

AdaptNSW



**Office of
Environment
& Heritage**

AdaptNSW newsletter - NSW adaptation news and more

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Half-way through 2018 already – it's been a busy year for climate adaptation and there's a whole lot more to come...

AdaptNSW

AdaptNSW annual forum – save the date – 19 November 2018!

The Office of Environment and Heritage will host its annual climate adaptation forum on

Monday 19 November 2018

@ Doltone House Darling Island Wharf

Come and listen to the latest in adaptation research from our NSW Adaptation Research Hub's Biodiversity Node, Adaptive Communities Node, Coastal Processes and Responses Node, and Human Health and Social Impacts Node. Research findings and products will be available for viewing and discussion with the researchers themselves.

Put it in your calendar and prep your questions!

Record warmth for April

The Bureau of Meteorology (BoM) has issued a [Special Climate Statement](#) likening the exceptional heat experienced across the country during April to mid-summer, rather than mid-autumn.

The BoM Statement identifies abnormally warm conditions as unprecedented in many areas for April, for the intensity, persistence and spatial extent, with above-average maximum temperatures extending almost nationwide on each day during the first 10 days of the month.

Notable records:

- NSW had five consecutive days with an average maximum above 32 °C (8 to 12 April) - NSW had never previously had more than two days with an average maximum above 32 °C in any April
- Sydney had its hottest April day on record, reaching 35.4 °C, which is 1.2 °C above the previous April record
- Sydney's nine consecutive days of 25 °C or above was an April record
- Pooncarie in western NSW reached 40.5 °C on 10 April, surpassing the previous NSW April record of 40.0 °C at Collarenebri on 1 April 1922
- On 11 April, record high April maximum temperatures were observed over 18.8 % of NSW, with some locations, particularly in southern inland NSW, exceeding previous April records by 2 °C or more

- A record run of consecutive warm April days in Canberra included five days of 28 °C and four days of 29 °C

Out of season extreme weather

As warmer weather extends into autumn, the window for appropriate conditions for hazard reduction burning is shifting. This can impact of [air quality, as was seen in May in Sydney](#).

In an [opinion piece](#) to the Sydney Morning Herald, Fire and Rescue NSW firefighter Jim Casey outlined some of the on-ground issues being faced during extreme events as our climate changes. He noted that in fighting the Menai bushfire in southern Sydney the fire services don't generally expect major fires halfway through autumn.

Following the country's hottest ever summer, a [marine heatwave in New Zealand](#), has seen sea temperatures increase in some areas by as much as 6 C and surprising fish movements. The Queensland groper has been spotted in NZ's Bay of Islands, more than 3,000 kilometres away from its usual habitat. Other species not common in NZ waters have been noted over the past summer, including kingfish in Dunedin Harbour and lion's mane jellyfish in Wellington Harbour.

In late May, the American city of [Baltimore has experienced its second 1-in-1000-year flood](#) in two years with nearly 20.32cm of rain falling over six hours, the majority falling in an intense three-hour period. This most recent flood comes just two weeks after the US Federal Emergency Management Agency awarded more than \$US1 million for projects aimed at reducing the flood risk in the city. In July 2016, nearby Ellicott City received 17cm of rain over a 2-3hr period which caused the deaths of two people and cost millions in damage.

Climate Change impacting on National security

Submissions to the recent Australian Senate enquiry identified increasing risks and associated costs of managing threats to associated with climate change. The Department of Defence statement included: "the consensus from the evidence (is) that climate change is exacerbating threats and risks to Australia's national security... These include sea level rise, bushfires, droughts, extreme rainfall events, and higher-intensity cyclones". The Office of Home Affairs noted: "[Climate change is likely to exacerbate the complexity and unpredictability](#) of existing migratory pressures around the world and for Australia".

The Senate final report '[Implications of climate change for Australia's national security](#)' concludes that "climate change is also adversely affecting other aspects of Australia's national security, including the economy, infrastructure, and community health and well-being" and made 11 recommendations, including:

- ongoing adequate funding for climate science and research organisations;

- a climate security white paper, or similar planning document, to guide a coordinated whole of government response to climate change risks;
- a National Climate, Health and Well-being Plan based on the Framework for a National Strategy on Climate, Health and Well-being for Australia;
- for a dedicated climate security leadership position to be developed in the Office of Home Affairs;
- emissions reductions targets across stationary and operational energy use; and
- further funding for international climate adaptation and disaster risk reduction measures, in addition to the existing aid budget, to the extent that financial circumstances allow.

Climate Change and Biodiversity Roadshows

Biodiversity Node hosts, Macquarie University, and the Office of Environment & Heritage, will be hosting a series of roadshow seminars to share the latest research addressing biodiversity and climate adaptation in NSW.

The workshops will present new initiatives, methods and web tools to support adaptation planning in your local region. Natural resource managers, decision-makers, scientists and conservation practitioners are invited!

Date	Location
20 September	Sydney CBD
11 October	Parramatta
23 October	Bathurst
25 October	Armidale
30 October	Wollongong
31 October	Queanbeyan
19 November	Sydney CBD – AdaptNSW event



Please register your intention to attend through Eventbrite using the following link:

<https://www.eventbrite.com.au/o/biodiversity-node-of-the-nsw-adaptation-research-hub-17485725232>

National Climate Adaptation conference

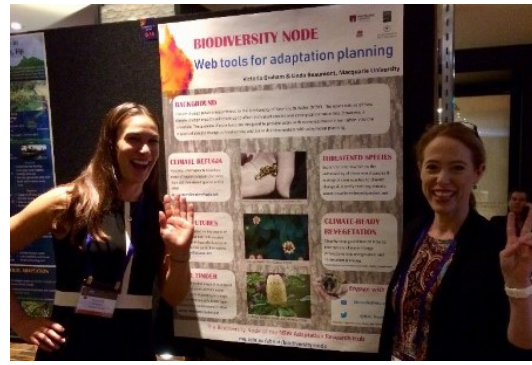
The [6th National Climate Adaptation Conference](#) was held from 8 -10 May 2018 in Melbourne. This year the conference was a partnership between the National Climate Change Adaptation Research Facility (NCCARF) and Engineer's Australia, with focus on incorporate practical responses to climate change.

The NSW Adaptation Research Hub was well represented across the sessions:

- **Adaptive Communities Node** - Developing the Adaptation Innovation Community (Panel session including Rebecca Cunningham, ISF UTS)
- **Adaptive Communities Node** - Tools, knowledge and communication: building support for action, 'Collaborative Climate Change Adaptation: XDI-informing insights through immersive virtual reality' (Karl Mallon, Risk Frontiers and Rebecca Cunningham, ISF UTS)
- **Adaptive Communities Node** - Climate inspired innovation and entrepreneurship: from challenge to opportunity, 'Forced innovation: Small business preparedness and response to natural disasters' (Samantha Sharpe, ISF UTS)
- **Adaptive Communities Node** - Climate inspired innovation and entrepreneurship: from challenge to opportunity, 'Forced innovation: Economics of system transitions in NSW Riverina Murray' (Brent Jacobs, ISF UTS)
- **Adaptive Communities Node** - a series of virtual reality experiences were made in partnership with ClimateKIC and Climate Risk showing Node projects, including the Leichardt Urban Heat Mapping and Climate Adapted People Shelters, woven into an immersive storytelling experience in virtual reality.

In a first of its kind tech demonstration, the Adaptive Communities Node in collaboration with Climate Risk, demonstrated the NARClIM data in virtual reality, by taking real data and running real climate scenarios in a virtual world. Content created by the Bob Brown Foundation and Blue Trot was also shown.

- **Adaptive Communities Node** - *Attributes of good governance for effective adaptation action, and regional transitions* (Suzanne Dunford, ISF Masters student)
- **Biodiversity Node** - Tools for NSW decision-makers to facilitate species' resilience to climate change (Macquarie University's Linda Beaumont, Victoria Graham, Rachael Gallagher, Michelle Leishman, John Baumgartner, Manuel Esperon-Rodriguez, Nola Hancock, Suzanne Dunford, Lesley Hughes)
- **Biodiversity Node** - Designing a climate-ready protected area network (Macquarie University's Victoria Graham, Alana Grech, Linda Beaumont, John Baumgartner, Manuel Esperon-Rodriguez)



Picture 1: L-R Adaptive Communities Node - Sam Sharpe (ISF), Suzanne Dunford (ISF), Momtaj Khali (UTS), Brent Jacobs (ISF), Bec Cunningham (ISF). Picture 2: Biodiversity Node - Victoria Graham (MQ) and Linda Beaumont (MQ)

Full National Climate Adaptation Conference papers available at:
<http://climate-adaptation-2018.w.yrd.currinda.com/conference-papers>

Get Ready Narrabri – citizens’ jury.

In September 2017, the NSW State Emergency Service, the University of Adelaide and University of New England hosted a citizens’ jury with Narrabri Shire, with support from the [NSW Community Resilience Innovation Program](#).

The project brought together representatives from across state agencies, including the Office of Environment and Heritage’s Climate Change Adaptation team, to better understand and improve communities’ resilience in preparing for natural disasters. You can view the “expert witnesses” video [here](#) and [read the final reports](#), which include the recommendations formulated by the adult and youth juries following their deliberations on the evidence and their own experiences of floods, storms and bushfires in the Narrabri area.

Private sector approaches to climate risk and exposure

Australian Stock Exchange

The **ASX** has issued a new draft [Corporate Governance Principles and Recommendations](#), which includes proposed changes on what constitutes sound risk management. Although short of actual legislation, this is compelling direction for listed entities to manage and disclose climate related risks to investors. The draft recommendations include:

- A listed entity should disclose whether it has any material exposure to environmental or social risks and, if it does, how it manages or intends to manage those risks, this includes:
 - physical risks, such as the risk of assets being destroyed or rendered unproductive, or business operations being disrupted, by extreme weather events or long term shifts in climate patterns;
 - transition risks, such as the risks arising from changes in legislation or government policy, or the need to adopt new technologies, seeking to mitigate the effects of

climate change or facilitating the shift to a lower carbon economy; and

- liability risks, where people who suffer damage caused by climate change, or a failure to respond to climate change, seek redress from those they believe are responsible.

On 18 June, ASIC Commissioner John Price, shared his views and priorities on climate-related risk, noting that the Taskforce on Climate-related Disclosures (TCFD) recommendations can assist “not just in the disclosure context, but as a key resource to assist in understanding, identifying and managing climate risk and climate opportunity.” A report from the Centre for Policy Development, released at the time, found more Australian companies were looking at how the Paris agreement on climate change could affect their businesses, but many big businesses' attempts to model potential climate change scenarios were based on "questionable" assumptions and did not consider the physical effects of climate change. To read the Climate Horizons Report visit <https://cpd.org.au/2018/06/climate-horizons-2/>

HSBC

Global bank **HSBC** has released a [report](#) ranking 67 countries (representing one-third of the world's nation states; 80% of the global population; and 94% of global GDP) for their exposure to climate change risks. It found Australia to be one of the most vulnerable to climate change in the developed world with the largest percentage rise in deaths attributable to climate change.

Increases in fatalities attributable to climate change-linked events such as stronger storms, floods, or heat-related incidents increased from 0.36% of the population between 1997-2006 to 3.41% between 2007–2016. Australia was ranked as highly sensitive to the physical risks of climate change, with predictions of more storms, floods, rain and bushfires.

In the [World Economic Forum Global Risks 2018 report](#), Australia was the only country apart from Canada to include adapting to climate change within its top 5 risks, and all five risks in the environmental category were ranked higher than average for both likelihood and impact over a 10-year horizon.

Solutions...Deutsche Bank

These reports follow on from the [Deutsche Bank's development of a tool](#) in 2017 to forecast where its investments across the globe may be impacted by natural disasters brought on by climate change. The tool involves maps and advance climate science models to determine the vulnerability of business sites and calculate their exposure to catastrophic events caused by climate change, including heatwaves, floods and intense storms.

Solutions...Suncorp

In Australia, Suncorp have recently released a [Climate Change Action Plan](#), which outlines how the company aims to transition to a net-zero carbon emissions economy by 2050. The plan includes five commitments:

1. Strengthen our governance processes (including assessment of climate risk)
2. Reduce our environmental footprint
3. Increase community resilience
4. Accelerate emerging opportunities and climate-related innovation
5. Track and openly disclose our climate-related performance.

Solutions...Blockchain? (With thanks to [Qld's 30x30 April 2018 issue](#)).

At the UN Climate Change Conference, held in May 2017, experts stated that 'Blockchain' could play a significant role in tackling climate change and reaching the goals set in the Paris Climate Change Agreement. Based on a mutual distributed network, Blockchain technology allows informational data to be continually updated and verified by its users in a readily accessible, shareable and secure space.

The technology established its name as each "block" of information that is uploaded becomes "chained" and added to the expanding database under the surveillance of network members.

An Associate Programme Officer at the UNFCCC, said that "Blockchain could contribute to greater stakeholder involvement, transparency and engagement and help bring trust and further innovative solutions in the fight against climate change, leading to enhanced climate actions." In January this year, the UNFCCC launched a new Climate Chain Coalition (CCC) to encourage exploration and eventual use of Blockchain technology.

The CCC recognises the potential of the technology to contribute to enhanced climate action through its ability to:

- strengthen monitoring, reporting and verification of the impacts of climate action
- improve transparency, traceability and cost-effectiveness of climate action
- make incentive mechanisms for climate action accessible to poor nations
- support mobilization of green finance.

Visit the [Climate Chain Coalition website](#) to find out more.

Generation Next standing up for climate action - Columbia

A group of [24 young people, aged 7 - 26 years, have taken on the Colombian Government](#), and won, in a land mark case arguing that the government was failing to protect the Amazon, and consequently was contributing to climate change. This next generation also argued that continued deforestation violated their constitutional rights to a healthy environment, life, food and water.

The ruling read "It is clear, despite numerous international commitments, regulations ... that the Colombian state has not efficiently addressed the problem of deforestation in the Amazon" and ordered the presidency, the ministries for environment and agriculture, and local governments, to create an "intergenerational pact for the life of the Colombian Amazon". The government must now plan to reach zero net deforestation by 2020 and halt the loss of all natural forest by 2030.

News from the Nodes...

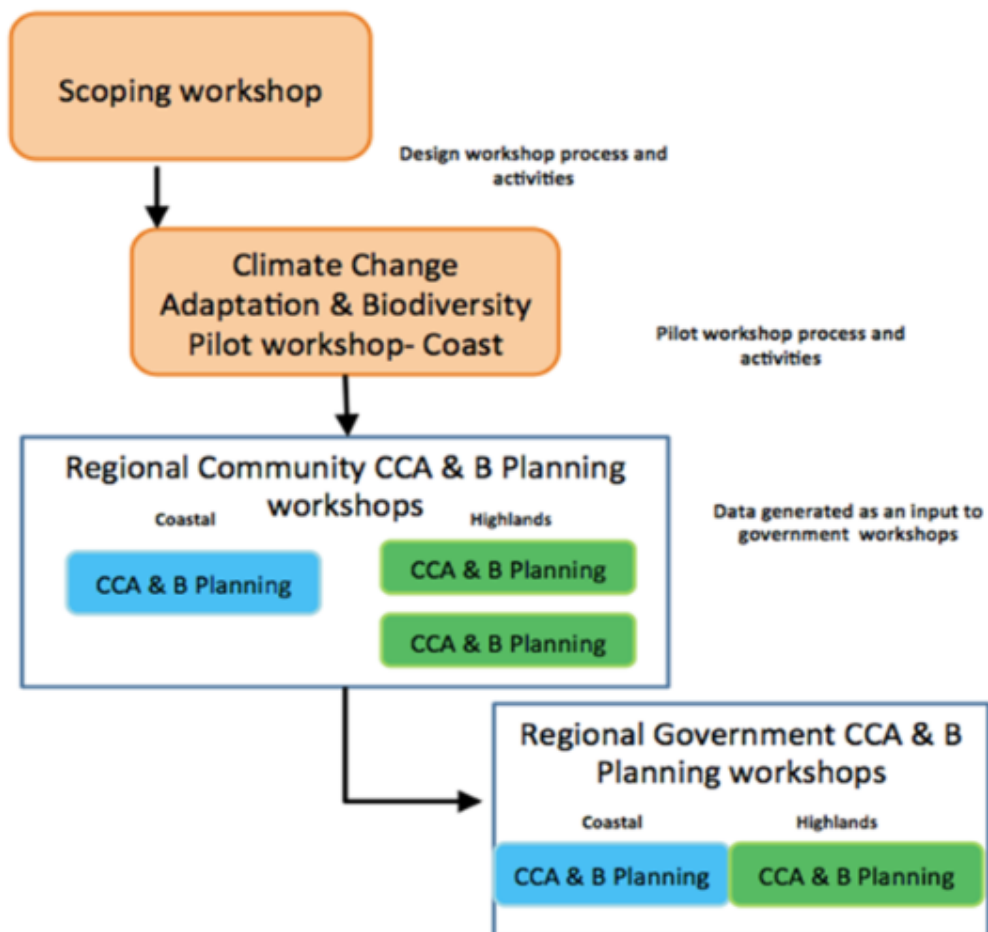
Adaptive Communities Node

UTS-ISF Adaptive Community Node researchers, Louise Boronyak and Brent Jacobs and Kylie McKenna, have been in Papua New Guinea on a USAID funded project to engage communities and government in biodiversity conservation and climate adaptation, in

collaboration with the New Guinea Binatang Research Centre (BRC).

The project aims to support biodiversity conservation in Madang and Eastern Highlands provinces through community engagement processes that:

1. Identify ecosystem services (ES) valued by the communities
2. Provide communities with locally relevant tools to gather information, report on impacts of climate change and other threats to biodiversity and livelihoods;
3. Inform Provincial-level Government policy and planning on biodiversity conservation and climate change adaptation.



Communities are guided through a series of participatory, knowledge sharing exercises that includes:

- Mapping the community's important ecosystem services
 - Sharing stories about changes local climate/weather (past and future)
 - Mapping the impacts of environmental changes
 - Identifying local action that can support adaptation to environmental change to protect biodiversity and livelihoods.
-

Biodiversity Node

Abstracts for the Biodiversity Node projects presented at the 2018 National Climate Adaptation Conference:

Project 1. The Biodiversity Node: Tools for NSW decision-makers to facilitate species' resilience to climate change

Authors : Linda Beaumont, Victoria Graham, Rachael Gallagher, Michelle Leishman, John Baumgartner, Manuel Esperon-Rodriguez, Nola Hancock, Suzanne Dunford, Lesley Hughes

Abstract:

Climate change presents a major threat to biodiversity: land managers and policy-makers are faced with enormous challenges to manage the adaptation of natural systems and minimise species extinctions. The Biodiversity Node of the NSW Adaptation Research Hub (hosted by Macquarie University) has developed a suite of online tools that empower stakeholders to assess climate risks and reduce the vulnerability of species and ecosystems to climate change. The talk showcased key tools, including:

1. Climate Refugia: an interactive website with maps of potential refugia from climate change for > 300 of NSW's threatened species. Users can view projections of suitable habitat, visualise agreement across multiple climate scenarios, and download reports summarising impacts for threatened species within administrative regions.
2. NSW Niche Finder: basic metrics of species' ecological ranges are routinely used to assess vulnerability to environmental change. Until now, these data were lacking for NSW's flora. This web-tool enables users to explore baseline maps of ecological ranges and access climate niche metrics of NSW plants.
3. Climate-ready revegetation: practical advice for natural resource managers tasked with revegetation, and guidelines on using the latest climate tools to support the long-term persistence of plantings.
4. Weed futures: a decision support tool where users can access risk assessments for > 600 weed species, and download maps illustrating regions most vulnerable to future weed invasions.
5. These tools, co-designed by academic researchers, government scientists and stakeholders, provide an effective basis for conservation and land management under climate change, and will help maximise species and ecosystem resilience.

Project 2. Abstract title: Designing a climate-ready protected area network

Authors: Victoria Graham, Alana Grech, Linda Beaumont, John Baumgartner, Manuel Esperon-Rodriguez

Abstract:

In the face of rapidly changing climate and other environmental pressures, managing the transformation of ecosystems to minimise species loss and support ecosystem services presents enormous challenges for land managers and policy makers. The Biodiversity Node of the NSW Adaptation Research Hub (hosted by Macquarie University), conducts research to help NSW decision makers and practitioners working to build resilience in species and ecosystems in an era of rapid climate change.

As species respond to climate change by shifting geographic ranges, the ability of present-day protected areas to conserve biodiversity in the longer term may decline. Here we present the outcomes of the Biodiversity Node project that evaluated the coverage of bioregions and climate refugia by protected areas and identified priority areas for expansion under climate change in NSW, using the decision support tool Marxan. We found that priority sites for new protected areas under climate change were identified in central-western NSW, northeast NSW and patches of southeast NSW. Eight existing parks, including Kosciuszko National Park, were represented in 12 future climate refugia scenarios, suggesting that these protected areas are critical for protecting species under climate change.

The recommendations from this study are designed to support policy-makers in developing management actions that are best positioned to protect biodiversity under a changing and uncertain climate. This study highlights areas of high importance for climate adaptation by conducting a statewide prioritisation of the protected area network for achieving conservation objectives into the future.



Biodiversity Node researchers, Dr Linda Beaumont and Victoria Graham present at the National Climate Adaptation Conference 2018

Coastal Processes and Responses Node

The [Coastal Management Act 2016](#) and the [State Environmental Planning Policy \(coastal Management\) 2018](#) (SEPP) commenced on **3 April 2018**.

The *Coastal Protection Act 1979* was repealed, and the new SEPP replaced SEPP 14 (Coastal Wetlands), SEPP 26 (Littoral Rainforests) and SEPP 71 (Coastal Protection).

The reforms provide a new [management framework](#) that enable coastal communities to:

- protect and enhance the social, economic and environmental values of the coast

- ensure ongoing use and enjoyment of our beaches and coastal foreshores
- increase our resilience to existing and emerging coastal hazards and threats.

A new expert body, the NSW Coastal Council, which includes researchers from the node, will provide specialist advice to the Minister for the Environment on coastal management and review the effectiveness of coastal management programs.

The updated [NSW Coastal Management Manual](#) supports coastal communities to develop integrated coastal management programs that are feasible, technically viable and affordable. The reforms framework is also supported by an \$83.6 million funding package that was [announced](#) in 2016.

Human Health and Social Impacts Node

Human Health and Social Impacts Node and OEH research partner, the University Centre for Rural Health (UCRH at The University of Sydney), have presented findings of a survey of over 2,500 Northern NSW residents to assess mental health and wellbeing after a major flood event.

The survey showed that mental health risk was greatest for respondents who:

- had their homes/businesses/farms inundated
- were affected by the flood in a number of ways, and/or
- were still displaced from their homes after six months.

Initial findings can be viewed on the University Centre for Rural Health's website [here](#). ABC's [7:30 report](#) covered the project on 31.03.2018, contextualising the findings with stories from flood survivors in the community.

The UCRH has received positive feedback from members of its Community Advisory Group for this project, including:

- *"I was very encouraged by the early interested from UCRH in this study, following our devastating flood in 2017. The quick timeframe meant that the new information could flow from the process into disaster recovery plans, as well as back into our community to aid the recovery process"* - Isaac Smith, Mayor Lismore City Council
- *"My hope is that the research can create prcital and policy outcomes that build increasing personal and collective preparedness, resilience and self-capacity to reduce the impact on all areas of our community."* - Rik Whitehead, Regional Director North Coast Communication and Engagement NSW Department of Industry
- *"Red Cross found the Community Advisory group useful in a number of ways. As well as providing new information on the mental health impacts of disasters, the Group set a new precedent for the way that we work together locally after an emergency event."* - Catherine Martinez, Regional Emergency Services Officer Australian Red Cross



AFTER THE FLOOD

Community recovery in the northern rivers

The UCRH has received positive feedback from members of its Community Advisory Group for this project, including:

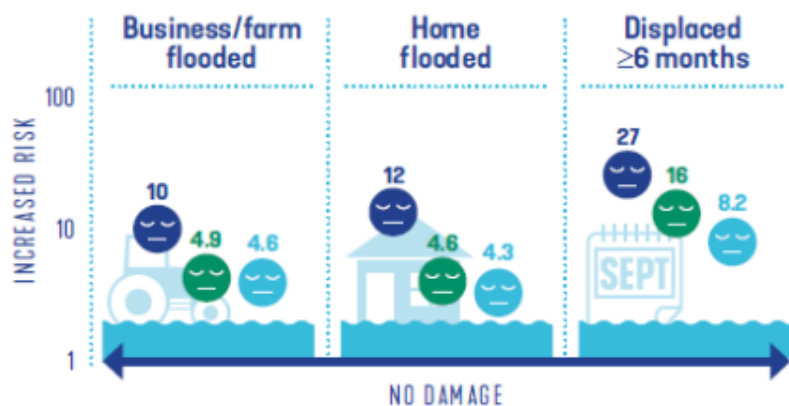
- "I was very encouraged by the early interest from UCRH in this study, following our devastating flood in 2017. The quick timeframe meant that the new information could flow from the process into disaster recovery plans, as well as back into our community to aid the recovery process" - Isaac Smith, Mayor Lismore City Council
- "My hope is that the research can create practical and policy outcomes that build increasing personal and collective preparedness, resilience and self-capacity to reduce the impact on all areas of our community." - Rik Whitehead, Regional Director North Coast Communication and Engagement NSW Department of Industry
- "Red Cross found the Community Advisory group useful in a number of ways. As well as providing new information on the mental health impacts of disasters, the Group set a new precedent for the way that we work together locally after an emergency event." - Catherine Martinez, Regional Emergency Services Officer Australian Red Cross



Flood Impact on mental health

Flood damage and risk to mental health, compared to no damage

☹️ Probable PTSD ☹️ Probable anxiety ☹️ Probable depression



There was higher mental health risk for those whose properties were flooded compared to those reporting no damage

Mental health risk increased the longer a person was displaced
4% of respondents were still displaced from their homes ≥6 months

The risk of Post-Traumatic Stress Disorder is 27 times higher for those displaced for six months or more

Bushfire Risk Management Research Hub

Bushfire Risk Management Research Hub researcher, Hamish Clarke (University of Wollongong) and Jason Evans (ARC Centre of Excellence for Climate System Science and Climate Change Research Centre, UNSW) have released a paper addressing high-

resolution projections of climate change impacts on fire weather conditions in southeast Australia out to 2080.

The paper finds that changes in annual cumulative Forest Fire Danger Index (FFDI) vary widely, but the most significant increases in fire weather and decreases in prescribed burn windows are projected to take place in spring, emphasising the need to consider inter-variable relationships for complex phenomena such as fire weather. There is considerable uncertainty in the future trajectory of fire weather in southeast Australia, including the potential for less prescribed burning days and substantially greater fire danger in spring. The paper suggests selecting climate models on the basis of multiple criteria can lead to more informative projections and allow an explicit exploration of uncertainty. Read the full paper here: <https://rdcu.be/OoR1>

Learning 2 Adapt sponsorship – EIANZ professional development training



The NSW Office of Environment and Heritage is sponsoring six registrations (6x course fees valued at \$2,100 each) to attend the Learning to Adapt training run through August to October, 2018 in North Wollongong. The scholarships are open to Local Government employees, or adaptation practitioners. The course, developed by the NSW Division of the Environmental Institute for Australia and New Zealand (EIANZ), aims to build adaptive capacity and climate change adaptation skills with an emphasis on review and update of existing climate change adaptation projects.

If you are interested please contact the Office of Environment and Heritage for further details on obtaining and completing and expression of interest form: Aaron.Coutts-Smith@environment.nsw.gov.au or (02) 9995 6909.

Applications close 16 July 2018.

Historical climate extreme survey

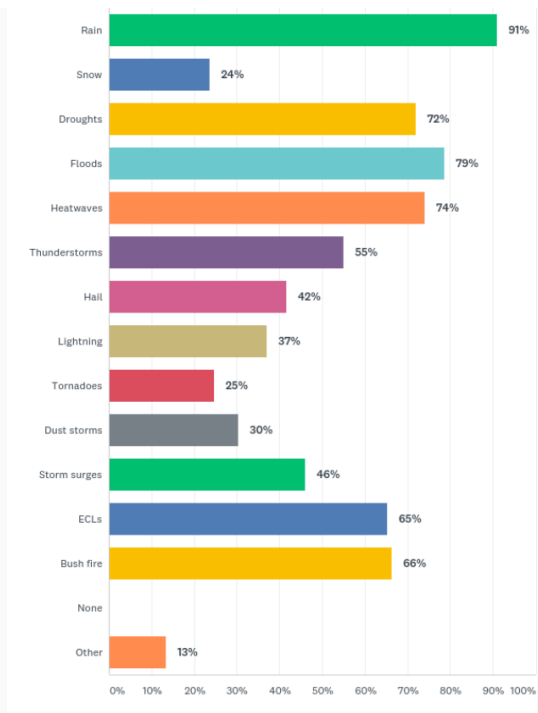
Thank you to all who participated in the Historical climate extremes survey highlighted in the last AdaptNSW newsletter.

Over three quarters of respondents indicated they would use data on climate extremes for managing risk, with greatest interest in:

- heavy rainfall events
- floods
- heatwaves and
- droughts.

Over half were interested in bushfire, East Coast Lows (ECLs) and thunderstorms.

Respondents agreed that a database that gave data for a range of different types of climate extremes would be useful and most said that an online portal should be provided to access, analyse and plot maps and graphs of the data.



Conferences | Professional Development | Grants



EIANZ Learning 2 Adapt – 3 full day training on 8 August; 12 September; 17 October at Novotel North Wollongong - a professional development program in climate change adaptation delivering practical, hands on skills and knowledge at the postgraduate level.

University of Newcastle PhD scholarship Climate Change Law and Policy: Legal Frameworks for the Social Cost of Carbon Dioxide <https://www.newcastle.edu.au/research-and-innovation/graduate-research/phd-scholarships/phd-scholarships/climate-change-law-and-policy-legal-frameworks-for-the-social-cost-of-carbon-dioxide>

Professional obligations in an age of climate change, Sydney Environment Institute, Monday 24 September 2018, join a panel to discuss key questions facing all professionals in the age of global warming, such as How are professional standards and codes of ethics shifting in response to the catastrophic threat posed by climate change? How have certain professionals been implicated in perpetuating and legitimising environmentally destructive acts? Speakers include Anna Krien, Author and Journalist; David Ritter, CEO, Greenpeace Australia Pacific; Sarah Barker, Special Counsel, MinterEllison; Series Chair Prof. Christopher Wright, University of Sydney Business School
http://sydney.edu.au/environment-institute/events/professional-obligations-age-climate-change/?utm_source=EDO+NSW+supporters&utm_campaign=8e7bef2d16-ebulletin+180511&utm_medium=email&utm_term=0_66901aea38-8e7bef2d16-1149&mc_cid=8e7bef2d16&mc_eid=83c8f9a259

EIANZ ACT Climate Change Forum, University House ANU 3 October 2018 will feature a range of presentations about environmental policy and practice relating to climate change, covering international, national, regional and local aspects such as hazard assessment; adaptation; avoiding emissions; data and information; renewable energy targets; benchmarking; and Government programs
<https://www.eianz.org/events/event/act-climate-change-forum>

Grants

Environmental Trust Environmental Research Grants provide funding up to \$150,000 to support applied research projects that help address environmental problems in NSW in four key theme areas in 2018: Resource management; Wetlands and river systems; Landscape management; Marine, coastal and estuarine ecosystems.

EOIs open early
2018

NSW Regional Growth Fund provides grant funding through six streams for projects that facilitate regional development by enabling essential infrastructure, supporting arts and culture, enhancing and building sporting infrastructure, improving regional voice and data connectivity, investing in mining-impacted communities, spurring job creation and deliver local infrastructure. <https://www.nsw.gov.au/improving-nsw/regional-nsw/regional-growth-fund/>

See website for
key dates

NSW Adaptation Hub outputs

for outputs of each of the nodes please visit the following sites:

Biodiversity Node, led by Macquarie University

<http://biodiversity.science.mq.edu.au/>

Adaptive Communities Node, led by the Institute for Sustainable futures, UTS

<https://www.uts.edu.au/research-and-teaching/our-research/institute-sustainable-futures/our-research/climate-change/nsw>

Coastal Processes and Responses Node, led by the Sydney Institute for Marine Science

<http://sims.org.au/research/long-term-projects/oeh-coastal-processes-node/>

Human Health and Social Impacts Node

<http://sydney.edu.au/medicine/public-health/research/hhsi-node.php>
