

CALL FOR EXPRESSION OF INTEREST FOR ERP 19 – HUMAN DIMENSIONS OF ENVIRONMENTAL CRIME

Proposals due **10 September 2018** to office@bnhrc.com.au

INTRODUCTION

The Bushfire and Natural Hazards Cooperative Research Centre (hereafter the CRC), in conjunction with our client, the Department of Environment Land Water and Planning (Victoria) (DELWP) is seeking expressions of interest for the following project.

The human dimensions of environmental crime

PROJECT AIMS AND OBJECTIVES

1. To better understand community expectations of environmental compliance, their values and objectives, to ensure DELWP's compliance program priorities align with community priorities
2. To better understand the motivations behind non-compliance by those responsible for environmental non-compliance (initially in relation to rubbish dumping) to enable more targeted and effective compliance actions to change behaviours
3. To better understand community perceptions of wildlife management (overpopulation), and use this understanding to focus the development of additional wildlife population management solutions that are acceptable to the community

BACKGROUND AND CONTEXT

1. DELWP's draft Environmental Compliance Policy makes a commitment to placing the community at the centre of DELWP's compliance approach.
2. The policy describes the compliance roles of the community and DELWP (see Attachment 1). Importantly, the conceptual diagram articulates how DELWP will support the community in each of these elements.
3. The policy is accompanied by an Environmental Compliance Strategy, which describes what a great environmental compliance program looks like and the work required for DELWP to achieve it – including what needs to be in place to make the best decisions and focus our efforts where they can have the most impact (which is determined by community values, among other things). This project is therefore situated within a broader program of work towards the outcome described above.

4. The DELWP's environmental compliance responsibilities include: firewood collection, timber harvesting, unauthorised use of Crown land, riparian areas, wildlife, protected flora, native vegetation, invasive species, rubbish, trail bikes and off-road vehicles, and bushfire prevention across Victoria.
5. This project aims to support DELWP to achieve the four elements on the right-hand side of the diagram in Attachment 1 (Express, Understand, Use, Discourage). For the purposes of this project, three key components of work have been identified:
 - Part 1: Understand and consider community objectives and values and how they should be reflected in environmental compliance objectives
 - Part 2: Use behavioural insights into the motivations of those responsible for environmental non-compliance to inform the development of more targeted compliance actions and resulting behaviour change
 - Part 3: Understand community perceptions about the management of wildlife overpopulation, what they most value in their environment with respect to wildlife population control and to develop new models for wildlife control using those insights

Part 1: Consider community objectives and values in environmental compliance

6. In order for any program to be successful, it must clearly articulate its objectives. At the highest level, having clear objectives that set the destination, give direction to the program, and guide staff and stakeholders to help them better align their activities is essential. Clear objectives provide guidance and direction, facilitate planning, motivate and inspire staff, and help organisations evaluate and control performance and share that information with their stakeholders. Setting your objectives is a fundamental step in risk assessment.
7. Reliable and robust ways of measuring progress towards those objectives are essential to demonstrating the effectiveness of risk assessment and risk management processes.
8. It is important for DELWP that the community's expectations and understanding of the objectives is aligned to those of DELWP. Misalignment undermines the perceived legitimacy, particularly pragmatic legitimacy, of DELWP's compliance program, leading the community to question the credibility and value of the program. This may further result in defiance and non-compliance.
9. DELWP's environmental compliance policy sets out two overarching objectives:
 - a) *Reduce harm to our natural and heritage values, and the environment.*
 - b) *Reduce illegal, inequitable and unsafe access to public land and use of natural resources*
10. The first objective in the compliance policy is informed through extensive direct community consultation through the development of Biodiversity 2037, the Victorian Government's recent biodiversity strategy under the *Flora and Fauna Guarantee Act 1988*. The second objective is informed by a range of community communication including direct communications to staff, ministerial correspondence and stakeholder interactions.
11. While these two objectives set the high-level context to drive the environmental compliance program. Understanding community values, including regional variations

in these values, and how these align with the objectives will improve environmental compliance risk assessments and decision-making.

12. In its research into fuel reduction part of the bushfire risk reduction program, DELWP has undertaken a program of talking to communities about their specific objectives for their local communities. They have collaborated on a range of options for achieving those objectives. A similar understanding of community views and expectations would facilitate DELWP's environmental compliance program. This project also seeks to understand how environmental crime impacts the community, and the community's priorities regarding strategies for prevention, remedy and sanction.

Part 2: Behavioural insights for more targeted compliance actions

13. The 'Use' and 'Discourage' elements of the environmental compliance diagram (Attachment 1) focuses on encouraging compliance and discouraging non-compliance using the regulatory framework. This distinction is important as it may be that different community segments, and different control actions are needed to achieve each of these. Part 2 of the research project seeks insights into what motivates people to be non-compliant and commit environmental crime. It also focuses on behavioural change methods and prevention that can be implemented by DELWP.
14. DELWP's environmental compliance addresses many different topics, including take of native wildlife, trafficking of exotic species, licensing of the sale of native flora and fauna, unauthorised occupation of crown land, recreational vehicles on public land, adherence to licences, permit and lease conditions, and fire prevention. For this research project, recognising that it is not possible to cover all these topic, we propose rubbish dumping on public land as the initial focus of Part 2.
15. Rubbish dumping on public land is a significant and widespread issue. The consequences of illegal dumping are social, environmental and impact directly and indirectly financially. Social impacts include the location being less desirable for visitors including decreased aesthetic values, impacting people's health, and contaminating waterways. Environmental impacts include an impact on habitat condition, feasibility of other biodiversity management actions (e.g. rabbit warren ripping) and ultimately population viability. Garden waste can have severe impacts on biodiversity conditions with the introduction of novel weeds. Direct financial impacts affect the public land managers for the cost of the rubbish removal. Asbestos removal in particular, can be very costly to assess, contain and remove. Indirect costs affect potential visitors, opportunity costs for the land manager, costs to the tourism industry, local economies and those in the waste industry such as landfill operators and resource recovery facilities.
16. Examples of more high impact and insidious types of rubbish dumped, includes; asbestos, tyres, industrial waste, medical waste, car bodies, garden refuse and chemical waste.
17. Factors thought to influence the choices of where and what to dump include remoteness, existing rubbish at the location, pristineness of the location, not valuing the environment, convenience, community acceptance of the dumping site, limited operating hours and distance to legal disposal sites, willingness of offenders to pay, perceived likelihood of being caught and the consequences including sanction and remedy.

18. Rubbish and recycling disposal is currently topical as China reduces the amount of recycling from Australia and new solutions are sought. This changing context is likely to change the factors influencing people's motivations to dispose of rubbish illegally.
19. Compliance actions to address rubbish dumping on public land in Victoria currently include mapping, licensing, compiling intelligence, compliance investigations, enforcement, prosecution, collaboration with the EPA and local governments, and resource recovery programs. Deterrence in the form of advertising the penalties given to offenders, and social media programs are also conducted.
20. There is limited focus on insights into what motivates illegal dumpers in different parts of the state and in different land tenures, as well as ways of minimising the opportunities and influencing the motivations that give rise to illegal dumping. Remedy (offenders being instructed to clean up public land sites) also gets less attention.
21. this project seeks to understand the motivations for public land rubbish dumping in different areas and tenures of public land in Victoria. The research project should pursue an understanding of how the community and stakeholders can be segmented and the control actions most likely to be successful to reduce the high impact examples of rubbish dumping. If research has not come up with, or provided evidence to support the development of, useful insights into preventing rubbish dumping, alternative approaches, including investigate insights into increasing the effectiveness of formal and informal enforcement as a specific and general deterrent would be considered.
22. Should this topic not prove suitable for this project (e.g. because it is already well-studied), a second focus area will be selected by agreement between DELWP and the researchers.
23. It also seeks to draw parallels with the other environmental compliance topics listed above and suggest how the learnings drawn from this research project may be applied to other topic areas to increase the effectiveness of those environmental compliance programs.

Part 3: Community perceptions influencing wildlife management

24. Managing wildlife populations from animal welfare, human safety and ecology perspectives is an important obligation for governments. In April 2018, the Minister for Energy, Environment and Climate Change announced the Living with Wildlife Action Plan. Under the Action Plan, it is acknowledged that the community has called for more research to be conducted into wildlife management methods, particularly where current methods may be inefficient or ineffective to address the problem. Action 3.2 of the Action Plan states that DELWP will work with research institutions and wildlife experts to examine options for humane control options. Part 3 of this project assists in the delivery of this action.
25. Community interactions with, and impacts upon, wildlife often result in the need to manage populations and individuals.
26. Examples include: the impact of temporally or spatially abundant wildlife such as kangaroos, wallabies or corellas on crops; wildlife individuals that temporally impact on people's safety and wellbeing such as kangaroos causing traffic accidents, seals on beaches, or magpies during swooping season; or overabundant wildlife impacting on

economic or environmental assets (e.g. koalas in blue gum plantations), tourism assets, or threatened ecosystems or species in national parks.

27. Many factors influence the methods available for managing wildlife. Community perceptions require methods to be ethical, humane and effective. Different segments of the community place varying emphasis on these elements. For example, humane societies may prize the welfare or 'right to live' of individuals. Law organisations are more concerned with the legality of the situation. Broader environmentally-focused organisations are more interested in comprehensive biodiversity outcomes than the fate of individual wildlife.
28. Two examples are particularly pertinent: overabundant koalas and peri-urban kangaroo populations.
29. Koalas are overabundant in many discrete populations in Victoria on both private and public land. Current control methods are restricted to translocation and fertility control due to strong public interest and perceptions held by the local, national and international community. Culling of koalas was discussed with the local and international communities beginning in the early 1990s, but strong national and international lobbying saw this control method taken off the table. Koala numbers in some parts of Victoria are now at levels that cannot be effectively controlled by existing acceptable methods and require new control methods.
30. The acceptance of new control methods will require a significant shift in community views and perceptions in Victoria, nationally and internationally. Any policy change will also need to be developed and communicated in collaboration with strong and influential lobby groups.
31. Peri-urban kangaroo populations are also seen as problematic by parts of the community. As the peri-urban boundary expands, and the housing industry expands into kangaroo habitat, numerous problems are seen from multiple perspectives. Individual kangaroos become driving hazards, kangaroos impact on crops and small businesses, and whole populations are either displaced or find themselves isolated due to expanding urbanisation. From another perspective, animal welfare is compromised, habitat is reduced, populations are reduced, and ecosystems are impacted.
32. This project seeks to understand the perceptions of wide and disparate segments of the community with respect to over-abundant koalas and peri-urban kangaroos including control and management options. An imperative is to explore the community's perceptions of existing and new control methods and comprehend their drivers and motivations, sticking points and barriers to accepting existing and new control methods.
33. This project aims to allow DELWP to move beyond proof of concept and literature assessments, to be able to develop and evaluate concrete solutions for population control and testing how community understanding and perceptions can be influenced to increase the acceptance of a portfolio of actions, including these new solutions by the broader community

SCOPE

INCLUSIONS

1. This project has 3 distinct components, each of which needs to be addressed as discrete sub-projects:
 - a. Part 1: Understand and consider community objectives and values and how they should be reflected in environmental compliance objectives
 - b. Part 2: Use behavioural insights into the motivations of those responsible for environmental non-compliance to inform the development of more targeted compliance actions and resulting behaviour change
 - c. Part 3: Understand community perceptions about the management of wildlife overpopulation, what they most value in their environment with respect to wildlife population control and to develop new models for wildlife control using those insights
2. Particularly for Part 1 (where not otherwise specified), considerations of compliance issues relating to social, environmental and economic values in the areas of:
 - Native wildlife,
 - Trafficking of exotic species
 - Licensing of the sale of native flora and fauna,
 - Unauthorised occupation of crown land,
 - Rubbish dumping on public land
 - Recreational vehicles on public land,
 - Adherence to license, permit and lease conditions,
 - Fire prevention
3. Investigation into and analysis of community perceptions of policy options for each of the sub-projects
4. Reports providing the evidence, interpretations and recommendations for each of the sub-project areas, including clear methodologies that would allow DELWP to undertake similar research in the future to expand the knowledge base
5. Written guides for each of the sub-projects that can be used for training DELWP staff and as an aide memoir for field staff
6. Training for DELWP staff in how to elicit this type of information from communities

EXCLUSIONS

1. Consideration of compliance issues relating to:
 - Water and heritage legislation,
 - Wildlife emergencies such as whale stranding or oil spills,
 - Hunting – including ducks, deer, pigs and quail
2. Policy development

PROJECT SPECIFICATIONS

Key Steps

Key Steps	Lead	Due Date
1. Consult with DELWP and deliver detailed project plan for all 3 parts.	Provider	1 month
2. A review of current practice and science (Parts 1 and 2)	Provider	3 months
3. Establish a community of practice to inform research and act as a learning feedback loop to test findings.	DELWP	3 months
4. Engaging with communities about objectives, values and management options (Part 1)	Provider	4-10 months
5. Deliver report for Part 1	Provider	12 months
6. Part 2 - Agree steps and approach with DELWP for generating output 5 above, after considering results of review of current practice	Provider	4 months
7. Deliver report for Part 2 detailing recommendations for rubbish dumping.	Provider	9 months
8. Part 2 – deliver report on processes for extrapolating from the rubbish dumping research to other environmental compliance topics/areas	Provider	12 months
9. Part 3 documented methods	Provider	2 months
10. Part 3 community engagement	Provider	4-10 months
11. Deliver report for Part 3.	Provider	14 months
12. Part 3 – deliver report on processes for extrapolating from the koala and kangaroo research to other environmental compliance topics/areas.	Provider	18 months

Expected Outputs

Part 1: Community objectives in environmental compliance

1. A review of current science and practice for eliciting community values and reflecting those values in objectives for environmental compliance and determining the community's preferred management options for achieving those objectives.
2. A report detailing community objectives for each compliance responsibility (see above) in six wide-ranging communities, (geography, demographics, cultural, sex, interest in environmental compliance or environment issues). Consultation will include groups that are traditionally highly engaged, as well as groups that are widely considered apathetic. The report will include confidence in conclusions, divergence, and suggested improvements in techniques.
3. A report detailing the six communities' preferred options for achieving the objectives, the methods used to test the options and suggested improvements to the methods.

Part 2: Behavioural insights for more targeted compliance actions

4. A review of current science and practice to provide insights into the motivations and decision making of those responsible for environmental non-compliance.
5. A report detailing recommendations for the most effective control actions for various segments of the community to prevent rubbish dumping (and/or other selected topic area) based on motivations and attitudes. Includes both encouraging compliance and discouraging non-compliance. Information on approaches that have been ineffective, and why, is also required.
6. Documented processes and tools for applying the findings of this component beyond the test case(s).

Part 3: Community perceptions influencing wildlife management

7. Documented methods to understand the perceptions of various segments of the community about their understanding of the purpose of wildlife management methods used by land owners and land management organisations.
8. A report detailing any shift, or evidence that would support a shift, in community perceptions regarding acceptable methods of control of over-abundant koalas and peri-urban kangaroos that occur as a result of efforts to socialise new and innovative control methods.
9. Documented processes for applying the findings to other wildlife management situations.

All project parts

10. Project communication materials, including briefs and presentations at the initial and project progression stages – to ensure partners and stakeholders remain informed.
11. Written guides to be used as a training resource and aide memoire for DELWP staff
12. Development and delivery of training for DELWP compliance staff to apply the developed processes and tools in other topic areas

Quality Control

Final report and other project outputs

It is the expectation of the Bushfire and Natural Hazards CRC and our client DELWP that the material delivered as part of this project will meet the highest scientific standards and will be suitable for internal and external distribution.

It is a requirement of this project that the final report (and any supporting material) is 'submitted to the States' satisfaction'. To ensure the final report meets this expectation it will be subject to up to two rounds of review (with a minimum of two weeks for each review) by DELWP. Research organisations are required to ensure an internal peer review process is undertaken prior to the draft final report being submitted for DELWP consideration.

Before the report is final report is submitted to the State's representative for approval it must also have been

- Through an independent peer reviewer approved by the Bushfire and Natural Hazards CRC Project Manager
- Professional proof read and copy edited

These steps must be arranged by the research organisation costed as part of project budget and completed within the project timeframe.

Reports that have not been independently peer reviewed and professionally proof read and copy edited will not be considered final. A copy of the independent peer review and the researcher response to any comments must be provided to the CRC.

Communication

To further assist with the quality assurance, it is expected that:

- The project team will utilise a consultative approach when developing the overall framework and data management processes/criteria and will demonstrate this by documenting engagement activities within the relevant reports. This will involve seeking input from DELWP subject matter experts to ensure development of a framework and processes that are fit for purpose.
- The research team leader will give periodic presentations (e.g. annually) to key stakeholder groups (Ecological Risk Assessment Working Group, Landscape Evaluators Working Group) to gain critical feedback on project milestones.

Any further quality control processes that are required for this piece of work, as well as key success measures, will be agreed with the DELWP Policy Lead as part of the planning process.

PROJECT MANAGEMENT AND PROCESSES

Contractual Arrangements

This project is being delivered under an Agreement in place between the Bushfire and Natural Hazards Cooperative Research Centre and the Department of Environment, Land Water and Planning (DELWP) in the State of Victoria. Under this Agreement the CRC is responsible for the delivery of a number of bushfire related research projects. The contract put in place between the CRC and the research organisation selected to undertake this work will reflect the terms of the Agreement between DELWP and the CRC.

A copy of the draft contract the CRC will provide to the successful research organisation is provided with this document. This contract should be reviewed as part of the EOI process. This is a standard agreement, and any changes will be at the sole discretion of the CRC. If you would like to request amendments to any of the terms and conditions set out in the proposed contract, details of the proposed changes and the reason the changes are requested must be included with the submitted response. In considering this contract and proposing changes please note we have been advised by DELWP that (i) changes to provisions relating to the ownership of Intellectual Property will only be varied to take account of substantial in-kind contribution from the successful research organisation/s and (ii) no changes can be made to the publications approvals processes.

Project Governance

Each project is carried out under the supervision of a Project Control Board (PCB) and in accordance with the governance arrangements agreed between CRC and DELWP.

While the contractual relationship for the delivery of this project will be between the research organisation and the Bushfire and Natural Hazards CRC there will also be a strong relationship between the research team and DELWP staff. Communication is an important element of the success of this project and Researchers will be required to maintain strong links with both the DELWP Policy Lead and the CRC Project Manager throughout the project.

A governance plan has been prepared which shows the roles and responsibilities of each of the participants. The successful research team will be required to comply with the processes and expectations as set out in that document.

Project Planning

The project overview included in this document describes the way the DELWP subject matter experts believe the project can most successfully be undertaken. Alternative approaches can be considered. Any alternative approaches must ensure the delivery of the required outputs including any intermediate outputs identified in this document.

Following acceptance of a project proposal the successful research organisation must prepare a detailed project plan and risk treatment plan **using the DELWP template**. This plan must be approved by the DELWP Policy Lead and will become an attachment to the contract. The project plan must be approved within 3 months of the notification of the acceptance of the project proposal.

Reporting

The successful research organisation will be required to make at least one presentation (and possibly two) annually to the Project Control Board or other nominated DELWP group during the life of the project.

Research organisations will also be required

- to provide a poster for the annual AFAC/BNHCRC conferences;
- detailed progress reports on a quarterly basis; and
- and contribute to the Project Evaluation Report

Dates for submitting Quarterly Progress Reports

Period covered	Report required
1 July to 30 September	24 October
1 October to 31 December	24 January following calendar year
1 January to 31 March	24 April
1 April to 30 June	24 July

SUBMISSION OF EXPRESSION OF INTEREST

Submission Requirements

Research teams responding to this Call for Expression of Interest are required to submit their response, including:

- A draft project proposal (4-6 pages) clearly addressing the requirements of the specifications set out in this document. Proposals must include achievable timelines, which will be used to monitor progress. A statement of capability demonstrating the ability of the proposed project team to undertake the work. This statement of capability should include the names and experience of key team members and their proposed contribution to the project. (The capability statement should not exceed 4 pages)
- Project budget including details of any in kind contribution from the research organisation. A statement of acceptance of the terms and conditions of the proposed contractual arrangements. If such arrangements are not acceptable details of any changes must be included with the submitted response.

Additional information

- Research bids from a consortium of research organisations with expertise in the relevant fields are specifically encouraged.
- Attached is a draft contract which we ask your organisation to review. In your response to the EOI you should identify any items in this contract that will require attention /amendment should your organisation be selected to undertake this piece of work. This contract is based on the Head Agreement between DELWP and the Bushfire and Natural Hazards CRC and as such there is very limited scope to make changes to the draft contract.

The total maximum budget for this project is \$364,000 (excl GST) and all work must be completed by 31 March 2020.

Any research proposal once submitted will be treated as commercial in confidence.

Applications must be submitted to: office@bnhcrc.com.au by 10 September 2018.

Evaluation Criteria

After the closing date the Bushfire and Natural Hazards CRC along with the DELWP policy lead will review proposals against the evaluation criteria below and make a recommendation to the State's representative on the most appropriate organisation to undertake this work. The evaluation criteria provide an indication of those matters that should be included in the project proposal and associated documentation. Details are provided below.

Successful applicants will be advised by 1 October 2018 and it is expected work on the project will commence no later than 30 October 2018.

The decision of the BNHCRC and our client DELWP will be final. The BNHCRC reserves the right not to offer the work, or only allocate a proportion of the available funding, if a proposal does not meet the client's needs. The Project Control Board reserves the right to invite any other specific researchers as it sees fit to submit proposals before or after the closing date.

Evaluation Criterion	% weighting
Research Capability The capacity and capability to deliver an excellent applied research project in a Victorian environment.	15
Project Proposal A clear demonstration that the research team has an understanding of the project scope through the proposed research approach The proposal must also include an indicative timetable of work and interim milestones/project outputs as described in this document Quality Control Clear documentation of quality control processes including proposed internal and external reviewers. Identification of copy editors and proof readers.	50
Industry Engagement Strong Track record of industry engagement with the ability to support and influence bushfire management in Victoria through interaction with land and fire agency personnel	15

Victorian Focus Ability to undertake research in Victorian environments individually and/or in cooperation with land and fire managers	
Value for Money Delivery of required outcome within available budget along with the ability to leverage the funds provided with in-kind contributions or supplementary opportunities. The evaluation team will consider the membership of the project team and the proposed roles and time commitment.	20

Attachments

1. Call for expression of interest in this project
2. Copy of the Governance Arrangement
3. BNHCRC subcontract including project plan template and evaluation report template
4. Quarterly report template
5. DELWP report template

Attachment 1 – Compliance policy cycle from the community’s perspective

