

New Zealand Fire Service Contestable Research Fund Instructions for Preparation of Expression of Interest 2011-2012

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 Monday 29 November 2011** addressed to

Mailing address:		Physical address:
Abi Davidson		Abi Davidson
New Zealand Fire Service	or	New Zealand Fire Service
PO Box 2133		Level 9, AXA House
Wellington 6140		80 The Terrace
New Zealand		Wellington 6011
		New Zealand

Submission Layout

There is a page limit of 3 pages and text shall be in a font of Arial, 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 2011**

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 in the required timeframe for the project.

Contact details are:

For all incident and fire information:

Neil Challands

Information Analyst

Telephone (04) 496-3695 (direct)

Fax (4) 496 -3700

e-mail neil.challands@fire.org.nz

For fire weather information:

Heiko Philippi

Team Leader Spatial Information

Telephone (04) 496-3747 (direct)

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e-mail heiko.philippi@fire.org.nz

Delivery mechanisms for hard to reach groups

Introduction

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, and to develop soundly-based programmes to reach these people.

Project Purpose

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

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; and
- how the effectiveness of any proposed programmes would be evaluated.

Project Team

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 and evaluation.

Project Team Members:

The researchers will propose a project team with an appropriate mix of skills to meet the project objectives.

Timelines

The project to commence in March 2012.

Previous Research

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

Development of a micro-simulation statistical model for household fire risk identification

Introduction

Risk from residential building fires is known to be influenced by a number of factors such as socio-economic status, disability, building standards, alcohol consumption, home ownership and home heating systems.

The Fire Service, possibly in joint venture with other agencies, wishes to develop a microsimulation model that would allow it to assess residential fire risk to at least statistical meshblock level and preferably to household units.

Project Purpose

The project purpose is to achieve a synthesis of data from various sources to provide a more detailed spatial model of risk from residential property fire.

Ideally the unit for simulation would be the household or dwelling but it is recognised that this may not be possible and researchers are free to choose whatever unit they consider appropriate.

Possible data sources include (but are not limited to) the

- Statistics NZ Confidentialised Unit Record File (CURF)
- Valuation and property data
- Statistics NZ housing quality data
- Fire Service data on fire history per address (spatial data)
- Fire Service fire risk assessments per address (patchy)
- Fire Service Fire Knowledge Survey results

For further information contact

Neil Challands
Information Analyst
New Zealand Fire Service
email neil.challands@fire.org.nz
Tel (4) 496 3695
Fax (4) 496 3731

Specific Areas of Focus

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

- literature review,
- identify spatially available demographic, political, housing, environment and cultural data relevant to identifying individual units at particular risk from fire in accordance with previous research undertaken for the Fire Service,
- determine whether a static or dynamic model would be appropriate,
- develop the model,
- produce risk maps,
- determine a confidence framework for the model.

Project Team

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

The project is expected to commence in March 2012 but the timeframe can be varied for a joint venture arrangement

Previous Research

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

Measures of effectiveness for social marketing campaigns

Introduction

The New Zealand Fire Service Commission uses social marketing to deliver fire-safety education to the general public and individuals who have been identified as being the most vulnerable to harm as a result of fire.

The social marketing model achieves sustained changes in social behavior through:

- raising awareness
- changing people's views
- changing people's behaviour
- maintaining behavioural change.

Every year the Fire Service conducts a fire knowledge survey of the general public to understand 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.

There is a need, however, to see whether social marketing campaigns that have been targeted at specific groups have been absorbed, and whether risky behaviours in those groups have been reduced as a result.

The New Zealand Fire Service Commission wishes to initiate a project to look developing measures, and potentially tools, for evaluating the effectiveness of its social marketing campaigns.

Project Purpose

The purpose of this project is to ensure that the New Zealand Fire Service has systems in place to evaluate and demonstrate the benefits of its social marketing campaigns.

Specific Areas of Focus

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

- literature review
- how the effectiveness of any proposed New Zealand Fire Service programmes would be evaluated
- it may include the development of specific evaluation tools.

Researchers are invited to suggest other areas for consideration.

Project Team

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

Project to commence in March 2011

Previous Research

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

Cost-benefit studies to support legislative change to improve fire safety

Introduction

Under section 20 of the Fire Service Act 1975, it shall be a matter of prime importance for the New Zealand Fire Service Commission to take an active and co-ordinating role in reducing the incidence of fire and the attendant risk to life and property.

One way of achieving this may be by law change.

However, proposed changes to statutes in New Zealand are much more likely to succeed if they are able to demonstrate that they are cost effective for the country as a whole, rather than just reducing fire impact.

Project Purpose

The purpose of this research is the identification of potential legislative change that could affect the fire risk in New Zealand, and to propose cost-benefit studies that would be likely to support such change. Areas that researchers might wish to consider would be building law, consumer law and New Zealand Standards.

Specific Areas of Focus

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

- literature review, including overseas legislation
- proposed areas for legislative change
- a quantified analysis of the resulting benefits to the community
- the costs of proposed change, to include direct and indirect costs and environmental impacts

Researchers are invited to suggest other areas for consideration.

Project Team

Project Sponsor –National 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

Project to commence in March 2012

Previous Research

The New Zealand Fire Service Commission has sponsored a number of cost-benefit studies via its Contestable Research Fund Research and researchers are reminded to visit the NZFS website to familiarise themselves with previous research reports as a foundation for future work www.fire.org.nz

Assessing the true cost of structure fires, in both residential and commercial premises, including cleanup, loss of contents, alternative accommodation, business interruption

Introduction

In order for the New Zealand Fire Service Commission to be able to demonstrate the value of its fire mitigation and suppression activities, it needs to be able to measure the actual cost of fires and the potential loss that has been avoided through our intervention.

While historically the cost of fire loss has been measured through an approximation of the typical rebuild cost for the area of a structure visibly affected by fire, this didn't account for:

- damage caused by firefighting water, smoke or other fire products
- other fire induced loss including contents and stock loss
- business interruption
- restoration and
- social impact such as relocation and loss of employment.

Project Purpose

This purpose of this project is to determine how the New Zealand Fire Service Commission can accurately determine the true cost of a fire.

Specific Areas of Focus

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

- analysis of challenges associated with measuring the impact of a structure fire residential and commercial premises and how this can be reflected in financial value
- examine the fire loss cost evaluation models used internationally
- Investigate whether social and cultural loss be represented as a financial value
- recommendations on effective tools of measurement available or potentially available within the New Zealand environment
- methodology to audit the process for quality assurance

Researchers are invited to suggest other areas for consideration.

Project Team

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

Project to commence in March 2012

Previous Research

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

Fire risks of imported products, not regulated in New Zealand

Introduction

The New Zealand Fire Service Commission has responsibility for promoting fire safety in the home in order to reduce the incidence of fire. This has been traditionally managed within a framework of building and product regulation and relationship between regulators and suppliers or retailers.

The increasingly popularity of on-line purchasing has reduced the effectiveness of many of these controls and created risk to consumers through exposure to unsafe products and/or products that don't comply with recognised standards.

The Commission is seeking guidance as to how to manage the fire safety risk of these products in an increasingly globalised and largely unregulated marketplace.

Project Purpose

The purpose of this project is to identify the fire risks that have emerged with the increasing popularity of on-line marketing/purchasing both within New Zealand and internationally and identify effective strategies the manage this risk.

Specific Areas of Focus

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

- analysis of the fire risks to consumers that online purchasing from local and international retailers/suppliers creates
- literature review of relevant texts
- alternative international methodologies used to address this risk
- recommendations on cost-effective methodologies that can be promoted by the New Zealand Fire Service Commission to manage this risk

Researchers are invited to suggest other areas for consideration.

Project Team

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

Project to commence in March 2012

Previous Research

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

Change in fire risk to occupants of buildings and firefighters with the trend towards 'green' buildings

Introduction

The New Zealand Fire Service Commission has identified a growing trend in New Zealand towards 'green' or sustainable buildings. The Commission is aware that concerns have been raised overseas about fire risk to building occupants and firefighters with green buildings. Issues have been raised about building materials, alternative power sources, and building design. For example, the Fire Protection Association Australia, the Insurance Council of Australia, and the Australasian Fire Authorities Council (AFAC – of which the NZFS is a member) have raised concerns about inability of current fire test standards to accurately test the fire performance of 'green' insulation materials. In the UK concerns have been raised about glazing, and the effect of thermal performance on fire development and severity. Issues around water collection and storage, living roof loads and solar panels have been identified as potential issues in the USA.

The Commission is committed to sustainable practices. It wants to identify any specific fire risks associated with green buildings and/or highlight any potential risks for fighting fires in sustainable buildings, and look at ways to mitigate those risks.

Research is needed to understand:

- the specific fire risks for building occupants and firefighters associated with green buildings (if any)
- the specific fire risks for residential green buildings
- the specific fire risks for green commercial buildings
- how well current New Zealand codes, standards, and regulations address sustainable building practices, including design, energy sources, and materials

Project Purpose

The purpose of this project is to gain knowledge to ensure the New Zealand Fire Service and the New Zealand construction industry, understand the fire risks associated with green or sustainable buildings. It is also the purpose of this project to ensure positive and proactive solutions are developed to mitigate these risks.

Specific Areas of Focus

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

- literature review
- identify the fire risks associated with green buildings for building occupants
- identify the fire risks associated with green buildings for firefighters
- identify the how effectively current New Zealand codes, standards and regulations are mitigating those risks
- recommendations as how to best mitigate risks

Researchers are invited to suggest other areas for consideration.

Project Team

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

Project to commence in March 2012

Previous Research

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

Evaluation of our programmes targeted at older children: year 7 & 8 and senior secondary

Introduction

The New Zealand Fire Service Commission has identified a series of vulnerable groups to which fire-safety messages and campaigns need to be targeted. One of these groups is children and young people.

Fire-safety education programmes developed by the New Zealand Fire Service targeting children and young people include:

- *Get Out Stay Out*: a fire-safety education programme for pre-school children (circa 2003)
- *Get Firewise*: a fire-safety education programme for year 1 and 2 children (2010)
- *Maui-tinei-ahi*: a fire-safety education programme for use in Māori Medium Education (2011)
- *Be Firewise*: a fire-safety education programme for year 7 and 8 students (circa 2005)
- *Be Firewise, Party at Our Place*: a fire-safety education resource for senior secondary students (2001).

The Fire Service has previously evaluated its *Get Firewise* year 1 and 2 and *Maui-tinei-ahi* programmes.

There is a need, however, to evaluate the effectiveness of the fire-safety education programme for:

- year 7 and 8 students
- senior secondary students

and as a consequence, whether risky behaviours in those groups have been reduced as a result.

Project Purpose

The purpose of this project is to evaluate the effectiveness of two New Zealand Fire Service fire-safety education programmes:

- *Be Firewise*: a fire-safety education programme for year 7 and 8 students (circa 2005)
- *Be Firewise, Party at Our Place*: a fire-safety education resource for senior secondary students (2001).

The results of the evaluations will help to ensure the New Zealand Fire Service delivers appropriate and effective fire-safety education programmes to children and young people resulting in sustained improvements in fire-safety behaviours and fire prevention.

For further information contact

Caroline Rosanowski
Senior Communications Advisor
New Zealand Fire Service
email caroline.rosanowski@fire.org.nz
Tel (4) 496-3722

Specific Areas of Focus

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

- literature review of relevant texts
- development of a framework for evaluating the year 7 and 8 fire-safety education programme
- development of a framework for evaluating the senior secondary fire-safety education resource
- conducting the evaluations
- analysis of the results
- recommendations
- how the effectiveness of the education programmes would be evaluated

Researchers are invited to suggest other areas for consideration.

Project Team

Project Sponsor – Senior Communications Advisor 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

Project to commence in March 2012

Previous Research

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

Identification of a methodology for New Zealand Fire Service to develop a stronger 'line of sight' between expenditure and outcomes for the public

Introduction

From time to time the New Zealand Fire Service formally evaluates its programmes, particularly its community education programmes in a spirit of continuous improvement, and identification of what works best. However, there would be value in deriving a formal methodology that would allow us to analyse how our investment in programmes directed at service to the public delivers the outcomes sought by government.

This is essentially what the Integrated Risk Management Programme (IRMP) for Fire and Rescue Services in the UK set out to do.

Project Purpose

The project purpose is to identify how we might source and process better information on the effectiveness of programmes and services we deliver and use this information to drive decision-making about investment and improvement. The outcome should be a best practice methodology based on an evidence-based, systematic and reasoned description of the links between investment, outputs and outcomes. This will help NZFS management relate our organisational activities to NZFS outcomes, and confirm our business approach is sound.

Specific Areas of Focus

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

- literature review, including the underpinning research and implementation around the IRMP process in the UK and any other international programmes
- sources of evidence for evaluation of programme success
- relationships between programme investment and the outcomes sought by the New Zealand Fire Service Commission
- development of a methodology for use across our deliverables

Researchers are invited to suggest other areas for consideration.

Project Team

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

The project to commence in March 2012

Previous Research

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

Management of emerging change in high country fire hazard as a result of wilding trees

Introduction

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.

New Zealand averages between 3000-4000 wildfires each year with an average area burnt of about 10,000 hectares.

Central Otago, Canterbury and the Central North Island are some areas of the country where over time through changes in land use and management, resulting changes in vegetation land cover has occurred. One such change which impacts on fire hazard in the rural landscape context, is with the growth and spread of wilding trees e.g. wilding pines and other exotic tree species.

An example of research that has been carried out in respect of the eradication of wilding pines is in the Mid Dome, Central Otago and Copula, Southland.

Reference: The Spread of Exotic Conifers at Mid Dome / Cupola, Southland – Present Situation and Future Management Options – N.J. Ledgard, New Zealand Forest Research Institute, 1999

Project Purpose

The project purpose is to provide information to rural fire managers on the geographical patterns and likely impacts with the growth and spread of wilding pines in the NZ rural landscape. To enable an improved understanding of the problem, what the current and likely future issues are for land and fire managers, and specifically how these may relate to fire hazard management in respect of wilding trees.

For further information contact

Gary Lockyer
Manager Rural Fire Operations and Legislation
New Zealand Fire Service
email gary.lockyer@fire.org.nz
Tel (4) 496-3691
Fax (4) 496-3700

Specific Areas of Focus

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

- literature review and conceptual model on the patterns and the resulting impacts of the growth and spread of wilding trees in the NZ rural landscape
- a process for rural fire managers to apply information on the impacts of the spread of wilding trees to assist with managing the resulting fire hazard
- researched information needs to be in a format that allows knowledge transfer to practitioners

Researchers are invited to suggest other areas for consideration.

Project Team

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

The project to commence in March 2012

Previous Research

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

Understanding of rural fire district resourcing needs and matching resources to events

Introduction

A long-held objective of the New Zealand Fire Service Commission (the Commission) is the merging of smaller Rural Fire Authorities (RFAs) into larger Rural Fire Districts (RFDs) to improve the effectiveness of the rural fire sector through better resource management.

In 2009, the Minister of Internal Affairs and the Commission have reiterated the objective as a high priority, and an opportunity to deliver tangible improvements to forest and rural fire management stakeholders.

The National Rural Fire Authority's (NRFAs) current Statement of Strategic Direction has clarified this objective into one of three key Strategies for 2009-2014, namely:

- *"To develop a robust framework to promote the establishment of enlarged Rural Fire Districts."*

The NRFA have been engaging with rural fire stakeholders, including existing Rural Fire Authorities (RFAs), Territorial Local Authorities (TLAs), forest owners and others for some time. The engagement has typically taken the form of face to face meetings, establishing steering committees and consequently setting up working groups to scope plans for change to an Enlarged Rural Fire District (ERFD) entity. Some stakeholders have requested more detailed information to enable a transition to enlarged Rural Fire Districts, including information to support decision making in terms of resourcing needs.

Project Purpose

The project purpose is to provide a tool with information for rural fire authorities who may be considering entering into an Enlarged Rural Fire District (ERFD) entity, to use as part of the decision making process for better understanding and determining what the rural fire fighting resourcing needs are for a new ERFD entity, which aligns to the likely number of events which the new entity is collectively required to be ready to respond to.

For further information contact

Kym Fowlie
Manager Strategy & Planning
National Rural Fire Authority
email kym.fowlie@fire.org.nz
Tel (4) 496-3611
Fax (4) 496-3700

Specific Areas of Focus

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

- literature review and a conceptual tool to support decision making for establishing rural fire fighting resourcing needs aligning to the likely number of events
- a process for rural fire managers to apply the information
- researched information needs to be in a format that allows knowledge transfer to practitioners

Researchers are invited to suggest other areas for consideration.

Project Team

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

The project to commence in March 2012

Previous Research

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

Evaluation of new and overseas technologies to assist with fire suppression

Introduction

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.

New Zealand averages between 3000-4000 wildfires each year with an average area burnt of about 10,000 hectares.

Methods and technologies currently used in suppressing forest and rural fires in New Zealand are based on those adopted historically from relevant international best practice, and enhanced to be applied to nationally consistent standards for NZ. In NZ we use time proven methods for suppressing wildfires predominately based on a direct attack methodology which combines the use of hand tools, water under pressure, heavy ground machinery and the use of aircraft (both rotary & fixed wing) to apply water mixed with either suppressant or retardant. Chosen fire suppression methods are determined on case by case assessments of the requirements to suppress a wildfire based on the prevailing fire environment factors, values at risk and the threat posed.

Project Purpose

The project purpose is to research evaluate the recent developments internationally in forest and rural fire technologies for suppression of wildfires. Identify and establish what new technologies exist and there potential for use and application in a NZ rural fire environment.

For further information contact

Gary Lockyer
Manager Rural Fire Operations
National Rural Fire Authority
email gary.lockyer@fire.org.nz
Tel (4) 496-3691
Fax (4) 496-3700

Specific Areas of Focus

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

- literature review and detailed information describing and evaluating various new technologies available, with relevant detail as to potential application in the NZ forest and rural fire environment
- researched information needs to be in a format that allows knowledge transfer to practitioners

Researchers are invited to suggest other areas for consideration.

Project Team

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

The project to commence in March 2012

Previous Research

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

Evaluation of effectiveness of the ‘Bernie’ campaign – community perceptions around fire danger rating boards

Introduction

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.

Since 1992 what is known as the Bernie Campaign has been used nationally as promotional method to aid in the prevention of wildfires by public education and awareness of the daily forest and rural fire danger rating. The National Rural Fire Authority (NRFA) has a statutory role in promoting the awareness of the daily forest and rural fire danger rating. In New Zealand the forest and rural fire danger rating is displayed by use of the fire danger board, known as the half-grapefruit sign, which identifies the fire danger rating by use of an arrow pointing to a category of either: Low, Moderate, High, Very High or Extreme.

The Bernie Campaign is provided for through a national partnership which includes funding from the NRFA and rural fire stakeholders. The types of media used to deliver this campaign include use of television, internet, social media, billboards and print media.

Project Purpose

The project purpose is to assess whether national and local rural promotions using the Bernie Campaign to promote fire danger ratings, has resulted in public knowledge and behaviour improving and the impact that has had on number and consequence of rural fires.

For further information contact

Murray Dudfield
National Rural Fire Officer
National Rural Fire Authority
email murray.dudfield@fire.org.nz
Tel (4) 496-3689
Fax (4) 496-3700

Specific Areas of Focus

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

- literature review and research which provides a detailed evaluation of how well understood and effective the NRFAs Bernie Campaign is as a tool in educating the public in awareness of daily forest and rural fire danger rating
- researched information needs to demonstrate whether the community perception aligns with changes in behaviour resulting in a reduction in the number and consequence of rural fires
- researched information needs be in a format that allows knowledge transfer to practitioners

Researchers are invited to suggest other areas for consideration.

Project Team

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

The project to commence in March 2012

Previous Research

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