

CALL FOR EXPRESSION OF INTEREST FOR

DYNAMIC SMOKE INTELLIGENCE

USING REMOTE SENSING AND FIXED SENSORS

Proposals due **14 November 2016** to office@bnhcrc.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.

Dynamic smoke intelligence using remote sensing and fixed sensors

PROJECT AIMS AND OBJECTIVES

The aim of this project is to develop means of dynamically assessing the extent and concentration smoke using remote sensing and fixed sensors

BACKGROUND

1. The State of Victoria has developed a smoke management framework, which captures the system and capability requirements needed for the agencies, communities and industries to better prepare, respond to and recover from smoke events.

While being comprehensive in design many elements are still in development.

2. As public land managers DELWP and PV undertake planned burning to reduce the impact of major bushfires on communities. Major bushfires such as the 2009 Black Saturday, 2006/07 Great Divide and 2003 Alpine Fires combine to burn millions of hectares and cause social, economic and environmental impacts in excess of 3 billion dollars. The Black Saturday Fires killed 173 people and destroyed 2100 homes. These fires also caused several of the most significant smoke events experienced in Victoria.
3. To reduce the impact of major bushfires, including smoke impacts, DELWP aims to optimise opportunities to achieve planned burning, while minimising the impact of smoke on the community.

4. In collaboration with BOM, CSIRO have developed a smoke modelling system, built on an advanced meteorological model, which enables to the emergency management sector in Victoria to predict the spread, dissipation and constituents of smoke from planned and unplanned fires.
5. The modelling system also provides a state-wide perspective on the cumulative effects of smoke and using 3-4 day weather forecasts, can be used to estimate smoke dispersal and inform the timing and location of planned burning. The system predicts spatial hourly average concentrations of particulate matter (PM_{2.5} and PM₁₀), nitrogen dioxide (NO₂), sulphur dioxide (SO₂), ozone (O₃) and carbon monoxide (CO), as well as a smoke tracer.
6. There is a need to build into the smoke prediction system, technologies and data which can be used to calibrate and validate the predictions of smoke spread, dissipation and constituents. This includes calibration for making long-term improvements to models, as well as intelligence to provide improved real-time predictions of the distribution and density of smoke and its impacts on communities, industry and infrastructure (e.g. transport).
7. Multiple forms of intelligence are required to be collected and integrated dynamically to provide the best assessment of the nature and extent of smoke, and its impact of communities, industry and infrastructure. Three key sources are identified to capture this intelligence and calibrate and validate smoke modelling predictions at suitable spatial and temporal scales:

Social media intelligence:

Social media platforms are used by a large number of people and those numbers are growing every year with more and more users venturing into the social media networks, especially via the more widely available Smartphone technology. Social media intelligence has a range of benefits for calibration and validation of smoke modelling predictions, including:

- Geo-locating social media data
- The ability to determine the nature and degree of a particular situation through social media imagery, video and text
- Using social media data mining to identify trending subjects and locations for early and enhanced smoke situational awareness through vulnerability community networks.

Remote sensing intelligence

Remote sensing sources for validation and calibration of smoke predictions include satellite imagery and field-based sensors. High temporal resolution satellite sensors, such as NASA's Moderate Resolution Imaging Spectroradiometer (MODIS) and Japanese Meteorological Agency's Himawari geostationary satellite – capture imagery

on a daily and sub-hourly scale showing smoke plumes and other atmospheric properties.

Field Sensors

Networks of fixed and portable monitoring instruments can be used to directly measure smoke particles or directly, through visibility reduction measurements. Field-based instruments may form intelligence networks, which collect data across large areas and feed data in real-time to a central location for smoke model prediction validation and calibration.

PROJECT SPECIFICATIONS INCLUDING OVERVIEW OF TASKS AND ACTIVITIES

1. The purpose of this research project is to build a smoke intelligence system integrated with the smoke modelling (prediction) system, which is used to collate and analyse sources of social media and remote sensing data to calibrate and validate smoke predictions. The system will improve assessments about the nature and extent of smoke and its impacts on communities, industry and infrastructure.
2. This project aims to develop the physical component of a smoke intelligence system by integrating data and information from remote sensing and field sensing systems. This involves calibrating suitable satellites to provide the best estimate of smoke extent and concentration, and by establishing methods to dynamically compare and refine these estimates using information from ground based sensors.

Key Tasks and Steps

In developing the project proposal to be submitted in response to this Call for Expression of interest researchers should be mindful of the following project requirements.

- A detailed project plan (using the DELWP template) will be required as an early project deliverable.
- Initial meetings between partners to better scope the work and understand constraints and feasibility will be expected.
- Development of a smoke intelligence system which integrates sources of data and information remote sensing and field sensors to assess as means of improving our understanding of the nature and extent of smoke and subsequent predictions.
- Integration of dynamic estimates of smoke extent and concentration into Victoria's smoke modelling and prediction system – via BOM and CSIRO.
- Training (including documentation) for managing the smoke intelligence system
- Trial and evaluation of the physical intelligence system.
- Review opportunities to integrate social media and health monitoring intelligence

Expected Outputs

Specific outputs to be delivered through this project must be agreed with the DELWP Policy Lead¹ as part of the project planning process. It is envisaged that outputs will include:

1. Smoke intelligence system comprising remote sensing and field sensor, integrated with the Victoria's existing smoke modelling prediction system.
2. Physical component of a smoke intelligence system
3. User documentation and training materials
4. Training for managing the smoke intelligence system
5. Report documenting trial and evaluation of the complete smoke intelligence system

Research Teams should be mindful that in addition to the above a detailed project plan in DELWP approved format (provided) will be required as an early stage of the project. This will become an attachment to the contract and significant variations will require the approval of the Project Control Board.

Unless otherwise agreed with the DELWP policy lead, documentation on each of the above must be presented as part of a final report on the project. This report must be presented in the DELWP template provided as part of this Call for Expression of Interest.

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

¹ The DELWP policy lead is the person nominated by DELWP as the main point of contact for their input and decision making for the duration of the Project. Details of the policy lead role are provided in the Governance documentation accompanying this Call for Expression of Interest.

- Professionally 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 are not on the DELWP template and 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 with the successful research organisation is provided with this document. This contract should be reviewed as part of the EOI process. If any of the terms and conditions set out in the proposed contract are not acceptable details of any changes 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 though out 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

Where reporting requires the use of the DELWP/BNHCRC templates the logo of the participating research organisation (or organisations) may also be included

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.
- 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.

**The total maximum budget for this project is \$180,000 (excl GST)
and all work must be completed by 31 October 2017.**

Applications, must be submitted to:

office@bnhcrc.com.au by 14 November 2016.

Our client (DELWP) has advised they would like to see strong linkages between the two smoke projects (ERP's 4 and 5) – if you have not already reviewed the documentation for both of these projects you are strongly encouraged to do this before submitting your Expression of Interest.

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

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 14 December 2016 and it is expected work on the project will commence no later than 1 February 2017.

The decision of the Bushfire and Natural Hazards CRC and our client DELWP will be final. The CRC 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 Victorian Focus Ability to undertake research in Victorian environments individually and/or in cooperation with land and fire managers	15
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. Draft Contract
2. Bushfire and Natural Hazards CRC /DELWP Governance Agreement
3. DELWP Project Plan Template
4. Final Report Template
5. Project Evaluation Report Template
6. Quarterly Reporting Template

BUSHFIRE AND NATURAL HAZARDS CRC PROJECT AGREEMENT

This is a contract between Bushfire and Natural Hazards CRC Ltd and the nominated Research Organisation to carry out research in accordance with the following Details, Terms of Research and any Attachments.

DETAILS	
Bushfire and Natural Hazards CRC Ltd (BNHCRC) (Client)	The managing company for the Co-operative Research Centre for Bushfire and Natural Hazards (ABN: 71 103 943 755).
Contact Details	Name: Bushfire and Natural Hazards CRC Ltd Address: Level 5, 340 Albert Street East Melbourne Vic 3002 Australia Business Manager: Trevor Essex Tel: 03 9419 2388 Email: trevor.essex@afac.com.au
Research Organisation (Contractor)	Business Name Address: ABN:
Research Organisation Business Manager or Equivalent Contact	Contact Person: Title: Phone: Email:
Project	The project titled
Research Organisation Team Leader	Contact Person: Title: Phone: Mobile: Email:
Other Project Participants	This Contract covers the input of the Research Organisation to the Project. Also contributing to the Project; State of Victoria through Department of Environment, Land, Water & Planning
Preamble	Bushfire and Natural Hazards CRC is acting on behalf of the State Government of Victoria through its Department of Department of Environment, Land, Water & Planning ("the State") in administering funds provided by the State for this project
Client Inputs	Project Control Board management and support services. Project management and administration
Project Commencement Date	Upon the signing of this contract
Project Completion Date	
Project Task, Deliverables and Delivery Dates	
Project Funds (Fee)	\$xxx ex GST to be paid upon evidence of completion of milestones as shown in Attachment 2.
Reimbursable Expenses	None
Governing Law	Victoria, Australia

DATED THIS DAY

.....
Signed for and on behalf of the Research Organisation

.....
Signed for and on behalf of the
BUSHFIRE and NATURAL HAZARDS CRC Ltd
Dr Richard Thornton CEO

.....
Witness

.....
Witness: (Please sign)

.....
Print Name

.....
Print Name

RECITALS

- A. The Bushfire and Natural Hazards Cooperative Research Centre (Bushfire and Natural Hazards CRC) is a not for profit public company limited by guarantee established to manage the Commonwealth Agreement specialising in managing research in the field of areas of fire, natural hazards, emergency management and emergency services research and utilisation. The CRC pursues, leads and co-ordinates world class research and training relevant to that field, the outcomes of which are used for the national public good. The CRC seeks to disseminate through its stakeholders, knowledge and understanding generated through research endeavours.
- B. The State, through the Department of Environment Land Water and Planning (DELWP) and other public entities, is a member of the Bushfire and Natural Hazards Cooperative Research Centre and has a history of working collaboratively with the CRC for the purposes of enabling the CRC to perform its functions in the public interest.
- C. The State has agreed to provide funds to the CRC for the purpose of delivering the Projects, subject to the conditions imposed by a Transfer Payment Funding Agreement.
- D. The Transfer Payment Funding Agreement allows that the CRC may contract with third parties (Research Organisations) to assist the CRC to perform a Project. Any agreement between the CRC and a Research Organisation (and any milestones specified in the agreement) must be consistent with Transfer Payment Funding Agreement. This contract is established in accordance with that provision.

1. DEFINITIONS AND INTERPRETATION

In this Agreement unless expressed or implied to the contrary:

Adjustment has the same meaning given to that term in the GST Act.

Adjustment Note has the same meaning given to that term in the GST Act.

Agreement means this Agreement, including the Schedules and appended Details and attachments as amended from time to time in accordance with the terms hereof.

Background Intellectual Property means intellectual property (IP) of the State of Victoria used to meet the Contractor's obligations under this contract and also Contractor IPR and CRC IPR as defined below.

Business Day means Monday to Friday excluding public holidays in Victoria.

Claims includes actions, proceedings, suits, causes of action, arbitrations, verdicts and judgments either at law or in equity or arising under a statute, debts, dues, demands, claims of any nature, costs and expenses.

Commencement Date means, in respect of a Project, the date specified in the Details.

Completion Date means, in respect of a Project, the date specified in the Details.

Conflict of Interest means an actual or potential conflict of interest, or a conflict of interest that could reasonably be perceived to exist, between the Contractor and the Bushfire and Natural Hazards CRC or the State, or the Contractor and a third party, in relation to the performance of the Contractors' obligations under this Agreement.

Contractor Intellectual Property means Intellectual Property owned by Contractor at the Commencement Date.

Client Intellectual Property means Intellectual Property owned by the Bushfire and Natural Hazards CRC at the Commencement Date

Confidential Information of a Party:

- (a) means all information of whatever description, whether in permanently recorded form or not and whether or not belonging to a third party, which is by its nature confidential or which the Party identifies as confidential to itself; and
- (b) does not include information to the extent that information is:
 - (i) independently created or rightfully known by, or in the possession or control of, the other Party and not subject to an obligation of confidentiality on the other Party;
 - (ii) in the public domain (otherwise than as a result of a breach of this Agreement); or
 - (iii) required to be disclosed by law.

Consumer Warranty means any mandatory condition and warranty implied into this Agreement by the Trade Practices Act 1974 or corresponding legislation in other jurisdictions.

Details means the details to which these terms are attached.

Force Majeure Event means any occurrence or omission as a result of which the party relying on it is prevented or delayed in performing any of its obligations (other than a paying obligation) under this Agreement and that is beyond the reasonable control of that party including without limitation a severe weather event, fire, earthquake, flood, explosion, industrial action, an act of war (whether declared or not) or terrorism, the mobilisation of armed forces, civil commotion or riot, natural disaster or embargo but not including the occurrence of the type to which the Contractor is expected to respond as part of the Project.

Governance Agreement means the document provided as Attachment 1 to this Agreement that gives details of the responsibilities of different parties sets out the way in which the Bushfire and Natural Hazards CRC and DELWP manage projects under the Head Agreement

GST Act means *A New Tax System (Goods and Services Tax) Act 1999* (Cth).

GST has the same meaning given to that term in the GST Act.

Head Agreement means the Transfer Payment Funding Agreement – DELWP Risk Management Research Projects between the State of Victoria through the Department of Environment Land Water and Planning and the Bushfire and Natural Hazards Cooperative Research Centre.

Input Tax Credit has the same meaning given to that term in the GST Act, but also includes a reduced input tax credit under Division 70 and an adjusted input tax credit under Division 132 of the GST Act.

Intellectual Property (IP) means all copyright, patents and all rights in relation to inventions, registered and unregistered trademarks (including service marks) and registered designs, trade secrets and know-

how, all rights under the Circuit Layouts Act 1989 (Cth), and all other intellectual or intangible property defined in Article 2 of the Convention establishing the World Intellectual Property Organisation of July 1967.

Milestones means, in respect of a Project, the milestones described in Schedule 1

Moral Rights means moral rights under and in accordance with the Copyright Act 1968 (Cth).

Party means either Bushfire and Natural Hazards CRC or Contractor.

Personnel means any person employed or engaged by the Contractor to carry out any task related to the Project under this Agreement, including any personnel employed or engaged by a subcontractor.

Policy Lead means that person nominated by who exercises the duties of DELWP in representing and communicating the needs of DELWP to inform the Project's outputs or outcomes, for monitoring that outcomes will meet DELWP needs within the constraints of the Project Plan.

Project means the works described in a Schedule(s) to this Agreement.

Project Control Board, means the Board established by the State of Victoria and the CRC providing the oversight (by way of quarterly meetings) of the Project.

Project Intellectual Property means, means Intellectual Property which subsists in the Deliverables, Contractor IP and Bushfire and Natural Hazards IP.

Project Plan has the meaning set out in clause 3.

Project Results means the Deliverables and the Project IP.

Quality control has the meaning set out in as set out in clause 3.

Relevant Legislation means:

- (a) any Act, regulation, rule, ordinance, proclamation, by-law or similar statutory instrument, whether of the Commonwealth, State or local government;
- (b) any policy or code of conduct of the CRC or Research Organisation (as the case may be) which is binding on that Party and relevant to the performance of the Project under this Agreement.

Schedule means a schedule to this Agreement describing a Project.

State means the State Government of Victoria in Australia through its Department of Environment, Land, Water and Planning its predecessors and successors and assigns.

Specified Personnel means individuals essential to the project delivery named in the Schedule.

Supply has the same meaning given to that term in the GST Act.

Tax Invoice has the same meaning given to that term in the GST Act.

Term is the period of time that commences on the date the Agreement is executed by both parties and continues until the completion of the Project.

Third Party Intellectual Property means any Intellectual Property of a third party, other than the State of Victoria, that is:

- (a) included, embedded in or attached to the Project IPR; or
- (b) used in connection with the Project.

The following words have the meaning ascribed to them in the Details: **Deliverables, Delivery Date, Fee, Governing Law, and Reimbursable Expenses.**

Unless the context does not permit, the singular shall include the plural and vice versa and expressions inferring a gender shall include any other gender.

Headings shall not be used as an aid to interpretation.

2. PARTY REPRESENTATIVES

2.1 The Bushfire and Natural Hazards CRC will nominate a representative (Bushfire and Natural Hazards CRC Representative) who will:

- (a) Represent the Bushfire and Natural Hazards CRC and be deemed to be the agent of the Bushfire and Natural Hazards CRC in relation to any matter arising under this Agreement, including any decision made or information given or received by the Bushfire and Natural Hazards CRC; and be available at all reasonable times for consultation with the Contractors Representative in connection with any matter arising under this Agreement.
- (b) The Contractor may rely on any written statement or representation made by the Bushfire and Natural Hazards CRC's Representative and that statement or representation will be binding on the Bushfire and Natural Hazards CRC.

2.2 The Contractor will nominate a representative (Contractor Representative) who will:

- (a) Represent the Contractor and be deemed to be the agent of the Contractor in relation to any matter arising under this Agreement, including any decision made or information given or received by the Contractor; and be available at all reasonable times for consultation with the Bushfire and Natural Hazards CRC's Representative in connection with any matter arising under this Agreement.
- (b) The Bushfire and Natural Hazards RC may rely on any written statement or representation made by the Contractor's Representative and that statement or representation will be binding on the Contractor.

3. CONTRACTOR OBLIGATIONS

3.1 Provided that the Bushfire and Natural Hazards CRC meets its obligations under this Agreement, the Contractor must, at all times in performance of the Project:

- (a) exercise due care, skill and judgment;
- (b) act in accordance with the highest professional principles and standards
- (c) allocate work under the Project to Personnel who have:
 - i. appropriate qualifications, skills and experience;
 - ii. appropriate technical expertise; and

- iii. sufficient experience working on projects of a similar nature and size to enable the Research Organisation to successfully complete the Project in accordance with the agreed Project Plan.
- (d) ensure that it and any person or Research Organisation employed or engaged to work on a Project does not:
 - i. engage in unethical work practices; or
 - ii. engage employees or subcontracted workers upon terms and conditions that will not meet industrial standards generally applicable in Victoria
- (e) observe and comply with all Relevant Legislation
- (f) comply with all Laws and Policies affecting or applicable to the delivery of this Project;
- (g) have regard to any matters notified in writing by the Bushfire and Natural Hazards CRC Representative or by the Project Control Board.
- (h) comply with the project governance protocols set out in the Governance Agreement.

3.2 Provided that the Bushfire and Natural Hazards CRC meets its obligations under this Agreement, the Contractor must, at all times in management of the Project:

- (a) undertake and complete the Project in accordance with this Agreement;
- (b) use its best endeavours to deliver the Deliverables and Milestone to the Bushfire and Natural Hazards CRC by the dates specified in the Schedule or any other dates notified by the Bushfire and Natural CRC's Representative in writing and agreed with the Contractor.
- (c) within 3 months of entering into this Agreement prepare, to the satisfaction of the Policy Lead, a Project Plan meet the objectives of this project. This Project Plan must be prepared using the template provided as Attachment 3 to this Agreement. The project plan must include but not but not be limited to
 - i. an overview and scope of the Project;
 - ii. a statement of aims and objectives;
 - iii. the research design;
 - iv. any milestones in an agreement between the Bushfire and Natural Hazards and Research Organisation;
 - v. quality control measures addressing both include both science content and presentation;
 - vi. a budget and including in-kind contributions from Research Organisation
 - vii. resource requirements including students and data or other inputs required from DELWP;
 - viii. the identification of project team member's roles and responsibilities including the identification of any personal essential to the delivery of the project (Specified Personnel);
 - ix. the identification of key stakeholders
 - x. an outline of internal project management arrangements
 - xi. a risk management plan including processes for monitoring risks and proposed treatments for managing critical risks and any other matters referred to a Project Control Board that are specific to the scope and were identified project planning phase.
- (d) maintain productive relationships with the stakeholders listed in the Project Plan;

- (e) protect the confidentiality of, and manage, the Project Intellectual Property, through appropriate safeguards and systems of security;
- (f) ensure any researcher involved in a project undertaken under this agreement acknowledges the role of the research project is to provide only scientifically evidenced and unbiased information in a way that can be used to inform policy development and management decision making;
- (g) ensure any researcher involved in a project undertaken under this agreement acknowledges unless specific policy narratives are requested, Project outputs should focus on factually describing how knowledge gained on system, processes or consequences can be used to inform policy development and implementation and should not be used to comment on government policy; and

3.3 Provided the Bushfire and Natural Hazards CRC a quarterly report in accordance with the nominated template set out in Attachment 4 to this Agreement.

3.4 Within 4 weeks of the acceptance of final Project Deliverable provide Bushfire and Natural Hazards CRC with a completed Project Evaluation Report in accordance with the nominated template set out in Attachment 5 to this Agreement.

3.5 Specified Personnel

- 3.5.1 Personnel specified in the Project Plan as essential to the satisfactory delivery of the project. In the event that any one or more of these individuals are unable to continue to work on the Project to the extent identified in the Project Plan approved by the Policy Lead, the Bushfire and Natural Hazards CRC must be notified in writing immediately and within 5 days a consultative process will be put in place to find alternative ways to deliver the agreed outcomes and Milestones.
- 3.5.2 If after a further 10 days, the consultative process has proven unsuccessful or if Bushfire and Natural Hazards CRC is not reasonably satisfied with the alternative options and/or new proposed Personnel then the Bushfire and Natural Hazards CRC reserves the right to transfer this Project to another organisation without further recourse to the Contractor. This clause is subject to the Dispute Resolution clause of this Agreement.

4. PAYMENT

4.1 Upon receipt of evidence that the milestones for the relevant period have been achieved to the Bushfire and Natural Hazards CRC's reasonable satisfaction the Bushfire and Natural Hazards CRC must pay the Contractor:

- (a) Within 30 days after receipt of the Contractor invoice for:
 - I. the Fee then due as set out in the Schedule; and
 - II. the incurred Reimbursable Expenses as described in the Schedule; and
- (b) Interest on all amounts due under this Agreement but unpaid at the aggregate rate of the Westpac Indicator Lending Rate published from time to time by Westpac Banking Corporation plus 2% per annum from the due date until the unpaid amount is paid.

4.2 If the scope of the Project changes materially after the execution of this Agreement the parties must negotiate in good faith to agree revised Deliverables and milestones and a new Fee, whether higher or lower than the current Fee.

4.3 Goods and Services Tax (GST)

(a) Where a Supply is made under this Agreement as a consequence of which the Supplier is or becomes liable to pay any GST in relation to that Supply, the recipient of the Supply must on demand pay to the Supplier the amount of GST payable.

(b) If GST is applicable to a Supply made by the contractor under this Agreement, then, to the extent that the amount of GST stated to be included in the Fee or any Instalment of it is more or less than the amount of the GST liability actually incurred by the Contractor in respect of that Supply, Contractor may vary the Fee or the relevant Instalment by the applicable amount of GST and the Bushfire and Natural Hazards CRC must pay or Bushfire and Natural Hazards CRC must refund, as the case may be, the amount of the variation on demand.

(c) A Supplier must provide the recipient of a Supply with a Tax Invoice and any other documentation reasonably required to claim any Input Tax Credits claimable for or in relation to any Supply made under this Agreement.

(d) For the purposes of this clause 4.3:

- i. the terms 'Consideration', 'Input Tax Credit', 'Supply' and 'Tax Invoice' have the meaning attributed to them in the GST Law;
- ii. 'GST' means any tax imposed on the supply of goods, services or anything else;
- iii. 'GST Law' means the A New Tax System (Goods and Services Tax) Act 1999; and

(e) 'Supplier' means a person that makes a Supply.

5. DELAYS AND VARIATIONS

5.1 The Contractor is not liable for any failure to carry out part or all of its obligations under this Agreement if that failure is due to any cause beyond the reasonable control of the Contractor and agreed in writing by the Bushfire and Natural Hazards CRC's Representative.

5.2 The Contractor must not amend or vary a Project Plan without the prior written approval of the Bushfire and Natural Hazards CRC.

5.3 If the Contractor wishes to amend or vary any aspect of a Project Plan (including to modify the scope of the Project activities, Milestones or Deliverables), it may submit a proposal to the Bushfire and Natural Hazards CRC's Representative detailing the nature of the proposed amendment or variation and explaining why this amendment or variation is necessary (Amendment Proposal) and any consultation that has occurred with the Policy Lead.

5.4 The Bushfire and Natural Hazards CRC's Representative may, having regard to any advice from the relevant Project Control Board and in the Bushfire and Natural Hazards CRC's Representative's absolute discretion, approve or reject any Amendment Proposal and will notify the Contractor of his or her decision in writing as soon as practicable but no later than within 30 days of receipt of the Amendment Proposal.

5.5 This Agreement may only be varied or replaced by an Agreement duly executed by the parties.

6. INTELLECTUAL PROPERTY

6.1 Ownership of Project Intellectual Property

- 6.1.1 The Contractor acknowledges and agrees that the ownership of all Project Intellectual Property vests in the State upon creation.
- 6.1.2 The Contractor assigns ownership of all Project Intellectual Property to the State and will ensure all its Personnel, execute all documents and do all things necessary to assign to the State all such rights.
- 6.1.3 The Contractor agrees to document all Project Intellectual Property at the conclusion of the project and provide copies of all such material to the BNHCRC.
- 6.1.4 Clause 6.1 does not affect the ownership of the Contractor Intellectual Property or the Third Party Intellectual Property.
- 6.1.5 All ethics applications must be submitted such that they would enable the Contractor to comply with the requirements of this Agreement. The contractor must advise the BNHCRC within three (3) working days of any conditions imposed by a Human Ethics Committee which would prevent them complying with the terms and conditions of this Agreement.

6.2 Background Intellectual Property

- 6.2.1 The Contractor grants to the State a world-wide, perpetual, irrevocable, non-exclusive, royalty-free, transferable licence (including the right to sublicense) to use, reproduce, adopt, modify, distribute and communicate the Contractor's Background Intellectual Property for the purpose of the State receiving the full benefit of each Project, other than for the purpose of commercialisation.
- 6.2.2 The Bushfire and Natural Hazards CRC undertakes to use its best endeavours to procure for the Contractor and its relevant Personnel a world-wide, non-exclusive, royalty-free right to use State's Background Intellectual Property for the purpose of carrying out the Project.

6.3 Third Party Material

- 6.3.1 The Contractor must obtain all necessary licences and permissions before including any Third Party Intellectual Property in the Project Intellectual Property or using Third Party Intellectual Property in connection with this Project.
- 6.3.2 To the extent that State needs to use any of the Third Party Intellectual Property to receive full benefit of each Project, the Contractor must obtain, or ensures that its relevant Personnel (including a Research Organisation) obtains a world-wide, perpetual, irrevocable, non-exclusive, royalty-free, transferable licence (including the right to sublicense) to use, reproduce, adopt, modify, distribute and communicate the Third Party Intellectual Property for the purpose of each Project other than for the purpose of commercialisation.

6.4 Use of Project Intellectual Property

- 6.4.1 The Bushfire and Natural Hazards CRC undertakes to negotiate with the State on behalf of the Contractor and its relevant Personnel for a world-wide, non-exclusive, royalty-free licence to use, reproduce and adapt all Project Intellectual Property for the purpose of carrying out the Project.
- 6.4.2 If the Contractor or its Personnel wishes to use or publish any part of the Project Intellectual Property, other than in accordance with clause 6.4.1 during the Term or within 2 years from the end of the Term, it must seek the Bushfire and Natural Hazards CRC's written consent and

provide to the Bushfire and Natural Hazards CRC the details of such proposed use or publication in writing.

6.4.3 Following receipt of the details of the proposed use or publication in accordance with clause 6.4.2, the Bushfire and Natural Hazards CRC has thirty-five (35) days in which to determine whether it consents to the proposed use or publication (such consent to be granted or withheld in its sole discretion).

6.4.4 After the expiration of the thirty-five (35) day period referred to in clause 6.4.3, the Bushfire and Natural Hazards CRC must:

6.4.4.1 notify the Contractor or its Personnel (as the case may be) in writing that it requires further time in which to consider the request, in which case clause 6.4.2 will apply afresh to provide the Bushfire and Natural Hazards CRC with 35 days within which to consider the proposed use or publication, or

6.4.4.2 notify the Contractor or its Personnel (as the case may be) in writing that it consents to the use or publication, or does not consent to the use or publication.

If the Bushfire and Natural Hazards CRC does not notify the Contractor of its determination under clauses 6.4.2 or 6.4.4 (whichever clause applies) within the 35 day period allowed, the Contractor may invoke the dispute resolution procedure.

6.4.5 If the Bushfire and Natural Hazards CRC provides its written consent under clause 6.4.4.2, the Contractor or its Personnel (as the case may be) must:

6.4.5.1 only use or publish such Project Intellectual Property to the extent that the Bushfire and Natural Hazards CRC has provided its consent;

6.4.5.2 comply with any conditions specified by the Bushfire and Natural Hazards CRC; and

6.4.5.3 keep the record of all publications and promptly submit a copy of it to the Bushfire and Natural Hazards CRC.

6.5 Licence to Project Intellectual Property after the Project

6.5.1 Upon the date which is eighteen months after the end of the Term, Bushfire and Natural Hazards CRC undertakes to negotiate with the State to obtain for the Contractor and its relevant Personnel a world-wide, perpetual, irrevocable, non-exclusive, royalty-free licence to:

6.5.1.1 use the Project Intellectual Property for the purposes of research and development and teaching only; and

6.5.1.2 if it obtains the Bushfire and Natural Hazard CRC's prior written consent, publish the Project Intellectual Property.

6.5.2 If the State provides its written consent under clause 6.5.1.2, the Contractor must:

6.5.2.1 only publish such Project Intellectual Property to the extent that the State has provided its consent;

6.5.2.2 comply with any conditions specified by the State; and

6.5.2.3 keep the record of all publication and submit a copy of it to the BNHCRC and the State prior to publication.

6.6 Warranty for Intellectual Property by the Contractor

6.6.1 The Contractor warrants to the Bushfire and Natural Hazards CRC that the Contractor's Background Intellectual Property, the Third Party Intellectual Property, the Project Intellectual

Property or any other Intellectual Property provided by the Contractor and used in connection with the Project (Warranted IP) is to the best of the Contractors actual knowledge:

- 6.6.1.1 the sole property of the Contractor; or
- 6.6.1.2 Intellectual Property which the Contractor is legally entitled to use for the purposes of the Project,
- 6.6.2 and the use of such Warranted IP will not to the best of the Contractors actual knowledge infringe the Intellectual Property of any person.
- 6.6.3 Without limiting any other indemnity in this Agreement including the indemnity in clause 6.7.3 the Contractor must indemnify and keep indemnified the Bushfire and Natural Hazards CRC against all direct costs, losses, expenses or damages incurred by the Bushfire and Natural Hazards CRC to a maximum level of \$10 million by reason of the Contractor's negligent failure to comply with this clause 6.6.

6.7 Intellectual Property in Material Provided by State

- 6.7.1 Intellectual Property in all manuals, drawings, computer programs and other information provided to the Contractor by the State for reproduction or guidance in relation to the Project remains the property of the State. This information must not be used or reproduced for any purpose other than in relation to the Project without the prior written approval of the State through the Bushfire and Natural Hazards CRC's Representative.
- 6.7.2 The Bushfire and Natural Hazards CRC warrants to the Contractor that under the Transfer Payment Funding Agreement between the Bushfire and Natural Hazards CRC and the State of Victoria through the Department of Environment, Land Water and Planning it is legally entitled to use, for the purposes of the Project, the State's Background Intellectual Property and that the use of this Intellectual Property will not infringe the Intellectual Property rights of any person.
- 6.7.3 Pursuant to clause 6.7.2 the Bushfire and Natural Hazards CRC indemnifies and must keep indemnified the Contractor against all costs, losses, expenses or damages incurred by the Contractor to a maximum level of \$10 million by reason of the Contractor's use of the State's Background Intellectual Property for the purposes of the Projects.

6.8 Moral Rights

- 6.8.1 The Contractor will seek to obtain from any person whose Moral Rights may be affected, written consent to the doing of such acts (with respect to the material to which the Moral Rights relate) for the State to derive full benefit from the Project.
- 6.8.2 The Contractor must ensure that any consent it obtains pursuant to this clause 6.8 is given genuinely and is not obtained by duress or as a result of a false or misleading statement.
- 6.8.3 The Contractor's obligations pursuant to this clause survive the suspension, expiration or termination of this Agreement.

7. CONFIDENTIAL INFORMATION

- 7.1 Each party must in relation to the Confidential Information of the other party
 - (a) keep it confidential;
 - (b) use it only as permitted under this Agreement;
 - (c) only disclose it to employees, contractors and agents who have a need to know and who have undertaken to comply with the recipient's confidentiality obligations prior to disclosure;

- (d) not copy it or any part of it that is in material form other than as strictly necessary; and
- (e) promptly comply with any request by the discloser to return or destroy any or all copies of Confidential Information unless required by law to be retained.

7.2 The Contractor must in respect of Bushfire and Natural Hazards CRC's or the State's Confidential Information:

- (a) implement security practices against unauthorised copying, use and disclosure (whether that disclosure is oral, in writing or in any other form); and
- (b) promptly notify the discloser if the Contractor becomes aware of any:
 - i. unauthorised copying, use or disclosure in any form; or
 - ii. disclosure required by law.

7.3 After notifying the Bushfire and Natural Hazards CRC Representative, the Contractor may disclose information about the Project, the Project IPR and the Deliverables to a responsible authority if the Contractor deems the information to expose a potential risk to public health or safety.

8. WARRANTIES AND LIABILITY

8.1 The Contractor will advise the Bushfire and Natural Hazard CRC if it becomes aware of any infringement any third parties Intellectual Property; the Deliverables or Project IP.

8.2 Each party excludes all terms, conditions and warranties implied by custom, the general law or statute except any Consumer Warranties.

8.3 A party's liability to the other party for breach of any Consumer Warranty is limited, at The Contractor's option to:

- (a) for services:
 - i. providing those services again; or
 - ii. paying the cost of having those services provided again; and
- (b) for goods:
 - i. replacing the goods that breach the Consumer Warranty; or
 - ii. paying the cost of replacing the goods that breach the Consumer Warranty.

8.4 The Bushfire and Natural Hazards CRC:

- (a) assumes all risk for any loss or damage resulting directly or indirectly from the Bushfire and Natural Hazards CRC's use or disclosure of the Deliverables and any Project IPR; and
- (b) agrees that The Contractor's liability whether at common law, in equity, pursuant to statute or otherwise is limited to:
 - i. the re-performance of the Project; or
 - ii. in the event that The Contractor refuses, or fails within a reasonable time, to re-perform the Project, refund of the Fees paid by the Bushfire and Natural Hazards CRC; and in any event the Contractor will not be liable for any special, indirect or consequential damages.

9. INSURANCE

- 9.1 Each Party warrants that it has and will maintain adequate insurance to cover any liability that may arise in relation to this Agreement.
- 9.2 Insurance required under 9.1 shall be for an amount that is not less than \$10 million per event and with a maximum aggregate of \$20 million.
- 9.3 The Contractor is responsible for obtaining and maintaining all insurances of any nature, including personal, accident and disability insurance and professional indemnity insurance of at least \$5 million per event, to adequately cover itself and all Personnel and employees.
- 9.4 If requested by Bushfire and Natural Hazards CRC, the Contractor will provide Bushfire and Natural Hazards CRC with a certificate of currency evidencing the insurance policies.
- 9.5 Further, the Contractor must make all superannuation and WorkCover contributions that it is required to make under any relevant legislation.

10. INDEMNITY

10.1 Indemnity for Claims

The Contractor indemnifies the Bushfire and Natural Hazards CRC against all claims incurred or suffered by the Bushfire and Natural Hazards CRC arising from or in connection with any wilful or negligent act or omission, default or negligence of the Contractor or the Contractor's Personnel in connection with the performance of any works under this Agreement or any negligent breach of the Agreement by the Contractor. The Contractor's liability under this Agreement is reduced to the extent that any damages, liability, loss or costs arising from, or is attributable to, any negligent or unlawful act or omission of the other Party or its Personnel.

10.2 Indemnity Extends to Legal Costs

The indemnity in clause 10.1 extends to and includes direct costs, damages, and expenses incurred in defending and/or settling any Claims specified in clause 10.1, including reasonable legal costs on a full indemnity (solicitor/own client) basis.

10.3 Limitation of Liability

The Contractors' maximum aggregate liability to the Bushfire and Natural Hazards CRC under or in any way connected with this Agreement or the subject matter of this Agreement is limited to an amount equal to the amount that is recovered by the Contractor under any policy of insurance the Contractor is required to maintain under this Agreement or that would be recoverable but for either:

- i. the failure by the Contractor to maintain cover under those policies;
- ii. or a breach by the Contractor of those policies.

10.4 Exclusion from Indemnity

To the full extent permitted by law, the Contractor will not be liable to the Bushfire and Natural Hazards CRC for any indirect loss, arising from this Agreement however caused, whether in tort (including negligence), contract, statute, equity or otherwise.

10.5 Survival of Indemnities

Each indemnity in this Agreement is a continuing obligation, separate and independent from the other obligations of the parties and survives termination of this Agreement.

10.6 Enforcement of Indemnities

It is not necessary for a party to incur expense or make payment before enforcing a right of indemnity conferred by this Agreement.

11. DISPUTE RESOLUTION

- 11.1 Any dispute, controversy or claim arising out of or relating to this Agreement or the breach, termination or invalidity thereof ('Dispute') will be dealt with in accordance with this Clause.
- 11.2 If a Dispute arises out of this Agreement the parties agree to endeavour in good faith to settle the Dispute in accordance with this Clause 11.
- 11.3 The Party claiming that a Dispute exists will give the other Party formal written notice of such Dispute together with details of that Dispute.
- 11.4 If a Dispute is not settled by the Parties within thirty (30) days of receipt of the written notice, it will be referred to the Chief Executive Officers (CEOs) of each of the Parties or their delegates, who will negotiate in good faith to resolve the Dispute.
- 11.5 If the Dispute is not resolved by the CEOs within 30 days or if either CEO refuses to participate within 15 days of being asked to do so by the other CEO, the Parties must refer the dispute to the Australian Commercial Disputes Centre Limited (ACDC) for mediation in accordance with the Mediation Guidelines of ACDC.
- 11.6 If the Dispute is not resolved by mediation, the dispute must be referred to the Australian ACDC for arbitration in accordance with the Arbitration Rules of ACDC.
- 11.7 Any arbitration shall be final and binding on the Parties, including any award as to costs.
- 11.8 The arbitration and the decision of the arbitral tribunal will be confidential unless otherwise agreed between the parties.
- 11.9 Nothing in this Clause shall prevent any Party from seeking urgent interlocutory relief.

12. TERM AND TERMINATION OF AGREEMENT

12.1 This Agreement shall become effective when it is signed by both parties and shall continue in effect until the Contractor has provided the Deliverables to the Bushfire and Natural Hazards CRC and the Bushfire and Natural Hazards CRC has made all payments due under Clause 4 unless sooner terminated in accordance with the provisions of this clause.

12.2 Immediate Termination

Either party may terminate this Agreement immediately if:

- 12.2.1 The other party commits an act of insolvency or enters into a scheme of arrangement or composition with creditors or a liquidator, receiver or receiver and manager, administrator or controller of the Recipient or any of its assets is appointed; or

12.2.2 The other party is found guilty of any criminal offence other than an offence that, in the Bushfire and Natural Hazards CRC's reasonable opinion, does not affect the other party's ability to undertake and complete the Project properly.

12.3 Termination by the Bushfire and Natural Hazards CRC for Breach

12.3.1 The BNHCRC may provide the Contractor with written notice of its intention to terminate this Agreement (in this clause, a Termination Notice) if:

12.3.1.1 The Contractor engages in any conduct that causes or may cause imminent and serious risk to the reputation, viability or profitability of the Project or the funding of the Project.

12.3.1.2 The Contractor engages in any conduct that is contrary to the Contractor's occupational health and safety obligations under any Relevant Legislation.

12.3.1.3 There is any wilful failure or neglect on the part of the Contractor in carrying out a Project, any act of serious misconduct or any other serious or persistent breach of any of the terms of this Agreement.

12.3.1.4 The progress of the Project is suspended for a period of more than 6 months without the written consent of the Bushfire and Natural Hazards CRC's Representative.

12.3.1.5 A milestone under this agreement between the has not been achieved within 3 months of the due date without the written agreement of the Bushfire and Natural Hazards CRC.

12.3.2 Any Termination Notice provided by the Bushfire and Natural Hazards CRC under clause 12.3.1 must be in writing, specify the grounds for termination and require the Contractor to rectify the breach within a period of no less than 14 days.

12.3.3 If the Contractor fails to comply with the Termination Notice within the specified timeframe, the Bushfire and Natural Hazards CRC may immediately terminate this Agreement by providing written notice to the Contractor.

12.4 Termination by the BNHCRC for Convenience

12.4.1 In addition to the Bushfire and Natural Hazards CRC's rights under clauses 12.2 and 12.3 the Bushfire and Natural Hazards CRC may terminate this Agreement at any time before the end of the Term with or without a reason by giving the Contractor 60 days' notice in writing of its intention to terminate this Agreement, after which the Agreement is at an end.

12.4.2 On receipt of a notice terminating the Agreement under clause 12.4.1, the Contractor must provide to the Bushfire and Natural Hazards CRC within 28 days a financial report that contains a statement of payments and receipts in respect of the Project certified by a person undertaking the role of Chief Financial Officer of the Contractor (or a comparable role) and that includes a statement that the financial accounts are true and fair.

12.4.3 Subject to the Contractor complying with clause 12.4.2. upon termination of this Agreement.

12.4.4 The Bushfire and Natural Hazards CRC will pay to the Contractor an amount which is equal to the Contractors Project costs incurred, expended or contractually committed up to the date on which the Contractor received notice under clause 12.4.1

12.5 Termination by the Contractor

The Contractor may terminate this Agreement by giving the Bushfire and Natural Hazards CRC 60 days' written notice if:

- 12.5.1 a Force Majeure Event continues for longer than 3 months; or
- 12.5.2 there is a change in Relevant Legislation which prevents the Contractor from being able to continue to perform its obligations under the Agreement.
- 12.5 the Contractor may terminate the Agreement by notice in writing to Bushfire and Natural Hazards CRC if Bushfire and Natural Hazards CRC is in breach of any material term of this Agreement and the breach is not remedied within fourteen (14) days of a notice from the Contractor specifying the breach and requiring its remedy.

12.6 Consequences of Termination

12.6.1 Consequences of Immediate Termination or Termination for Breach

If this Agreement is terminated pursuant to clauses 12.2.or 12.3:

12.6.1.1 The Bushfire and Natural Hazards CRC is not required to make any further payments to the Contractor

12.6.1.2 The Contractor must take all action necessary to minimise further expenditure of funds.

12.6.2 Consequence of Termination for Convenience

If this Agreement or a Project is terminated pursuant to clauses 12.3 12.4 or 12.5:

12.6.2.1 The Bushfire and Natural Hazards CRC is not required to make any further payments to the Contractor;

12.6.2.2 The Contractor must take all action necessary to minimise further expenditure of funds, and

12.6.2.3 The Bushfire and Natural Hazards CRC, subject to compliance by the Contractor with this Agreement, will pay the Termination Fee.

12.6.3 Termination Fee

12.6.3.1 If this Agreement is terminated pursuant to clauses 12.3 12.4 or 12.5, then the procedure set out in this clause applies to determine the Termination Fee payable by the Bushfire and Natural Hazards CRC to the Contractor in respect of such termination.

12.6.3.2 The Contractor must issue an Invoice in respect of the amounts which the Contractor would reasonably have been entitled to receive payment in respect of from the Bushfire and Natural Hazards CRC up to the date of notice of termination had the Agreement not been terminated.

12.6.3.3 Subject to compliance by the Contractor with this clause, the Termination Fee will be calculated having regard to amounts insofar as they relate to the Project only and which are in each case reasonably and properly incurred, expended or contractually committed and arise as a direct result of termination, and will be calculated as follows:

12.6.3.3.1 The amount due to the Contractor evidenced by all unpaid Invoices issued by the Contractor including the Invoice issued in accordance with clause 12.6.3.2, to the extent the Bushfire and Natural Hazards CRC agrees to the amount in any such Invoice;

12.6.3.3.2 The reasonable cost of project materials reasonably ordered by the Contractor for the relevant Project but not yet paid for and which the Contractor is liable to accept, but only to the extent that they have been incorporated into the Project before termination and have not otherwise been included in any Invoice to be met from funding other than provided by the Bushfire and Natural Hazards CRC.

12.6.3.3.3 The reasonable costs incurred in:

- i. removing temporary works and plant;
- ii. demobilising and returning to their place of engagement Contractor's Personnel engaged in the Project at the date of termination;
- iii. reasonable redundancy and termination costs actually paid to Contractors employees unable to be deployed in alternative works;
- iv. commitments to student stipends and post-doctoral employment arrangements which the Contractor is liable to pay; and less: all amounts already paid in respect of any matters forming part of the calculation; and any amount otherwise properly due and owing to the State from the Recipient.

12.6.3.4 The Contractor undertakes in good faith to mitigate the costs described in clause 12.6.3.3., and agrees that it will calculate the Termination Fee based on its actual legal obligations to its Personnel.

12.6.3.5 The Contractor must provide written evidence (including reasonable particulars) of its efforts to mitigate costs under this clause to the Bushfire and Natural Hazards CRC at any time upon reasonable request.

12.6.3.6 Nothing in this Agreement requires the Bushfire and Natural Hazards CRC to pay an amount to the extent that to do so would result in the Bushfire and Natural Hazards CRC being required to pay the same amount twice in respect of the same matter or thing.

13. AFTER END OF AGREEMENT

13.1 Without limiting any other right at law:

- (a) If the Agreement terminates due to a breach by Bushfire and Natural Hazards CRC under Clause 12.5:
 - i the Bushfire and Natural Hazards CRC must pay the Contractor for work done and expenses incurred up to the date of termination and fully compensate the Contractor for all reasonable costs, losses and expenses suffered by the Contractor as a result of the termination;

- ii the Contractor will continue to be bound by Clause 6 with respect to the use of Project IP but
 - iii the Contractor will be regarded as discharged from any further obligations under this Agreement; and
- (b) Subject to sub-clause 13.1(d), upon termination of the Agreement or expiry, each Party's (the 'First Party') right to use Confidential Information of the other Party ceases and the First Party must immediately at the other Party's request and option:
- i. return to the other Party;
 - ii. destroy and certify in writing to the other Party the destruction of; or
 - iii. destroy and permit the other Party to witness the destruction of all of the other Party's Confidential Information in the First Party's possession or control.
- (c) Any provisions in this Agreement that create rights or obligations on any of the Parties which are capable of continuing after the expiry or earlier termination of this Agreement (including without limitation clauses 6, 7, 8, 9 and 14) shall do so and any accrued rights or remedies of either Party will not be affected by such termination.

(d) Return of Property

Upon the termination or expiry of this Agreement, the Contractor must return or with the agreement of the Bushfire and Natural Hazards CRC's representative, destroy any manuals, drawings, computer programs and other documents supplied by the State or the State's representative to the Contractor and any other property belonging to the State used as part of this Project. The Contractor may retain copies of documents to allow it to use any Project Intellectual Property in accordance with Clause 6.

14. PUBLICATION OF PROMOTIONAL MATERIAL

14.1 Except as required by law or as otherwise permitted under this Agreement, neither party may make any public announcement or issue any promotional material or press release relating to:

- 14.1.1 a Project
- 14.1.2 any negotiations between the Contractor and the BNHCRC or the State; or
- 14.1.3 the existence or subject matter or terms of this Agreement, without the prior written consent of the other party.

14.2 Where the BNHCRC gives consent under clause 14.1, or where otherwise requested by the BNHCRC, the Contractor must acknowledge the BNHCRC and the State's assistance in all publications and promotional materials relating to a Project by prominently displaying in such publications and on such promotional materials the statement and logo to be provided by the Bushfire and Natural Hazards CRC's Representative.

14.3 Bushfire and Natural Hazards CRC undertakes to negotiate with the State on behalf of the Contractor and its relevant Personnel that the State will ensure any publication of Project Intellectual Property in research or technical reports or in formal submissions will clearly and prominently note the contribution of the Contractor to the Project.

14.4 This clause is subject to the Contractor's rights under clauses 6.4 and 6.5.

15. NOTICES

A Party notifying or giving notice under this Agreement must give notice in writing, addressed to the other Party and:

- (a) delivered at that Party's address as set out in the Details or as advised in writing from time to time;
- (b) sent by pre-paid mail to that Party's address; or

16. GENERAL

16.1 Governing Law: The Governing Law of this Agreement is the law applicable in the State of Victoria, Australia and the Parties submit to the non- exclusive jurisdiction of the courts in that State.

16.2 Assignment: A Party may not assign any of its rights or obligations under this Agreement to a third party other than with the written consent of the other Party.

16.3 Entire Agreement:

This Agreement:

- (a) records the entire agreement between the parties and supersedes all earlier agreements and representations by the parties about its subject matter;
- (b) is governed by the Governing Law; and
- (c) may only be altered in writing as agreed by both parties.

16.4 Inconsistency:

If there is any inconsistency between provisions, then the order of precedence will be:

- (a) Terms; and
- (b) Details; and any Attachments
- (c) the Proposal;

16.5 Organisational Representatives:

The BNHCRC representative for the purposes of Clause 2 (a) is

BNHCRC Research Director:

Michael Rumsewicz:

Bushfire and Natural Hazards CRC Ltd

Level 5, 340 Albert Street,

East Melbourne, Vic 3002, Australia

Telephone: 03 9412 9600 email: michael.rumsewicz@bnhcrc.com.au

The Contractor representative for the purposes of Clause 2 is

Please ensure this is inserted



BUSHFIRE RISK MANAGEMENT RESEARCH PROJECTS AGREEMENT GOVERNANCE ARRANGEMENTS VERSION 1

APPROVED BY PROJECT CONTROL BOARD AUGUST 2014 ¹

Introduction

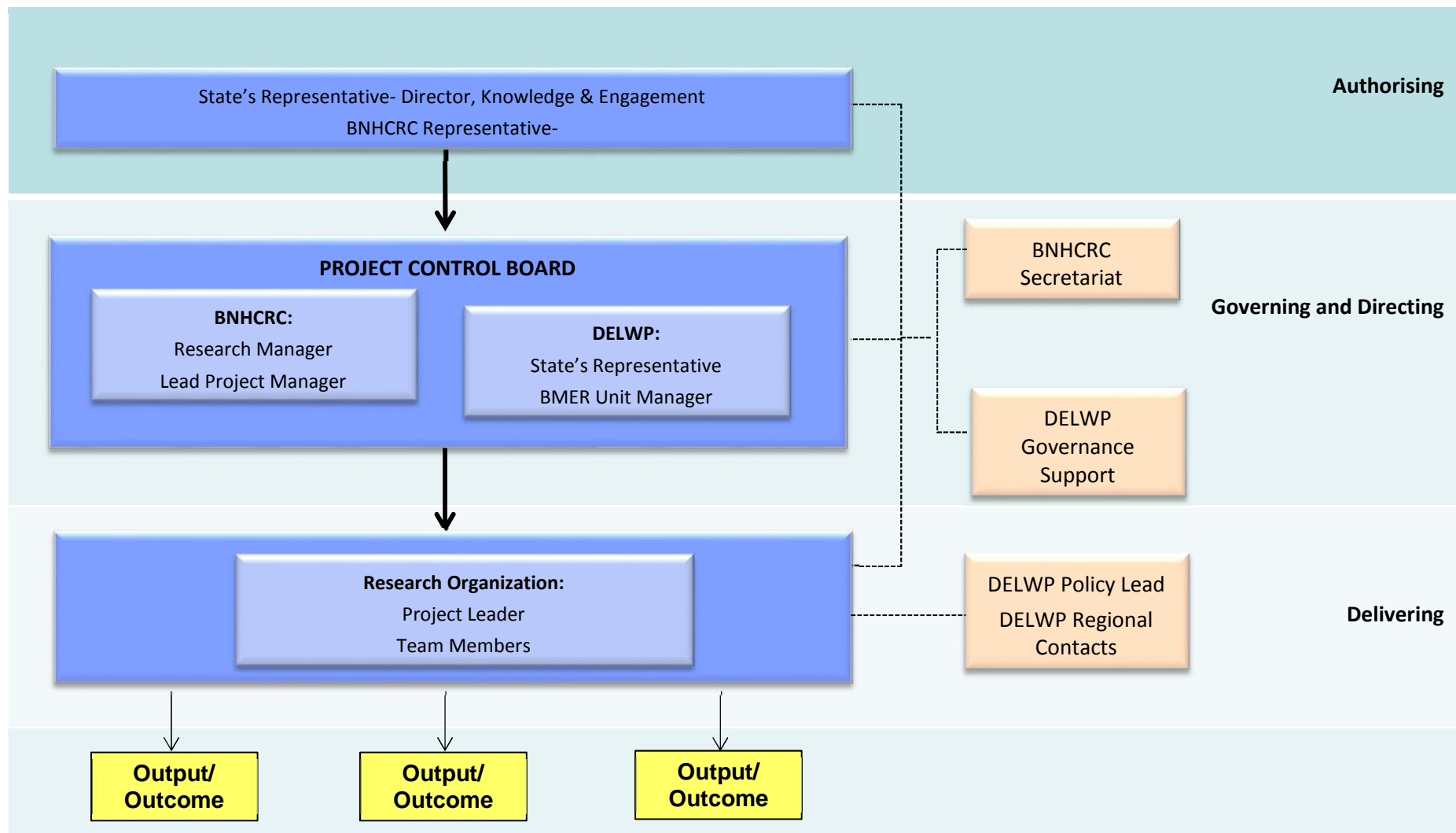
The Transfer Payment Funding Agreement – DELWP Emergency Risk Management Research Projects (the Agreement) between Department of Environment Land Water and Planning (DELWP) and the Bushfire and Natural Hazards Cooperative Research Centre (Bushfire and Natural Hazards CRC) is a single use contract for the provision of bushfire science research projects through the Bushfire CRC. The Agreement enables high quality researchers and organisations from both across Australia and internationally to be engaged, often in collaboration, to deliver topical and relevant bushfire research projects.

Under the Agreement the Bushfire and Natural Hazards CRC is responsible for the delivery of identified Projects. A project brief, plus management and reporting system for an individual project are established. Expressions of Interest are called for each Project, with the subsequently appointed Research Organisation working with the Bushfire and Natural Hazard and DELWP to deliver an approved Project.

This document describes the key activity areas for the ongoing governance and management process for these Projects, developing them into transparent actions and responsibility statements. Matters not clarified in this document should be referred to the signatories (or their representatives) for resolution within the parameters of the Head Agreement. The areas described are:

1. Key roles and responsibilities.
2. Reporting and records.
3. Project management

¹ Note this document is based on the BCRC/DEPI Governance Agreement v6 Approved by the PCB May 2014 with changes made to reflect to move to the BNHCRC, the change in name of the Department and the new Agreement



1. Key Roles and Responsibilities

Role	Detail	Key Responsibilities/ Actions
Board – Committee		
Project Control Board (PCB) (Clause 14) <u>Members:</u> BNHCRC Representative BNHCRC Lead Project Manager State's Representative <u>By invitation:</u> DELWP Policy Lead or State Policy Lead BNHCRC Secretariat DELWP Governance Support	<p>For each Project (or group of projects), the State and the BNHCRC will establish a PCB comprising at least one nominee of each organisation to provide strategic guidance and direction to the project, ensuring it remains viable within any specified constraints.</p> <p>The Project Control Board meets at least quarterly.</p> <p>The Project Control Board carries out its functions for the Term of the Agreement.</p>	<ul style="list-style-type: none"> • Provides advice to the BNHCRC on overall conduct of the program. • Approves the Project Brief in line with the specified Schedule in the Agreement. • Considers and recommends researcher EOI's for the completion of work under specified schedules to the State including proposed variations to the EOI. • With respect to each Project, the Project Control Board will oversee and facilitate implementation of the Program and specified schedules within the boundaries of the Agreement, including: <ul style="list-style-type: none"> ○ Reviewing and comment on any recommendations from the BNHCRC to appoint a Research Organisation; and ○ Reviewing and making recommendations for substantive changes to a Project Plan to the State; and provides ○ A watching brief and input to the State on each project, including monitoring that milestones under any Schedule to the Agreement are being achieved. • Neither the State nor the BNHCRC is bound by any recommendation made by the Project Control Board, but may take into account any such recommendation in exercising their duties, discretions and powers under the Agreement. • Resolves escalated issues.

Key Roles		
State's Representative	<p>Person nominated by the State, in writing, who exercises the duties discretions and powers of the State for the purposes of the Agreement.</p> <p>Ensuring each project and the overall program balances the demands of the business, user and supplier.</p> <p>Final decision maker on the PCB in instances where consensus is not met.</p>	<ul style="list-style-type: none"> • Signatory to any legal instruments under the Agreement. • Oversight and direction of fulfilment of the terms of the Agreement. • Oversees implementation of the Program. • Secures funding for each Schedule/Project. • Approves Research Organisation and final Project Plan for each project. • Monitors and controls progress of project at a strategic level. • May delegate elements of program oversight to the DELWP Governance Support person or other as appropriate. • May delegate oversight of any Project to the DELWP Policy Lead. • Hold BNHCRC to account for quality and integrity of specialist approach and specialist outputs of project to the extent achievable within the approved project plan. <p>The State Representative is supported by:</p> <ul style="list-style-type: none"> • The DELWP Policy Lead who will act as the regular correspondent with the BNHCRC Lead Project Manager and Research Leader (Research Organisation) on matters relating to individual projects. • The DELWP Governance Support person who will act as regular correspondent with the BNHCRC on Program governance.
BNHCRC Representative	<p>Person nominated by the BNHCRC in writing, who exercises the duties discretions and powers of the BNHCRC for the Agreement.</p>	<ul style="list-style-type: none"> • Signatory to any legal instruments under the Agreement. • Deemed the agent for the BNHCRC for the Agreement. • Oversight and direction of BNHCRC responsibilities under the Agreement. • Responsible to the PCB for the quality and integrity of specialist approach and specialist outputs of project to the extent achievable within the approved project plan and budget. <p>With the agreement of the State's Representative may act as the public spokesperson on issues that arise during the Term of the Agreement.</p>
BNHCRC Lead Project Manager	<p>Runs the program and monitors individual projects on behalf of the Project Control Board within the constraints laid down by them.</p>	<ul style="list-style-type: none"> • Supports relationship between the BNHCRC and DELWP and between the BNHCRC and the Research Organisations contracted to deliver individual project under agreed project plans. • Manages the program of work required to deliver each Schedule/Project on behalf of the PCB and State including: <ul style="list-style-type: none"> ○ Leads preparation of material leading to the EOI's; ○ Evaluates EOI's as advice to the PCB; ○ Manages the contract between the BNHCRC and the approved Research Organisation; ○ Negotiates projects milestones in line with Project Brief and Head Agreement; ○ Works with Research Organisation to develop a Project Plan; and

	Provision of Project Support is optional <i>and</i> will need to be undertaken by the BNHCRC. This will sometimes then be passed on to the Research Organisation.	<ul style="list-style-type: none"> ○ Oversight of the project. • Ensures timely delivery of the following reports: <ul style="list-style-type: none"> ○ Quarterly progress report (Clause 15.1). ○ Milestone reports (Clause 15.2). ○ Evaluation reports – including budget, outcomes, performance to plan, consultation, and lessons (Clause 15.3). • Establishes and manages procedures to ensure projects are delivered within the parameters of the Agreement. • Project Manages the Program and individual projects to ensure they produce the required outputs/outcomes within timeframe, budget, quality, scope, risk and benefit constraints, taking responsibility for overall progress and use of resources and initiating corrective action where necessary. • Liaises with project teams to ensure integration of projects where appropriate and that work is neither overlooked nor duplicated by related projects. • Provides Secretariat service to at the Project Control Board. • Liaises with the DELWP Policy Lead and the DELWP governance support as required.
DELWP Governance Support	Provides support and advice to the State’s Representative, DELWP Policy Lead and BNHCRC in implementation of the Head Agreement.	<ul style="list-style-type: none"> • Supports relationship between the BNHCRC and DELWP. • Provides advice and assistance in the development and delivery of Agreement governance. • Delivers program-wide (not project specific) administrative support to meet DELWP obligations. • Acts as delegate for the State’s Representative as required. • Coordinates/maintains consistency between DELWP Policy Leads and between DELWP Policy Leads and the BNHCRC.
DELWP Policy Lead	Responsible for representing and communicating the needs of the users of the project’s outputs or outcomes for “end-user” liaison, and for monitoring that outcomes will meet user needs within the constraints of the Business Case and the PCB approved project plan in terms of quality, functionality and ease of use.	<ul style="list-style-type: none"> • Acts as the key point of contact, and subject matter expert for work undertaken on projects commissioned or undertaken under the Agreement. • Gives DELWP advice and guidance on project based issues. Ensures that the specification of DELWP’s or the State’s needs from the project are clearly articulated and understood by the project team (led by the Research Organisation) within the context of the Project Brief. • Assesses whether the project output/outcomes will meet specified user needs and whether the project is progressing towards this target. • Advises on the impact of any proposed project changes or achievement of objectives from the user’s point of view. • “End-user” liaison with the BNHCRC Lead Project Manager and the Project Manager-Research Organisation. Including assisting them by: <ul style="list-style-type: none"> ○ Identifying stakeholders and providing support to access DELWP internal stakeholders.

		<ul style="list-style-type: none"> ○ Accessing relevant DELWP resources or information. ○ Performing as a support member of the project delivery team, including providing advice to the PCB as required. ● Briefs the State's Representative about the conduct and outcomes of the Project. ● Provides DELWP coordination and technical support to the State Representative for publication requests associated with the project. ● Identifies and facilitates any approvals, consents or the like that may be required in order to carry out the relevant Project or implement an amendment to the relevant Project Plans. ● May be invited to participate in PCB meeting at the discretion of the State's Representative
Research Leader- Research Organisation	Ensures the research organisation delivers its obligations to the Project within the parameters, approved project plan, contract and the Agreement.	<ul style="list-style-type: none"> ● Responsible for the day-to-day conduct of the project in accordance with the agreed project plan, and the Code for the Responsible Conduct of Research and any conditions imposed by a properly constituted Ethics Committee of the nominated Research Organisation. ● Ensure any material proposed for publication, either as the product of a project or as a formal publication has completed an internal quality review process prior to submitting the material to the BNHCRC for DELWP review. ● Maintains and communicates up to date project plans. Refers modifications to the BNHCRC Lead Project Manager for approval by the PCB. ● Takes responsibility for the delivery of the research projects including: <ul style="list-style-type: none"> ○ Timely response to queries or issues raised by the BNHCRC or State; ○ Communicating regularly with the BNHCRC and identifying any issues early; ○ Delivering project in accordance with approved Project Plan, ensuring milestones are reached as specified; ○ Setting work plans and monitoring progress of the team's work and use of team resources; ○ Initiating corrective action where objectives are at risk (and within the constraints set by the BNHCRC Lead Project Manager), and ensuring these are communicated effectively to the BNHCRC; ○ Providing the completed outputs to the BNHCRC; and ○ Ensuring that quality activities relating to the team's work are planned and performed correctly and are within tolerance. ○ Representing the project and presenting work as required. ● Assists BNHCRC Lead Project Manager in examining issues and risks and managing specific issues and risks as directed by the BNHCRC Lead Project Manager.

2. Reporting & Records

Issue	Context	Report Requirements	Due Date
Quarterly Progress Reports	BNHCRC must submit a Quarterly Progress report on each project to the State's Representative.	<ul style="list-style-type: none"> The BNHCRC to provide in the format specified in Part 5 of the Schedule for each project, including assessment of project status with regard to the Milestones, or as otherwise requested by the State's Representative. Unless otherwise agreed an electronic version to be provided by due date to the State's Representative and DELWP Policy Lead and tabled at the next relevant PCB meeting. BNHCRC will provide a record of Quarterly Project Reports by project and date at PCB meetings upon request. <p>Responsibility: BNHCRC</p>	Quarterly.
Milestone Reports	For each project a Milestone Report (milestones specified in the Schedule) must be provided to the State's Representative.	<ul style="list-style-type: none"> Upon request the BNHCRC will retrieve and provide from their Project Management System a report including Milestone description, outcome achieved as result of Milestone, any variations, impact on other Milestones, and issues, opportunities or lessons that arose. BNHCRC to maintain a Project Management System to provide this information at any time. <p>Responsibility: BNHCRC</p>	Within 14 days of the Milestone being reached or after such a report is requested.
Evaluation Report	For each project an Evaluation Report must be provided to the State's Representative.	<ul style="list-style-type: none"> The BNHCRC to provide a final report in a form to the reasonable satisfaction of the State's Representative. It must include descriptions of how the Funds were used, the quantifiable outcomes and an assessment of effectiveness in meeting objectives, a summary of consultation or communication and its effectiveness, assessment of performance in terms of time cost and quality, a discussion of key lessons learned in terms of planning and implementation, and what could be done differently for a better outcome, for the project. <p>Responsibility: BNHCRC</p>	Within 3 months of the completion of research activities component of the relevant Project.
Records – BNHCRC	The BNHCRC must establish and maintain proper books of account.	<ul style="list-style-type: none"> Must be conducted in accordance with accounting principles generally applied in commercial practise and to an auditable standard. Provided to the State's Representative or third party nominated by them to determine whether the BNHCRC is complying with its 	Within 30 days of request

		<p>obligations under the Agreement, ascertain any other matters reasonably considered relevant to the performance of the BNHCRC obligations, and to conduct and audit or the BNHCRC financial activities for a Project.</p> <ul style="list-style-type: none"> • Must be provided to the State's Representative within 30 days of request from them or auditor appointed by the State. <p>Responsibility: BNHCRC</p>	
Records and Reporting - Research organization	<p>Quarterly report</p> <p>The Research organisation must establish and maintain a proper book of accounts.</p> <p>The Research Organisation must maintain appropriate documentation of research method, data and analysis in accordance with the principles of research integrity.</p>	<ul style="list-style-type: none"> • The research leader must complete the Online report on the progress of the project by 30 March, 30 June, 30 September and 30 December unless otherwise agreed with the BNHCRC Lead Project Manager. Reasonable clarification on matters raised in these reports must be provided upon request from the BNHCRC Lead Project Manager or the Project Control Board. • Must be conducted in accordance with accounting principles generally applied in commercial practise and to an auditable standard. • Details of financial expenditure on the project must be provided to the BNHCRC in accordance with the terms and conditions of the contract. • The research organisation must maintain appropriate records and documentation of the research activities conducted in a project in accordance with the principles of research integrity, the terms and conditions such research imposed by a duly constituted Ethics Committee and the Code for the Responsible Conduct of Research. • The Research organisation must maintain a record of any ethics approval, including any conditions of such approval, relating to the conduct of the project. • Copies of records relevant to the project must be provided to the BNHCRC in accordance with the terms and conditions of the contract and the Agreement. <p>Responsibility : Signatory to the Contract between the BNHCRC and the Research Organisation</p>	As required in accordance with the contract

3. Project Management

Issue	Context	Actions/responsibility	Due Date
Project Brief initial approval and amendments	Amendment to Brief proposed.	<ul style="list-style-type: none"> Project Briefs must be approved by the PCB. The BNHCRC must not amend or vary a Project Brief without the prior written approval of the State's Representative. If the BNHCRC wishes to amend or vary an aspect of a Project Brief (including to modify the scope of the project activities or deliverables), it may submit a proposal to the State's Representative detailing the nature of the proposed amendment or variation and explaining why this amendment or variation is necessary (Amendment Proposal). The State's Representative may, having regard to any advice from the relevant Project Control Board and in the State's Representative's absolute discretion, approve or reject any Amendment Proposal and will notify the BNHCRC of his or her decision in writing as soon as practicable but no later than within 30 days of receipt of the Amendment Proposal. <p>Responsibility: State's Representative</p>	As required.
Project Plan Approval amendment: Extensions/start delays, milestone or objective modifications, and budget changes,	Must be approved by the State's Representative, extension must be in writing.	<ul style="list-style-type: none"> Project Plans must be approved in writing by the State Representative after appropriate consideration by the Project Control Board. The BNHCRC Lead Project Manager may make a submission to for a variation to the commencement or completion date for a project, project objectives, milestones or budget as set out in an approved Project Plan to the State's Representative demonstrating Force Majeure, or other factors, or that the State Representative has previously indicated they consider it appropriate. The State Representative (with due consideration of any advice from the Project Control Board) will consider this request and respond in writing. Any such variation to the Project Plan must be approved by the State's Representative in writing. <p>Responsibility: State's Representative</p>	As required.
Project Plan amendments-scope or internal project timeline.	Must be approved by the PCB.	<ul style="list-style-type: none"> Applies to changes to the work program set out in the project plan including scope internal timelines must be referred to the PCB for approval. 	

		<ul style="list-style-type: none"> • The BNHCRC Lead Project Manager in consultation with the DELWP Policy Lead and Research Leader should develop the proposed amendment and supporting justification. • The BNHCRC Lead Manager should provide these to the PCB for review and approval. • Where urgent project variation is required this may be submitted directly to the PCB for out of –session approval. <p>Responsibility: BNHCRC Lead Project Manager, PCB.</p>	
Project Plan amendments- not scope, budget or timeline.	Must be approved by a DELWP Policy Lead as a delegated Change Authority	<ul style="list-style-type: none"> • Applies to changes to the work program not referenced in previous sections. • The BNHCRC Lead Project Manager in consultation with the Research Leader should develop the proposed amendment and supporting justification and provide this to the DELWP Policy Lead. • The DELWP Policy Lead should approve or decline the request in writing within 10 working days or advise the BNHCRC that additional time is required for consideration providing a clear invitation as to when a decision on this matter will be able to be provided. • Changes to the Project Plan, and any outstanding requests for variations should be reported to the next PCB for noting or action. <p>Responsibility: BNHCRC Lead Project Manager, DELWP Policy lead.</p>	As required.
Change Authority	The Project Control Board may delegate authority for approving requests for a change to Project Plan or off-specifications to a separate individual or group, called a Change Authority.	<ul style="list-style-type: none"> • A nomination for the approval of a Change Authority may come from the BNHCRC Lead Project Manager or the DELWP Governance Contact. Any request must demonstrate that the nominee is capable of adequately representing project requirements, have sufficient credibility to ensure that advice and guidance are followed, and have sufficient specialist knowledge of the business, user and supplier stakeholder areas. • The nomination must be forwarded to the PCB and their response formally minuted by the BNHCRC. • A register of all delegations (Change Authorities) approved by the PCB or varied by the State's Representative must be kept by the BNHCRC. • The PCB may approve an individual as the Change Authority and must clearly specify the suite of delegated approvals for that individual. 	As required.

		<ul style="list-style-type: none"> The State's Representative may rescind a Change Authority at any time by written or verbal direction to the BNHCRC Representative or Lead Project Manager. <p><i>If an individual is delegated a Change Authority by the PBC they must:</i></p> <ul style="list-style-type: none"> Review and approve or reject all requests for change and off-specifications within the delegated limits of authority and change budget set by the Project Control Board. Refer to the Project Control Board if any delegated limits of authority or allocated change budget are forecast to be exceeded. <p>Responsibility: Project Control Board</p>	
Milestones	The BNHCRC must ensure that the Milestones between the BNHCRC and the DELWP are achieved as specified in the Schedules and within specified timeframes.	<ul style="list-style-type: none"> The BNHCRC must ensure that Milestones are met within timeframes met in the Schedule for the project or as otherwise stated in writing by the State's Representative. The BNHCRC must take management action to ensure Milestones are met or timeframes re-negotiated in a manner that does not put the project objectives at risk. <p>Responsibility: BNHCRC Lead Project Manager.</p>	In accordance with specified timeframes.
Intellectual Property (IP) and variation requests	<p>Ownership of all Intellectual Property and Project Output vests, upon creation, with the State.</p> <p>The BNHCRC assigns all ownership of Project IP (to DELWP) and must procure that this includes its personnel, students and any third parties involved in a project.</p>	<ul style="list-style-type: none"> The Agreement provides full details of the IP Clauses, including ownership, background IP, third party material and use. Any variation to the IP provisions in the Head Agreement, including request to use Project IP, must be addressed in writing by the BNHCRC to the State's Representative. It must include full variation details and implications as well as an assessment of its context within State policy frameworks. The State's Representative will only support or approve any IP variation that sits within State Policy guidelines, including but not limited to the Whole of Victorian Government Intellectual Property policy (August 2012). The State's Representative will provide any approval in writing. <p>Responsibility: BNHCRC and State's Representative.</p>	Provision on request
State Supplied IP requests (including data)	State supplied items must be specified in the Project plan approved by the PCB.	<ul style="list-style-type: none"> The BNHCRC Lead Research Manager must ensure Project Plans forwarded to the PCB for approval include all details of requests for State Supplied IP (including data) required to undertake the project. 	

	<p>All parties acknowledge that the provision of data takes significant time and resources and undertake to minimise the impact of data requests while maximising project's potential.</p>	<ul style="list-style-type: none"> • Once approved by the PCB the BNHCRC will provide a list of these items to the DELWP Policy Lead and Governance Support person who will coordinate their provision. • Any further requests for State Supplied items should be notified to the BNHCRC who will inform DELWP in writing as soon as practicable and refer the request to the PCB for Noting. • A minimum of 60 days' notice is required for the provision of requested State IP (including data). • Where the State is unable to provide the IP (including data items) in accordance with the request the DELWP Policy Lead will liaise with the Lead Researcher to identify alternative materials which will not compromise the delivery of the project outcomes and identify the impact and action they are taking to mitigate that risk. • Where the State is unable to provide the IP set out in the project plan or otherwise requested the Lead Researcher must identify this in the Risks section of the Quarterly Report. • At the completion of the Project the BNHCRC is responsible for the return or destruction, at the State's Representative discretion, of any State Supplied items. <p>Responsibility: BNHCRC, DELWP Policy Lead, DELWP Governance Support person, Lead Researcher</p>	
Publication	<p>The State must provide written consent before the BNHCRC or any Research Organisation publishes Intellectual property.</p>	<ul style="list-style-type: none"> • The Research Leader should ensure any material proposed for publication, either as the product of a project or as a formal publication has completed an internal quality review process prior to submitting the material to the BNHCRC for DELWP review. • All material should acknowledge the contribution of DELWP and the BNHCRC. • The BNHCRC will ensure any material proposed is provided to the State Representative and the DELWP Policy Lead for that Project which it is associated. <p>Material as a product of the project:</p> <ul style="list-style-type: none"> • The State will review and provide comments to the BNHCRC and Research leader within 30 days. 	

		<ul style="list-style-type: none"> • Approval to finalise the product may be provided by the State. • The State may respond by providing comments in writing to which the Research Leader will respond by adapting or modifying the material to address the State's comments. • The material will then be re-submitted for approval. • In the event that the Research Leader is unable to satisfactorily address the matter raised by the State this must be explained in writing and will be considered by the PCB. • The State may refuse an approval of the material based on failure to deliver within the Project Objectives and/or Milestones. • If the Research Organisation and the State are unable to come to an agreement on the form or content of any material, the dispute resolution procedure may be invoked • The final material must be provided to the State. <p>Formal publications – including submission for journal publication:</p> <ul style="list-style-type: none"> • After receipt of proposed material, the State though the BNHCRC will then determine its consent and respond in writing to the applicant and the BNHCRC within 30 days. • The State may respond that it requires further time to consider the request. • The State may refuse a publication request. • The State may approve a publications request and place binding conditions on that approval. • In the event that the Research Leader is unable to meet the conditions imposed by the State this must be explained in writing and will be considered by the PCB. • If the Research Organisation and the State are unable to come to an agreement on the form or content of any material the dispute resolution procedure may be invoked • The final publication must be provided to the State. <p>Responsibility: BNHCRC Lead Project Manager, DELWP Policy Lead, State's Representative.</p>	
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Emergency Risk Management Project Plan

ERP xx: (Insert title)

This project plan has been prepared to support the delivery of the project named above. The delivery of this project and the implementation of this project plan will be governed in accordance with the Emergency Risk Management Research Projects Agreement between the Department of Environment, Land Water and Planning, and the Bushfire and Natural Hazards CRC.

This Project Plan should be prepared in consultation with the nominated DELWP Policy Lead.

Guidance notes are provided in red and should be deleted before submission.

Duration	(insert mm/yyyy to mm/yyyy)
Research Leader	Name Title Organisation Address Telephone Email address
DELWP Lead	Name Title Department of Environment, Land Water and Planning Address Telephone Email address

Document Amendments

Version	Date	Summary of Changes	Author
1.0	dd/mm/yy	Initial draft	Name

Introduction and Context

Policy drivers

Which DELWP Policy questions are addressed by this research?

Policy implementation questions

What the research is intended to achieve.

Research approach

What the research is intended to achieve and broadly what the approach will be achieving these outcome through this research.

Project Details

History? (1-3 pages?)

Research question/s and context

Outline the research questions for this project. It would be useful to mention how you build on/ complement/or leverage existing research.

Linkages to the other research

How will the project connect with other current research and integrate (if integration is relevant)?

Methodology and Activities statement

Provide a brief overview of the activities and methods intended to used conduct the research including timeframes.

Please indicate the person who will be responsible for the conduct of each component of the work.

Any ethics approvals required for the work must be noted.

Key outputs

This section should expand on the material developed/represented in the response to the Call for Expression of Interest.

Products, services, etc.

Outcomes

This section should expand on the material developed/represented in the Call for Expression of Interest.

Outline how the research will impact – for instance informing policy, enabling future research or tool development, delivering a tool. Include how and evidence for the claim.

Quality Control Processes.

This section should document the internal quality control processes to be used

Success measures

What are the Key Performance Indicators for this Project? How will this project demonstrate its contribution in terms of both addressing Policy Implementation Questions and delivering quality research?

Collaboration and potential Interdependencies

Who are the partners in this project? (Who will the project have dialogue, knowledge exchange, conversations, or stakeholder engagement with?). How will the project connect with other research (I.e. CSIRO, BoM, and RMIT)?

How the project will rely on, or contribute to other research projects.

Milestones (by output if required)

No.	Activity	Key output	Due date	Payment against Milestone (\$ excl GST)
1				
2				
3				
4				
5				
6				
7				
8				

Should equipment /extraordinary payments be required please include them here as a milestone.

State Supplied Items

Researchers must provide details of any State Supplied Items in particular the datasets required from DELWP for delivery of this project's milestones. These will become Schedule A to this Project Plan. Data and other items can only be used in accordance with the terms and conditions negotiated by the DELWP Policy Lead with the relevant DELWP data custodian.

Additions and deletions to Schedule A can be incorporated over time but must be negotiated with the policy lead and documented in Quarterly Reports.

It is acknowledged that negotiation of access to DELWP's commercial data will require separate Data Access Licence Agreements to be negotiated with DELWP. These will not be included in the SSI schedule though courtesy notification via project updates of the establishment of any new DALA may assist others in the program.

Risks and Mitigation Plan

No.	Risk	Likelihood	Consequence	Mitigation
1				
2				
3				
4				
5				
6				
7				
8				

Budget (excluding GST -Cash and in kind must be documented)

Item	FY (\$)	FY (\$)	FY (\$)	FY (\$)	TOTAL (\$)
Cash Budget allocation					
Salaries (including on-costs)					
Administrative overheads					
Operating expenses					
Equipment /extraordinary purchases					
TOTAL					
Fund Source/s					
BNHCRC					
Other (please specify)					
In Kind Contributions					
Other (please specify)					
TOTAL					

Participants

Research Organisation

Name	Project role	Expertise brought to project	Time (FTE)
	Primary contact....		0.xx
	In kind contribution...		
FTE Total			

DELWP policy/program staff

Name	Project role	Expertise brought to project	Time (FTE)
	Policy Lead		0.xx
			0.xx
FTE Total			

External collaborators

Name	Organisation	Expertise brought to project	Comments (including payments if required)

Project Plan Approval

Policy Lead Sign Off

Project Plan must be approved by the DELWP Policy Lead before submission to the PCB

.....
Name

.....
Date

Project Control Board Approval

Approved by PCB on(Date).....(minuted/out of session)

Schedule A – State Supplied Items

ANZLIC ID	SSI Name	SSI Title	Object type
Please list all datasets required from DELWP to complete this project			

Insert title (use Shift+Enter for a forced line break)

Insert subtitle (use Shift+Enter for a forced line break)



How to insert an image into the placeholder:

1. Click carefully on the word *Here* above to select the picture placeholder. Once selected you'll see 8 picture placeholders appear around this black rectangle image which is the picture placeholder.
2. On the DELWP ribbon click **Picture Fill**. Select your picture and press **Insert**.
3. On the DELWP ribbon click **Crop to Fill** to lock the picture aspect ratio (stops distortion of the image). You can now resize your picture manually and drag it into the desired position in the window.

NOTE: If image not required, carefully click on the word *Here* above to select the picture placeholder, then on the DELWP ribbon, click **Fill White**.

Insert Division/Sub heading/Date/etc. Delete this text box if not needed.

Acknowledgements

Click here to begin typing. For text in this section please use styles Small Heading, Small Body Text and Small Bullet. Delete paragraph if not required.

Author

Insert authors full details eg Name, address, contact details, ext, etc. For text in this section please use styles Small Heading, Small Body Text and Small Bullet. Delete paragraph if not required.

Editor

Click here to begin typing. For text in this section please use styles Small Heading, Small Body Text and Small Bullet available. Delete paragraph if not required.

Photo credit

Click here to begin typing. For text in this section please use styles Small Heading, Small Body Text and Small Bullet. Delete paragraph if not required.

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Styles

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Headings 1-4.

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Intro/Feature Text

Body Text

List Bullet (levels 1-3)

List Number (levels 1-3)

Appendix Title, Appendix Heading 1-3

Highlight

To insert a highlight box, on the DELWP menu click DELWP Insert > Highlight Box.

Tables

Use table styles to format your table. The table design is Table Grid. Once your table is inserted, apply Table paragraph styles to your text, e.g. Table Text Left, Table Text Bullet, Table Text Numbered, Table Heading, Footnotes, etc.

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Heading 2

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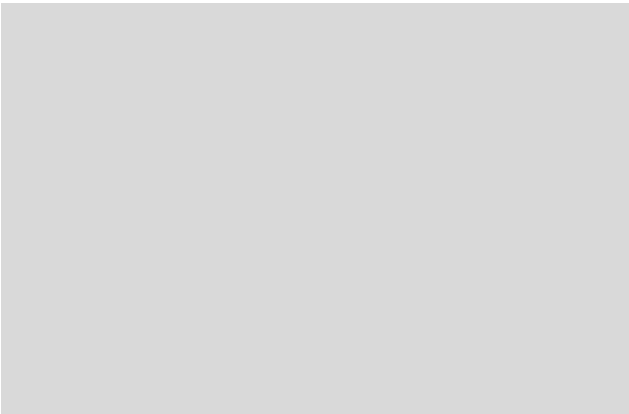


Figure 1: <Title text>

Credit: Insert photo credit name and organisation details

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Table 1: Caption text

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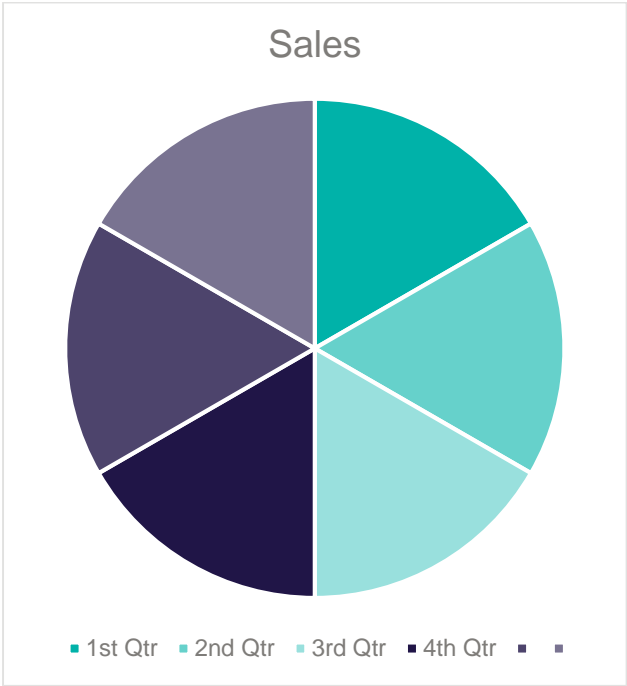


Figure 2: Caption text

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Appendix A Appendix Title

Use Appendix Styles in appendices to ensure your table of contents comes together correctly, i.e. only the Appendix Title should appear in the Table of contents.

Appendix Heading 1

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Appendix Heading 2

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Appendix Heading 3

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Quarterly Report for DELWP Insert Project Name
Period January - March 2016

Project Details

Project Title	
BNHCRC Project Manager	
State Subject Matter Expert	
Research Organisation*	
Researchers*	

* Lead Research Organisation/Researcher responsible for project delivery named first

Project Aims (from EOI)**Discussion of Key Activities undertaken in reporting period****Status of Researcher contracted deliverables and milestones**

Item	Comment

Changes to milestone delivery dates agreed with the DELWP Policy Lead and provided for consideration by the Project Control Board.

Milestone and Contracted Date of Delivery	Proposed Delivery Date, Reason for Delay and any Impact on other Deliverables

Continued Next Page

Key Activities contributing to deliverables and milestones in the next quarter

Risks and Issues

Item	Comment

ATTACHMENTS TO QUARTERLY REPORT

DELWP BUSHFIRE EMERGENCY RISK MANAGEMENT RESEARCH PROJECTS FINAL EVALUATION REPORT

ERP Insert Number Insert Project Title

PREPARED Insert date report is prepared

APPROVED Insert date approved by States Representative

LEAD RESEARCHER	
LEAD RESEARCH ORGANISATION	
RESEARCH COMMENCEMENT DATE	
COMPLETION DATE	
RESEARCH DELWP POLICY LEAD/S	

Financial Report

TOTAL PROJECT FUNDS	PROJECT MANAGEMENT FEE	RESEARCH FEE	OTHER	BALANCE

Project Outcomes & Highlights Quantifiable outcomes of the Project

We need to ensure this is not about “outputs” but instead the link between project objectives and outputs. What are the Highlights of the project? Policy or operational implications¹

Project Performance? Assessment

How successful was the project in delivering against the Objectives of the projects? What significant enablers occurred and facilitated the project? What risks or issues emerged during the project, how were they resolved/mitigated? How did this project connect with other projects, and what impact did this have? Include a range of factors including project relationships, access to resources, timelines, etc.

Communication, consultation, and relationship management.

How did this project connect with other projects, and what impact did this have? Include a range of factors including project relationships, access to resources, timelines, etc.

¹ Text show in blue is provided as guidance. For further information please contact the Bushfire and Natural Hazards CRC Project Manager.

- *Summary of consultation or communication undertaken with the Community and Stakeholders during the term of the project;*
- *Assessment of the effectiveness of the above activities, including Community and Stakeholders responses to the Project.*

Learning and Adaptation

Based on the Project Assessment, what learning is valuable for adapting future research projects (future implications)?

- *Discussion of key lessons learned from the project in terms of planning and implementation.*
- *If the process were to begin again, what would / could be done differently to achieve a better outcome.*

Summary of Outputs *Reports, publications, milestones.*

Table 1 Milestones in Project Agreement**Potential Research Utilisation****Policy Lead Comments**

Report Prepared By

Date: