



23 February 2018

Greener Places
Government Architect New South Wales

Online submission at:
http://planspolicies.planning.nsw.gov.au/index.pl?action=view_job&job_id=8933

Dear Mr Poulet,

Re: Greener Places Policy

The Southern Sydney Regional Organisation of Councils (SSROC) is an association of Councils in the area south of Sydney harbour. SSROC provides a forum for the exchange of ideas between our member Councils, and an interface between governments, other Councils and key bodies on issues of common interest. We facilitate collaboration between councils on joint ventures, procurement, and projects including advocacy. Together, our member Councils cover a population of over 1.6 million, or one third of the population of Sydney.

SSROC strongly supports the policy of recognising that “Green Infrastructure is essential infrastructure”, and that should be accounted for in government asset management plans and community strategic plans, and considered as an asset in its own right. We also agree that a paradigm shift is needed, whereby the concept of infrastructure includes an essential green component.

Greener Places would be enhanced by strengthening the assertion that green infrastructure is essential by providing robust evidence of its criticality. It is essential to human wellbeing and for the provision of ecosystem services as well as enhancing the liveability of places.

Green Infrastructure and Human Health

Many academic research projects have now demonstrated that urban green space and biodiversity are valuable contributors to the health and wellbeing of humans. These include, for example:

- reduced incidence of cancerⁱⁱ, heart diseaseⁱⁱⁱ, diabetes^{iv} and poor mental health^v;
- reduced incidence amongst children of ADHD^{vi}, asthma^{vii} and allergies^{viii};
- improved cognitive development of school children^{ix};
- improved sleep^x;
- stress reduction^{xi}; and
- improved recovery/rehabilitation from illness and injury^{xii}.

Green Infrastructure and Ecosystem Services

Biodiversity also delivers essential ecosystem services, as in all environments. The environment is often considered to be somewhere else, other than the cities in which most people live. This misconception results in the environment where most of us actually dwell being sterile, without vegetation or habitats for species other than those that have adapted to survive in such conditions. Cities that lack green infrastructure risk sacrificing the ecosystem services that we all need by altering and often destroying the very ecosystems that provide those services. These services include:

- improving the air that we breathe by absorbing pollutants from and maintaining oxygen in it;
 - regulating climate, for example by providing shade that cools streets and neighbourhoods^{xiii};
- xiv.

- providing shelter from extreme weather events^{xv};
- reducing stormwater runoff^{xvi};
- sequestering greenhouse gases^{xvii};
- enriching soil and pollinating plants, both of which are vital to food production;
- controlling pests;
- decomposing organic waste;
- controlling erosion.

Green Infrastructure, Liveability and Property Value

Furthermore, urban biodiversity can enhance the liveability of urban areas by improving visual and recreational amenity^{xviii}. Remnant bushland, planted native vegetation, wetlands, waterways, foreshores, coastal zones, and other habitat features can be very attractive elements in the urban landscape that both improve its appearance and enhance recreational opportunities. Such features can also enhance property values, given the desirability of access/proximity to them^{xix}.

Planning for Green Infrastructure

Recognising that green infrastructure is essential for healthy communities raises a very substantial issue for both the Green Places and Green Grid: they focus on how to get more out of existing open space resources and how to link them together. While these are worthwhile and necessary objectives, the plans should also address the provision of major new parks, open space and corridors. With significant growth in the numbers of people and jobs being planned for Sydney generally and for Planned Precincts in particular, a commensurate increase in land dedicated for open and space and recreation is also necessary. This green infrastructure is as essential as new transport infrastructure.

For planning purposes it is important to map the locations of habitat of endangered species as well as priority and supporting habitats, and supporting areas such as sports-fields, multi-function recreational areas and street-trees. SSROC has recently partnered with the Sydney Coastal Councils Group under the latter's program Sydney's Salty Communities funded by the Australian Government. The joint project, Connected Corridors for Biodiversity, included mapping^{xx} of potential biodiversity corridors. More fine-grained mapping of this level of detail is important for the all facets of the Green Grid.

Funding for Green Infrastructure

The plans for both Green Places and Green Grids mainly discuss the coordination and use of existing funding mechanisms, not any new funding. The policy and supporting coordination and planning are very important, but so too is funding. Land values in Sydney are prohibitively high as long as society does not place a tangible value on green infrastructure. This is a major barrier to providing the green infrastructure that provides the ecosystem services on which we all depend, and that requires further serious consideration.

Conclusion

SSROC welcomes *Greener Places, Establishing an urban Green Infrastructure policy for New South Wales*. It is a good basis for the recognition of the importance of planning for green infrastructure in the future as the population density of Sydney increases and the need for green spaces, which is currently often overlooked, also rises.

This policy document could assist Councils in planning and building local reserves and recreation facilities to take advantage of and assist with district and regional links. It could also be useful in future LEP and DCP reviews and policy matters linked to use of development contributions funds.

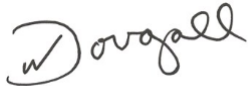
Therefore we emphasise that the Green Places approach must particularly be integral to the work on the Planned Precincts. Major housing and employment growth envisaged in the various precincts needs to be supported by similar scale improvements in open space and recreation provision. Funding for green infrastructure is needed, in addition to existing funding programs.

It is critical to the success of Greener Places that it is adopted as government policy, and incorporated into the relevant state planning instruments. Further research could be done to consolidate the evidence of the benefits of green infrastructure, and to establish the business case for it.

In view of the timing of the consultation period for the policy, it has not been possible for this submission to be reviewed or endorsed at a meeting of SSROC Delegates. I will contact you should any issues arise as a result.

Thank you for the opportunity to comment on the draft policy. If you have any questions or would like to discuss this submission, please contact me or SSROC Program Manager, Helen Sloan on 02 8396 3800 or ssroc@ssroc.nsw.gov.au.

Yours faithfully,



Namoi Dougall
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Southern Sydney Regional Organisation of Councils

ⁱ Greener Places, p11.

ⁱⁱ Shanahan, D. et al. (2016) Health benefits from nature experiences depend on dose. *Nature* 6: 1-10

ⁱⁱⁱ Donovan et al. (2013) The relationship between trees and health: evidence from the spread of the emerald ash borer. *American Journal of Preventative Medicine* 44: 139-145.

^{iv} Astell-Burt, T., Feng, X., & Kolt, G. (2014) Is neighbourhood green space associated with a lower risk of type 2 diabetes? Evidence from 267,072 Australians. *Diabetes Care* 37: 197-201.

^v Mitchell, R. (2013) Is physical activity in natural environments better for mental health than physical activity in other environments? *Social Science and Medicine* 91: 130-134

^{vi} Faber Taylor, A. & Kuo, F. (2011) Could exposure to everyday green spaces help treat ADHD? Evidence from children's play settings. *Applied Psychology: Health and Well-Being* 3:281-303.

^{vii} Lovasi, G. et al. (2008) Children living in areas with more street trees have lower prevalence of asthma. *Journal of Epidemiology and Community Health* 62: 647-649

^{viii} Hanski, I. et al. (2012) Environmental biodiversity, human microbiota, and allergy are interrelated. *Proceedings of the National Academy of Sciences* 109: 8334-8339

^{ix} Dadvand et al. (2015) Green spaces and cognitive development in primary schoolchildren. *Proceedings of the National Academy of Sciences* 112, 201503402

^x Morita, E., Imai, M., Okawa, M., Miyaura, T. & Miyazaki, S. (2011) A before and after comparison of the effects of forest walking on the sleep of a community-based sample of people with sleep complaints. *Biopsychosocial Medicine* 5: 13

^{xi} Van den Berg, A. & Custers, M. (2011) Gardening promotes neuroendocrine and affective restoration from stress. *Journal of Health Psychology* 16: 3-11

^{xii} Ulrich, R. (1984) View through a window may influence recovery from surgery. *Science* 224: 420-421

^{xiii} Doick, K. & Hutchings, T. (2013) Air temperature regulation by urban trees and green infrastructure. Forestry Research, Forestry Commission UK

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^{xv} Abdollahi, K & Ning, A. (2000) Global climate change and the urban forest. Franklin Press, Baton Rouge.

^{xvi} Xiao, Q. & McPherson, G. (2002) Rainfall interception by Santa Monica's urban forest. *Urban Ecosystems* 6: 291-302

^{xvii} Churkina, G., Brown, D. & Keoleian, G. (2010) Carbon stored in human settlements: the conterminous United States. *Global Change Biology* 16: 135-143

^{xviii} CSIRO (2014) *Biodiversity: Science and solutions for Australia*. S. Morton, A. Sheppard and Mark Lonsdale (eds). CSIRO Publishing, Collingwood, Australia.

^{xix} Polyakov, M., Fogarty, J., Zhang, F., Pandit, R. and Pannell, D. (2016). The value of restoring urban drains to living streams, *Water Resources and Economics*

^{xx} Southern Sydney Regional Organisation of Councils and Sydney Coastal Councils Groups, with funding for the Australian Government. Available: <https://greater-sydney.nsw.gov.au/resource-hub/web-tools>