social capital
- Nature in high density urban living can reduce vandalism, violence, crime rates, ease ethnic tensions and result in neighbourhood and personal transformation
- The association between income deprivation and mortality and lack of exposure to nature has been proven to be significant (6)

Research also confirms that contact with nature is important for children’s physical, social and emotional development. Studies have found:

- Children who spend more times outdoors tend to be more physically active and are less likely to be overweight.
- Views of or contact with nature helps reduce stress in children
- Children with a park or playground near their home are more likely to be a healthy weight
- Playing in a natural environment improves preschool children’s motor skills.

➤ **Mitigating the effects of climate change**

- Green spaces can reduce the heat island effect, which refers to the phenomenon of built up areas being hotter than nearby surrounding rural areas (ref Fig 1.), and thus having negative health effects on communities, particularly the aged during heat wave events. Urban open space can mitigate the reduction of mortality and morbidity effects of heat events. (3)

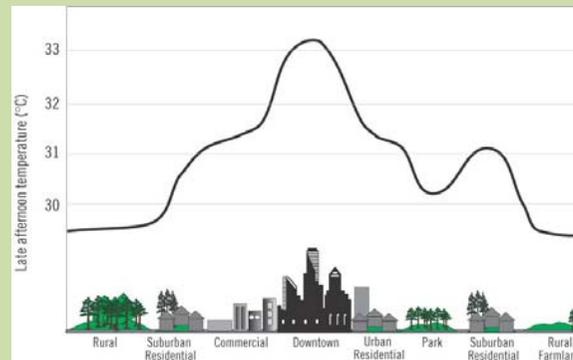


Fig 1.
The “Heat Island” Effect

- Parks provide ecosystem services that enhance community health and well being during times of climate change e.g. enhancement of erosion control, reduction of drought effects on water supply quality and quantity, and mitigation of air pollution in urban environments

Opportunities:

- Government support for continuing research into benefits of the Healthy Parks Healthy People approach
- Consideration of Victoria establishing a “Centre of Excellence” for Healthy Parks Healthy People
- Develop a coordinated research program to increase understanding of climate change impacts on ecosystems and ecosystem services, which are currently uncertain or poorly understood, to ensure the continued provision of quality settings contributing to Victorians liveability
- Develop research programs connected to effectiveness of interventions in open space e.g. effectiveness of creating major Regional scale nature based play-scapes in socially disadvantaged communities
- Government commitment to the principles and call to action of the Melbourne Communiqué April 2010 (8)

References:

1. Healthy Parks Healthy People: The health benefits of contact with nature in a park context 2nd Edition March 2008 , School of Health and Social development, Deakin University, Burwood, Melbourne
2. Health and the Environment – a compilation of the evidence. Australian Institute of Health and Welfare 2011.
3. The Value of Parks, Parks Forum, 2008
4. Heart Foundation: Creating Healthy neighbourhoods, Consumer preferences for health development 2011
5. Billie Giles-Corti, The impact of urban form on public health, School of Population Health, The University of Western Australia.prepared for the 2006 Australian State of the Environment Committee, 2006
6. Effect of exposure to the natural environment on health inequalities, Mitchell and Popham 2008
7. WHO- Why Urban Health Matters- World Health Organisation 2010
8. Melbourne Communiqué- International Healthy Parks Healthy People Congress, Melbourne 2010

(2) Identify and report on those elements of environmental planning and design which provide the most promising opportunities for improving health outcomes in Victoria

Response:

The health benefits of parks and open space has been one of the key drivers in the reservation and development of these spaces since European settlement with parks being developed as early as 1840's. The 1929 Metropolitan Town Planning Commission for Melbourne argued that "abundant evidence" was available to substantiate the health benefits of outdoor recreation in open space and as such the question facing the commission was simply one of how much is required to realise these benefits.

Since that time, open space plans for Melbourne have created a substantial network of parks and open space which are enjoyed by the community. These community assets require investment to;

- revitalise existing parks in established suburbs to meet increasing population densities and changing recreational and lifestyle trends
- continue the development of existing parks in outer suburbs, and
- define boundaries, secure land and develop parks and open space in Melbourne's growth corridors where current inequities in supply of parks are being exacerbated by rapid population growth.

Linking People and Spaces, 2002, (9) the strategy for Melbourne's open space network, outlined the rationale and response to the provision of new open space and trails across Melbourne. In 2009, Parks Victoria commenced the review of this strategy in response to increasing population and urban footprint and diversifying communities; the impacts of climate change; changing lifestyles and recreational choices; emerging healthy issues; and pressures on urban ecology from an expanding built form. (10), (11)

The unpublished draft translates the *Healthy Parks Healthy People* philosophy into a strategic framework and action plan with programs, partnerships and initiatives to improve the liveability of Melbourne and the health and wellbeing of its communities. The new approaches introduced in this strategy to reinvigorate the network includes: new programs, services and information to increase awareness and involvement; nature based play-scapes and programs to recapture children's connections with nature; revitalising the existing network to reflect contemporary lifestyles and standards; expanding the concept of trails to encourage and enable urban bushwalking adventure walks, and canoeing and kayaking trails; and improving safer access to our foreshores and bays to integrate the blue open spaces into the wider network.

Planning for the next wave of regional open space in growth areas will continue as a key focus from LPS 2002. The comprehensive suite of actions has been identified in consultation with relevant land managers. The action list details specific project and programs, accountable agency/s and the timeline for planning, design and delivery of these over a 10-15year period. The actions respond to the need to;

- Develop new parks in growth areas;
- Complete parks in growth areas where land has been acquired but visitor offer is limited;
- Revitalise existing parks in outer suburbs and inner/middle ring where increasing densities are creating capacity and quality issues for parks build in the 1980's;
- Extend the metropolitan trail network to encourage shared use walking and cycling paths;
- Define and revitalise waterway, foreshore and maritime precincts to support high visitation to our bays and waters, and
- Implement extended programs that connect communities to our parks, bays and waterways.

The consultation program included two rounds of workshops with all councils within metropolitan Melbourne, input from the interagency members and meetings with peak bodies such as Bicycle Victoria, Bushwalking Victoria and Playgrounds and Recreation Association of Victoria.

Opportunities:

- Strong policy direction at all levels of planning to support the provision of an open space and trails network for urban areas
- Provision of a State Government open space policy to provide authority and direction
- Planning and designing open spaces to accommodate multiple community uses e.g. planning active recreation reserves adjacent to nature based regional scale open space or planning community facilities adjacent to parks to allow increased connection with, and appreciation of, nature through social gathering, programmes or community events
- Increase partnerships with private land developers to incorporate open space in new developments. Public open space is becoming increasingly important as increasing urban density is resulting in a decrease in private open space.

References

9. Linking People and Spaces. A strategy for Melbourne's open space network, Parks Victoria (2002)
10. Linking People and Spaces 2010. Discussion Paper, Parks Victoria (2009)
11. Linking People and Spaces. A strategy for Melbourne's regional nature-based open space network 2010, (UNPUBLISHED DRAFT), Parks Victoria (2010)

(3) Assess the extent to which these factors are currently taken into account in environmental planning and design in both the public and private sectors and their effectiveness, with particular reference to new growth areas

Response:

In relation to new growth areas, integration of the principles of Healthy Parks Healthy People into current planning and development is limited and could be improved, in particular integrating public and private partnership around open space provision. There are opportunities to increase partnerships with private land developers to incorporate more open space in new developments. Public open space is becoming increasingly important particularly in the urban environment as increasing population density is resulting in a decrease in private open space.

Opportunities:

- **Development of an improved mechanism for investment and timely implementation of open space and trails as critical infrastructure elements of growth areas**
- **Give equal weight to provision of open space and trails in the planning of new suburbs as to other infrastructure**
- **Invest in priority actions for increasing the supply of open space in the outer suburbs as described in Linking People and Spaces 2002 and 2010 (unpublished draft) (11)**
- **Continue to ensure interagency partnerships, policy development and planning outcomes include open space and see it as integral to improving wellbeing and liveability options for all Victorians**

(4) Determine opportunities to influence environmental planning and design for health, including consideration of the role and benefits of various options

Response:

Government agencies have the opportunity to use their civic leadership to bring together and improve communication between strategic partners and stakeholders and combine organizational resources to improve living, social, economic and environmental circumstances through influencing environmental planning and design.

Parks and open space can play a major role in the move from a treatment-based health system to a prevention-based system by providing opportunities and settings for the enhancement of physical and mental health. By promoting the health benefits of interacting with nature, and assuming a role in public health, parks can provide one focus through which innovative social equity and investment in health can be provided.

Cooperation through partnership approaches is required between Government Departments, health professionals, researchers and park management agencies to ensure integration of parks and nature into the public health agenda.

Globally, the Healthy Parks Healthy People philosophy is being adopted as a basis for environmental design delivering enhanced public health benefits, recent demonstrated through the adoption of Healthy parks Healthy People philosophy by the United States National Parks Service. (12) The recent establishment of HPHP Global, a social enterprise aimed at facilitating health outcomes through nature at the International level is further evidence of the global push towards better effectiveness in connecting people with nature.

International examples abound of partnership approaches, which aim to transform underperforming public space into vibrant community destinations through a process of community participation and empowerment (e.g. the Canadian not for profit 8-80 Cities is partnering with the Ontario Ministry of Health Promotion and Sport on a two year project to revitalise public spaces).

As a further example, Parks Victoria's joint programs with Asthma Victoria, the Heart Foundation, Beyond Blue, VicHealth and other health groups is being adopted by park agencies in other States and internationally.

Models currently existing or being developed within Victoria which demonstrate the cooperative approach to obtaining enhanced health and well being outcomes include:

- **Secondment from the Health Department to Parks Victoria of a Senior medical preventative Health Advisor to work in partnership to influence environmental planning and design and to develop partnership initiatives and programs leading to enhance health outcomes**
- **The Healthy Parks Healthy People Physical Activity trial funded by a prominent health insurer and based in Geelong uses the primary health care networks of that area to prescribe open space (in this case the Barwon River Parklands) and physical activity as a preventative tool rather than the alternative of prescriptive medicines. This project has the potential to be initiated in other Victorian communities**
- **Partnership between The Royal Talbot Rehabilitation Centre at Fairfield and Parks Victoria to better facilitate the rehabilitation of patients through the greater use of the adjacent parkland**
- **Development of Mountain Biking Trail Statewide strategy and Warburton International Mountain Biking Centre concept to facilitate massive increase in use of public land for mountain bike activities**
- **'Feel Blue, Touch Green'- a partnership study between Deakin University and Parks Victoria which demonstrated the improvement in general well being and more particularly mental health of individuals experiencing involvement in conservation works on public open space. The trial concluded that there is potential for a reduction in demand for currently over stretched health care services through this model of engagement.**

The relationship between transport and liveability needs to include recognition of the importance of shifting towards increased walking and cycling. Trail networks and pedestrian friendly design need to be a key indicator of liveability. The majority of car trips undertaken are short distance and could be substantially replaced with walking or cycling if this were made a priority and supported by policy and urban design. The completion and expansion of a metropolitan trail network as outlined in *Linking People and Spaces 2002*ⁱ could contribute to indications of liveability. Then synergistic benefits to human health and the environment would be substantial.

Opportunities:

- Reserve land for future open space with development to occur only as communities grow
- Develop a new planning model for new suburbs or significant developments which include open space planners, Government policy arm, health sector, research bodies and developers to realise the potential of better linking communities to nature.
- Invest in peri urban parks such as Macedon regional park, You Yangs Regional park and Kinglake to increase the recreational offer for outer suburban Melbourne
- Revitalise existing State-wide open space to meet demands of growing and increasingly diverse communities, changing community expectations and lifestyles
- Co-locate open space with senior/aged care facilities, and housing to support active healthy lifestyles in aged populations
- Support network wide sustainable transport opportunities and promote walkable and cycle friendly communities to reduce car dependent access to urban areas

Reference

12. Protecting the earth's two most important assets- Introducing Healthy Parks Healthy People, HPHP Global 2011

(5) Provide recommendations for future planning and investment and that the committee will consider:

Response:

Future planning and investment needs to consider the role of open space in delivering health and well being outcomes to the community. Although the evidence base for the natural environment as a promoter of human health and well being is still developing (Centre for Evidence- Based Conservation, Bowler Knight & Pullin March 2009), the evidence so far clearly indicates that the provision of open space in our increasingly urbanised society will play a critical role in the future health and well being of our communities.

The term “liveability” relates to positive social, economic, environmental, cultural and governance outcomes in communities., and is generally described in terms of the following five domains: (13)

- **Healthy, safe and inclusive communities**
- **Dynamic resilient local economies**
- **Sustainable built and natural environments**
- **Culturally rich and vibrant communities**
- **Democratic and engaged communities**

Considerable evidence already alluded to has been developed on the benefits of the environment and open space to the liveability of Victorian communities. In particular, parks and open space play a key role in the mitigation of non-communicable diseases (Ref Fig 2.)

Non communicable disease	Contributing factor	Nature-based prevention or treatment
Cardiovascular	Lifestyle, nutrition	Exercise, food quality
Pulmonary	Lifestyle, pollution	Exercise, food quality, air quality
Cancers	Lifestyle, diet, pollution and smoking	Exercise, air quality, water quality
Diabetes	Diet and malnutrition	Exercise, food quality
Musculo-skeletal	Lifestyle	Exercise, food quality
Obesity	Diet, lifestyle	Exercise, food quality
Mental and behavioural	Lifestyle	Outdoor recreation, food quality
Genetic/degenerative	Foetal environment	Palliative outdoor recreation

FIG 2

The following existing planning frameworks and acts create a foundation to build from to improve the integration of health and well being into positive community outcomes in the planning and

design of open space and liveable communities.

Environments for Health Municipal Public Health Planning Framework

The function of a Council (LGA) under this framework is to seek to protect, improve and promote public health and wellbeing within the municipal district by creating an environment which supports the health of members of the local community and strengthens the capacity of the community and individuals to achieve better health.

The framework anticipates Government agencies and Local Government working in partnership in a whole of footprint thinking and working closely with local communities to ensure that the provision of a linked system of nature and open space opportunities continues to develop. The Healthy Parks Healthy People philosophy can underpin many of the intentions of the framework.

The State Public Health and Wellbeing Act 2008, the Transport Integration Act 2010 and the Planning and Environment Act 1987

This Act explicitly states that collaboration between all levels of Government and industry, business, communities and individuals is to be a key part of the plan. For Parks Victoria this would include the inclusion of the Healthy Parks Healthy People philosophy.

Examples of innovation and best practice:

Below are detailed some examples of international and local examples of innovation and best practice that could be adapted and implemented in Victoria.

World Health Organisation's (WHO) Healthy Cities initiative
<http://www.euro.who.int>

The WHO Healthy Cities project is a global movement. It engages local governments in health development through a process of political commitment, institutional change, capacity-building, partnership-based planning and innovative projects. About 90 cities are members of the WHO European Healthy Cities Network, and 30 national Healthy Cities networks across the WHO European

Region have more than 1400 cities and towns as members.

8-80 Cities (Gil Penalosa)

<http://www.8-80cities.org/>

8 - 80 Cities is a Canadian based non-profit organization with an international outlook. Their goal is to contribute to the creation of vibrant cities and healthy communities, where residents live happier and enjoy great public places. They promote walking and bicycling as activities and urban parks, trails and other public spaces as great places for all. They believe safe walking and cycling infrastructure, and vibrant public places are key symptoms of a more people-oriented and socially equitable city.

1000 Cities, 1000 Lives (8)

<http://1000cities.who.int/>

With the campaign 1000 cities, 1000 lives, events have been organized worldwide aimed at opening up portions of streets to promote healthy activities. Stories of urban health champions are gathered to illustrate what people are doing to improve health in their cities.

Healthy Parks Healthy People - Physical Activity

Parks Victoria and the Health Department partnership whereby a Senior Preventative Health specialist was seconded to Parks Victoria for 2 days/wk as demonstrating the sort of cross government strategic partnerships that are required if health and well being benefits at the community level are to be obtained. This partnership has resulted in the “Healthy Parks Healthy People Physical Activity” project being trailed in Geelong commencing September 2011. The trial is totally funded by a major health insurer.

Opportunities:

- **Health and sectoral policy to take account of ecosystem based approaches**
- **Introduction of health focus in nature conservation policies, plans and programmes**
- **Introduction of nature focus into health promotion, treatment and insurance**
- **Develop enhanced public awareness and education programs based around health benefits of nature**
- **Revitalise the quality of the existing open space network to accommodate intensifying use and contemporary recreation trends**
- **Address the inequality in supply and demand of open space across the metropolitan area.**

References:

- 13. The contribution of public land to liveability and natural values – Part D. The Victorian Competition and Efficiency Commission 2009**
- 14. The Benefits of Physical Activity Provided by Park and Recreation Services: The Scientific Evidence. Geoffrey Godbey & Andrew Mowen, National Recreation and Park Association 2010**
- 15. Breathing life into urban spaces – DVD HPHP Victorian Government 2010**