
Parks and Open Space

Definition

Parks and open space refers to land that has been reserved for the purpose of formal and informal sport and recreation, preservation of natural environments, provision of green space and/or urban storm water management.



Passive recreation is important
Source: TPG Town Planning and Urban Design

Overview

Parks and open space vary in size, form and the functions that they perform. A strategic approach is needed in assessing the needs of a community and planning an open space network. Public open space is usually categorised into a hierarchy of neighbourhood, district and regional open space and can be used for either passive or active recreation (Thompson, 2008).

Neighbourhood parks provide for regular local use and may include:

- small areas of open space that are accessible to local residents, generally providing for recreation such as children's play and relaxation, which also can provide an identity and a sense of place for a community especially where it incorporates an important landscape feature or historic characteristic

- playing fields for organised sport (from 1ha to 3ha in size) which can also be used for walking and informal activities, and
- linear parks linking areas of open space. These often follow drainage lines or environmental corridors and can incorporate off road shared pedestrian and cyclist paths.

District and regional parks are larger and cater to the needs of a broader population.

The types of parks may include:

- district playing fields that provide for a range of active, organised sport and recreation such as football/soccer fields, cricket pitches, tennis courts, baseball fields and the like
- waterfront and other regional parks for social gatherings, such as picnics, recreation and education, and
- areas reserved for cultural or environmental retention (escarpments and areas of biodiversity value such as wetlands and bushland) that may provide some limited recreation opportunities, such as bird watching, picnicking and bushwalking.

Open space often comes under pressure for development in existing neighbourhoods or is at risk of being undervalued and underprovided in the planning of new subdivisions. However, in some cases a strategic assessment will identify a need to reorientate or rationalise existing open space to overcome past planning mistakes and to address access and maintenance issues.

An open space network should encourage more active lifestyles by offering a variety of safe and attractive spaces that are well distributed throughout a neighbourhood and are accessible and cater to the sporting and recreational needs of the community (Auckland City Council, 2007). Preferably public open space should attempt to cater for multiple users. For example, through landscaping and the addition of facilities, a sporting oval could be designed to cater for sportspeople, walkers, and children (Giles-Corti et al, 2005).

With low rates of participation by children, and especially by adults, in field based sports (ABS 2009) there has been a move away from allocating a high proportion of local open space to play fields, instead focusing on providing open space for informal recreational use close to where people live in combination with public access to school play fields.



Inner city neighbourhood park - Surry Hills, Sydney, NSW
Source: SGS Economics and Planning

Why?

There are numerous health benefits associated with access to public open space and parks. Access to vegetated areas such as parks, open spaces, and playgrounds has been associated with better perceived general health (de Vries, 2003; Maas, 2006), reduced stress levels (Grahn, 2003; Nielsen, 2007), with reduced depression (Morita, 2007) and more walking (Li, 2005; Giles-Corti, 2005). Moreover, there is a substantial body of evidence demonstrating that increased walking improves physical and mental health (Manson, 2002; Fritz, 2006; Murphy, 2002; Tsuji, 2003). Physical inactivity is a major public health risk (World Health Organisation, 2002) and in Australia, nearly half of all Australians do not meet even the 30 minute physical activity recommendations (Armstrong et al, 2000). Worldwide, mental health is a leading cause of burden of disease (WHO, 2003).

One study found that people who use public open spaces are three times more likely to achieve recommended levels of physical activity than those who do not use the spaces. Users and potential users prefer nearby, attractive, and larger parks and open spaces (Wolf, 2008).

More specifically, the benefits from participating in sport and physical activity include:

- Improved physical health and wellbeing – with reduced risk of lifestyle related diseases, higher survival rate of other diseases, improved quality of life and long term health, and, in young people and children healthy growth and development.
- Improved mental health – builds individual self-esteem and self-image, reduces stress, improves concentration and enhances memory and learning.
- Enhanced social outcomes – encourages social interaction and development of social skills, improves social networks and social capital, increases community cohesion and pride, safer communities
- Reduced healthcare costs – improved physical health and the building of stronger families and communities helps lower health-care costs, reduces the costs of social intervention and plays a role in reducing crime and social dysfunction (WA Department of Sport and Recreation, 2009).

Thus, improving access to public open space has the potential to increase levels of physical activity, and to have mental health benefits and reduce healthcare and other costs.

Encourage Amenity

Design public open space so that it:

- protects and enhances the environmental, cultural and heritage values of an area (Thompson, 2008)
- assists with place-making by building on the special attributes of an area, eg. hill tops, ridges, rocky outcrops, remnant vegetation, water features, views, vistas, and incorporating community art projects/public art (Thompson, 2008)
- is pleasant and welcoming, eg. through embellishments such as landscaping, park furniture (seats, drinking fountains) and lighting (Sunjara, 2008)
- is well maintained and actively managed (Sunjara, 2008), and
- is safe and perceived to be safe such as by providing lighting and areas that can be viewed by people.



Central Plaza, Perth.

Source: TPG Town Planning and Urban Design

Accessibility

Ensure accessibility with open space that is:

- distributed throughout an area providing equitable access to all residents (Thompson, 2008)
- easily accessible via public transport where appropriate (Hunter New England Population Health, 2007)
- easily accessible via the walking and cycling network (Grow et al, 2008) and with adequate bicycle parking facilities, and
- connected where practicable with a broader open space network throughout the area.



Walking trail along river corridor - Murrumbidgee River, ACT
Source: SGS Economics and Planning

Useability

Useability is ensured by open space that:

- is of a sufficient size and shape to cater for its intended purpose, in most states minimum standards apply for the provision of open space
- is adaptable, catering for multiple users and types of activities
- for children, has access to facilities such as basketball hoops and running tracks which are associated with moderate to vigorous physical activity (Cohen et al, 2006; Everson et al, 2007), and

- is shared by a number of user groups, for example, school ovals could form part of the open space network and be available out of school hours for community use (Sunjara et al, 2008).

Rule of thumb

Design the open space network as an integral part of the urban structure and offer a variety of safe and attractive spaces that are well distributed throughout a neighbourhood and that are accessible, connected and cater to the sporting and recreation needs of the community.

Avoid

- Public open space not being integrated into a new development area. Rather it should be considered with potential users in mind in terms of the range of activities and location, and attention should be given to its detailed design.
- Concentrating only on the quantity of open space provided. It is equally important to consider the quality of public open space and how it will be used, in order to maximise community value and its contribution to creating green spaces in the urban environment.



Regional recreation park suitable for all users
Maroochy Botanic Gardens, Sunshine Coast, Queensland
Source: SGS Economics and Planning

REFERENCES

- Armstrong T, Bauman A. & Davies J. 2000, Physical Activity Patterns of Australian Adults. *Results of the 1999 National Physical Activity Survey*. Australian Institute of Health and Welfare, Canberra.
<http://www.aihw.gov.au/publications/cvd/papaa/papaa-c00.pdf>
- Australian Bureau of Statistics (ABS) 2009, *Sports and Physical Recreation: A Statistical Overview, Australia, 2008 (Edition 2)* (cat.no. 4156.0) viewed on 1 May 2009,
<http://www.abs.gov.au/ausstats/abs@.nsf/mf/4156.0>
- Auckland City Council, 2007, *Active Auckland – Auckland City's Plan for Recreation*, Auckland City Council, Auckland, viewed on 6 February 2009, www.aucklandcity.govt.nz
<http://www.aucklandcity.govt.nz/council/documents/active/default.asp>
- Cohen, D., Ashwood, J., Scott, M., Overton, O., Evenson, R., Staten, L., Porter, D., Mckenzie, T. and Catellier, D., 2006, Public Parks And Physical Activity Among Adolescent Girls. *Pediatrics*, Vol.118, pp.1381-1389.
- De Vries, S., Verheij, R., Groenewegen, P., and Spreeuwenberg, P., 2003, 'Natural Environments - Healthy Environments? An Exploratory Analysis of the Relationship Between Greenspace and Health,' *Environment and Planning A* Vol.35 pp.1717-31.
- Everson, K. R., Scott, M. M., Cohen, D. A. and Voorhees, C. C., 2007, Girls' Perception of Neighborhood Factors on Physical Activity, Sedentary Behavior, and BMI. *Obesity*, 15, 430-445.
- Fritz, T., Wandell, P., Aberg, H., *et al*, 2006, Walking for Exercise - Does Three Times per Week Influence Risk Factors In Type 2 Diabetes?' *Diabetes Research and Clinical Practice* Vol.71, pp.21-27.
- Giles-Corti, B., Broomhall, M., Knuiiman, M., Collins, C., Douglas, K., Ng, K., Lange, A. and Donovan, R., 2005, 'Increasing Walking - How Important is Distance to Attractiveness and Size of Public Open Space?' *American Journal of Preventive Medicine*, 28, pp.169-76.
- Grahn, P. and Stigsdotter, U., 2003, 'Landscape Planning and Stress,' *Urban Forestry Urban Greening* Vol.2, pp.1-18.

Grow, H., Saelens, B., Kerr, J., Durant, N., Norman, G. and Sallis, J., 2008, 'Where are Youth Active? Roles of Proximity, Active Transport, and Built Environment', *Journal of Medicine & Science in Sports and Exercise*, Vol 40. Viewed 3 March 2009, www.acsm-msse.org

Hunter New England Area Health Service, *GO TIME! FACT SHEET Focus on daily physical activity*, NSW Health. Viewed on 26 February 2009, www.goodforkids.nsw.gov.au

Hunter New England Population Health, 2007, *Building Liveable Communities in the Lower Hunter Region*.

Li, F. Z., Fisher, K. J., Brownson, R. C., *et al*, 2005, 'Multilevel Modelling of Built Environment Characteristics Related to Neighbourhood Walking Activity in Older Adults'. *Journal of Epidemiology Community Health*, Vol.59 pp.558-64.

Maas, J., Verheij, R. A., Groenewegen, P., de Vries, S. and Spreeuwenberg, P., 2006, 'Green Space, Urbanity, and Health: How Strong is the Relation?' *Journal of Epidemiology Community Health*, Vol.60, pp.587-92.

Maller, C., Townsend, M., Brown, P. and St Leger, L., 2002, *Healthy Parks Healthy People: The Health Benefits of Contact with Nature in a Park Context*, Deakin University and Parks Victoria, Melbourne.

Manson, J. E., Greenland, P., LaCroix, A. Z., Stefanick, M. L., Mouton, C. P., Oberman, A., Perri, M. G., Sheps, D. S., Pettinger, M. B. and Siscovick, D. S., 2002, 'Walking Compared with Vigorous Exercise for the Prevention of Cardiovascular Events in Women'. *New England Journal of Medicine* Vol.347, pp.716-25.

Morita, E., Fukuda, S., Nagano, J., Hamajima, N., Yamamoto, H., Iwai, Y., Nakashima, T., Ohira, H, and Shirakawa, T., 2007, 'Psychological Effects of Forest Environments on Healthy Adults: Shinrin-Yoku (Forest-Air Bathing, Walking) as a Possible Method of Stress Reduction'. *Public Health*, Vol.121, pp.54-63.

Murphy, M., Nevill, A., Neville, C., Biddle, S. and Hardman, A., 2002, 'Accumulating Brisk Walking for Fitness, Cardiovascular Risk, and Psychological Health'. *Medicine and Science in Sports and Exercise*, Vol.34, pp.1468-74.

Nielsen, T. S., Hansen, K. B., 2007, 'Do Green Areas Affect Health? Results from a Danish Survey on the Use of Green Areas and Health Indicators'. *Health Place* Vol.13, pp.839-850.

Scottish Government, 2007, *Scottish Planning Policy: SPP: Open Space and Physical Activity*, Scottish Government. Viewed on 26 February 2009, www.scotland.gov.uk

Sunarja, A., Wood, G. and Giles-Corti, B., 2008, *A Factsheet on Healthy Public Open Space Design for Multi-Users and Multi-Uses*, Perth, Western Australia: Centre For The Built Environment and Health, School of Population Health, The University Of Western Australia. Viewed on 3 March 2009, www.populationhealth.uwa.edu.au

Thompson, S., September 2008, 'Design for Open Space Factsheet', *Your Development*. Viewed on 11 February 2009, www.yourdevelopment.org

Tsuji, I., Takahashi, K., Nishino, Y., Ohkubo, T., Kuriyama, S., Watanabe, Y., Anzai, Y., Tsubono, Y. and Hisamichi, S., 2003, 'Impact of Walking upon Medical Care Expenditure in Japan: The Ohsaki Cohort Study'. *International Journal of Epidemiology*, Vol.32, pp.809-14.

WA Department of Sport and Recreation, *factsandstats – Benefits of Physical Activity*, Government of Western Australia, Perth. Viewed on 26 February 2009, www.beactive.wa.gov.au

Wendel-Vos, G. C. W., Schuit, A. J., De Niet, R., *et al*, 2004, 'Factors of the Physical Environment Associated with Walking and Bicycling'. *Medicine and Science in Sports and Exercise*, Vol.36, pp.725-30.

Wolf, Kathleen L., 2008, 'City Trees, Nature and Physical Activity: A Research Review', *Arborist News*, Vol.17, No. 1. Viewed on 26 February 2009, www.naturewithin.info

World Health Organisation (WHO), 2002, *The World Health Report 2002. Reducing Risks, Promoting Healthy Life*. WHO, Geneva, Switzerland.

WHO, 2003, *Investing in Mental Health*. WHO, Geneva, Switzerland.