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# **HM Fire Service Inspectorate**

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## **Planning and Defining Service Resources in the Scottish Fire and Rescue Service**



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**Integrity, Objectivity, and Fairness.**

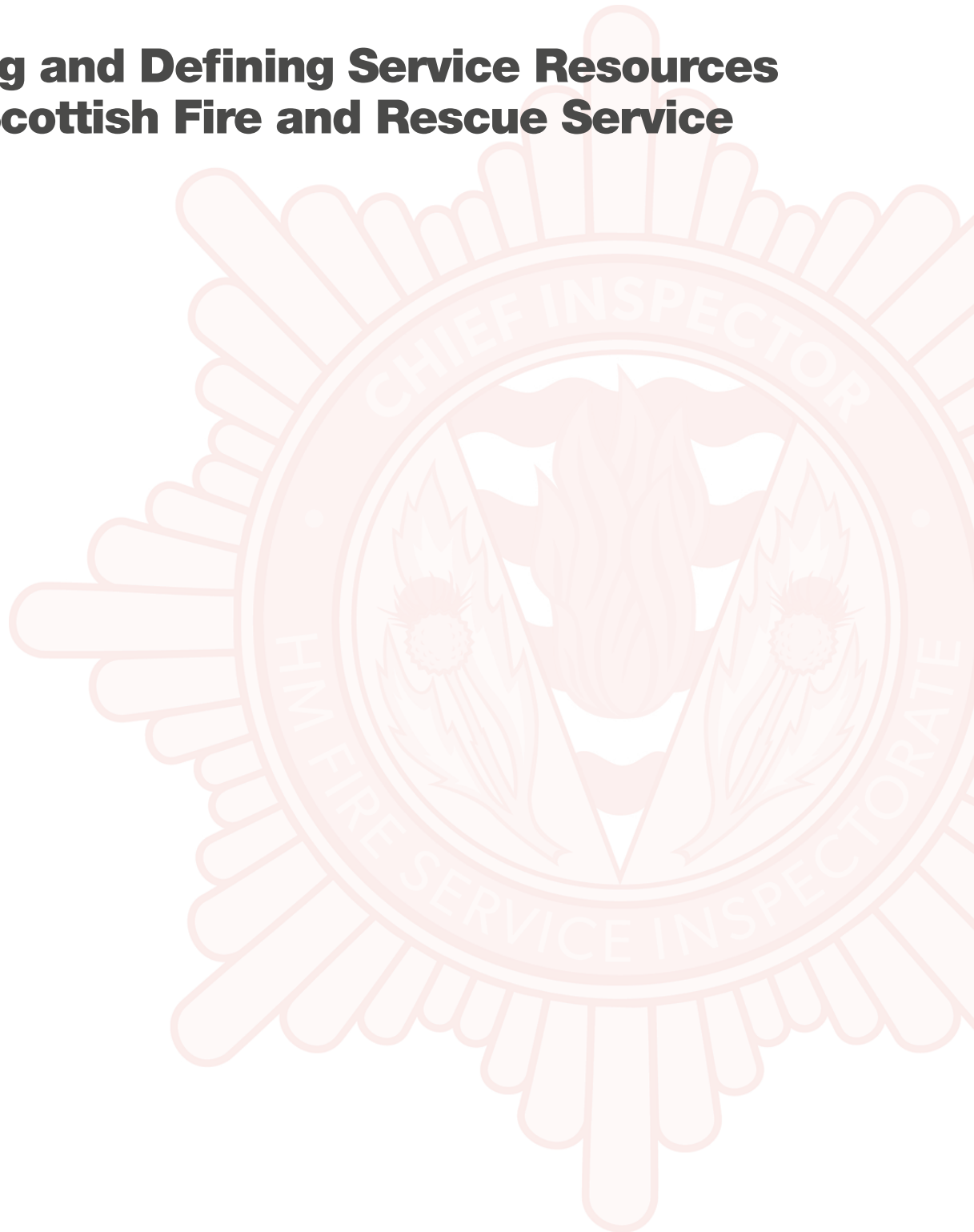


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# Acknowledgements

We are grateful to the Board, Strategic Leadership Team and those members of staff who provided us with information, helped us to organise visits, hosted us and contributed constructively to interviews.

The Inspection team members were:

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All the members of the inspection team contributed to the development of this report and the quality assurance panel provided a professional challenge to the contents, assumptions and conclusions made. However, the Chief Inspector takes sole responsibility for the report, its contents and conclusions.

Laid before the Scottish Parliament by HM Chief Inspector of the Scottish Fire and Rescue Service under section 43C(5) of the Fire (Scotland) Act 2005 October 2015 SG/2015/133

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# 1 Introduction

In April 2005 the previous prescriptive approach to the provision of fire and rescue service resources, by which the weight of response and attendance times were centrally determined, was withdrawn. While the previous scheme was principally targeted at property protection, the revised approach extended beyond provisions related to fire. It also envisaged an emphasis on life safety and matching resources to risk, an increased focus on prevention, and increased flexibility. A major challenge for the then Fire and Rescue Services (FRSs) was to plan and align their resources to risk, take account of the non-fire response work that had evolved, and take account of the balance and interaction between intervention and prevention.

A 2010 review<sup>1</sup> of the revised approach within Scotland found little had changed in the way the FRSs managed risk. With some minor exceptions, the location of fire stations and location and type of appliances was the same as what existed pre-2005.

In 2012, Audit Scotland published a national report<sup>2</sup> on the FRS which contained, amongst other things, recommendations relevant to the development of risk management for the new Scottish Fire and Rescue Service (SFRS). These related to the provision of a national approach to allocating resources to risk and national criteria to fire station location and duty systems.

The SFRS inherited the assets of the predecessor organisations. In determining what level of resources are appropriate to provide across Scotland, SFRS has flexibility to match resources to risk. It must do this whilst still meeting its legal obligations and the expectations of Scottish Ministers as set out in the Fire and Rescue Framework for Scotland (the Framework). There are also constraints in play such as no compulsory redundancies and personal mobility conditions.

Additionally, after two years the SFRS is still dealing with the long-term challenges of merging predecessor organisations. These challenges, and in particular resource allocation, are compounded by the tightening fiscal and budget environment. Audit Scotland<sup>3</sup> has alerted SFRS to the challenge in planning reviews relevant to future demand and has recommended that the Service should agree a long-term financial strategy developed from evidence-based options. The SFRS, as a result of future cost pressures and likely funding reductions, has a potential funding gap of £42.7m in 2019/20.

The SFRS is embarking on changes which should, over time, result in a more efficient, effective and flexible use of its workforce. Future changes also need to be considered, there is potential for the SFRS role to be widened, such as greater involvement in emergency medical work. In delivering its functions the SFRS must judge how best to allocate its resources for the benefit of the community as a whole. We believe that the SFRS should ultimately have in place a robust methodology which identifies and assesses the range of foreseeable risks that impact on its area. This should then inform the resources that the SFRS determines it may reasonably need to provide to mitigate those risks.

## A summary of our findings

- This report contains a snapshot examination of the risk assessment and resource allocation being developed by the SFRS. There are a number of different elements to the SFRS approach which form part of a Strategic Approach to a National Risk Reduction (NRR) project.

<sup>1</sup> *Review of the Implementation and Impact of Integrated Risk Management Planning in Scottish Fire and Rescue Service*, Scottish Government Fire and Rescue Advisory Unit, 2010

<sup>2</sup> *National Overview Report of Best Value in Fire and Rescue Services in Scotland*, Audit Scotland, 2012

<sup>3</sup> *The Scottish Fire and Rescue Service*, Audit Scotland, May 2015

- The individual elements of the NRR are a Strategic Assessment of risk, Emergency Cover Review, Prevention and Protection Support Project, and a Specialist Equipment Review. The Specialist Equipment Review was developed prior to the introduction of the NRR project. The outcomes of the NRR will inform the development of the SFRS's Strategic Plan 2016-2019.
- There are a number of strategic developments within the Service, directly relating to risk management, that have an interdependency with the NRR process. Ensuring that interdependent areas are coordinated effectively and duplication of effort minimised requires strategic oversight. This is an area being progressed within the Service by the creation of a Strategic Planning, Performance and Communications Directorate.
- There is an engagement strategy in place for the overall NRR Project and for the separate elements within it. The degree to which the engagement has been undertaken varied.
- The SFRS is having differing degrees of success in managing its programme of change. It has made some progress in standardising Resource-Based Crewing and specialist rescue. A Prevention and Protection Directorate target operating model that has been in existence since the inception of the SFRS is not fully resourced and changes to Response and Resilience resources are challenging.
- The Prevention and Protection staffing model contains a blend of uniformed and non-uniformed personnel, both within fire safety enforcement and community safety. There is a continuing opportunity for the SFRS to realise benefits such as cost and continuity, through further use of non-uniformed enforcement staff and by aligning staff numbers and structures to local risk and audit activity.
- The SFRS is developing a Strategic Assessment. The document serves a useful purpose by providing a risk profile and providing an element of trend analysis. Analysis of risk, option appraisal, and evaluation could be strengthened by greater consideration of costs, incident causes and incident outcomes.
- The Emergency Cover review is within development, therefore we are limited to commenting on the process and the planned future direction. There has been preparatory work carried out by a small team within the SFRS. An external consultant has also been employed to produce resource allocation options. We encourage SFRS to consider innovative approaches to the delivery options for this review.
- The Specialist Equipment Review is a one-off exercise aimed at delivering standardisation of approach throughout Scotland and achieving more equity of access to specialist resources. The report findings are very pragmatic.
- Workforce planning within the SFRS is now well established, with relevant functions such as HR and finance appropriately linked to on-going change projects.
- An incident command model for flexi-duty officers has been developed. This projects a requirement of 240 officers operating from 23 Strategic Mobilising Locations.

## 2 About the inspection

Her Majesty's Fire Service Inspectorate in Scotland (HMFSI) is a body that operates within, but independently of, the Scottish Government. Inspectors have the scrutiny powers specified in section 43B of the 2005 Act. These include inquiring into the state and efficiency of the SFRS, its compliance with Best Value, and the manner in which it is carrying out its functions.

The purpose of this inspection is:

*To consider in detail the processes which the SFRS apply in assessing community risk and allocating resources and in particular:*

- *How community risk is defined*
- *How decisions are made about the allocation of resources in respect of the 'Prevention and Protection' and 'Response and Resilience' functions of the Service*
- *How generic levels of resource are determined*
- *What changes if any are being made to resource allocation, including any steps being taken to improve consistency of provision*
- *The effectiveness of resource planning and evaluation.*

An inquiry by the Inspectorate can be self-directed or can be subject to direction by Scottish Ministers. This inquiry into the Scottish Fire and Rescue Service is self-directed by the Chief Inspector. The decision to carry out this inspection was influenced by our findings in previous inspections, the attention that Audit Scotland paid to this issue in its Best Value report of 2012, and the challenges currently facing the SFRS.

### **Methodology**

This inspection has largely been carried out on the basis of a desk top data review, complemented by a number of face-to-face interviews with SFRS staff who are responsible for analysis, strategic planning and allocation of resources, and with some Board members.

We discussed with specific members of the SFRS the rationale behind its assessment of risk and the allocation of resources involved in acquisition and deployment of resources.

This inspection did not look at the capability or quality of resources, whether existing or proposed, and the extent or adequacy of training.



## 3 Our findings

We start by looking at the functions of SFRS, the SFRS's approach to the identification and assessment of community risk, the allocation of resources provided or planned for by SFRS, and how these resources are matched to risk. In our inspection, our consideration of risk relates to the community risk which informs the level of service provision, both prevention and incident response.

During the inspection, we were aware that progress on the various elements of resource allocation was at different stages, limiting the extent to which we are able to comment on specific work areas. One example is the development of the Emergency Cover Review.

### 3.1 Overview of functions

As part of reform of the fire and rescue services into a single SFRS, the specific purpose of the SFRS is described in the Fire and Rescue Framework for Scotland 2013 as:

*'The main purpose of the Scottish Fire and Rescue Service is to work in partnership with communities and with others in the public, private and third sectors, on prevention, protection and response, to improve the safety and wellbeing of people throughout Scotland.'*

The statutory functions of the SFRS are laid down in the Fire (Scotland) Act 2005 and the Fire (Scotland) (Additional Function) Order 2005. These can be summarised as:

- Extinguishing fires and protecting life and property in the event of fire
- Rescuing persons from road traffic accidents and serious transport incidents
- Removal of chemical, biological and radioactive contaminants from persons
- Conditionally, the rescue of persons from landslides and collapsed buildings, tunnels and structures, unless adequate search and rescue provision is provided by others
- Rescuing persons where there is serious flooding
- The promotion of fire safety
- Enforcing fire safety legislation in respect of non-domestic premises.

In carrying out these functions the SFRS must comply with the duty to secure Best Value which includes a balance between quality of service and cost of provision.

The SFRS can enter into formal arrangements for assistance from others in the carrying out of these functions and can arrange for functions to be carried out by others (sections 36 and 37 of the 2005 Act). The 2005 Act also provides the SFRS with discretionary power to provide and use its resources for other (ancillary) functions where there is risk of death, injury or damage to the environment.

Two other legislative regimes are important in considering the obligations placed on the SFRS and the provision of resources and assessment of community risk:

- The Civil Contingencies Act 2004; interaction with other statutory bodies via Strategic, Regional and Local Resilience Partnerships.
- Local Government in Scotland Act 2003; interaction with local authorities and other partners through Community Planning Partnerships.

It is beneficial to the SFRS to work closely with partners when identifying and mitigating community risk. This allows the Service and its partners to determine how best to use and develop their collective skills, knowledge and assets to best meet risks. Partnership arrangements will include pre-planning, training and exercising for response and recovery. The Fire and rescue Framework introduced strategic priorities that focus on partnership working.

## 3.2\_Risk management

### 3.2.1\_National risk reduction project

The National Risk Reduction (NRR) project is the means by which the SFRS will deliver against the expectations detailed in the Framework<sup>4</sup>. The NRR project provides an opportunity to realise the benefits of reform; improve local services, reduce duplication, protect frontline outcomes and create more equal access to specialist support services and national capacity.

The NRR project can be broken into stages:

- Stage 1    Develop a national strategic assessment
- Stage 2    Prioritising the risks to the community in the strategic assessment
- Stage 3    Developing options for mitigating the risks to the community (Approval of the most suitable options to inform the development of the SFRS Strategic Plan for 2016/2019)
- Stage 4    Implementation of the preferred options within agreed timescales

Other work streams will inform the NRR, including the Emergency Cover Review and the Prevention and Protection Strategic Assessment Support Project. There is regular progress reporting to the SFRS Board, this supports the Board in taking decisions and monitoring progress. In addition, a number of development or information days have been held with the SFRS Board, where the NRR team presented information and options.

One of the main components of the NRR process is to identify the risks to Scotland's communities and to put in place measures to mitigate them. Via the Strategic Assessment process, the SFRS Board will decide on national priorities to address the identified risks. National objectives are in turn transposed into local plans covering each local authority area. We examine the interaction between national and local priority setting as part of our programme of Local Area Inspections, such as that for Aberdeen City<sup>5</sup>.

There are a number of other developments within the Service relating to risk management that have an interdependency with the NRR process, an example is the review of the retained duty system. The need to ensure that interdependent areas are coordinated effectively and duplication of effort minimised has been recognised by the Service by the creation of a Strategic Planning, Performance and Communications Directorate.

<sup>4</sup> It is anticipated that the Fire and Rescue Framework will soon be the subject of a review

<sup>5</sup> *Local Area Inspection – Aberdeen City*, HM Fire Service Inspectorate, 2015

### 3.2.2 National strategic assessment

Within the Risk Management section of the Framework there is reference to a Strategic Assessment:

*'In fulfilling its purpose, the SFRS must manage the risk to the community. In doing so it must first understand this risk through a robust national strategic assessment from which national priorities will be identified and plans to address them will be developed. From this flows the development of appropriate local priorities and solutions, which contribute to the delivery of national objectives.'*

In its simplest form, risk is the likelihood that an event will occur and the impact of that event. When this is transposed to the functions of the SFRS, the promotion of community safety and the reduction of risk is enhanced by:

- having the capability to deal with incidents that are reasonably likely to occur;
- reducing the likelihood of risk being realised (for example by preventive action);
- mitigating the consequences of risks that are realised: through preventive action or post-incident intervention.

As part of reform work to create the SFRS, an initial Strategic Assessment document<sup>6</sup> was created. As this assessment was developed in the early period of reform and prior to the full establishment of the SFRS, it did not provide a definitive assessment of risk and/or resource modelling criteria. This initial Strategic Assessment has been reviewed and refreshed by the SFRS to provide an up to date assessment of community risk within Scotland<sup>7</sup>. It identifies the core areas of FRS activity and uses data and evidence from a variety of sources to identify high level trends. These in turn will assist in guiding the SFRS on how best to deploy its prevention and intervention resources in future.

The process of developing the SA has involved a number of stages and engagement with the SFRS Board. At the November meeting, the Board noted the role of the strategic assessment of risk in the broader approach to managing risk and that the prioritisation of risks and resultant actions will be through the Strategic Planning process. Engagement has also taken place with other internal SFRS stakeholders and with the Scottish Government.

We believe that the existing strategic assessment could be enhanced by:

- including cost information, and incorporating, so far as it is appropriate, a cost benefit analysis approach in appraisal and evaluation<sup>8</sup>;
- greater consideration of impact, outcomes and risk. Impact is considered in so far as this extends to the potential for an incident to result in a casualty. However no consideration is given to casualty severity as defined in the national Incident Recording System (IRS); and
- greater consideration on the causes of incidents and quantifying this where appropriate.

<sup>6</sup> Strategic Assessment of Scotland, State of the Nation, SFRS

<sup>7</sup> Strategic Assessment, SFRS

<sup>8</sup> Scottish Public Finance Manual, Scottish Government

## **3.3 Allocation of resources – Response and Resilience**

### **3.3.1 Appliance and equipment disposition**

The SFRS inherited variations in the location of fire stations, number and type of appliances and crewing arrangements. As such an early priority for the SFRS was to introduce common standards.

In contrast, the SFRS inherited a degree of standardisation in specialist resources such as urban search and rescue (USAR) capability. This standardisation was the result of central government's procurement of equipment and training through the New Dimension project. New Dimension assets were introduced UK-wide following the terrorist attacks in the USA in 2001. These resources were primarily provided to enable a response to USAR incidents, and the provision of mass decontamination capability for response to chemical, biological, radiological and nuclear incidents.

### **3.3.2 Emergency Cover Review**

A wide-ranging review of fire and rescue service provision commenced in April 2014 with the aim of providing an accurate picture of fire station locations to identify obvious gaps, duplication or over-provision in service delivery, to inform a standard approach to all areas of emergency response. The SFRS also commissioned an external emergency service planning consultant to prepare a separate review of provision in Scotland. The purpose of the second review is to have an independent assessment against which to compare or challenge its own proposals.

The review has not yet reached a conclusion and we have no indication of likely outcomes. We are therefore unable to comment on any findings. However we recognise that implementing its findings could potentially take a number of years. We would observe that the review offers the SFRS the opportunity to promote innovation and challenge traditional delivery models.

In part, innovation and change has already commenced with early work being done to support the Scottish Ambulance Service in responding to Out of Hospital Cardiac Arrest cases, which is to be welcomed.

### **3.3.3 Availability of specialist resources**

In June 2013 the SFRS's Strategic Leadership Team (SLT) agreed to undertake a review of specialist FRS resources across Scotland. Its principal purpose was to create more equal access to specialist support services and national capacity. This review concluded that the resources inherited on 1 April 2013 required some changes to meet the aims of the new single service, in respect of location or in consideration of maintaining crew competency and training.

Development of the SFRS's specialist equipment policy involved specialist officers making recommendations for their areas of specialism. Although a standardised approach was taken, the level of detail underpinning the policy recommendations varies. As such there is variation between the robustness of the underpinning arguments.

In developing its specialist resources policy the SFRS engaged with employee representative bodies, emergency service and resilience organisations and local authorities.

The overarching policy takes account of a range of appropriate factors including budgetary constraints, political drivers, appetite for risk and projected future requirements. It also includes some deviation from the recommendations made for individual specialisms. As part of the development of the report there was also engagement with LSOs as the key implementers of the plans and local authority elected members.

The appendix in our report contains some specific detail under individual specialist subjects.

At its meeting on 29 January 2015, the Board agreed the development of an implementation plan. Whilst some of the policy changes can be affected immediately, implementing the majority of the policy will take some time to allow for training and procurement of equipment and vehicles. The target completion date for the full policy is March 2018.

The Fire and Rescue Framework places a strategic priority on the SFRS to develop as a champion of specialist rescue. In doing so, it must pro-actively engage with other emergency services and relevant voluntary groups to manage risk across Scotland. The SFRS is at a fairly advanced stage in developing a Community Asset Register of providers of specialist resource and assistance. This register will be a significant step forward in the aim of identifying and mobilising the most appropriate resource to any rescue situation.

The register has yet to go live as a number of protocols have not yet been fully developed. These include accreditation of providers, access to welfare provision, and funding.

### **3.3.4\_Duty systems**

The SFRS has an Interim Workforce Plan. This sets out headcount numbers for all roles within the Service, with projections for future requirements taking account of expected retirement profiles.

The plan highlights the potential impact that the specialist resources, emergency cover and RDS reviews may have on workforce planning assumptions, but these are un-quantified. No major work will be done to the workforce plan until the full outcome of these reviews are known. We were advised that there is now a good working relationship and understanding between the HR function and Finance function, integral to resource planning. A Workforce Planning Forum has been established which allows for a 'corporate' approach to decision-making through six weekly formal meetings aimed at achieving and modelling the SFRS Target Operating Model. At the time of writing HR was to take delivery of new workforce planning software 'Org Chart'. The system will allow comprehensive planning of the business structure, including detailing of costs related to that structure, allowing modelling against the budget.

Workforce planning within the SFRS has developed well and includes better horizon scanning and strategic planning than previously. In developing its workforce planning, the SFRS has taken account of Audit Scotland's recommendations in its report of Scotland's Public Sector Workforce<sup>9</sup>.

The SFRS is striving for further improvement by establishing an HR Business Partnering delivery model and having a member of HR staff dedicated to workforce planning.

<sup>9</sup> *Scotland's Public Service Workforce*, Audit Scotland, November 2013  
[http://www.audit-scotland.gov.uk/docs/central/2013/nr\\_131128\\_public\\_sector\\_workforce.pdf](http://www.audit-scotland.gov.uk/docs/central/2013/nr_131128_public_sector_workforce.pdf)

The workforce plan indicates that the SFRS could enhance its fire safety enforcement arrangements by utilising a blended approach of fire safety enforcement and auditing officers, we cover this further later in the report.

As part of its workforce review, the SFRS is undertaking a review of the RDS system. This is not scheduled for completion until late 2015. We will continue to monitor this issue.

### ***Flexi-duty managers***

The SFRS needs to have sufficient resources to implement a national managerial incident command function incorporating resilience to be able to deliver its objective of ensuring that incidents are managed in such a way as to ensure operational crews undertake a safe system of work.

The interim workforce plan sets out that the SFRS's incident command model requires a total of 240 officers, which is a reduction of around 85 from the numbers in the predecessor services. Prior to the creation of the SFRS, modelling work was undertaken on the number of flexi-duty officers required to provide incident command cover in the Service. Initially simple professional judgement was used, taking into account historic officer mobilisation data, to define the 'ideal' location for officers, in order to meet incident command requirements. Later, modelling was undertaken using the Fire Service Emergency Cover (FSEC) toolkit to inform the initial assessment of officer numbers and locations. Before the introduction of the SFRS's incident command system in September 2013 further analysis was again undertaken by SFRS using Active Phoenix software which also supported the earlier work, with some minor adjustments.

The SFRS has a Flexi-Duty Manager Response policy which was developed in partnership with staff representative bodies. The purpose of the policy is to ensure that supervisory officers, conditioned to the flexi-duty system, are distributed across mainland Scotland in such a way that SFRS can deliver its services equitably, taking into account the level of risk and the areas of greatest need. The policy involves 23 Strategic Mobilisation Locations (SML), some of which are intended to have residential accommodation.

We are aware that the use of 'dynamic mobilising', where the shortest response time resource to the incident is mobilised, may be resulting in unequal demand being placed across flexi-duty officers. This burdens some staff and means that others have a reduced opportunity to maintain incident command competency. The overall policy was reviewed in 2014 and we are advised that it is under regular review with regard to changes to the working structure.

At the time of writing, the number of flexi-duty officers were at levels above the stated 240, with a significant amount of temporary Station Managers. It is anticipated that the target number will be achieved over time.

## **Wholetime Duty System**

The SFRS inherited a range of wholetime duty systems and crewing arrangements. One issue identified early on by the SFRS was that, in some areas, there were regular crew deficiencies and a reliance was placed on overtime to maintain crew numbers and appliance availability. In order to address both these issues a decision was taken to undertake a number of changes including the introduction of a standard Resource-Based Crewing model throughout Scotland.

Resource-Based Crewing (RBC) was not universally applied across the predecessor services, and in some areas, fewer staff numbers are now required to crew appliances than previously. There have been some transfers where staff have elected to move across boundaries, but mobility clauses exist within employment contracts which protect the existing working location for staff and there are still some areas where staffing shortages exist.

The introduction of RBC was planned to be implemented in two phases, the second phase of which was to review the crewing of dedicated high reach appliances and combined aerial rescue pumps. In order to provide a period of stability, phase two is not proceeding at this time and we see that as a sensible decision given the large number of on-going workforce changes.

As indicated above, there was no common duty system across the former services, Strathclyde Fire and Rescue operated a 5 Group Duty System and others operated a traditional four watch system. Given the complexities surrounding establishing a 5 Group Duty System across the service, such as the requirement to appointment a complete new cadre of Watch and Crew managers, we view delaying a decision on implementing a common duty system as sensible. Audit Scotland's Audit of Strathclyde Fire and Rescue<sup>10</sup> gave an outline of the 5 Group Duty System used there. Audit Scotland did not attempt to verify the costs or benefits of the system but did report that Strathclyde's own evaluation had shown that the system required 45 fewer posts, with savings of £1.364m in salary costs, a reduction of 75% in overtime and a reduction of 55% in detached duty costs. Before implementing any comprehensive change to duty systems we would expect that the SFRS will wish to carry out a robust analysis and evaluation of options.

## **Retained Duty System (RDS) and Volunteer Firefighters**

RDS and Volunteer Firefighters are generally available, when required by the SFRS, to respond to a pager alert to an emergency call. Usually these firefighters are expected to live and work within a 5-minute travel distance from their fire station. RDS firefighters are contracted to provide a defined level of availability per week, usually 120 hours, and for this are paid an annual retainer plus an hourly rate of pay for periods of training or when responding to emergencies. Most of the staff on a Volunteer contract are not paid an annual retainer but only for hours actually in attendance, but do not have to provide any minimum level of availability (subject to the approval of the unit leader). As at 31 March 2014<sup>11</sup>, nearly 80% of all stations were primarily either RDS or Volunteer crewed. The SFRS inherited from the previous services variations in the contracts offered to personnel. These variations included things such as the

<sup>10</sup> *The Audit of Best Value – Strathclyde Fire and Rescue*, Audit Scotland, March 2012  
[http://www.audit-scotland.gov.uk/docs/best\\_value/2012/bv\\_120329\\_strathclyde\\_fire.pdf](http://www.audit-scotland.gov.uk/docs/best_value/2012/bv_120329_strathclyde_fire.pdf)

<sup>11</sup> *Scottish Fire and Rescue Service Fire Safety and Organisational Statistics, Scotland, 2013-14*, Scottish Government  
<http://www.gov.scot/Publications/2015/02/9404>

duration of training nights, how that training was delivered and the role that was expected of the personnel. Some of these variations have already been highlighted in the HMFSI report on National Capacity<sup>12</sup>.

The RDS and Volunteer duty systems have been the subject of various external reviews over the years. Primarily these have examined recruitment and retention problems. Recent surveys have highlighted a number of issues surrounding the RDS. A survey,<sup>13</sup> published in 2011, shows that whilst there has been some progress in addressing the issues surrounding the RDS and Volunteer systems, a number still remain such as recruitment and retention. As discussed earlier, the SFRS has set up its own review of the RDS.

At the time of writing the SFRS had carried out a targeted recruitment campaign for RDS personnel in an attempt to address identified local staff shortages. It had also implemented changes to RDS recruitment, the aim being to streamline the process ensuring a shorter timescale from initial contact with the candidate to commencement of their training. As part of the overall RDS project, plans are also underway to pilot some innovations relating to training, increases in permitted travel time to station, and station utilisation (composite stations and active/inactive designations). We were unable to review how these pilot projects had developed, but due to the importance of this sector to the Service as a whole we will continue to monitor progress.

## 3.4 Allocation of resources – Prevention and Protection

### 3.4.1 Support project

As already indicated this project forms part of the overarching NRR project and is intended to integrate with the outcomes of the Emergency Cover Review. Essentially the project will provide prevention and protection options where a change to response is proposed, to ensure the continued safety and wellbeing of Scotland's communities. Any increase in community safety activity is likely to affect the workload of the Directorate and subsequently its staff. Therefore, this may require some alteration to the staffing model to meet the needs of the wider NRR project outcomes. Similarly, changes to overall community risk, in the context of either community or non-domestic fire safety, require there to be a degree of flexibility in the management of workforce planning. The Framework contains an expectation that the SFRS will build on the progress made in community safety activity and will use prevention, protection and response in a complementary way to provide the most appropriate solution to the identified priorities.

<sup>12</sup> *Equal Access to National Capacity*, op. cit.

<sup>13</sup> *Fire Research Report 4/2011 – A survey of Retained Duty System personnel, former Retained Duty System staff and Fire and Rescue Service Managers*, DCLG



### 3.4.2 Community safety engagement (CSE)

Community Safety Engagement can take various forms such as delivery of Home Fire Safety Visits, community engagement events, advertising on television and radio, firesetter interventions, and working with young people. CSE is delivered by both dedicated CSE staff and station-based firefighters as part of their wider role. Some elements of CSE delivery are more suited to being delivered by dedicated practitioners who have specific training and competency. Typically the dedicated practitioners are more likely to deliver tailored advice in specific situations or to particularly vulnerable members of the community.

The Framework requires that LSOs ensure that there is a clear process for working with partners to identify the most vulnerable communities, and most vulnerable individuals within communities, to target activity where it is most needed. We have previously commented in our Overview Report<sup>14</sup> on the benefits to be realised in strong partnership working, particularly with organisations representing the health and social care sector. We have already witnessed strong partnership working and will continue to explore and report on partnership linkages as part of our on-going Local Area Inspections.

At the outset, the staffing model was based on a review of a number of variables and their influences, such as the distribution of inherited community engagement staff and the split between Community Firefighters and Community Safety Advocates, the community risk profile and historic incident data. Cognisance was also taken of the available budget. There was also agreement to share resources across LSO areas if required, to provide an element of flexibility at times of increased demand.

The original CSE staffing model was, for a number of reasons, never fully resourced and there are a number of vacancies, particularly within the North SDA. However, some of these vacancies are being held pending the conclusion of the support staff matching process to allow for the possibility to relocate control staff following control room rationalisation. The Prevention and Protection Directorate commenced, in August 2014, a review of the implementation of its policies and procedures across the various LSO areas. An intention of this review was also to identify any gaps in its target operating model. In developing the CSE annual operating plan for 2016, the SFRS considers that the staffing structure will be re-assessed. As with non-domestic fire safety discussed below, this review also presents an opportunity to examine further the blended approach to community engagement, particularly the split of work to Community Firefighters and Community Safety Advocates.

### 3.4.3 Non-domestic fire safety

SFRS is the enforcing authority for Part 3 of the 2005 Act in respect of the majority of non-domestic premises in Scotland. The Fire and Rescue Framework contains the expectation that the SFRS will provide resources for this enforcement role and contains a target for reducing the rate of non-domestic fires (and in its description of the parallel performance indicator, explains that this indicator is an indication of the effectiveness of enforcement activity<sup>15</sup>). The

<sup>14</sup> An Overview of the Scottish Fire and Rescue Service op. cit.

<sup>15</sup> We think that this performance indicator (and hence the target) is not an true indication of enforcement activity and outcomes, because some 'other buildings' premises are outwith the scope of fire safety legislation. For example, around 15% of fires that occur in non-domestic premises, occur in private garages and sheds (*Fire and Rescue Statistics Scotland 2013-14*, Scottish Government)

SFRS has issued an enforcement framework which specifies the audit frequency for the different category of premises, based on assessed risk. The number of premises and frequency for audit has a major influence on the enforcement resources required.

This is an area that has been previously examined, to an extent, in our Overview Report<sup>16</sup>. At that time we were influenced by the challenges and teething problems faced by the SFRS in bringing together the systems of the predecessor services and restricted our observation to matters of deviation from a risk hierarchy approach, and making some general comment on workforce and duty system issues.

A base case of the number of persons required to carry out the enforcement function can be calculated from the number of 'relevant premises' that require to be audited each year and the aggregated enforcement time necessary to carry out these audits. A modification factor may be applied to that number to provide resilience for thematic or unplanned work.

As with the development of the CSE staffing model, the model for Fire Safety Enforcement (FSE) was also based on a review of a number of influencing factors. The distribution of inherited staff and the split between Enforcement Officers and Auditing Officers, the number of 'known premises'; the risk profile and historic incident data were all taken into consideration in developing the staff structure. As with community fire safety, where community risk is subject to evolution due, for example, to demographic changes, non-domestic fire safety risks can also change. The structure has recently been reviewed, and the need for this review has been partly driven by the identification of an increase in the number of 'known premises' since the creation of the SFRS. Some background on the reasons for this increase can be found in our report on Performance Management Information Systems<sup>17</sup>. As a result of the review a regional layer of management within prevention and protection was removed to strengthen the connection between policy development and service delivery.

### **Enforcement Roles**

Our Overview Report<sup>18</sup> described the difference between Enforcement Officers (EO) and Auditing Officers (AO). EOs are staff whose conditions of service are governed by the 'Grey Book'<sup>19</sup> and essentially joined the fire service as firefighters and at some stage in their career transferred into an EO role. Some may later return to a firefighting role. Auditing Officers are generally staff who entered the role in the Service (or in some cases were redeployed or re-engaged in a different role) directly. This is still the arrangement, where the EO salary level differs from the AO.


Enforcement officers often serve for a few years for career development, then wish to move on, when they have developed experience in the role. There are positive aspects to this - the skills and knowledge gained can add value in their new role - but this arrangement can have a knock-on effect on standards of delivery and efficiency in fire safety enforcement.

<sup>16</sup> *An Overview of the Scottish Fire and Rescue Service*, ibid.

<sup>17</sup> *Performance Management Information Systems in the Scottish Fire and Rescue Service*, HM Fire Service Inspectorate, May 2015 <http://www.gov.scot/Resource/0047/00476788.pdf>

<sup>18</sup> *An Overview of the Scottish Fire and Rescue Service*, op. cit.

<sup>19</sup> *Scheme of Conditions of Service*, National Joint Council for Local Authority Fire and Rescue Services



There are 80 uniformed EO posts and 22 non-uniformed AOs. We were advised that due to the lead-in time taken to develop a competent EO, the impact of staff turnover is fully recognised and succession planning is a standing item on the quarterly discussions between the Prevention and Protectorate Directorate and LSOs. As we have indicated in other reports, we welcome the blended approach of using both EOs and AOs but feel that there is scope for further movement towards more AOs within the blend, including a review of the potential for AOs to carry out a wider range of enforcement work and the introduction of a career structure within fire safety enforcement.

The fire engineering element of the non-domestic fire safety work also provides an opportunity to use non-uniformed members of staff. As the career path in fire engineering is longer than that of routine enforcement work, the impact of staff turnover can be greater.

## 4 Conclusions and recommendations

As a result of our inspection we make the recommendations for the SFRS:

- To strengthen the use of an option appraisal and evaluation approach in resource planning. This will provide support and clarity to decision-making.
- Future strategic assessments to have greater use of analysis of cost, and incident causes and outcomes. This will improve transparency in decision-making by the Board.
- We encourage the Board and the SLT to continue in their efforts to secure service improvements at a time of fiscal austerity, by considering innovation and change in the implementation of the Emergency Cover Review and the RDS review.
- Examine the scope to increase the proportion of non-uniformed staff within fire safety enforcement, including fire engineering, along with a potential expansion of role, as a means of delivering an improved service.

# Appendix

## SPECIALIST EQUIPMENT REPORT – SUBJECTS

### ***Line Rescue***

With the exception of Highlands and Islands, the former services had some form of specialist capability. The Line/Rope and Confined Space Rescue paper based its conclusions on a review of historic operational data, in this case covering four years, an analysis of population distribution, transport infrastructure (in relation to travel times, providing 30-, 60- and 90-minute travel distance isochrones), geography and the legislative background.

As an employer, the SFRS has a duty to consider how it will meet the requirements of The Work at Height Regulations 2005. In order to comply, firefighting personnel receive basic work at height training. There are two further levels of training provision for dedicated staff; enhanced Safe Working at Height (SWAH) and Technical Rope Rescue. The SWAH Technician, requires an additional four days' training. At the more advanced end of capability, Technical Rope Rescue, training takes a further nine days.

The SFRS inherited five full Technical Rope Rescue stations and two Rope Rescue stations, the latter had a capability linked to the water rescue activity and personnel were not trained to carry out rescues from open structures. In addition to these there were 147 stations with SWAH Technicians.

The background paper sets out options for future provision of Technical Rope Rescue including SWAH Technicians. The rationale for proposing SWAH Technician stations is to cover response areas where there is an extended attendance time for a full Technical Rope Rescue team. The paper made recommendations for the location of both SWAH Technician stations and Technical Rope Rescue stations, however, the Specialist Equipment review paper only published proposals for the Technical Rope Rescue teams.

None of the four options presented in the background paper for full Technical Rope Rescue stations were included in the Board paper. With the exception of Tollcross in Edinburgh and East Kilbride, none of the other potential locations proposed have been included in the final selection presented to the SFRS Board. Further, the Specialist Equipment report proposes that the inherited level of five dedicated Technical Rope Rescue stations be reduced to four, though as part of the four it does recommend creating a new capability in Aberdeen.

The rope rescue proposal is to have resources located in South Lanarkshire, Edinburgh, Fife and Aberdeen.

### ***Heavy Rescue/Urban Search and Rescue (USAR)***

Heavy Rescue and USAR are not identical, but have significant similarities in the skills and equipment required. The SE report highlights opportunities that can be gained by a structured review of both specialisms and improvements in overall coverage derived from doing so. For example mobilising USAR resources as a heavy rescue attribute.

Central government planning assumptions for a USAR incident focus on what are called model response sites, primarily the urban centres of Edinburgh and Glasgow. These plans assume that a USAR capability response is required at an incident within a 2-hour period. Once on scene there is an expectation that this can be sustained for a period of 30 days, using

teams from elsewhere in Scotland or across the UK. Scotland's teams also form part of the UK-wide mutual aid provision.

The SE report recommends that provision of USAR capability be reduced to six teams. This provision is still in excess of the minimum capability required by the planning assumptions detailed above.

### ***Marine firefighting***

The SFRS has no statutory duty to respond to incidents outwith its service boundary, which extends to the mean low water mark around Scotland's coastline. The Service does have a duty to make provision for responding to incidents on vessels which may be moored alongside in harbours or under construction or repair in docks. Under a now withdrawn UK-wide arrangement – the Maritime Incident Response Group (MIRG) – a number of the previous fire and rescue services in Scotland provided a capability for firefighting on vessels at sea. An 'at sea' capability, established by the former Strathclyde Fire and Rescue, has continued to exist within the SFRS.

The background paper designates two levels of capability using the following terminology:

- Marine Operating Group (MOG) for a statutory provision for vessels alongside; and
- Fire Rescue Marine Response (FRMR) for vessels at sea (formerly MIRG).

The paper sets out 16 fire stations that have been identified as locations where a MOG capability would be established. This paper however does not cover provision for the Western Isles, Orkney or Shetland, these islands will be reviewed separately. An option proposed by the paper, which would in part provide MOG cover on these islands, was to re-institute the MIRG capability that previously existed in the North and East.

The SE report presented to the SFRS Board recommends that a project team be established to identify 12 MOG station locations, rather than the 16 mentioned in the background paper; the FRMR capability in the West SDA be used to provide operational support for remote rural and island locations; and advises that a feasibility study for the creation of a second FRMR capability in the northeast was on-going.

### ***Detection, Identification and Monitoring (DIM)***

DIM capability allows the SFRS to identify a wide range of solids, liquids and gases/vapours and also radiation and biological sources. This assists in providing a safe system of work for SFRS personnel and other multi agency partners at incidents. The DIM capability was introduced to the UK FRSs as part of the New Dimension programme. There are four DIM vehicles strategically located in Edinburgh, Glasgow, Aberdeen and Dundee. The resources are utilised at incidents by trained flexi-duty DIM Technical Advisors (DIM TAs) who are supported by Local Authority Scientific Advisors.

The SE report recommends no changes to the city locations of the vehicles, although there will be some station changes, and changes to staffing and mobilising arrangements. It recommends further integration of the SFRS's DIM and Hazmat capabilities due to the close relationship between the disciplines and the use of wholetime crews to test, maintain and transport the equipment to incidents.

### ***Mass Decontamination (MD)***

The MD capability was also introduced to the UK FRSs as part of the New Dimension programme. This capability in Scotland allows the SFRS to assist the NHS and the Scottish Ambulance Service to decontaminate large numbers of people in the event of a release of a CBRN agent (chemical, biological, radiological or nuclear) or any other substance damaging to health. MD capability is planned on a UK-wide basis, therefore Scotland's assets integrate with the UK CBRN response planning strategy and assumptions. This is reflected in the options presented within the MD review paper, with nine MD units reduced to seven, located to ensure a response to risk areas identified within the Home Office planning assumptions.

### ***Hazardous Materials (Hazmats)***

The inherited provision of specialist Hazmat vehicles, trained FRS subject matter specialists and arrangements for access to expert scientific advisors as a response to Hazmat incidents does not provide consistency across Scotland. The background paper proposes a number of recommendations:

- Combining the Hazmat and DIM TA role, which will allow a reduction in the number of Hazmat/DIM officers
- Determining the number and location of these officers based on National Resilience requirements, risk profiling, historical incident activity and response times/geography
- The continued provision of external expert scientific advice, with a consistent model for Scotland
- Reducing the number of Hazmat/Environmental Demountable pods from eight to four, strategically sited
- Maintaining the availability of the three dedicated Hazmat/Environmental support vehicles, in the short term.

The background paper also makes a number of further recommendations which are designed to support those detailed above and enhance the provision of Hazmat response across Scotland.

### ***Environmental Protection***

Eight Environmental Units were provided in the predecessor FRSs. This was a collaborative venture between the Scottish Government, Scottish Environment Protection Agency (SEPA) and the Scottish FRSs. These units are demountable pods which are transported by a prime mover vehicle. The Environmental Units are mobilised as part of a combined response to Hazmat Incidents to provide equipment which can mitigate pollution at incidents. As part of the collaboration with SEPA, 'first strike' environmental equipment is also provided on front-line appliances.

The background paper makes a number of detailed recommendations around the provision of an environmental protection capability in the SFRS. The SE report recommends a reduction in demountable pods from eight to four based in four key prime mover sites.

## **Water Rescue**

The obligation in the 2005 Act extends only to the rescue of persons where there is serious flooding, however, the SFRS has a capability which is used for a wider role, both for water rescue and for response to flooding incidents.

Water rescue in general, and not just the FRS role, has previously been subject to scrutiny. The Tomkins report<sup>20</sup> in the main was complimentary about the predecessor FRSs but raised issues about the provision of 14 water rescue teams (with boats) regarding the matching of resources to demonstrable risk and recommended an audit of the utilisation and suitability of FRS water rescue capability. As part of the Tompkins report an analysis of risk was conducted. The SFRS background paper didn't provide an updated risk assessment, beyond a high-level account of the number of incidents responded to over a four-year period.

The Strategic Assessment envisaged a partnership approach to water rescue with the FRS role extended only to non-tidal waters and described by a memorandum of understanding.

The SFRS considers it inherited 16 fire stations with a declared water rescue resource, though it stated that the number of stations which met the required SFRS standard was actually half that due to different levels of competence and varying standards of equipment and stowage arrangements. The SE report proposes a move to a model where there will be 20 specialist water rescue stations in Scotland.

## **High Volume Pumps**

The SFRS general-purpose fire appliances have a pumping capacity which enables the Service to meet its normal firefighting requirements. There are occasions when a greater pumping capacity is required, either in response to widespread flooding or a large fire, and this can be provided by a high volume pumping (HVP) capability. HVPs are capable of moving large volumes of water over very extended distances.

The four HVPs in the Service were provided through the New Dimension programme. They are located at Elgin, Clydesmill, Falkirk and Hawick fire stations. The pumps and supporting equipment are configured as demountable units which are transported by a prime mover vehicle. The Specialist Equipment paper recommended retaining the existing locations with the exception of the pump based at Hawick which would relocate to Dundee.


## **High-reach**

High-reach appliances are used for firefighting and rescue in the taller buildings that are more common in urban environments. A range of high-reach appliance type are available; including turntable ladders, hydraulic platforms and aerial ladder platforms. In recent years combination appliances known as aerial rescue pumps or combined aerial rescue pumps have become an alternative, offering the capability of performing conventional pumping appliance tasks whilst also having a high-reach capability.

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<sup>20</sup> *Independent Review of Open Water and Flood Rescue in Scotland*, Paddy Tomkins, 2009





There are 27 high-reach appliances available across Scotland. The intention is to retain this overall number of appliances but to make some alteration to the location of some. Some individual vehicles nearing the end of their operational life, will be replaced by new vehicles and a chassis procurement exercise has commenced.

### ***Forestry***

The SE report advises that wildfire resources would form part of a separate policy and procedure regarding the general approach by the SFRS to such incidents.

### ***Command and Control***

Effective incident command ensures that spans of control are maintained and that effective communications are in place between individuals and teams from the SFRS and partner agencies. The provision of enhanced command and control support on the incident ground is important at large, protracted or complex incidents. Incident Command Units contribute to enhanced command and control support on the incident ground, by transporting communications equipment and trained personnel to the incident location, providing a hub for command activities.

There are 11 operational command and control units in Scotland, with a further vehicle build recently completed, but not yet allocated to a station. Of the 11 operational units, some are demountable pods, some are dedicated vehicles, and one is based on a trailer which is towed by a tractor unit which requires a class 1 Heavy Goods Vehicle licence. The background paper recommends that a reduction in provision can be achieved by distribution modelling through a comparison of optimum travel times between the current and proposed fleet distribution and recommends further review to determine locations and equipment specification.

# Glossary and abbreviations

Throughout this report, at the risk of some repetition, we have minimised the use of abbreviations in the interests of readability. There are some exceptions, particularly where an abbreviation is used so widely within or outside the Scottish Fire and Rescue Service that spelling it out on each occasion would look unnatural. Examples are ‘SFRS’ for Scottish Fire and Rescue Service and ‘LSO’ for Local Senior Officer. An explanation of abbreviations used can be found below.

AO	Auditing Officer
CBRN	Chemical, Biological, Radiological and Nuclear
CFOAS	Chief Fire Officers’ Association Scotland
CSE	Community Safety Engagement
DIM	Detection, Identification and Monitoring
DIM TA	Detection, Identification and Monitoring Technical Advisor
ECR	Emergency Cover Review
EO	Enforcement Officer
Framework	The Fire and Rescue Framework for Scotland 2013
FRMR	Fire Rescue Marine Response
FRS	Fire and Rescue Service
FSE	Fire Safety Enforcement: the enforcement of fire safety in non-domestic premises.
FSEC	Fire Services Emergency Cover: the FSEC Toolkit is a tool that enables fire and rescue services to assess the risks from fire and other incidents and to allocate responses appropriate to that risk.
HFSV	Home Fire Safety Visit: a visit to a member of the public in their own home by SFRS personnel to provide fire safety advice and, where necessary, install one or more smoke alarms.
HR	Human Resources
HVP	High Volume Pump
LSO	Local Senior Officer
MD	Mass Decontamination
MIRG	Maritime Incident Response Group

MOG	Marine Operating Group
NRR	National Risk Reduction Project
Predecessor organisations	The eight fire and rescue services in Scotland, and the Scottish Fire Services College, that were combined into SFRS.
RBC	Resource-based crewing: a crewing model used at wholetime fire stations which have both pumping and special appliances. A dedicated crew is not provided for the special appliance. When the special appliance is required at an incident, two firefighters from the pumping appliance crew the special appliance and both the pumping appliance and special appliance proceed to the incident.
RDS	Retained Duty System. Firefighters on this duty system live and work away from their fire station and are alerted to attend emergency calls by means of a pager.
SA	Strategic Assessment
SDA	Service Delivery Area. SFRS is organised into three geographical areas for service delivery.
Senior leadership	The term we use to describe the Board and Strategic Leadership Team acting together to provide governance and management of the Scottish Fire and Rescue Service.
SEPA	Scottish Environment Protection Agency
SE	Specialist Equipment Review
SFRS	Scottish Fire and Rescue Service
SLT	Strategic Leadership Team. The most senior leadership group within SFRS.
SML	Strategic Mobilisation Location
SWAH	Safe Working at Height
USAR	Urban Search and Rescue
2005 Act	The Fire (Scotland) Act 2005



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