

Call for Expressions of Interest

August 26 2016

1. THE CHALLENGE

Disasters such as storm, flood, fire, cyclone, earthquake and tsunami expose human, infrastructure and institutional vulnerabilities, and subject the Australian community to considerable impact and loss. Such events make headlines when they cause injury, death and widespread damage. However, their full impacts often remain poorly quantified, but will be felt through long-term consequences for individuals, communities, infrastructure, the landscape and the economy.

The policies and settlement patterns of the past are proving inadequate for the challenges of the future and in many instances are intensifying exposure to risk. This brings into focus the role of government and the concepts of shared responsibility and mutual obligation in managing personal and community risks.

There is increasing evidence of a change (both current and predicted) in the earth's climate patterns leading to an increased frequency of extreme weather events. This is driving the need to think differently about how to deal with natural disasters into the future.

The problem is a complex one and a challenge for participants in the Bushfire and Natural Hazards Cooperative Research Centre (CRC).

2. ABOUT THE CRC

The Bushfire and Natural Hazards Cooperative Research Centre was established on 1 July 2013. The CRC is a partnership involving federal and state governments, emergency management and services agencies, non-government organisations the private sector and research institutions. Approximately 20 universities and 30 government bodies are formal partners in the CRC. Detailed information regarding the CRC may be found at www.bnhcrc.com.au.

3. DEVELOPING THE CRC RESEARCH PROGRAM

Guiding principles in the development of the research program are:

- The CRC will be addressing strategic issues of national significance.
- The work, governance and management of the CRC will be driven by the needs of the end-users involved.
- The CRC will have a strong focus on good quality, internationally significant research.
- The CRC will be strongly supportive of quality publication in highly ranked journals, as a way of ensuring research quality.
- Researchers will work closely with end-user organisations.

In April 2013 a call for proposals went out to the research sector seeking proposals addressing issues identified in a series of problem statements distributed with the call. Subsequently 39 projects were initiated across a range of topic areas.

The CRC has subsequently undertaken a review of its research, with a view to refreshing our research program. This refresh of the research is a refinement of the program to ensure our work is contributing to a more disaster resilient Australia, and meeting the needs of Australia's emergency management organisations and the community.

The refresh process looks like this:

- We have conducted due diligence on the current program to see how it measures up for research quality and utilisation potential.
- We have consulted our industry (our current partners and the wider sector, including the private sector) through a series of national workshops and surveys to define a national agenda for natural hazards research.
- We have asked partners of the CRC to prioritise areas for future research.
- We have devised a scope of CRC research work that aligns with this national agenda and the priorities of our partners.

Following the completion of that process, gaps were identified in the areas of:

- Diversity and its impact on the effectiveness of emergency services agencies.
- Planning and capability requirements for responding to catastrophic and cascading events.
- Land use planning and the mitigation of natural hazard risks.

This call for expressions of interest seeks research providers to address those gaps. The gaps will be addressed in two stages.

Stage 1 – to be completed by 30 Sept 2016

Stage 1 encompasses the production of high level capability statements in accordance with the format prescribed in Attachment 1.

Expressions of interest will be reviewed and those selected to go forward for further refinement will be notified by October 14 2016.

Interested research participants will work with end-user representatives during October and November to further develop and refine the priority programs/projects required to solve the identified problems. During this time there will be opportunity to clarify and fine-tune the problems under examination and shape the research to be done.

Proposals are to be submitted via email to office@bnhrc.com.au
no later than midnight (AEST) **Friday 30 Sept 2016**
Proposals must be submitted in the format specified in Attachment 1

Stage 2 – to be completed by 30 November 2016

The final project plans will be further developed from the work undertaken in Stage 1. There will be a requirement for all participants to produce detailed project plans and budgets for the full term of the CRC.

Project proposals reaching this stage will subsequently require approval from the CRC Board before progressing to contract.

4. THE PROBLEMS

Diversity and its impact on the effectiveness of emergency services agencies

AFAC, the Australian and New Zealand National Council for fire, emergency services and land management, recognises that there is an unacceptably low level of diversity, particularly in urban fire and rescue services. The AFAC National Council has identified changes required to increase attraction, recruitment and inclusion levels across gender, racial and cultural diversity, and is committed to leverage best practice from across and outside the emergency services sector, to improve this key element of workforce development and effectiveness.

It is understood that low levels of diversity can result in problematic organisational cultures, a lack of innovation and lateral thinking and resistance to positive change. At the same time, traditional approaches to attracting fire and emergency service workforces have been unsuccessful in developing workforces that reflect their communities, and new approaches are needed.

Any efforts to increase diversity must include strong internal inclusion strategies, so that differences are welcomed and celebrated rather than resisted and feared. Diverse workforces:

- Better reflect the communities the emergency services organisations serve;
- Assist in better understanding and effectively dealing with community risks, as well as community capabilities;
- Are a source of diverse skills and new ideas, which are essential to for all organisations; and
- Improve organisational culture through inclusion and more open communication, which in turn can enhance mental health and well-being.

Key issues that need to be addressed are:

- i. The nature of the diversity issues within the emergency management sector, including an in depth analysis of the aspects of diversity that are operating and how they interplay with organisations cultures.
- ii. Understanding the change in capability and organisational performance associated with diversification and inclusiveness.
- iii. An understanding of how other sectors have transitioned to a more diverse workforce, and the benefits and issues that arise in those traditions with a view to application to this sector.
- iv. Development of an evidence based approach to improve diversity in Australia's emergency services

Planning and capability requirements for responding to catastrophic and cascading events

Changes in demographics (growing and ageing populations living on the urban fringe), climate change, ageing infrastructure and an increased fiscal austerity are significantly increasing the likelihood and consequence of a catastrophic event, particularly an event yet to be experienced.

Recent natural disasters and security threats have revealed emerging issues at the regional, state, national and international levels. As social demographics change increasing urban density, and the frequency and intensity of disasters become more variable, there will be a cumulative effect and the capacity and capability of emergency management organisations to respond will be significantly tested. Already our emergency services are under increasing pressure to develop adaptive emergency management policy and procedures that can respond to current and future challenges.

Emergency management workforce management resilience is about ensuring there is a functioning, operational workforce in the present, integrated across multiple organisations, and securing this capability for the future. Responding to all these challenges requires: strong leadership, workforce strategies, understanding of research and innovation in science, technology and operational capability coupled with investment from the entire emergency management sector, including government and community.

It is important that government and the wider emergency management sector continue to explore the challenges and complexities that accompany these events. Across the spectrum of emergency management, everyone should work collaboratively to explore the economic, policy and operational implications of catastrophic events. A collective imagination will help the sector to understand and build capability for catastrophic events. Key issues that need to be addressed are:

- i. What are the likely policy, resourcing and operational impacts of catastrophic events?
- ii. How can the nation work collaboratively to understand and respond to the consequences of catastrophic events?

Land use planning and the mitigation of natural hazard risks.

Contemporary approaches to land use planning decisions for urban development and infrastructure construction must balance consideration to the growing risk from increased frequency and intensity of natural disasters and growing pressure to increase the availability of land.

While it is widely recognised that disaster resilience of communities and landscapes can be improved through better linkages between the emergency management sector, natural hazard management initiatives and planning of land use and the built environment, this potential is not yet fully realised. Barriers include the inability to determine and articulate the cost of the transfer of risk for the protection of life and property on an all-hazards basis. This applies to new greenfield development, redevelopment of existing settlements including through brownfield, in-fill and retro-fitting existing development, and critical infrastructure.

There is significant need to explore a greater understanding of how to include risk into land use planning decisions and the most effective mechanisms to achieve this. This includes assessment of:

- i. the regulatory environment in land use planning as it relates to / interfaces with natural hazards;
- ii. environmental and social changes, climate change, urban densification and demographic change;
- iii. the extent to which natural hazard risk management informs strategic settlement planning decisions (i.e. zoning and forward planning);

- iv. the appropriateness of current standards and building codes, e.g. flood floor level, cyclone wind loadings, roof types, bushfire building codes
- v. integration across all hazards in terms of emergency management input to land use planning, so as to avoid conflicting or contradictory requirements;
- vi. collaboration and partnership between governments (at all levels) and also private industry.

5. FUNDING

As budget guidance, proposals should work to a budget of \$160,000 p.a. from July 1 2017 through to June 30 2020.

6. THE APPLICATION PROCESS

Those interested in submitting an expression of interest are encouraged to read these guidelines and follow the processes outlined. Stage 1 of the process encompasses the following:

1. Call for Expressions of Interest – submissions due **30 September 2016**
2. Proposals evaluated and successful applicants notified – **October 14 2016**

Successful applicants from Stage 1 will be invited to progress to Stage 2 and participate in a workshop with end-users to refine the project plans. Attendees will need to cover their own transport and accommodation costs.

1. End-user and researcher workshop – **November 2016**
2. Project plans finalised – **November 2016.**
3. Board approval sought **December 2016.**
4. Contracting completed and commencement **July 1 2017.**

Who can apply? Selected research institutions or consortia of institutions are able to make a submission to the CRC for consideration. However, CRC Guidelines only allow the funding of direct costs to non-Australian organisations.

How and when to apply? Expressions of interest must be lodged via email and submitted no later than midnight (AEST) **Friday 30 September 2016**, in the format as specified using the template guide as included as **Attachment 1**.

Email: office@bnhcrc.com.au

Acknowledgement: All proposals received will be deemed “Commercial-in-Confidence” and treated as such by the CRC. Applicants will be provided with an acknowledgement of receipt of their submission within two business days.

What support is available?

The CRC will be monitoring the CRC email address to respond to any questions or clarifications as required. If you require further information or wish to discuss this Call for Expressions of Interest further, please contact us via email at office@bnhcrc.com.au with your query, and include phone / email contact details.

7. EVALUATION OF PROPOSALS

All proposals will be evaluated by an evaluation panel. The criteria by which expressions of interest are judged are:

Criterion	Comment	% Weighting
Research Experience, Expertise and International Leadership	<ul style="list-style-type: none"> A demonstrated and recent track record of industry aligned research including, delivery, quality, partnerships and collaboration. Demonstrated professional standing, background and experience, including national and international journal publication, invitations to present and collaborate. 	40
Project Scoping: Applicants are required to describe a potential research project for funding	<ul style="list-style-type: none"> The clarity and conciseness of the research outlined, demonstrating a sound understanding of the stated problems, the impact and benefit to be potentially derived from the research. Demonstration that the project leads to high quality research outcomes. Realistic budget and project plan. 	40
Institutional Support	<ul style="list-style-type: none"> Ability to leverage extra funds, physical, in-kind, % staff commitment equivalent to at least the cash funding sought to support the project. For estimation purposes, Project Leaders/Key Researchers are valued at \$280,000 p.a., Researchers at \$220,000 p.a. and Technical Support Staff at \$180,000 p.a. per FTE. CRC funded post-doctoral fellows can be counted as \$70,000 p.a. as an institutional in-kind contribution covering facilities, equipment and administration. 	10
Research to Utilisation Experience	<ul style="list-style-type: none"> Track record in building capacity, partnering with industry / government, and supporting research utilisation. 	10
Institutional endorsement	<ul style="list-style-type: none"> All expressions of interest must indicate that the proposal, including budget, has been reviewed and approved by the research provider's institutional Research Office or equivalent. 	Mandatory

Proposals that do not meet the criteria specified will not be funded regardless of whether funds are available.

The evaluation process will be concluded by **October 14 2016**, with successful applicants notified shortly thereafter.

The Bushfire and Natural Hazards CRC reserves the right to not award all available funding if insufficient proposals of appropriate quality, end user support or alignment to priority areas are received. The Bushfire and Natural Hazards CRC reserves the right to sole source proposals from selected research providers.

Attachment 1

FORMAT OF PROPOSALS – TEMPLATE GUIDE (create your own document from this guide)

Responses to this Call for Expressions of Interest should use the following table as a template guide. All proposals should be submitted in MS Word (preferred) or PDF.

Project Title:
Lead Researcher (<i>Contact Details, key areas of expertise and qualifications</i>)
Research Team (<i>including institutions and key areas of expertise and qualifications</i>)
Research Objectives
Research Experience and Expertise (Maximum 1 page – including information above) <ul style="list-style-type: none"> • A demonstrated and recent track record of industry aligned research including delivery, quality, partnerships and collaboration. • Demonstrated professional standing, background and experience, including national and international journal publication, invitations to present and collaborate.
Project Scoping (Maximum 3 pages) <ul style="list-style-type: none"> • The clarity and conciseness of the research outlined, demonstrating a sound understanding of the stated problems, the impact and benefit to be potentially derived from the research. • Demonstration that the project leads to high quality research and utilisation outcomes. • Realistic budget and project plan.
Institutional Support (Maximum 0.5 pages) <ul style="list-style-type: none"> • Ability to leverage extra funds, physical, in-kind, % staff commitment equivalent to at least the cash funding sought to support the project. • For estimation purposes, Project Leaders/Key Researchers are valued at \$280,000 p.a., Researchers at \$220,000 p.a. and Technical Support Staff at \$180,000 p.a. per FTE. CRC funded post-doctoral fellows can be counted as \$70,000 p.a. as an institutional in-kind contribution covering facilities, equipment and administration.
Research to Utilisation Experience (Maximum 0.5 pages) <ul style="list-style-type: none"> • Track record in building capacity, partnering with industry / government, and supporting research utilisation.
Biographies of Key Research Team Members <i>of no more than one page each.</i>

NOTE: Project proposals longer than five pages, excluding biographies, will not be reviewed.

Submission to be emailed to:

office@bnhrc.com.au no later than **midnight (AEST) 30 September 2016.**