

## **New Zealand Fire Service Contestable Research Fund Instructions for Preparation of Expression of Interest 2008-2009**

Applicants are invited to submit an expression of interest, which must be prepared using the following guidelines. To ensure consistency and fairness in the assessment of projects, the deadlines, page limits and headings given herein must be adhered to. Applicants should familiarise themselves with the Statement of Strategic Direction of the New Zealand Fire Service which may be viewed on the web page:

<http://www.fire.org.nz/about-us>

Applicants should also study the research reports arising out of work already carried out under the Contestable Research Fund in previous years to avoid duplication:

<http://www.fire.org.nz/research>

The Commission has prepared a set of briefing documents for particular projects (attached) but applicants are free to offer other research proposals that align with the Commission's strategic objectives.

### **Deadline**

Expressions of Interest must be received by **5.00 pm Friday 7 November 2008** addressed to

Mailing address:	Physical address:
Fa'a Parsons	Fa'a Parsons
New Zealand Fire Service	or New Zealand Fire Service
PO Box 2133	Level 9, AXA House
Wellington	80 The Terrace
New Zealand	Wellington
	New Zealand

### **Submission Layout**

There is a page limit of 3 pages and text shall be in a font of Times Roman, type size of no smaller than 11 point, and in portrait layout. Applicants must submit seven (7) copies of the expression of interest: **Applications by e-mail and/or facsimile will not be accepted.**

### **Information Required**

The following information is required to be included in the expression of interest:

- Name and address of the organisation expressing interest
- Name and address of individual with whom contact should be made
- Title of project (no more than 14 words)
- Brief description of project aims and objectives, methodology, outcomes
- Estimated cost and duration
- Capability statement from organisation expressing interest
- Description of the staff to be involved in the project
- Identification of some recently completed research projects

### **Evaluation**

Expressions of interest will be evaluated by a panel appointed by the New Zealand Fire Service Commission, based solely on the information provided by the applicants in the expression of interest submission. Once the submissions have been evaluated, a shortlist of suitable research projects will be drawn up, and applicants invited to prepare a detailed research proposal. All those submitting an expression of interest will be notified in writing of the panel's decision by **early December 2008**.

Note: The Fire Service has a database record of all its activities since 1986, including information on all fire incidents. Applicants with projects which involve using Fire Service data should contact the Service's information analysts first and ascertain the availability and the reliability of the information required. The application should include evidence that the Fire Service is able to supply the information within the required timeframe for the project.

Contact details are:

*For all incident and fire information:*

Neil Challands

Information Analyst

Telephone (4) 499 0004 (direct)

e-mail [neil.challands@fire.org.nz](mailto:neil.challands@fire.org.nz)

Fax (4) 496 3731

*For fire weather information:*

Jacqueline Hovens

Spatial Analyst

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Fax (04) 496 3731

## **Delivery mechanisms for hard to reach groups**

### **Introduction**

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The New Zealand Fire Service Commission has identified a series of at-risk groups to which fire safety messages and campaigns need to be targeted. The Fire Service conducts a fire knowledge survey every year to highlight within the general public whether there is an improvement in fire knowledge. These surveys have shown a statistically significant improvement over a number of years in the knowledge that people have about fire behaviour and fire prevention. However, the survey does not, in general, reach statistically significant populations within the identified at-risk groups, namely:

- Children
- People on low incomes
- People living in rental accommodation
- Ethnic groups including Maori and Pacific peoples
- Rural communities
- Older people
- People with special needs
- Commercial/manufacturing/retail sector

There is a need, to see whether the methods the Service is employing to reach these targeted groups are the most effective.

### **Project Purpose**

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The project purpose is to ensure that the New Zealand Fire Service has the appropriate delivery mechanisms in place to ensure that our key messages are reaching our targeted communities.

### **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

- analysis of the challenges associated with measuring changes in at-risk groups' knowledge and behaviour;
- specific measures that could be attached to fire service achievements in influencing at-risk groups;
- recommendations as to cost-effective survey methodologies for at-risk groups.

Researchers are invited to suggest other areas for consideration but should note that recent work has evaluating programmes for Maori populations and school children have recently been completed.

### **Project Team**

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in marketing

#### **Project Team Members:**

The researchers will propose a project team with an appropriate mix of marketing and technical skill to meet the project objectives.

## **Timelines**

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The project to commence in March 2009.

## **Previous Research**

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## Determining the national economic value of a volunteer fire brigade

### Introduction

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Volunteer fire brigades in small communities are expensive to run but are usually the only coordinated local response to emergencies and crises in the community. They provide the community with a focus, a sense of security and self sufficiency as well as being a regular source of external investment. The Fire Service Commission recognises that most of the benefits from small fire brigades are non-monetary and vary considerably over time while the costs are more immediate. To facilitate the national planning for strategic emergency management the Fire Service wishes to develop a model for measuring the economic value of brigades in maintaining safe and sustainable communities. In addition it is anticipated that explicitly stating the benefits to the community from the brigade will help with brigade recruitment.

### Project Purpose

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The project purpose is to provide the Crown with a means of placing an economic value of maintaining volunteer fire brigades in small communities. From the perspective of the local community the purpose is to help them to quantify the advantages/disadvantages of maintaining their local brigade.

### For further information contact

Neil Challands  
Strategic Information Analyst  
New Zealand Fire Service  
email [neil.challands@fire.org.nz](mailto:neil.challands@fire.org.nz)  
Tel (4) 499 0004  
Fax (4) 496 3700

### Specific Areas of Focus

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The Project will include, but is not limited to, the following deliverables:

- Literature review of similar investigations
- The identification of the full monetary benefits including multiplier effects accruing to the local community
- Value for the non-monetary benefits accruing to the local community
- Value the national economic benefits from local emergency planning and capability
- Any local/national limitations which may impact on optimising the local/national benefits.

Researchers are invited to suggest other areas for consideration.

### Project Team

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

## **Timelines**

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The project to commence in March 2009

## **Previous Research**

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## **What impact have the change in building materials and design in housing had on the cost and damage of fires.**

### **Introduction**

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The New Zealand Fire Service Commission has responsibility for promoting fire safety in the home in order to reduce the incidence of fire. This is undertaken within a framework of public education and building and product regulation. Overall, the Commission wants to be able to determine the impact a range of factors have on the damage caused by fires to houses. This research topic focuses on the impact that changes in building materials and design in housing have had the level of damage from fire and the resulting cost.

### **Project Purpose**

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The project purpose is assess the impact that changing building materials and design of houses has had on the level of damage from fire and the resulting cost of that damage.

#### **For further information contact**

David McNaughtan  
Manager Strategy  
New Zealand Fire Service  
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Tel (4) 496 3672  
Fax (4) 496 3731

### **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

- Determining the key changes in building materials that have impacted on fire damage in houses.
- Determining the key changes in building design that has impacted on fire damage in houses.
- Assessing the impact each of these key changes in building materials and design has had on fire damage.
- Documenting the method so that the project can be repeated for the purpose of ongoing monitoring.

Researchers are invited to suggest other areas for consideration.

### **Project Team**

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**Project Sponsor** – Manager Strategy, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### **Timelines**

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The project to commence in March 2009

## Previous Research

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## **Measuring the value of the content losses sustained in both residential and commercial fires**

### **Introduction**

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The Fire Service routinely determines the nominal value of damage to the structure from flame for all fires in residential and commercial buildings. In order to better determine the nominal cost from building fires we would like to develop a model to enable a measure of the damage to building contents. Damage to the contents will come primarily from flame and smoke, and to a lesser extent from firefighting water and firefighting control. It is recognized that damage to contents in any fire is highly variable and any model is likely to derive nominal values only but the primary intention is to monitor changes over time. The contents of residential and office premises are likely to be far more uniform than for retail/manufacturing premises.

### **Project Purpose**

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The project purpose is to develop a practicable model to enable the nominal valuation of damage to building contents for each fire. Information for input into the model may not be currently collected by the Fire Service but needs to be practicable to collect.

#### **For further information contact**

Neil Challands  
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Tel (4) 499 0004  
Fax (4) 496 3700

### **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

- Consideration of possible models
- Determine a post-hoc value of content loss for historic fire(s)
- Review of possible information sources, availability and accessibility
- Determine the practicability of routine modeling of value of damage to contents

Researchers are invited to suggest other areas for consideration.

### **Project Team**

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### **Timelines**

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The project to commence in March 2009

## Previous Research

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

# **Development of a low cost sprinkler system suitable for Marae, community halls, churches and other places of special or historical interest**

## **Introduction**

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Each year the Fire Service is called to about 6 fires in Marae buildings, and 25 to 30 fire incidents that occur in buildings which are reported to have been built prior to 1901. Such incidents have resulted in significant damage or complete destruction of these buildings, with no automatic fire suppression installed. The consequences are often loss of irreplaceable national assets in terms of buildings, their contents and community amenities.

In 2002 a New Zealand Standard governing residential sprinkler systems for houses was introduced; NZS 4517:2002 – Fire sprinkler systems for houses. A growing number of home owners are installing sprinkler systems in their homes since the 2002 standard was introduced. However, there are a growing number of building owners that are installing a home sprinkler system in their buildings, outside the current scope of NZS4517:2002. This situation has arisen because many building owners, especially of high historical or cultural value buildings, such as Marae are desperate to prevent potential loss due to fire. They are prevented from installing a commercial type sprinkler system due to their high cost and on-going maintenance charges, thus putting this technology outside their reach.

Although commendable that these owners are trying to improve the fire protection and safety in such buildings, the effectiveness of these systems is not proven in occupancies other than houses. So it is uncertain whether they will work as intended. As these are voluntary sprinkler systems, building owners are not restricted from doing this work. However, with appropriate research, a Standard can be developed that will guide building owners in best practice to mitigate their particular fire risk.

## **Project Purpose**

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This project aims at developing a low cost sprinkler system suitable for fire risks associated with Marae, community halls, churches and other places of special or historical interest. The project aims to investigate the current limitations of NZS4517:2002 in terms of area cover, ceiling height, ceiling/roof angles, obstructions and fire load/fire growth rates, thereby investigating how it can be extended to protect these types of buildings.

## **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

- Literature review of relevant texts
- Risk associated with such building structures and relevant analysis work
- Design criteria and design parameters
- Cost/benefit analysis
- Recommendations for review

Researchers are invited to suggest other areas for consideration.

## **Project Team**

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### **Timelines**

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Project to commence in March 2009.

### **Previous Research**

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## **Cost/benefits of single sprinkler head installations for kitchens**

### **Introduction**

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Kitchens represent the highest risk of fire in a residential home. Since 2002, the New Zealand Fire Service has been called to in excess of 8,500 kitchen fire incidents. Per annum, this figure represents between 1,300 and 1,800 kitchen fires. The estimated average financial damage to residential homes due to kitchen fires on an annual basis is \$13 million.

A single sprinkler head for many of the kitchens located in older style homes could potentially cover a 3.6m x 3.6m area. Such heads would deliver approximately 45L/min, so sufficient water could be supplied with the existing domestic water supply.

### **Project Purpose**

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The purpose of this project is to investigate the cost and benefits of installing a single sprinkler head for kitchens in residential homes. Kitchen fires represent the highest occurrence of fires in the home and as such a single sprinkler head installed to mitigate such a risk could provide an effective solution for minimal cost. Given that kitchen fires occur in both urban and rural homes, the project would also focus on whether the costs and benefits of such a solution would vary given the location of a home and associated water supply, reticulated or otherwise.

### **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

- Literature review of relevant texts
- Risk associated with such building structures and relevant analysis work
- Design criteria and design parameters
- Assessment of urban versus rural installations
- Cost/benefit analysis for retrofit and new installations
- Recommendations for review

Researchers are invited to suggest other areas for consideration.

### **Project Team**

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### **Timelines**

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Project to commence in March 2009.

## **Previous Research**

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## **Development of an approved training course for home sprinkler design**

### **Introduction**

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Current training in the design of home sprinkler systems in New Zealand consists of one three-day block course. This block-course is delivered by a single provider. The required level, skills and competencies of training for home sprinkler design practitioners requires further research, to enable practitioners to exit such training courses with a credible and sustainable ability to deliver this service reliably to the home sprinkler market.

As there are significant complexities in house design, water supplies including the importance of pump design to all rural applications, sprinkler head types, etc, it is vital that the training given is sufficient and recognised nationally, including by insurers, Building Consent Authorities and the New Zealand public.

### **Project Purpose**

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The project aims to develop an approved training package that is supported within the industry and which includes a process for continuing professional development in order to maintain their skill base and expertise.

Current training is not at present NZQA registered, however, it is intended that any course developed would be NZQA registered and approved. It is envisaged that the development of a recognised training course would comprise of three core modules, those being the design, installation and validation of a home sprinkler system.

### **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

- Literature review of relevant texts
- Course module and material development
- Inclusion of urban versus rural installations
- Cost/benefit analysis
- NZQA registration and approval
- Recommendations for review

Researchers are invited to suggest other areas for consideration.

### **Project Team**

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### **Timelines**

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Project to commence in March 2009.

## **Previous Research**

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## **Assessing the impact that house fires and vegetation fires have on Green House Gas (GHG) emissions and the impact Fire Service actions have on the GHG emissions from those events.**

During 2007/2008 the New Zealand Fire Service established its baseline level of Green House Gas (GHG) emissions from its operations. The calculation of the baseline level of GHG emissions included the fuel and energy used at emergency incidents but did not include the impact of emergency incident itself. The New Zealand Fire Service would like to understand the full impact on GHG emissions levels from fire incidents in New Zealand. The project is split into two parts.

Part one: The New Zealand Fire Service seeks to establish the annual level of GHG emissions as a result of house fires and vegetation fires in New Zealand.

Part two: The New Zealand Fire Service seeks to measure the impact its actions have on the level of GHG emissions for house fires and vegetation fires.

### **Project Purpose**

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The project purpose is to ensure that the New Zealand Fire Service understands and can measure:

- the level of GHG emissions from house and vegetation fires
- the impact New Zealand Fire Service actions have on the level of GHG emissions from those incidents.

The project will need to establish a method for estimating the level of GHG emissions resulting from house fires and vegetation fires and provide the New Zealand Fire Service with the method so it can monitor levels of GHG emissions in the future. It will also need to establish a method for estimating the impact New Zealand Fire Service actions have on the level of GHG emissions from house fires and vegetation fires and provide New Zealand Fire Service with the method so it can monitor levels of GHG emissions in the future.

### **For further information contact**

David McNaughtan  
Manager Strategy  
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email david.mcnaughtan@fire.org.nz  
Fax (04) 471 1791

### **Specific Areas of Focus**

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The project purpose is to ensure that the New Zealand Fire Service has:

- A baseline measure of GHG emissions from house fires.
- A baseline measure of GHG emissions from vegetation fires.
- A method for calculating the ongoing emissions resulting from house fires and vegetation fires.
- A method for calculating the impact New Zealand Fire Service actions have on the levels of GHG emissions resulting from house fires and vegetation fires.

Researchers are invited to suggest other areas for consideration.

## **Project Team**

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**Project Sponsor** – Manager Strategy, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

## **Timelines**

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The project to commence in March 2009

## **Previous Research**

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## Review of the language lexicon for fire and emergency incident information

### Introduction

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The New Zealand Fire Service Commission collects a considerable amount of technical, social and environmental information in relation to its emergency work. Information is gathered by fire fighters at the emergency incident and then transferred to a database through selecting from drop-down lists of options in a web-based data collection system. Fire fighters come from a broad cross-section of the community with diverse cultural and educational backgrounds. There is a perceived mismatch between the technical terminology of the data collection system and the technical understanding of many of the people expected to collect and input the information. The Fire Service desires to adopt a terminology in its data collection which matches common understanding in order to optimize the accuracy of the information collected.

### Project Purpose

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The project purpose is to develop a dictionary of terminology relevant to fire service emergency activity which conforms to a common understanding among volunteer and permanent fire fighters from diverse backgrounds. It is intended for this dictionary to be used subsequently to modify the data collection system in order to align it with the lexicon.

### For further information contact

Neil Challands  
Information Analyst  
New Zealand Fire Service  
email [neil.challands@fire.org.nz](mailto:neil.challands@fire.org.nz)  
Tel (4) 499 0004  
Fax (4) 496 3731

### Specific Areas of Focus

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The Project will include, but is not limited to, the following deliverables:

- The compilation of list of applicable technical, social and environmental terms and their definitions;
- Investigation of the common understanding of the terminology or alternative terminology
- The recommendation of a set of terminology to meet the needs of people from diverse backgrounds

Researchers are invited to suggest other areas for consideration.

### Project Team

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### Timelines

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The project to commence in March 2009

## Previous Research

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## **How on-line collection methods affects data quality**

### **Introduction**

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The New Zealand Fire Service Commission collects data on over 60,000 incidents it and other fire authorities attend annually. Nearly all data is inputted by those attending the incident via a web tool. The quality of data collected is variable for a number of reasons and this affects the reliance that can be placed upon it for reporting and other purposes.

Data is entered by a wide range of users including professional firefighters and volunteers.

New Zealand Fire Service Commission is particularly interested in understanding the factors (including interfaces, human factors etc) involved in collecting accurate data such that collection mechanism may be improved.

### **Project Purpose**

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The purpose of the project is to gain understandings of the factors (including interfaces, human factors etc) involved in collecting accurate data via the web so that current collection mechanisms may be improved.

### **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

- review of human factors
- review of interface factors
- review of business rules
- recommendations

Researchers are invited to suggest other areas for consideration.

### **Project Team**

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### **Timelines**

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Project to commence in March 2009.

### **Previous Research**

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## **Development of Assessment Tools for Rural Service Delivery**

### **Introduction**

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The National Rural Fire Authority (NRFA) has a legislative requirement to assess the performance of Rural Fire Authorities (RFAs). Little work has been undertaken to develop methods that measure outputs or outcomes of the effectiveness of RFAs.

Considerable effort has been invested by the NRFA in recent years in developing a Wildfire Threat model, that spatially analyses a set of relevant parameters (eg likelihood of fire starts, opportunity for fire spread, value of the land under threat) for predicting the threat of wildfire. What is now needed is a further step that combines these parameters to allow a quantitative ranking of the threat on a spatial basis, based on a robust methodology. RFAs would then be able to use this ranking in determining where to allocate resources. Details of the Wildfire Threat Analysis project may be found on the NRFA website.

Once a wildfire has become established, timely response of the RFA with the right balance of resources is essential to minimise the impact and bring the event under control. Measurement of inputs on how a RFA delivers the undertaking of effective fire control measures is relatively easy. What is needed now is a way of benchmarking RFA responses against a soundly-based set of performance standards that recognises the need to optimise response against cost and resource constraints.

### **Project Purpose**

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To develop key performance measures which allow the NRFA to assess RFAs in the delivery of effective fire control measures.

### **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

#### Part 1

- Development of an assessment model for the application of the Wildfire Threat for rural fire hazard.

#### Part 2

- Develop a model for assessment of timely response to rural fires.

Researchers are invited to suggest other areas for consideration.

### **Project Team**

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**Project Sponsor** – National Rural Fire Officer, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### **Timelines**

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The project to commence in March 2009

## Previous Research

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## **Fire Service contribution to Other Agencies' Mandate / Fire Service impact on non-fire emergencies**

### **Introduction**

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The emergency response component of the Fire Service's business is increasingly directed to non-fire emergency incidents. The Fire Service responded to 71,690 emergency incidents during 2006/2007. The main categories were:

Fires	25,181
Hazardous emergencies	3,291
Medical emergencies	4,385
Motor vehicle incidents (excluding fires)	5,821
False alarms	26,482
Other emergencies	6,530

The key trend over the last few years was the increasing proportion of non-fire related incidents the Fire Service attends. In 2006/2007 29% of incidents were to non-fire related emergencies compared to 24% in 2000/2001.

A similar but less pronounced trend is also evident in the non-emergency component where a variety of public safety and welfare agencies find it useful to call on the non-adversarial fire fighter role model to moderate the high risk behaviour of youth and other groups.

### **Project Purpose**

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The Commission is interested in considering research proposals that would provide a framework for assessing the value and impact of the Fire Service's contribution to non-fire roles and to other agencies mandates.

### **Specific Areas of Focus**

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The Project will include, but is not limited to, the following deliverables:

- Developing a framework for assessing the value and impact of the Fire Service's non-fire role
- Assessing the value of the Fire Service's non-fire role
- Assessing the impact the Fire Service has on non-fire outcomes.
- Recommending a set of long-term measures for monitoring the Fire Service's non-fire role.

### **Project Team**

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**Project Sponsor** – Manager Strategy, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

## **Timelines**

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The project to commence in March 2009

## **Previous Research**

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)

## Measuring the real economic cost of wildfires

### Introduction

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The Forest and Rural Fires Act 1977 has as its purpose to safeguard life and property by the prevention, detection, control, restriction, suppression and extinction of fire in forest and rural areas and other areas of vegetation. 'Control and restriction' acknowledges that fire is also a land management tool with a long tradition in NZ. Data collected by the Fire Service attempts to identify the type and extent of vegetation burned in vegetation fires but no consideration is given to the economic utility of either the land, vegetation or the fire. The Fire Service would like to be able to determine a national cost of fires in vegetation.

### Project Purpose

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The project purpose is to develop a practicable model to determine a net economic cost from wildfires over medium and longer term timeframes.

#### For further information contact

Neil Challands  
Strategic Information Analyst  
New Zealand Fire Service  
email [neil.challands@fire.org.nz](mailto:neil.challands@fire.org.nz)  
Tel (4) 499 0004  
Fax (4) 496 3700

### Specific Areas of Focus

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The Project will include, but is not limited to, the following deliverables:

- Literature review and conceptual model of how the net cost of wildfires might be determined
- Determine a post-hoc cost of wildfires over short, medium and longer timeframes
- Determine the practicability of routine measuring of the net cost of wildfire

Researchers are invited to suggest other areas for consideration.

### Project Team

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**Project Sponsor** – Director Fire Risk Management, New Zealand Fire Service

**Project Leader and Technical Advisor** – the researchers will propose a suitably qualified individual with specialist skills in the areas identified.

**Project Team Members** - The researchers will propose a project team with an appropriate mix of technical skill and analysis.

### Timelines

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The project to commence in March 2009

### Previous Research

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Research are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work [www.fire.org.nz](http://www.fire.org.nz)