



Planning for Green Open Spaces

The Environmental Decisions Hub is undertaking a study into planning for green open space in urbanising landscapes.

This independent research is contributing to the regional sustainability planning for the Lower Hunter, jointly undertaken by the Australian Government and the Government of NSW. The research was funded by the Australian Government through the Sustainable Regional Development Program and National Environmental Research Program (NERP), which supports science that informs environmental policy and decision making.

Interim Research Outcomes

- Green open space (for example parks, reserves, sports fields, conservation areas) provides a range of important benefits to local communities.
- The design and configuration of green open space at different spatial scales are of joint significance to how people value and use green open space, and outcomes for biodiversity conservation.
- The planning and design of green open space should be based on an assessment of current community values and needs, projected future community needs and site specific social and ecological priorities, rather than relying solely on the application of generic standards.
- Landscape biodiversity conservation can be enhanced through careful integration of regional land use planning, conservation planning and local green space design.

1. Why are we doing this study?

Australia is experiencing ongoing population growth, mostly in urban regions. Green open space is a key component for social and environmental sustainability, and as such, needs to be planned and managed carefully.

While many standards and metrics exist to guide planners in making decisions about the amount and configuration of open space, there is a lack of data about how to achieve a diversity of social and environmental goals when creating open spaces.

The aim of this project is to provide high quality, practical data that can inform the open space planning approaches in Australia.

The study objectives are twofold:

- (1) To gain an understanding of the variety of ways people value and use open space, with particular reference to the Lower Hunter Valley, and
- (2) To identify the key biophysical and social variables that influence the reception of these benefits.

2. What are we doing?

The study is in three stages:

- (1) A literature review
- (2) A paper-based survey of the community values and activities in four case study suburbs in the Lower Hunter NSW, using public participation GIS (for example, participatory mapping) techniques.
- (3) Using the data collected in Stages 1 and 2, analyse the key social and biophysical variables that contribute to a range of benefits of open space.

We will then provide recommendations for planners and policy-makers to use when planning for green open space in new and existing urban regions.

3. How did we collect the data/information?

We started by reviewing the existing policies and guidelines at the local, state and federal government levels. This guided the development of our mail-based paper community survey of 1,000 residents in four suburbs: Charlestown, Toronto (Lake Macquarie local government area), Nelson Bay and Raymond Terrace (Port Stephens local government area).

The survey asked residents about how they felt about open green spaces and their thoughts on the design, maintenance and management. An interactive mapping exercise engaged survey participants to identify particular green spaces in their local area that they valued and considered important for certain activities.

We are currently collating the survey results and will digitise the participants' maps to generate spatial layers of green open space values for the case study areas. This will help us understand what the community values most about their open spaces, for example, how close the open space is to their home, the shape and layout of the park, and maintenance and management.

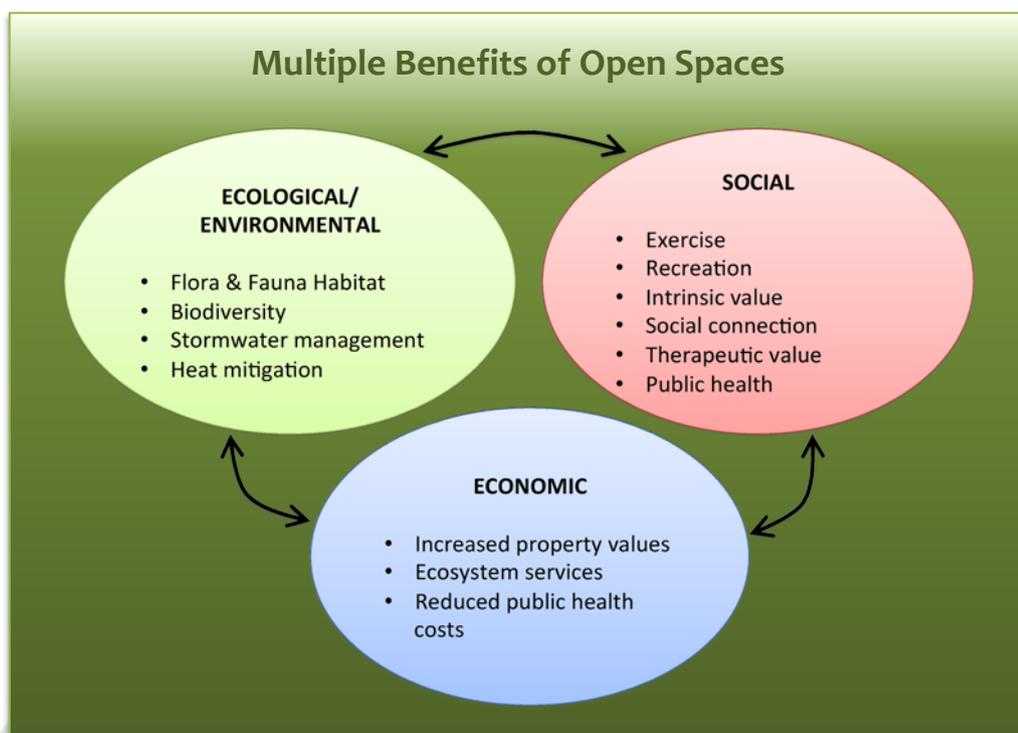
Green Open Spaces



4. What have we found so far?

The research is about half way through and we are yet to analyse the survey. From the literature review and community consultation, a number of key points are emerging from the research thus far:

- Scientific studies of the benefits of green space reveal many ways in which open space contributes to the wellbeing of local communities and environmental health. While research has been skewed towards measurement of active use of open space and physical health benefits, it is evident that non-use, cultural and intrinsic values of open space contribute significantly to community wellbeing and should be considered alongside more traditional measurements of open space benefits.
- Best practice open space planning principles are strongly in favour of a ‘needs-based’ assessment of community open space, rather than a blanket application of inflexible guidelines. In general, this consists of determining the specific ways in which local communities (present and future) are likely to use and benefit from an open space network.
- The community mapping techniques we employed are a potentially fruitful means of conducting a needs (and values) based assessment of open space requirements. This is because they actively engage the local community, strengthen healthy governance for sustainability and provide spatial data that can be more easily integrated into existing planning frameworks.
- Pilot surveys of local communities in the Lower Hunter have demonstrated that there are a variety of values people assign to different types of green open space and that multiple uses are appreciated. These benefits do not always align neatly with the priorities of existing categories of open space (for example, nature protection or culturally significant lands).



A schematic diagram representing examples of the multiple benefits of green open space, within the three interacting spheres of ecological, social and economic factors.

5. Where to from here?

This open space study will be completed at the end of 2014. We will present a formal report to the Australian Government's Department of the Environment. A draft interim report is likely to be available to General Managers in early 2014. Future associated research in 2014 will focus on understanding links between community values for open space and measures of biodiversity in urban settings. This work will help to identify potential conflicts and compatibilities between conservation and human-wellbeing benefits stemming from open space provision.

6. Who are the researchers involved?

Dr Christopher Ives

(RMIT University) is a multidisciplinary researcher with skills and experience in ecological assessment of urban bushland habitats, social research on perceptions of landscapes, and analysis of environmental policy.



Dr Cathy Oke

(RMIT University) has 20 years experience in the environmental industry with key skills in community and government's role in enhancing conservation, urban forest and biodiversity outcomes.

Where can I find out more?

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Further Reading:

Byrne J & Sipe N (2010) Green and open space planning for urban consolidation - a review of the literature, Urban Research Program, Issues Paper 11, URP Brisbane, p. 1-54. Available online: http://www98.griffith.edu.au/dspace/bitstream/handle/10072/34502/62968_1.pdf?sequence=1

CABE Space UK & Mayor of London (2009) Open space strategies, best practice guidance, *Commission for Architecture and the Built Environment and the Greater London Authority*. Available online: www.cabe.org.uk/publications/open-space-strategies.

About the NERP Environmental Decisions Hub

The [Environmental Decisions Hub](#) undertakes multi-disciplinary research on terrestrial biodiversity in a wide range of environments to assist government agencies to protect and restore Australia's biodiversity. The research includes new tools, data, models and authoritative syntheses that enable Australian governments to make evidence-based decisions that protect biodiversity.

The multi-disciplinary research collaboration is one of five national research hubs funded to study biodiversity conservation by the [National Environmental Research Program](#) (NERP) for four years (2011-2014).

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