

# Grampian Fire and Rescue Service

Preventing Protecting Responding



Community Risk Reduction Focus

2010 - 2011



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## Contents

### Introduction

Page 4

### What does risk look like

Page 5

### Risk maps of the Grampian area

Page 7

### Local priority risks that need to be reduced

Page 18

### How will we reduce risk?

Page 23

### Measuring performance

Page 23



## Introduction

Welcome to Grampian Fire and Rescue Service's Community Risk Reduction Focus for 2010 – 2011. Reducing risk in Grampian is at the forefront of our vision and we have clearly made the transition over a number of years from a service that was responsive, to a service that is now committed to providing preventative support and advising on protective measures with the intention of reducing risk.

By focusing our resources and our support more clearly on the areas where risk is most prominent we believe that we will make real reductions in the numbers of incidents that we attend and reduce the number of fire deaths and injuries from fires and other causes in Grampian.

The service has done much in recent years to ensure that it continues to support the reduction in risk in our communities. This has further been supported through the introduction of clear policies on community education and legislative fire safety. More recently, the service has completed a public consultation process on its proposed policy for Emergency Response Standards. The introduction of these new standards will be at the core of a risk based approach to serving the public.

This document sets out the key areas that the service will focus its risk reduction activities on to make the communities in Grampian safer.

*...this document  
provides a closer focus  
on operational risk  
reduction matters...*



## What does risk look like

Our main focus is to reduce the risk to people from incidents involving fire and other emergencies where rescue may be required. In order to do this, we need to have a very clear picture of what and where our risks are.

Our risk assessment process uses several different data sets and analytical tools including the National Index of Multiple Deprivation to identify what are the types of risks that we deal with, what the frequency of those risks are, where they occur, and who they involve. From this vast array of information, we can clearly develop a picture of risk in our service area. It can also chart the changing pattern of risk which will stem from our community safety initiatives.

Risk categories have been mapped to indicate the relative risk to life safety. These areas are built up using Super Output Areas as defined by the Office of National Statistics. The areas have a minimum size of a 1000 residents (400 households), a maximum size of 3000 residents, but generally average 1500 residents. This is considered to be an ideal size and best practice to create a robust statistical comparison.

Using all our risk information, we have created risk categories which have been divided into five bands ranging from Very High risk, to Very Low risk. Low risk and very low risk areas will be assigned that grading for sound evidence based reasons. It is not because they are rural areas, it is not because they are small remote villages, and it is not because they are areas where nobody lives. Areas will only be assigned the low risk or very low risk grade if there is clear evidence that fires (and certainly casualties) are an extremely rare occurrence.

To underline the inextricable link between prevention and response (both elements reduce the overall risk to society from the hazards of fire), risk grades are defined as follows:

**Table 1: Definition of risk categories**

|                       |   |
|-----------------------|---|
| <b>Very High Risk</b> | This risk profile will have the very highest likelihood of dwelling fires with resultant casualties and fatalities and will therefore attract a more rapid response than the category below and receive very substantial community fire safety risk reduction initiatives |
| <b>High Risk</b>      | This risk profile will have a high likelihood of dwelling fires with resultant casualties and fatalities and will therefore attract a more rapid response than the category below and receive substantial community fire safety risk reduction initiatives                |
| <b>Medium Risk</b>    | This risk profile will have a medium likelihood of dwelling fires with resultant casualties and fatalities and will therefore attract a more rapid response than the category below but community fire safety initiatives will be targeted at specific trends             |
| <b>Low Risk</b>       | This risk profile will have a low likelihood of dwelling fires with resultant casualties and fatalities and will therefore attract a more rapid response than the category below and community fire safety initiatives will be targeted at specific trends and issues     |
| <b>Very Low Risk</b>  | This risk profile will have a very low likelihood of dwelling fires with resultant casualties and fatalities and will therefore attract our optimum speed of response and community fire safety initiatives will be targeted at specific trends and issues                |



It goes without saying that if we can educate out the risks or engineer out the problems we can review where our intervention resources are placed and when they are likely to be required and subsequently review how we deliver our entire service and if indeed whether we can redeploy our resources to a different purpose.

The rationale on how we determine what resources will be required and where best they should be located is not only aligned to life risks, but consideration has also been given to the activity demands placed on the Service. A clear example of this is the physical resources and staff time committed to dealing with calls that may not have an associated risk to life, but by attending to these calls which generate a high frequency of our activity, our resources are detracted from being available to respond to the life safety needs of the public.

Our business planning has evolved over recent years and we have become very focused on establishing our service strategies. This has led us to set very clear strategic objectives which have been underpinned by a robust policy framework, and we are in a far better position now to identify the priority risks to the public in Grampian that we aim to reduce over the next year.

By using our risk map we can demonstrate where our risks have to be reduced in defined areas, and we also know what generic themes have to be tackled in order to allow us to work more efficiently. For example we spend a considerable amount of time and resources on responding to automatic fire alarm calls which are mostly generated through poor property management by building occupiers. We will actively engage with these properties to ensure that they drive down the need for our attendance to deal with their unwanted demand on our finite resources.

In a more local context where risk is closer to home on issues directly related to the fire service we work hard to take a similar approach to the one previously mentioned about preparing for risk. We take the lead in risk reduction for life safety from the event of fires and other risks to which we constantly respond and we strive to make our communities as safe from risk as possible by either preparing the public to look after their own safety or assisting them to reduce the risk in the first instance. It is our belief that this risk can be reduced in a controlled manner having first of all identified the risk in terms of priority and then establish the best way to go about reducing the risk with the resources that we have available in the most efficient way possible. This is where we have the greatest flexibility to do what we consider is the best to make the communities in Grampian Safer.

Although the main emphasis of this document focuses on reducing the risk to life from fires, this does not detract from our contribution to reducing risk to life from other emergencies such as road traffic collisions. The threat of injury or death from a road traffic collision is very much a concern of the Service and we commit a tremendous amount of effort to reducing this risk. We work in partnership with several agencies, and we have a dedicated team consisting of fire service staff and police staff who work together in a joint venture called Road Safety Grampian. Their work focuses on delivering a north east strategy for the reduction of casualties on our roads.

The current location of our resources provides a suitable provision for addressing the road traffic collisions that we are required to respond to in our area.

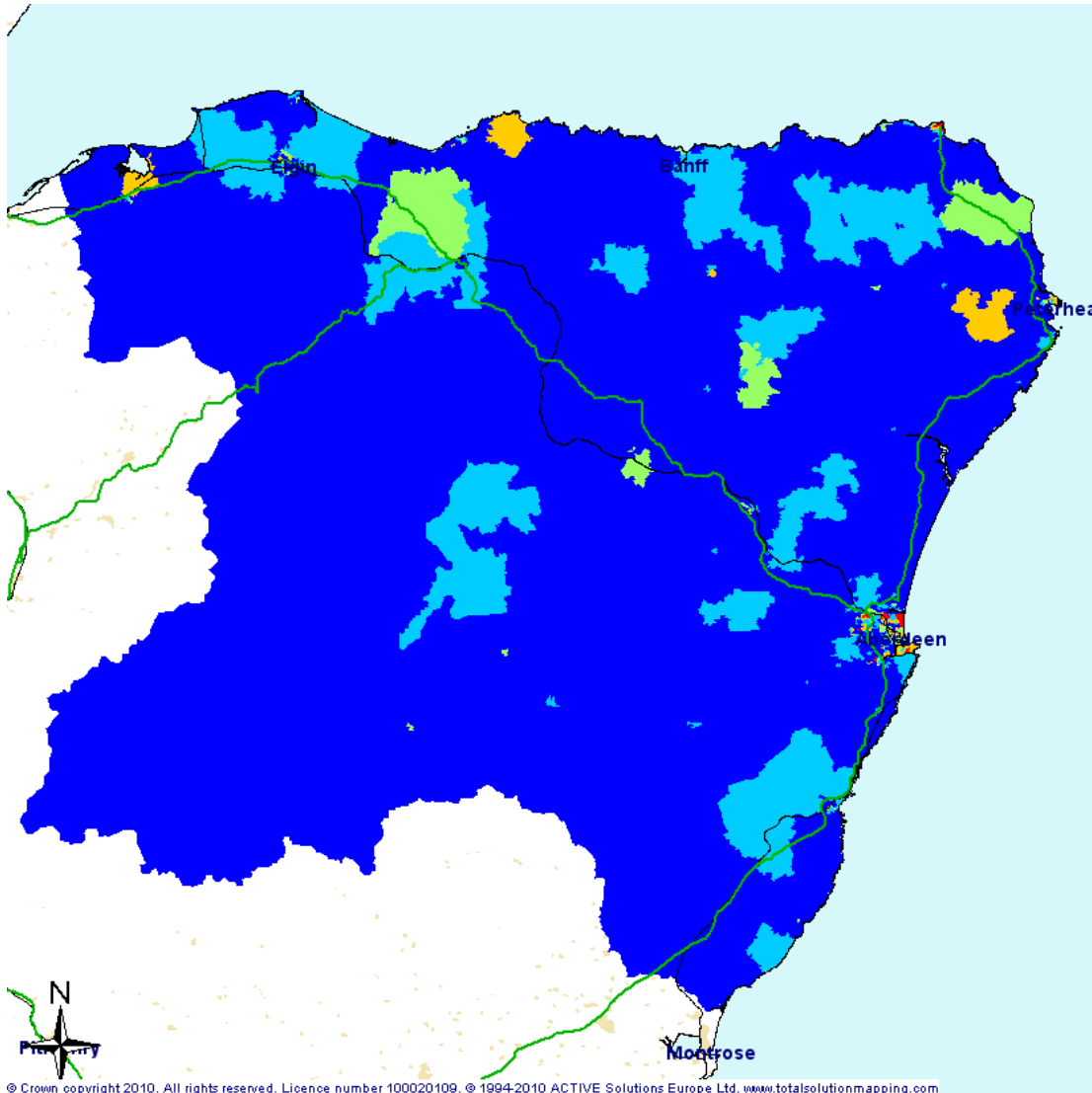
The following set of risk maps identifies sample areas of Grampian in relation to the risks previously discussed.



Grampian Fire and Rescue Service

Risk Map

Grampian area (Dwelling fires and Casualties)



Risk Rating

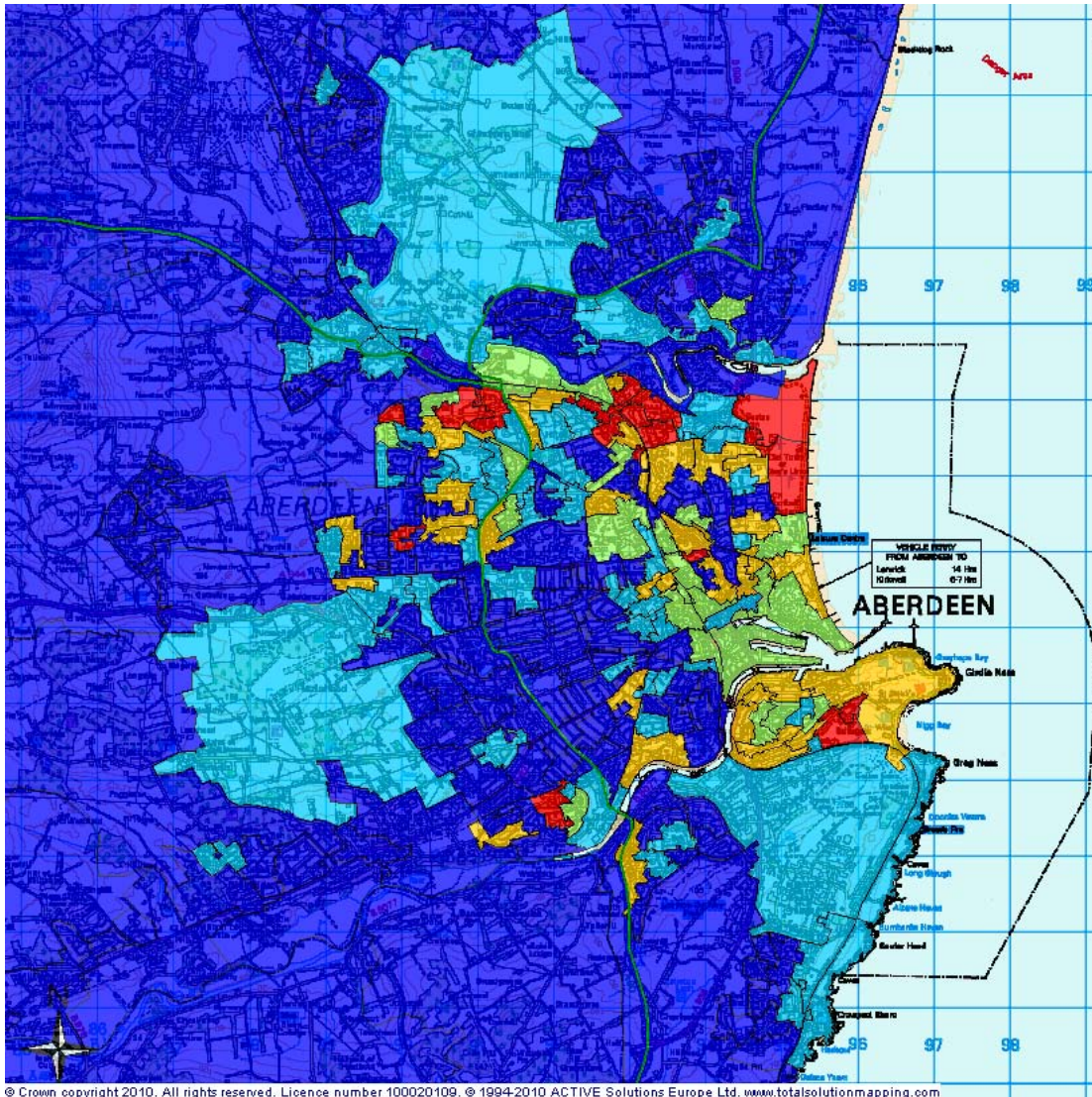
| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



Grampian Fire and Rescue Service

Risk Map

Aberdeen City (Dwelling fires and Casualties)



**Risk Rating**

| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |

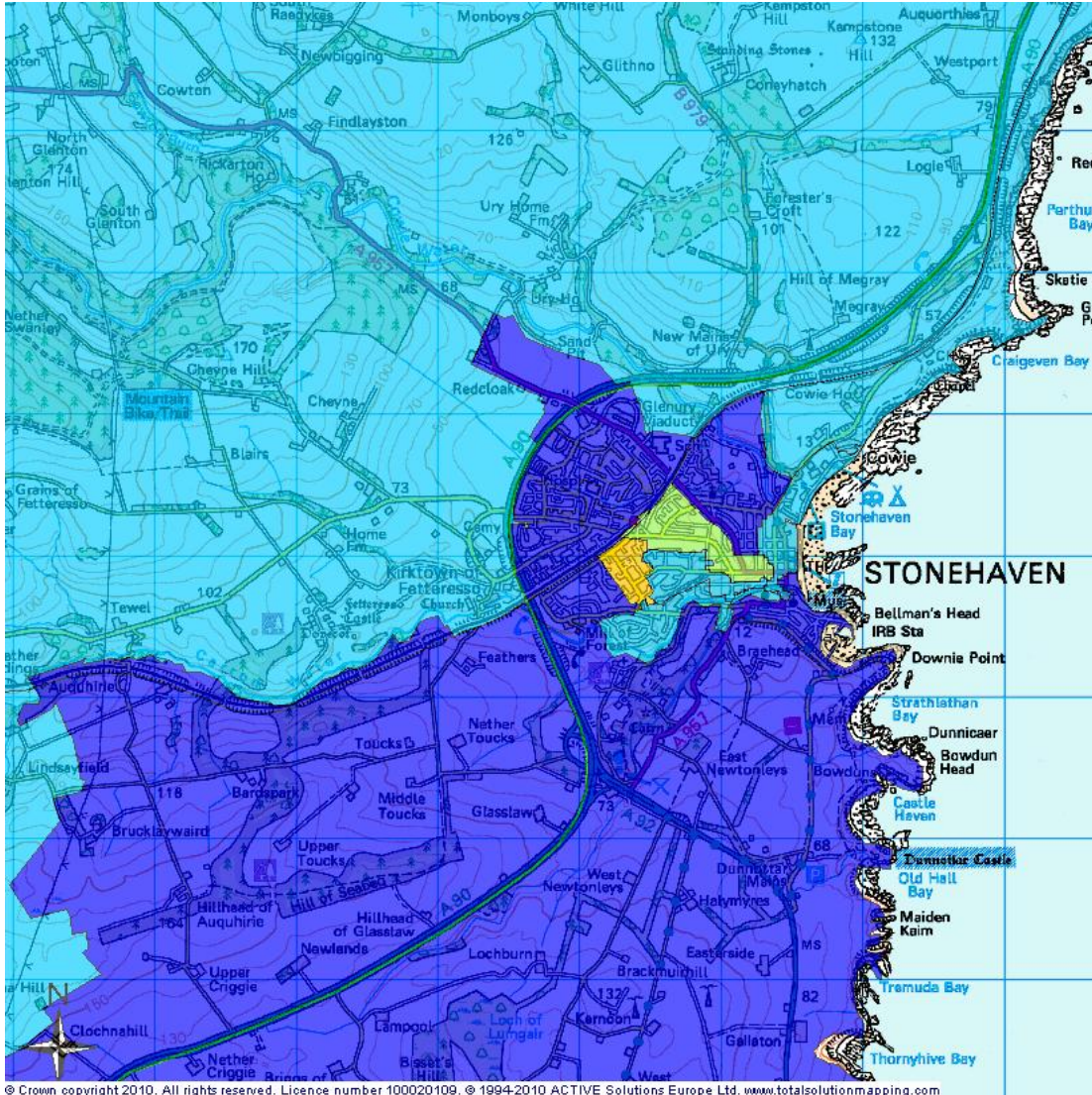




Grampian Fire and Rescue Service

Risk Map

Stonehaven and surrounding area (Dwelling fires and Casualties)



Risk Rating

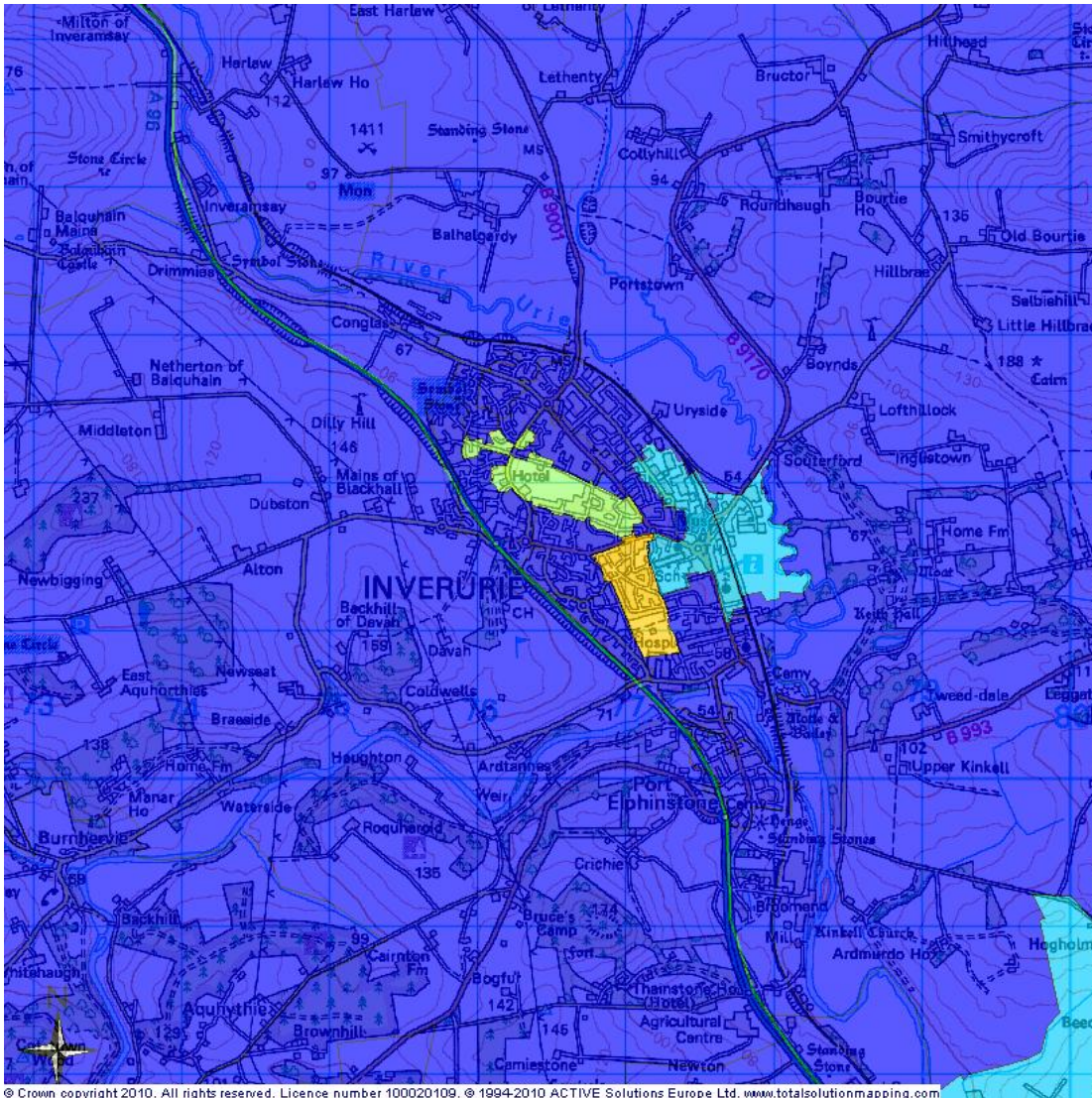
| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



Grampian Fire and Rescue Service

Risk Map

Inverurie and surrounding area (Dwelling fires and Casualties)



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**Risk Rating**

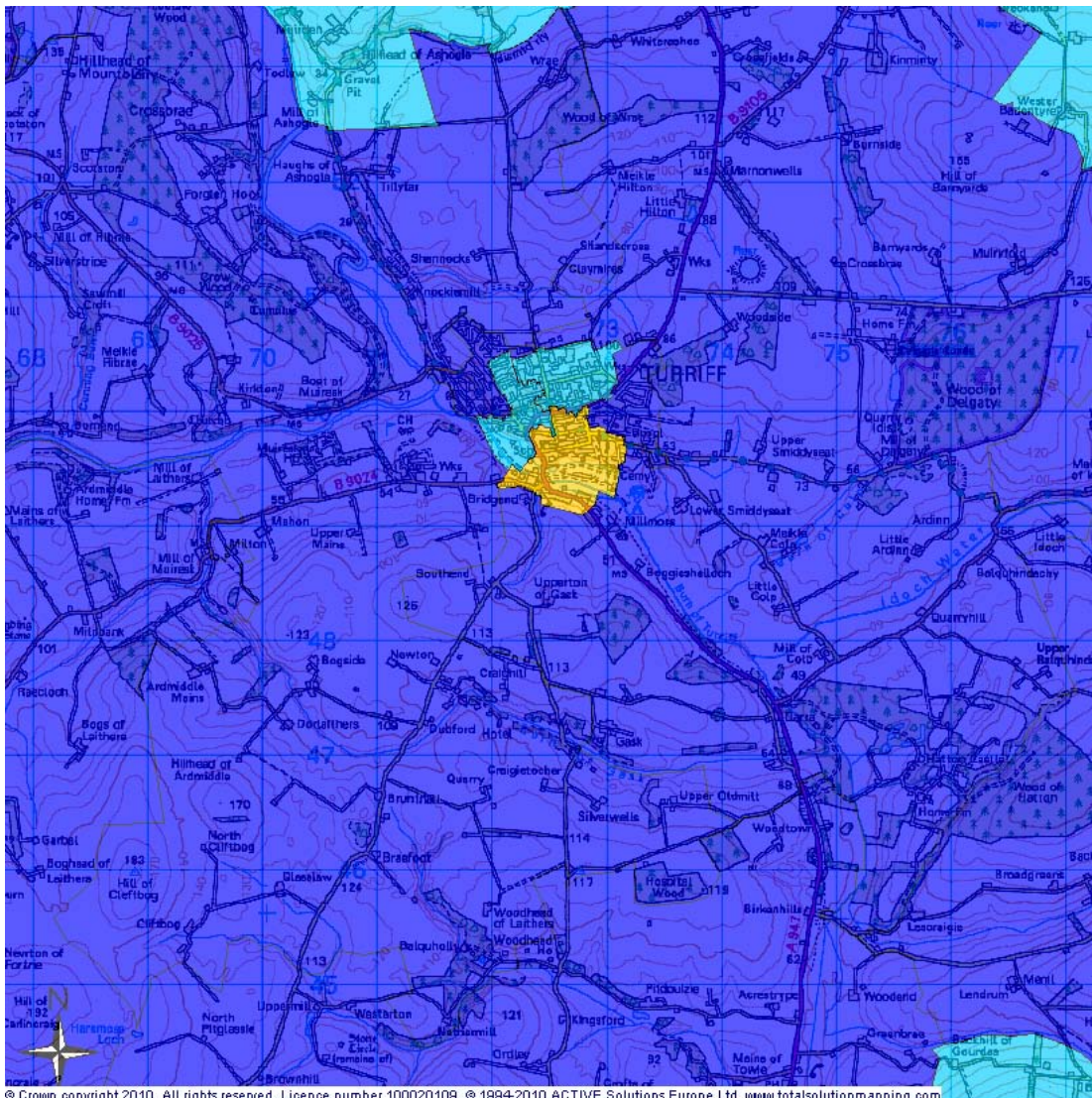
| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



Grampian Fire and Rescue Service

Risk Map

Turriff and surrounding area ( Dwelling fires and Casualties)



Risk Rating

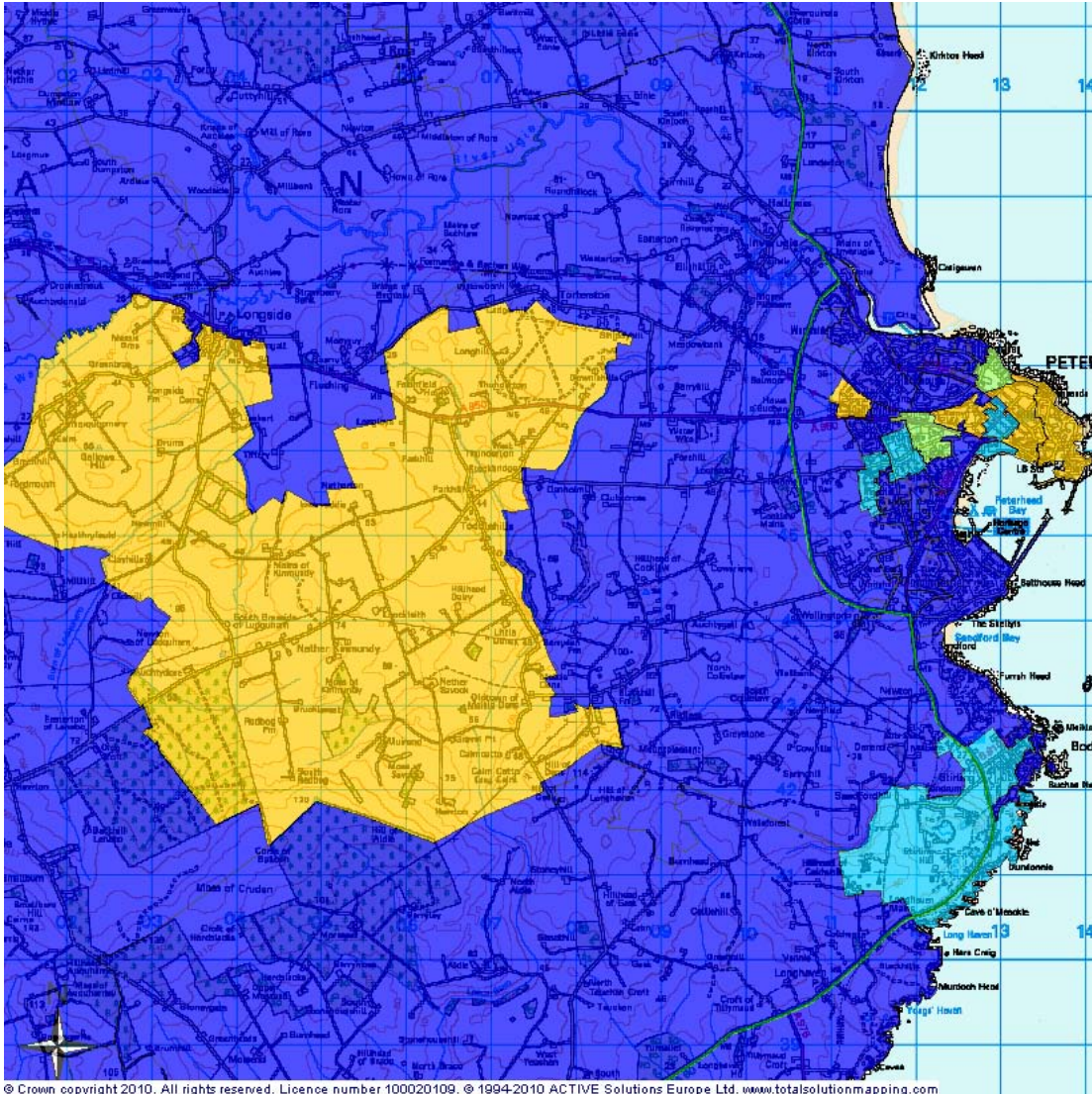
| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



Grampian Fire and Rescue Service

Risk Map

Peterhead and surrounding area (Dwelling fires and Casualties)



Risk Rating

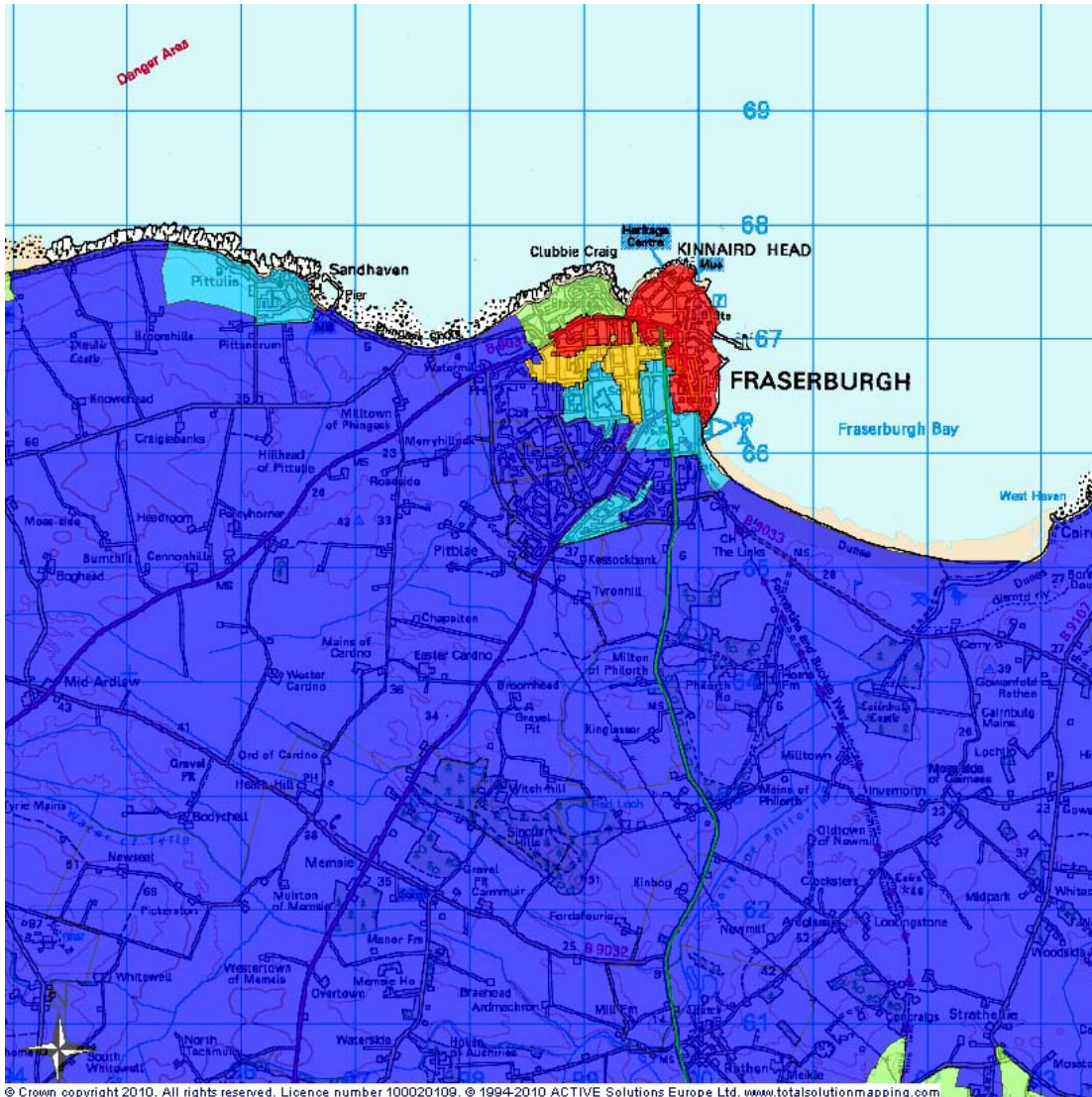
| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



Grampian Fire and Rescue Service

Risk Map

Fraserburgh and surrounding area ( Dwelling fires and Casualties)



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**Risk Rating**

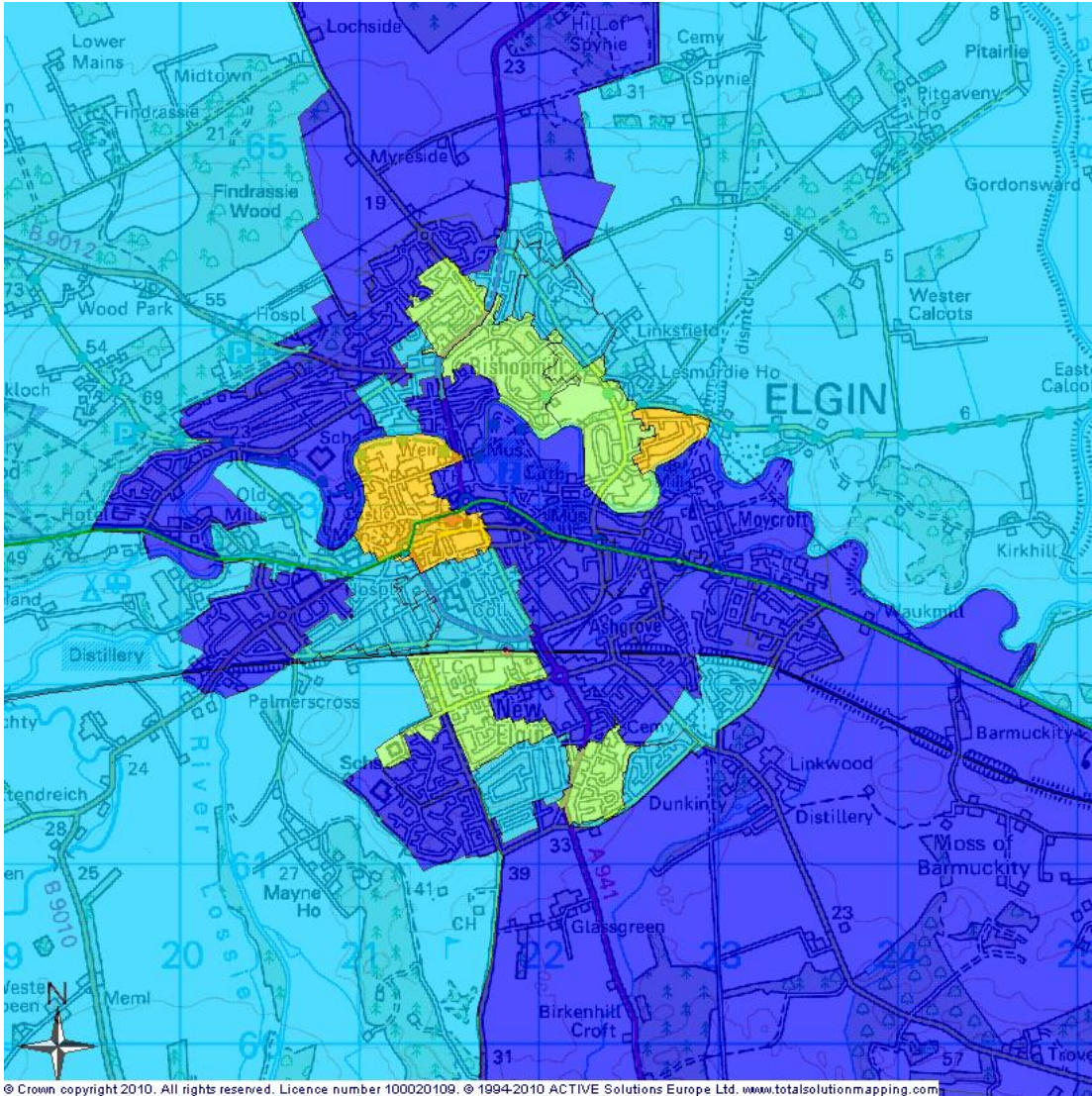
| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



Grampian Fire and Rescue Service

Risk Map

Elgin and surrounding area (Dwelling fires and Casualties)



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**Risk Rating**

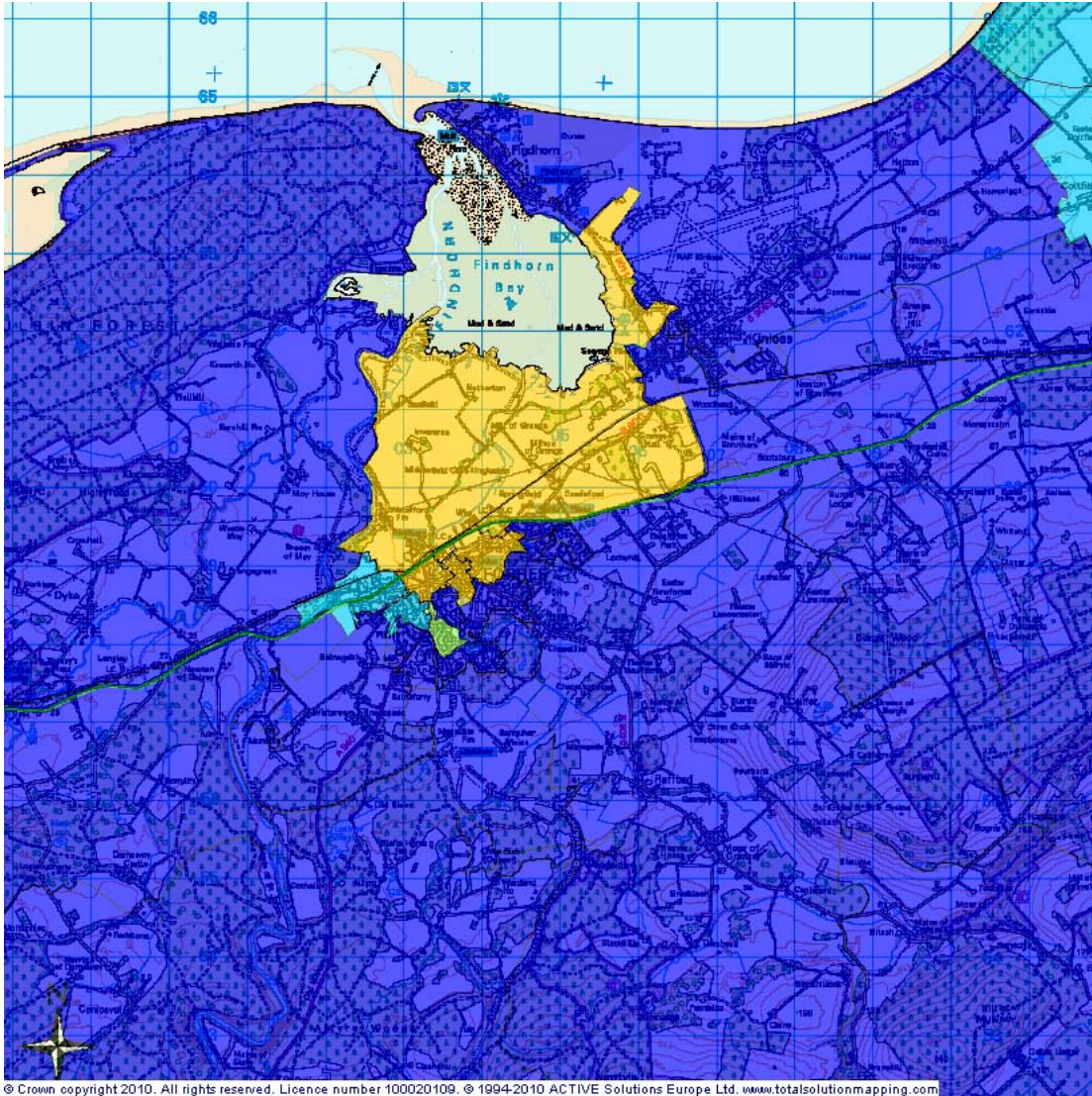
| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



Grampian Fire and Rescue Service

Risk Map

Forres and surrounding area (Dwelling fires and Casualties)



**Risk Rating**

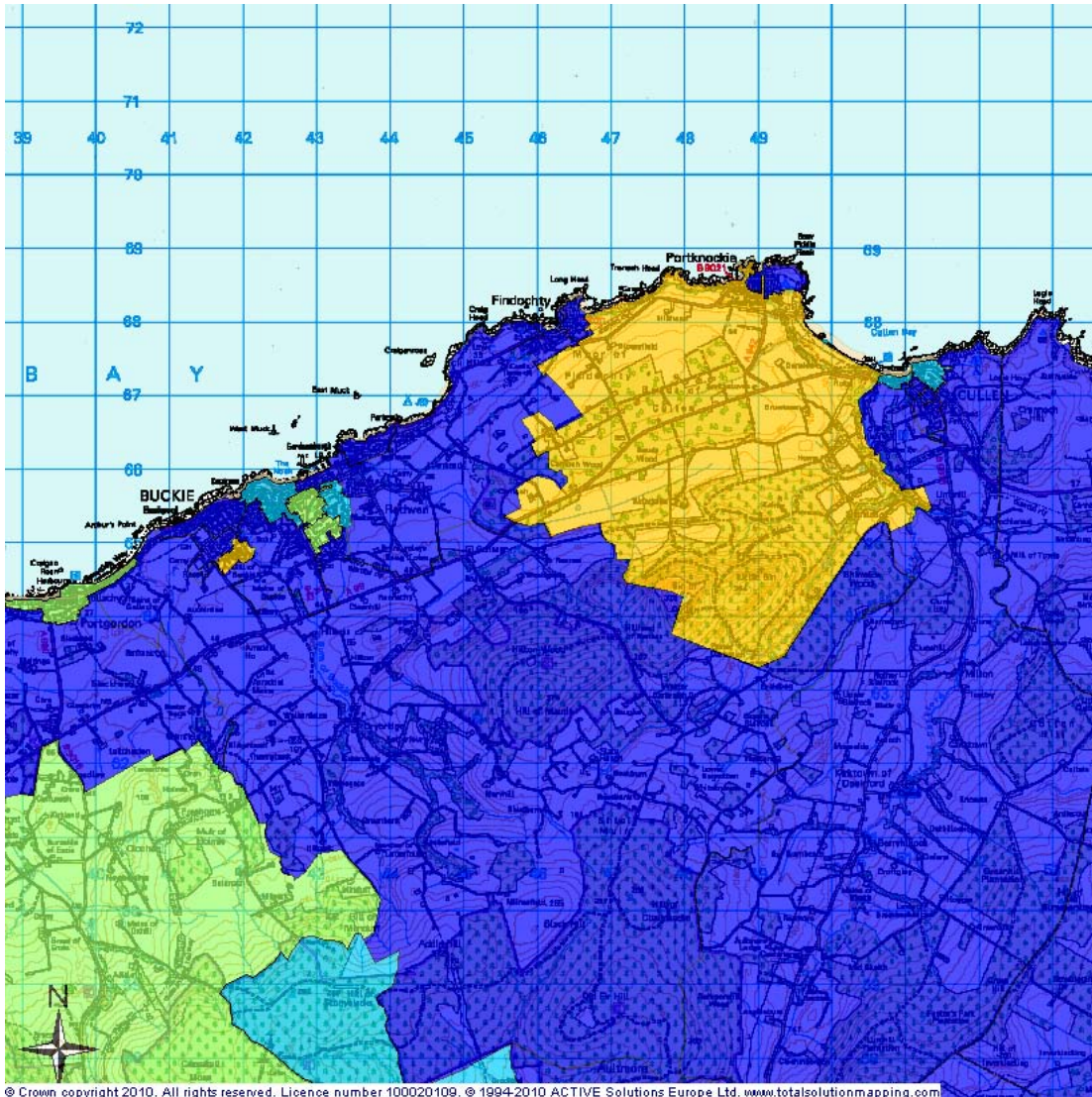
| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



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Risk Map

Buckie, Portknockie and surrounding area (Dwelling fires and Casualties)



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**Risk Rating**

| Key       |
|-----------|
| Very High |
| High      |
| Medium    |
| Low       |
| Very Low  |



## Local priority risks that need to be reduced

We deliver our services locally through three Command Areas aligned to the local authorities in our area. The Service actively ensures that an appropriate response and delivery of service is available to these areas based on risk.

In a local context, the risk reduction priorities for the three command areas is based on our highest areas of activity and the greatest risk to the public from life threatening events. This is based on previous year's data and these priorities are as follows:

| Command Area                     |                         |                         |
|----------------------------------|-------------------------|-------------------------|
| Aberdeen City                    | Aberdeenshire           | Moray                   |
| Accidental house fires           | Accidental house fires  | Accidental house fires  |
| Wilful fires - outdoor           | Road Traffic collisions | Road Traffic collisions |
| Wilful fires involving buildings | Wilful fires - outdoor  | Wilful fires - outdoor  |
| Automatic fire alarms            | Automatic fire alarms   | Automatic fire alarms   |
|                                  | Chimney fires           | Chimney fires           |

In considering all these areas for reducing risk, our main priority in each command area has to be around the incidents where life is at risk. This predominately involves accidental house fires and road traffic collisions, and therefore it is appropriate that these are given the main focus of our attention in our risk reduction activities.

The Service continually works with other agencies, including the police, NHS, the voluntary sector and council departments to continually improve community well being. All of our activities are delivered in support of the Scottish Governments five key objectives to make Scotland a better place to live and work.

The consequential costs that fire deaths, injuries and damage brings to Scotland is immense, as an example, based on Government figures for 2007 the cost to society and the economy for each fire death is approximately £1.5 million and a similar cost for a typical house fire is approximately £8,500. The average cost for attending an automatic fire alarm call is approximately £850. Based on these estimates, during the fiscal period from 2006 – 2009 the cost to society in Grampian for fire deaths in the home would be approximately £32 million, the cost of typical house fires would be approximately £15 million and the costs associated with attending automatic fire alarm calls would be approximately £8 million.

The positive impact to society by making reductions in all these types of incidents is invaluable hence the approach that the Service makes towards prevention and education.

The statistical data for the Grampian area is always provided to our staff relevant to each Command. This information is further broken down and linked to data provided by Grampian Police to demonstrate in more detail where key risks are to be found, thus risk reduction initiatives can be clearly targeted in those particular areas.



## Aberdeen City

Aberdeen city has a population of approximately 209,000, with almost 103,000 households. The Service works very closely with local partners such as the police and Council services to minimise risk. These partnerships direct our attention to specific areas of Aberdeen City which are known as neighbourhood areas, of which there are 37. We record incident data in these specific areas and take appropriate action to proactively address emerging trends and risks.

### Accidental house fires

The greatest risk to life safety in the home that the Service can work to reduce comes from accidental fires. Over the fiscal period from 2006 – 2009 there have been 198 casualties in Aberdeen as a result of dwelling house fires. This includes 4 fatalities. It has to be assumed that each casualty had the potential to be a fatality therefore risk reduction in this theme is clearly the highest priority for the service. Whilst there are clearly trends that indicate where our dwelling house fires will occur, it is not always the case that fatalities follow that trend. The areas where we can provide evidence to suggest the most likely occurrence of dwelling house fires are in the neighbourhood areas of Torry, Seaton, Tillydrone and Woodside.

### False alarms from automatic fire alarm signals

False alarms from automatic fire alarms occur mostly in the city centre of Aberdeen; however the areas of Torry, Midstocket, Dyce Bucksburn, Hanover and Seaton all generate a substantial amount of unwanted fire alarm signals, whilst the majority of these calls are from the business sector, some of these calls also come from council housing stock. It is fair to say that in neighbourhoods that are predominately of residential make up, there are very few unwanted automatic fire alarm signal calls.

### Wilful fires - outdoor

This type of fire raising generally means incidents where people set fire to materials left out in the open. This may involve items that have been dumped as an alternative to being placed in a refuse facility or it may mean setting fire to grass or bins. These incidents have occurred in all neighbourhoods of Aberdeen, however there are certain neighbourhoods where this type of incident is more common than in other areas. Evidence shows that the neighbourhood of Torry records by far the greatest number of these types of incidents, with Middlefield, Northfield and Hazlehead all recording a high incident rate.

### Wilful fires involving buildings and other property

The number of wilful fires in buildings presents the potential of these types of incident escalating into something more significant and is a very real threat indeed. These types of fires include fires in cars, outdoor buildings that are generally not always occupied, and motorbikes. Our evidence indicates that the neighbourhood areas where this type of incident is most frequent are Torry, Seaton, Garthdee and Hazlehead, however in some of these cases stolen vehicles have been abandoned in these areas and subsequently set on fire.



## Aberdeenshire

Aberdeenshire covers an area of approximately 2,437 square miles. It has many small and remote communities with occasionally very low levels of population. The total population is approximately 236,000 (2007 data). Major towns and their populations within Aberdeenshire are Peterhead (17,561), Fraserburgh (12,451), Inverurie (11,062), Stonehaven (10,614), Westhill (10,392) and Ellon (9,712).

The Service accurately records the location of all incidents, by aligning it to the six council administrative areas of Banff & Buchan, Buchan, Formartine, Garioch, Kincardine & Mearns and Marr. These areas also lend themselves conveniently to the community planning arrangements operated within Aberdeenshire Council.

### Accidental house fires

The greatest risk to life safety in the home that the Service can work to reduce comes from accidental fires. Over the fiscal period from 2006 – 2009 there have been 124 casualties in Aberdeenshire as a result of dwelling house fires. This includes 10 fatalities. It has to be assumed that each casualty had the potential to be a fatality therefore risk reduction in this theme is clearly the highest priority for the service. Whilst there are clearly trends that indicate where our dwelling house fires will occur, it is not always the case that fatalities follow that trend. The areas where we can provide evidence to suggest the most likely occurrence of dwelling house fires are in the areas of Buchan and Formartine, however Kincardine and Mearns generally records the lowest instance of these types of calls.

### Road Traffic Collisions

Road Traffic Collisions (RTC) are the result of many factors, the most common one being driver error. As a consequence these types of incidents can occur anywhere in the Grampian area however, there are a number of locations where the Service can focus their attention along with partner agencies. Particular societal and age groups can also be identified as 'at risk groups'. Every RTC has the potential to result in casualties or at worst fatalities.

The six main community areas in Aberdeenshire all have similar numbers of RTC's occurring in their area, with the Banff and Buchan area recording the least and Kincardine and Mearns record the highest. The vast majority of these collisions involve the age group of 17 – 29 and sadly the highest number of fatalities occurs in this age group.

### Wilful fires - outdoor

This type of fire raising generally means incidents where people set fire to materials left out in the open. This may involve items that have been dumped as an alternative to being placed in a refuse facility or it may mean setting fire to grass or bins. These incidents have occurred in all the six main community areas of Aberdeenshire, however these are generally in the single figures for the Marr area and on average there are about thirty of these incidents a year in four areas, but an average of a hundred incidents occur in the Banff & Buchan area.



### **False alarms from automatic fire alarm signals**

In Aberdeenshire false alarms from automatic fire alarms occur mostly in the Garioch and Buchan area of Aberdeenshire; however the areas of Marr, Banff & Buchan, Kincardine & Mearns and Formartine all generate a substantial amount of unwanted fire alarm signals, whilst the majority of these calls are from the business sector, some of these calls also come from council housing stock. The vast majority of these calls have to be attended to by fire crews responding from retained duty stations. This means that those fire-fighters respond to their stations following an alert by a pager. Consequently they have to leave their normal place of work or travel from their home to attend these calls, all of which creates a disruption to their lives, the lives of the communities and more importantly commits our life saving resources unnecessarily.

### **Chimney Fires**

Traditionally the use of house open fires vented through chimneys for the purposes of providing heating to a room has been on the decline, however the instances of chimney fires in Aberdeenshire is still at a level that causes some concern. These types of fires have the potential to develop and spread to other parts of the property particularly in older buildings. In Aberdeenshire, there is a relatively high incidence of chimney fires in the Marr area but a relatively low occurrence in the Garioch area. The other 4 areas of Aberdeenshire also show a moderate number of incidents of this type.



## Moray

The Moray area with a population of 87,000 is one of the least deprived areas of Scotland as defined by the Scottish Index of Multiple Deprivation. This tends to indicate a reduced risk element in comparison to other areas of Scotland. However there are other potential areas of risk that need to be considered in Moray including, for example the flood risk around the Elgin area. The Royal Air Force bases at Lossiemouth and Kinloss also present a potential specialist risk.

For the purposes of planning the Service uses the 26 ward areas of Moray council to focus its activities on. The key focus for risk reduction activity is on the following themes.

### Accidental house fires

The greatest risk to life safety in the home that the Service can work to reduce comes from accidental fires. Over the fiscal period from 2006 – 2009 there have been 64 casualties in Moray as a result of dwelling house fires. This includes 4 fatalities. It has to be assumed that each casualty had the potential to be a fatality therefore risk reduction in this theme is clearly the highest priority for the service. Whilst there are clearly trends that indicate where our dwelling house fires will occur, it is not always the case that fatalities follow that trend. The areas where we can provide evidence to suggest the most likely occurrence of dwelling house fires are in the areas of Elgin, Lossiemouth and Forres, however all other ward areas do record house fires albeit on a very small scale.

### Road Traffic Collisions

Road Traffic Collisions that occur in built up areas are often low speed low impact events and whilst they do occur, they generally do not require the Service to respond with assistance. However in the rural areas RTC's tend to be higher speed, higher impact events and sadly they often require the assistance of the service to extricate casualties from vehicles. The areas that record the most number of RTC's requiring our assistance are Lossiemouth, Lhanbryde and Keith and Strathisla. The vast majority of these collisions involve the age group of 17 – 29 and sadly the highest number of fatalities also occurs in this age group.

### False alarms from automatic fire alarm signals

In Moray, false alarms from automatic fire alarms occur mostly in the Elgin area; however all other areas of Moray generate a substantial amount of unwanted fire alarm signals. The majority of these calls are from the business sector. The vast majority of these calls have to be attended to by fire crews responding from retained duty stations resulting in consequential cost and disruption in local communities.

### Wilful fires - outdoor

This type of fire raising generally means incidents where people set fire to materials left out in the open. This may involve items that have been dumped as an alternative to being placed in a refuse facility or it may mean setting fire to grass or bins. These incidents generally occur in all the ward areas however the areas of Lossiemouth, Lhanbryde and some sectors of Elgin tend to have higher numbers of these types of incidents.



## Chimney Fires

Traditionally the use of house open fires vented through chimneys for the purposes of providing heating to a room has been on the decline, however the instances of chimney fires in Moray is still at a notable level. In Moray, there is a relatively high incidence of chimney fires in the Speyside and Glenlivet areas compared to elsewhere.

## How will we reduce risk?

By using our statistical data sets and our risk map information we are now in a position to specifically target our risk reduction campaigns at the areas and subjects which require immediate attention. In some cases this will be a joined up approach with our partners who have similar issues in similar areas.

We work hard at reducing the risks highlighted within each Service Command Area to ensure that we make the communities in Grampian safer. Our actions are evidence based and intelligence led and we will wherever possible, measure the impact of our actions to ensure that we are delivering the best outcome or whether we need to improve or change our approach.

However like any other organisation we have limited resources and it is therefore crucial that we ensure our plans to reduce risk are delivered effectively and targeted at the right areas.

Another piece of legislation that the Service has a duty under is the Local Government in Scotland Act 2003. This means we are a statutory partner in Community Planning and we provide representation on the three community planning partnerships in Grampian.

In 2007, a Concordat between the Scottish Government and Local Government set out the terms of a new relationship - a key element of this is the development of Single Outcome Agreements. The Single Outcome Agreement is the means by which Community Planning Partnerships agree their strategic priorities for their local area and express those priorities as outcomes to be delivered by the partners, either individually or jointly. This arrangement is where the Service contributes to support a range of initiatives and activities but similarly counts on the support from other partners to help deliver on our key priorities of risk reduction.

## Measuring Performance

As a public organisation we are audited on our performance nationally and locally. These measures examine and report on a range of issues, ranging from the number of fire deaths, the number of casualties, the number of Home Fire Safety visits conducted, the number of efficiencies introduced and what they mean to our overall costs, the number of days lost to due to sickness and a vast range of indicators and measures that inform us and the public on the 'health' of our organisation.

All the issues discussed in this proposed plan will not differ in the requirement for a continual monitoring and review process to gauge our success.



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