

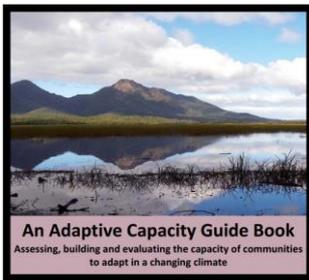
NSW Climate Adaptation Newsletter

The latest in climate change adaptation research, news and events

This month we cover:

- Building Resilience to Climate Change grants, round two
- Attend a stakeholder workshop on East Coast Lows
- An Adaptive Capacity Guide Book from SCARP
- *Adaptation in Action* featuring Penrith Council's draft 'Cooling the City Strategy'
- Plus publications, awards, conferences, news and more.

Know someone with an interest in Adaptation? [Share this newsletter with others](#)



[An Adaptive Capacity Guide Book](#)

Assessing, building and evaluating the capacity of communities to adapt in a changing climate.

Changes in climate, markets and technology have shaped the way we adapt. This guide can be used to build our capacity to meet future change with confidence. From the Southern Slopes Climate Change Adaptation Research Partnership.

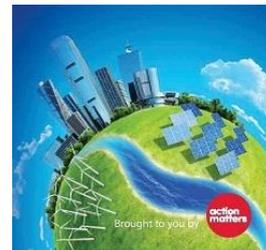


[East Coast Lows Workshop](#)

East Coast Lows (ECLs) are intense low-pressure systems that are associated with gale force winds, heavy rainfall and flooding.

This workshop will present the key findings from the 5 year collaborative Eastern Seaboard Climate Change Initiative on ECL's.

Presentations will address the future and frequency of ECL's, natural variability, coastal and estuarine impacts and regional water security



[Green Globe awards](#)

NSW Governments leading environmental recognition program now open!

Are you a NSW business, public sector or community organisation and leading the way in climate change? Apply for the 'Climate Change Leadership' category, which recognises outstanding initiatives and/or leadership in the field of climate change mitigation and adaptation in NSW.

Building Resilience to Climate Change Grants

The second round of the Building Resilience to Climate Change grants program are now open. Grants of \$15,000 - \$80,000 are available to NSW local government organisations including councils, Regional Organisations of Councils and County Councils.

This round we are inviting projects that build resilience of water supply or quality or adapt priority infrastructure. However all project proposals will be considered.

These grants are designed to encourage coordination and collaboration on adaptation projects through regional alliances, common activities and resource sharing. NSW agencies, Aboriginal Land Councils, business, research and community organisations are encouraged to collaborate on grant proposals; however applications must be lodged by a local government organisation, which will be responsible for administering the grant.

Read the [FAQs](#), [application forms](#) and [grant guidelines](#) for more information. The media release is available [here](#).

Applications close 4 August 2015.



Adaptation in Action

"Cooling the City" Strategy - Penrith City Council

This month, exploring examples of adaptation, we talk with Jenny Guice, Senior Sustainability Planner with Penrith City Council. Jenny has been developing a draft 'Cooling the City' strategy that will serve as a roadmap to reduce the pressures on the community from increasing urban heat.

This project was supported in part by the *Building Resilience to Climate Change Grants*, which is funded by the Office of Environment and Heritage and the NSW Environmental Trust.

Jenny, what are the heat issues in Penrith, and what motivated you to act?

Penrith's location in the lower part of the Sydney Basin up against the Blue Mountains, it tends to get hotter than more coastal areas of Sydney. The cooling sea breezes from the coast do not reach parts of western Sydney like Penrith. The highest temperature recorded

at the Penrith Lakes weather station in 2014 was 44.9°C! Currently areas of Western Sydney experience 10-20 hot days on average, with projections for an additional 10-20 hot days per year by 2070. Combine this with significant urban growth in the LGA transforming land use, heat and its impacts on the liveability of the region is of concern to residents and Councillors alike.

How did you develop your strategy?

We first quantified urban hotspots across the LGA, and correlated those with information about the Penrith community. Council was able to access thermal images of the LGA from the CSIRO (see below image) which highlighted where the hot spots were. Social vulnerability maps were then overlaid. This process helped identify the hotspots that were likely to have the greatest impact on human health and wellbeing.

We then drilled down to the suburb scale to understand where and how heat was affecting vulnerable members of the community. We had an adaptive capacity assessment done to determine how and why specific communities might be at risk, and work out some mitigation strategies.

Priority hotspot locations across five suburbs were analysed in the study which was undertaken by the Institute for Sustainable Futures (ISF). The research revealed real potential and opportunities for Council to cool the city by focussing on the under-utilised 'in-between' spaces that connect one place to another.

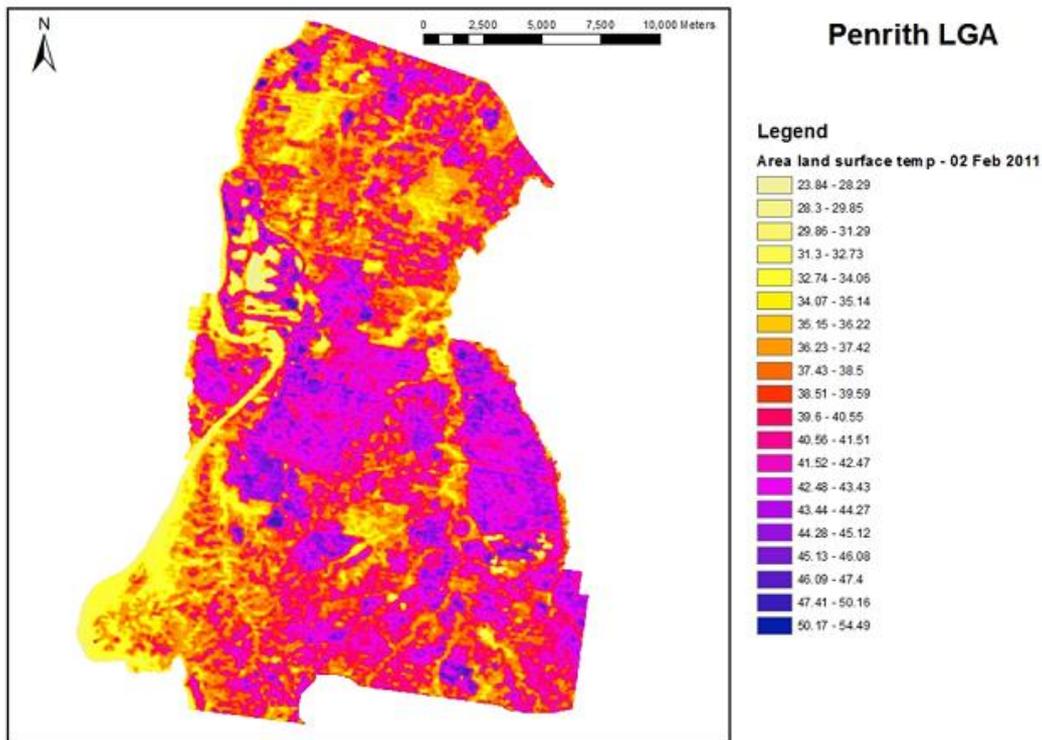
Did you have any valuable lessons from the process?

The key lessons learnt, aside from the interesting recommendations that came out of the research, was that we didn't necessarily need every piece of the most up to date data to progress, and we could do a lot on a minimal budget. We may not have all the details (ie tree inventory, recent heat mapping etc), but we have enough of an understanding of the issue and some solutions to advocate implementing strategies to cool the city.

So where to from here?

We anticipate the draft "Cooling the City" Strategy will be adopted by Council later this year. We are also looking for any opportunities to piggy-back cooling outcomes into existing programs and put forward some of the recommendations to seek external grant funding.

Email Jenny if you want to discuss the 'Cooling the City' strategy further



This land surface temperature image of Penrith was taken on the fourth consecutive day over 35°C in February 2011.

The maximum ambient temperature recorded at Penrith Lakes Weather Station that day was 41.8°C, however analysis of the thermal image showed land surface temperatures that range between 40-49°C, with localised hotspots identified with Land Surface Temperatures that are another 5°C hotter. The thermal image also showed that the cooling effect of vegetation across the LGA is significant, offering land surface temperature reductions of up to 20°C in some instances compared to areas with limited vegetation.

Ref: Landsat derived Land Surface Temperature data © Commonwealth Scientific and Industrial Research Organisation

Publications, events, news and grants

Publications

[Engaging communities in climate adaptation: the potential of social networks.](#) Cunningham et al 2015. There has been a growing recognition regarding the use of social networks to engage communities in government actions. However, despite increasing awareness of social networks, there is very limited evidence for their application in relation to climate policy. This study fills this gap by assessing the potential of social networks for engaging local communities in climate adaptation policy, drawing on a case study of the Shoalhaven region in Australia.

[A tool to assess potential for alien plant establishment and expansion under climate change.](#) Roger et al, 2015. This journal article stems from the Biodiversity

Node '[Weed Futures](#)' project - paper looks at a tool for assessing the threat of alien plants under climate change. Results can be queried through a web-based portal at <http://weedfutures.net/>.

Conferences / events

[24th NSW Coastal Conference, 2015](#) 10-13 November 2015, Forster, NSW. Hosted by Great Lakes Council. The theme of the conference is *Great Expectations - pathways for learning and delivery*

[Local Government NSW Annual Conference](#) 11 - 13 October 2015, Rosehill Gardens, Sydney. The annual policy making event for the 152 Councils of NSW.

[Environmental Health Australia's National Conference](#). 20 - 24 October 2015, Sydney. This conference will include sessions around how climate change is increasing impacts on health. The theme this year is 'strength in Unity'.