

# CORRECTED VERSION

## SELECT COMMITTEE ON PUBLIC LAND DEVELOPMENT

Melbourne — 31 January 2008

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### Witness

Associate Professor M. Townsend, School of Health and Social Development, Deakin University.

**The CHAIR** — I am happy to welcome Associate Professor Mardie Townsend from the School of Health and Social Development at Deakin University. Mardie, can I get you to make an introductory comment, and then we will ask some questions. Welcome, and thank you for giving evidence.

**Assoc. Prof. TOWNSEND** — Thanks very much for inviting me to present. I lead at Deakin a research team that explores the human health benefits of contact with nature. It is one of those areas of research that people have always said, ‘Yes, that is intuitive’. Of course everybody knows that, but people have been a little lax in collecting the evidence for it. In 2002 we put together a substantial literature review on this, which was funded by Parks Victoria and the strategic partners of that organisation, and I am right now in the midst of updating that. The amount of literature around now has expanded substantially.

Basically the thesis is that people are dependent, both physiologically and psychologically, on contact with nature, but over recent years we have tended to believe that that is not true, because we have thought with technology we have got it all together and we can fix things ourselves. But we only need to look at things like the Boxing Day tsunami of 2004 to realise just how dependent on the goodness of nature we are.

In terms of psychological dependence on nature, Edward Wilson, a Harvard biologist, in about 1984 coined the term the biophilia hypothesis, because he had observed an almost universal affinity with nature, even in highly developed societies, and tried to find an explanation for this. According to Wilson this is linked to our evolution. For tens of thousands of years we have developed in the company of other species, and it is really only in the last 200 years that we have separated ourselves from nature, living in densely populated urban areas. Our evolution in fact has not allowed us to catch up with what has happened around us.

There is a substantial and growing body of evidence to support that claim, and when I complete the second edition of the lit review, which will be within a matter of a couple of weeks, I will be very happy to send it through to you as evidence. For example, in Sweden Patrik Grahn and Ulrika Stigsdotter did research on the relationship between use of urban green spaces and people’s health, and what they found was that a statistically significant relationship existed between the increased use of an urban green spaces and reduced levels of stress.

We know stress is a major issue in our society. Mental illness, which is one of the downstream effects of stress, affects one in five people at some point in their lifetime, so that is the significant finding. In Denmark research by Nielsen and Hansen found that lack of access to public green spaces was associated with obesity and stress. Obesity is probably the other key health issue facing our society — very important. Billie Giles-Corti in Perth, and her colleagues, have found that there is an association between access to large walkable green spaces and walking more for exercise. The notion of little pocket parks, where in a housing development we have one or two lots as a park, is not really encouraging physical activity and walking. That is something that does not work.

We also know that good access to green spaces is considered to be no more than 400 to 500 metres from home. Some of us who walk our dogs on a regular basis would say that is spitting distance, if you like, but for most people to actually use green spaces for activity and exercise — walking and the like — those spaces need to be within 400 metres of their home; that evidence is quite strong. If we are deprived of this access to nature and green spaces, there is a load of research that shows the results are exhaustion and mental fatigue, stress, what the Canadian Parks and Recreation Association calls spiritual famine.

We tend in our society to be very unspiritual. We have moved away from organised religion. Only approximately 10 per cent of the population is actively involved in organised religion, and people have equated spirituality with religion. Everyone has a spiritual element in them, but only about 10 per cent of the people are expressing that through organised religion. For many people their spirituality is associated with nature in creation, and if they do not have access to that, they are deprived of that spiritual dimension of their life which is important in health and wellbeing.

Other research has shown that if we do not have access to green spaces and nature, our recovery is impaired. Research done in the USA with people in hospital recovering from gall bladder surgery showed that those looking out on a green space compared with those looking out on a brick wall. The ones who looked out on a green space used fewer analgesics and left hospital sooner, which is important for health budgets, and also had fewer negative case notes. So recovery is improved by access to green space. We all know of the notion that every child needs its peck of dirt, but if we do not have good open spaces, children do not get out there and play in those open spaces and do not build their immunity.

I am happy to leave it there, but very happy to send you material as it comes to hand, or I have loads of it — filing cases full — at work, and happy to answer questions.

**The CHAIR** — I should ask the obvious question. I accept a lot of what you say about the need for opportunities to meet with nature, as it were. Have you done any assessment in Victoria and Melbourne and regional cities and so forth to look at a number of these issues as to how we stack up there and the opportunities perhaps for improvement?

**Assoc. Prof. TOWNSEND** — Yes. I have done two studies in Melbourne — one in the city of Knox and one in the city of Whittlesea — looking at public park and open space use. I am currently involved in a study, which we are writing up at the moment, assessing the value and use of local parks for residents in high and low-SES areas within the city of Greater Geelong. What we found in the Knox and Whittlesea areas were facts about why people use open space, what they use it for, what sorts of benefits they get out of it, and how frequently they use it and the like. I am happy to send these reports through to you electronically if that would be of use.

For example, the sorts of findings about the reasons for people's use of public open space were things like physical activity, obviously, but socialising. That social capital dimension of life is a really important one in our society — as we grow in size, we need to actively promote connections between people, and parks and public open spaces are a key setting for this. I was out with my husband this morning, walking our dogs. He has listened to me spouting about this sort of research for a long time. Last night we were out walking and we bumped into two women who I had regularly met walking our previous dog and they stopped, 'Hello. How are you? Lovely to see you, it is so long since we have seen you'. Then this morning another woman came up to us and said, 'Isn't it lovely? And how's your daughter?' and so on.

These were relationships formed purely on the basis that I walk my dog regularly and, you know, get out there in parks and green spaces. Those are the sorts of things that do happen, and they happen spontaneously in parks and green spaces. But if I walk down the street, just in the streets of Melbourne, who stops and says, 'Hello, nice day, isn't it?'? Nobody does that, and if you do that to someone else, they look at you as if you have gone stark raving mad. These sorts of environments promote social connections.

In the Whittlesea study we particularly looked at recently arrived migrants and their use of parks and public open spaces. They talked about the notion of those spaces providing a bridge between cultures. In current Australian society I think that is pretty important. We have got growing social diversity, cultural diversity, and we have this perception, for example, between Muslim and non-Muslim people that there is a rift between us. We need to be using opportunities to build those bridges between cultures. People talked about taking grandchildren — grandparents and parents taking children to parks and public open spaces for play.

In the Knox study we ran a focus group with people with disabilities, and they highlighted the benefits of parks and public open spaces for them to be able to connect with people who were able bodied and for them to be able to interact with those people because of the mediating nature of the environment. For example, a woman who cared for children who were disabled could go down to the park and take that child to the playground and the other children in the playground would just accept that child as another child and play with it, whereas if that child is separated out and going to a special school or a special kindergarten, that integration is a lot more difficult. These sorts of environments really do promote that. When the Geelong study results are written up in the next few weeks, I am also happy to send those.

**The CHAIR** — Thank you, that is a great insight for us.

**Ms PENNICUIK** — Thank you, Professor Townsend, for bringing this perspective to the committee, because although we are all aware of it we have been very focused on the nuts and bolts of public land, so it is great to be reminded of why it is so important. I was just wondering what you think would be the key elements of a successful public open space scenario/strategy in Victoria?

**Assoc. Prof. TOWNSEND** — I think we need perhaps three tiers of public open space. There needs to be very, very localised public open space, like the pocket parks within housing developments. I am not dismissing them as valueless — they certainly are connection points for local residents, so I think we need those. We need local parks which are walkable, attractive places for people to gather, places for people to walk and exercise and connect, children to play.

Certainly our Geelong study is showing that there are different levels of quality in different areas. Public parks and open spaces need to be sustained at a high-quality level, well lit. There are parameters around safety, for example — not dense bushland but trees that people can shelter under but see through so that there is a sense of safety. That encourages people then to use the parks. It also discourages vandalism and graffiti and those sorts of things. There is that level of local park.

There is also a need for the regional parks — the larger parks, perhaps even more wilderness areas, if you like. A lot of research has been done — and I have two PhD students at the moment looking at wilderness adventure therapy for young people involved in drug and alcohol abuse or who have been marginalised. We need different levels of parks for different purposes. I know that government has provided money for Parks Victoria, for example, to have six new regional parks, and that is wonderful — fantastic! — but I think that is only one end of the spectrum. We need to be making sure the other parks are attended to.

**Ms PENNICUIK** — Just a quick one following on from that, one of my big interests is wildlife corridors and the use of open space for that. The conversation this morning has been very anthropocentric, if you like.

**Assoc. Prof. TOWNSEND** — Yes, sure.

**Ms PENNICUIK** — I just wonder whether in your study people identified the presence of birds et cetera as also — —

**Assoc. Prof. TOWNSEND** — Yes; very clearly. If you look at the statistics on wildlife feeding and wildlife watching in this country, it is phenomenal. People spend millions of dollars on bird food. An ecologist could argue that that is not particularly helpful, but it does indicate a very high level of interest in that. I know, for example, there is a proposal to redevelop a golf course out at Chirnside Park, and a lot of angst about that is about the wildlife.

I was out there visiting a house just recently, and a tawny frogmouth came down and sat on my husband's head while we were standing in the backyard. The privilege of seeing something like that is really important. I think the linkages between parks is also important. It is not just about where the parks are, but how people get to and from them, and how animals and birds get to and from them — other species.

**Ms PENNICUIK** — Yes. I know the presence of tawny frogmouths in St Kilda Botanical Gardens had reams of people going there just to see them.

**Assoc. Prof. TOWNSEND** — Yes. Very exciting, it was a real thrill.

**Mr HALL** — Perhaps I could start with an anecdote. I am a country boy. I come from the country where people seem to talk to each other a lot more. When I started walking a dog and doing recreational work, you would say hello to people and they would look at you stupidly. Now I find it a challenge to try and eke a response out of as many people as possible when I go for a recreational walk. When I have my dog with me, they will smile and talk to the dog before they talk to me, but it is an entree.

**Assoc. Prof. TOWNSEND** — Yes, it is an entree.

**Mr THORNLEY** — It is like being a politician, Peter.

**Mr HALL** — Nobody knows me down here. I was going to ask about the role of national parks, state parks and regional parks and whether you have done any work on the importance of those. You mentioned some in response to Sue's question. I was going to ask: do you have any parameters as to optimal percentage areas of public space, whether any desirable levels — —

**Assoc. Prof. TOWNSEND** — I have not done that research, but I could track it down for you if that would be useful. We have tended to do the human health benefits end of it rather than the planning aspects of it. But certainly, as I said, two of the PhD students are working on wilderness adventure therapy. This is in national and state parks, where they take young people for a 12-day trek through wild country.

The results of that have been quite astonishing really in turning people's lives around, both in terms of them doing away with the need for the drugs but also learning to relate to other people and having the opportunity to get out of the system, think through what they want out of life and make plans and take steps towards achieving that. I am a

believer that all levels are important, and it is a jigsaw. Nobody wants the whole state to be a national park or a state park, but we do need to make sure that there is access to all these.

**Mr THORNLEY** — I have got about a million questions, actually; your research is really fascinating and intriguing, and I am sure a number of us will follow up. I have a preliminary question: the studies that showed the changes in stress level and so on, I presume those were normalised for socioeconomic status and other variables, because otherwise — —

**Assoc. Prof. TOWNSEND** — Yes; standardised. The studies vary, of course, but often with control groups and the standardisation for socioeconomic status, age, area of residence and the like.

**Mr THORNLEY** — Okay. Presumably then you may be able to direct me somewhere where the economic literature exists. It is sort of self-evidently true what you say, I think, because it is in fact reflected in land prices. I am sure the proximity to open space is something on which we could look at the economics of that reflected in land prices, particularly — —

**Assoc. Prof. TOWNSEND** — If I can just pick up on that, I know that Harry Barber from Bicycle Victoria was very interested in that a few years ago and had a conversation with me about that. I do not know if they subsequently went ahead with the research, but that is certainly an issue he was aware of. Sorry to interrupt.

**Mr THORNLEY** — No, not at all. I was wondering about two things. Firstly, the point you made about the sort of limited utility of pocket parks — and I see in your three tiers you still think they are important — have you looked at that from the perspective of children versus adults, because I am thinking at least that the thinking behind the pocket parks in particular is about children. I guess it brings a wider question for me, which is really the whole 9 yards of urban planning policy: given that there is a fixed amount of land, obviously the current policy direction we have is around urban consolidation, and I guess there are related questions about private backyards versus public open space versus where people live in high rise, which has other problems.

I am interested in your thoughts about how we square that circle and what we do, but I am firstly interested in the differential, if any, in your research between the needs of children versus adults, or even younger adults versus older adults et cetera.

**Assoc. Prof. TOWNSEND** — No, we have not looked at that, although the Geelong study is looking at age groups, so we may get some data out of that in relation to that. I think that the issue of access to parks needs to be taken into account, and for children pocket parks can be quite useful because they are more accessible. Parents are more likely to let a child walk down the street, in that street, to play in the pocket park that is just down there, although less likely to do it than they were years ago.

**The CHAIR** — Fenced off.

**Assoc. Prof. TOWNSEND** — They are more likely to do that than they are to allow that child to cross a main road or to go two or three streets away where there is a sense that they cannot be keeping an eye on them, so I think there is value in that. For adults those pocket parks perhaps serve a use for a mother who wants to take the children down so she can actually get a bit of peace and quiet and sit down, but that is about it. They are not the sorts of parks that adults will generally use. We are such rational beings. We have to have a purpose for doing something, and I think that is a bad thing, for a start. I think we probably go to parks where we can walk or where we can ride the bike, or whatever.

**Mr THORNLEY** — And the broader challenge of: how do we square the circle of limited land use? Is it private versus public status?

**Assoc. Prof. TOWNSEND** — If I were doing it, I would be saying, ‘Yes, urban consolidation is valuable, but let us do that on brownfield sites; focus the urban consolidation on brownfield sites and leave the public open space that is there and look then, when we densify the population, at where we might need to provide additional small pocket parks or local parks’. It seems to me that there is a lot of land that has been used for industry or business, or whatever, that is now vacated that could realistically be used to turn it into other housing perhaps. I live in McKinnon, and that area is a prime example.

**The CHAIR** — There is densification going at a huge pace.

**Assoc. Prof. TOWNSEND** — A huge pace, yes. There are three-storey apartment buildings occurring right on McKinnon Road where they were single-storey, single-fronted shops. To me that is good use of land. I am not sure that I am happy with the design of them, because I do not think it is sustainably designed, but that is another issue altogether, although related.

But I think we ought to be looking at doing that, rather than saying, ‘We’ve got a golf course here; let’s plonk a whole lot of houses on it.’ Because in our area Murrumbena Secondary College was shut down and built out as very densely populated housing. There is an oval over the road from that, but it is an oval and it is not great open space for play or just for a pleasant environment. So I think it is a catch 22 — —

**Mr THORNLEY** — I am certainly with you on that. But what about the suburban stuff? Because a lot of what is driving the urban consolidation is about places with large land-holdings being — —

**Assoc. Prof. TOWNSEND** — Chopped in two.

**Mr THORNLEY** — Densified.

**Assoc. Prof. TOWNSEND** — Yes, sure.

**Mr THORNLEY** — There is no argument from me about wanting to preserve the existing open spaces we have. I wonder how your research looks at the benefits of those green spaces in the private sphere and the loss of that potentially in urban consolidation, and if that is a price you pay to prevent the loss of other public open spaces, how do we judge that trade-off?

**Assoc. Prof. TOWNSEND** — We have not done that trade-off research, but certainly the research that we have would say that people need access to green spaces, either in terms of backyards and/or public open space. In our area increasingly people are chopping off the backyard and building another house on it. As I walked past this morning there is a house that will literally have a backyard only a metre deep and the width of the house. Where are the kids’ cricket games going to occur? It might be okay for a couple who are living in the house now who are in their 50s or 60s, but ultimately that house will change hands and be purchased by young families.

Where do those kids go to play? They can no longer host the cricket game in the backyard. Now that is a privilege we as Australians have had over other nations where this has not been a common pattern. But you have to look at the cultural aspects of that, and our cultural expectation is the barbie and the cricket game in the backyard. If we are not providing that, then we need to provide spaces for that to happen very close by.

**Mr THORNLEY** — The related problem is that the people who still own those big backyards are increasingly not the young families who have kids.

**Assoc. Prof. TOWNSEND** — Yes, exactly.

**Mr THORNLEY** — So it is a real mismatch.

**Assoc. Prof. TOWNSEND** — Exactly.

**The CHAIR** — Peter?

**Mr KAVANAGH** — No, thank you.

**Mr O’DONOHUE** — Thank you very much for your presentation; it is really interesting. A follow up from what Peter was asking about local parks: my understanding is that some local councils have introduced a minimum size per hectare on greenfield sites for new local parks. I make that as an observation. One of the things we have heard from local government and others is that often they do not have the resources to invest in parks as they would like. Would you like to make a comment on investment in parks, the quality of parks, usage and related issues?

**Assoc. Prof. TOWNSEND** — Yes. I am probably an aberration here, but I tend to think there are a few people who are an aberration, too. I would rather pay an extra dollar, an extra 10 cents in the dollar in tax and make sure that that money was passed through to purchase parks and maintain quality of life. I think that local government, if it is managing parks, needs to be appropriately resourced to do that, and we need to recognise that

perhaps in terms of things like the health budget and social inclusion. I note that the new federal government has a focus on social inclusion, and I think that parks and public open spaces promote that through promoting social capital. I think we perhaps need to be trying to channel some of those resources to local government.

But I think the other thing is that we need to foster the engagement of local people in the management and maintenance of parks. We have done a lot of research on environmental volunteering and have found that that is actually enormously beneficial socially, psychologically and physically to people. So if we had some sort of system — perhaps a tax break for people or perhaps a reduction in rates for people if they contributed 100 hours a year to local park management or maintenance — we could increase the engagement of people and reduce the costs of local government and state government in maintaining those.

Parks Victoria has over 100 friends-of-parks groups registered on its website. Those groups are phenomenally important in managing those spaces, but their activities are enormously beneficial for the individuals involved as well as for the local community. I guess that would be my take — a bit of a left-field one.

**The CHAIR** — Thank you very much. You have presented an enormous wealth of information. It is very helpful for us. We really appreciate those studies that you have mentioned. Certainly Richard Willis will be in communication, I hope, shortly. Thank you very much.

**Witness withdrew.**