Risk Based Capital Investment Plan

2024

Working together for a safer Scotland



Mage (Y)

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1. Executive Summary

As the fourth largest Fire and Rescue service in the world the Scottish Fire and Rescue Service (SFRS) has an asset portfolio worth around £0.5 billion comprising land and buildings, including 355 fire stations, 1,570 fleet vehicles and thousands of items of operational equipment, all of which are critical to the effective delivery of services to our communities across Scotland. SFRS play a significant collaborative role in supporting communities through joined up service delivery. Despite significant investment over the past eleven years, there remains a substantial inherited backlog investment issue to enable all assets to achieve satisfactory ratings for condition and suitability.

In 2018 Audit Scotland recognised and reported a need for action in this regard and recommended in order to bring its property, vehicles, and other assets across Scotland up to a minimum satisfactory condition and maintain them over the next ten years, the SFRS requires an average annual investment of £80.4 million. The SFRS Property and Fleet estate requires critical investment so as to ensure that we have the right stations and vehicles fit for the 21st century to support evolving community risk.

SFRS has set a timescale to achieve Net Zero Carbon in line with Scottish Government requirements however we have insufficient funding for the works identified in the Carbon Management Plan making it very likely we will fail to meet targets within the identified timescales. There is also a significant cost uplift to be factored in when replacing an internal combustion engine (ICE) vehicle with an Ultra-Low Emissions Vehicle (ULEV). With the current levels of funding, it is very unlikely that SFRS will achieve the ambition of achieving 100% light fleet being ULEV by 2030 in line with Scottish Government target.

We have created this Risk Based Capital Investment Plan for Equipment, Fleet and Property assets, this is linked to the development of Strategic Asset Management Plans for our key assets. This document sets out a framework of risk decision criteria which recognises the vital role of decision-making in effective asset management. Risk based asset management is a process in which risk is used to balance the operational performance of the asset against the life-cycle cost. This requires the collation of relevant information based upon the asset importance to The SFRS strategic objectives, this information is used to make data led decisions. Capital investment plans continue to be prioritised to those assets with the highest risk of failure, Fire Stations with Reinforced Autoclaved Aerated Concrete (RAAC) roofs for example, or which have the highest operational impact from failure, and to address those issues of concern for the health and safety of asset users.

The ten-year Capital Investment plan identifies the gap between the amount that Scottish Government allocates to SFRS for fleet, equipment, and property to what is required to deliver a 21st century fire service. In 2022, when this plan was first produced, a 10-year capital requirement of £630 million was identified, due to the effects of inflation and continued under investment the 10-year investment figure is now over £817 million, an increase of nearly 30%.

The Strategic Service Review Programme (SSRP) has been established to provide a modernised fit for purpose, safe and sustainable Service, that will deliver for communities across the whole of Scotland. Embedded within the SSRP, the Risk Based Capital Investment Plan will take account of evolving asset requirements and through SSRP we will be working to explore opportunities to deliver a modernised and sustainable service, which may enable the asset base to evolve as we work with partner organisations and seek to embrace public service reform.

SFRS Estate in Numbers: Property

1054 assets	689 property assets assessed for condition and suitability	300 training assets including towers208,682 sq.m gross internal area33 corporate assets
Fire sta	tion matrix	Fire station key facts
a 13% 45 stations 2nd position: high suitability but condition requires improvement 33% 116 stations WORST position: poor condition and low suitability d c Overall Co	h h h h h h h h h h h h h h h h h h h	Condition 45 % poor or badSuitability 77% por or bad00
Capit	al Investment and	Maintenance Backlogs
£496m ^{10 year} capital investment requirement	£14n Average annual capital spen on property	d Property Issues A RAAC roofing Contaminant control
£51m Property maintenance backlog	8,500 reactive repa per year 50,000 PPM inspection per year	irs dedicated changing and shower facilities

Equipment



3.0 Background and Context

3.1 Introduction

The Scottish Fire and Rescue Service (SFRS) employs over 7,500 people, of which approximately 2,870 are on-call firefighters. On call firefighters are a vital part of the SFRS, providing a professional emergency fire and rescue service to their local communities. Four out of five of Scotland's 355 fire stations rely wholly, or in part on on-call firefighters. They are an essential element of our service provision and can be called to emergencies, while at home or at work, and are requested for duty at the local station if they are available. Due to the poor condition of our Fire Stations and fleet, there is evidence, for example from stakeholder engagement with Fire stations for the Strategic Asset Management Plan for Fleet and Property, that it is becoming increasingly difficult to recruit on-call firefighters.

SFRS, established in 2013 with a purpose to improve the safety and wellbeing of people throughout Scotland, is heavily reliant upon its physical asset base to enable our people to successfully protect communities. Within this portfolio we operate 355 fire stations, the number and location of which has not changed notably since regional services were established in the late-1940s a vehicle fleet of 1,570, and thousands of items of operational equipment.

For context, in March 2024, property held by SFRS was valued at £410 million and our vehicle fleet was valued at £60 million. For the three-year period from 2020/21 to 2022/23 SFRS has invested £51 million in capital investment on property, £24 million on fleet, and £15.5 million on operational equipment. Funding for asset investment is provided by the Scottish Government through Grant in Aid. In the current financial year (2023/24) SFRS has been allocated a capital budget (Departmental Expenditure Limit – DEL) of £32.5 million.

Audit Scotland (AS) published a report in May 2018 titled "Scottish Fire and Rescue Service – An Update". Within this report AS noted that SFRS required £389 million to maintain and invest in its property, vehicles, and equipment. AS further noted, "this backlog is insurmountable without transforming the SFRS current model for delivering services and additional investment." AS warned if funding was not significantly increased then the risk of asset failures, such as vehicle breakdowns, would increase.

HM Fire Service Inspectorate (HMFSI) published a report in May 2019 titled "Inspection of the Scottish Fire and Rescue Service's Management of its Fleet and Equipment Function". Within the report HMFSI noted "one third of the SFRS frontline vehicles are older, and in some cases considerably older, than the stated vehicle replacement cycles." HMFSI further noted vehicles which should have been retired some time ago are kept in operational service leading to higher maintenance costs to service ageing assets.

In 2019 a safety alert was issued by the building and civil engineering industry's Standing Committee on Structural Safety (SCOSS) following a failure in a flat roof constructed from Reinforced Autoclaved Aerated Concrete (RAAC). The Service has undertaken extensive inspection and assessment of the estate and identified 14 sites which have RAAC plank roofs.

As a result of the RAAC Roofing issue, together with carbon reduction commitments, as well as an increasingly diverse workforce requiring dignified facilities there has been a new review of all assets which has seen the insurmountable sum identified in 2018 increase from £389 million to the proposed 10-year investment requirement of £817 million. The SFRS has previously been successful in securing

additional funding for energy projects, access to funding is key to the success of this plan. As such, significant work is underway to engage with Scottish Government, Transport Scotland and other partner bodies, including Scottish Futures Trust (SFT), to maximise access to all relevant funding streams.

3.2 Strategic Drivers

There are a number of internal and external Strategic Drivers that have influenced this Strategy, these are listed below. The SFRS approach to this document is guided by these four categories of strategic drivers. These describe The SFRS commitment to asset management and to achieving the benefits that can be delivered through effective use of the portfolio. These objectives are important for decisions made in respect of our assets and are consistent with the objectives detailed within the Asset Management Policy and within Strategic Asset Management Plans (SAMPs) for Fleet, Property and Equipment.

Collaborative	Service Led	Net Zero	Modernising
			G
Shared with emergency services partners	Based upon operational need	Reduces energy use	Improves provision of dignified welfare facilities
Available to other public sector bodies	Planned in conjunction with key partners	Improves building efficiency	Provides contaminant control
Used by local communities	Cognisant of SFRS operational strategy	Reduce carbon emissions from fleet	Deals with Reinforced Aeated Autoclaved Concrete (RAAC) roofs
Supports scottish emergency services national collaboration strategy	Linked to Service Delivery Model Programme (SDMP)	Provides EV charging infrastructure	Tackles backlog investment issues across the Estate
Work within the Scottish Government investment hierachy	Ties into SFRS long-term visin and strategic plan	Meet Scottish Government low carbon target requirements	

In this way, this document demonstrates SFRS is working within the Scottish Government's new Investment Hierarchy approach, as outlined in the Scottish Government's A National Mission with Local Impact Infrastructure Investment Plan for Scotland 2021-22 to 2025-26, which says, "Our Infrastructure supports Scotland's resilience and enables inclusive, net zero, and sustainable growth". This is through demonstrating future need, maximising the life of existing assets as far as possible, seeking opportunities to co-locate, and seeking funding to replace and build new assets by considering the suitability and condition of our assets.



NEW SCOTTISH GOVERNMENT INVESTMENT HIERARCHY



Determine future need

Consider appropriate infrastructure needs and demand in light of net zero carbon and inclusive growth priorities, changes in service design, availability of digital platforms and technological innovation, and resilience in light of population and climate change forecasts.





Repurpose & Co-locate leconfigure or repurpose existing assets giving preference to co-location or shared facilities.

> Replace, Create or Build New Assets

Consider suitability and sustainability of new assets.

Similarly, we will use the SFT's Place Guide to inform our approach within this Plan.

4.0 Risk Based Approach

4.1 Introduction

Risk management is an integral part of good asset management practice. Risk based asset management is a process in which risk is used to balance the operational performance of the asset against the life-cycle cost, reliable asset information therefore is the foundation of sound asset risk management practices in an organisation. Expenditure on assets is rationalised by using an assessment of the risk exposure acceptable to the different stakeholders. Risk management has been widely incorporated into industry best practice for asset management, such as the International Standards Organisation (ISO) 55000 series of standards.

4.2 Asset Management Policy



The SFRS Asset Management Policy sets out how we will manage, maintain and develop our assets. The Policy, approved by the Board in November 2023, uses a Strategic Asset Management Framework (SAMF) approach developed by the Royal Institute of Chartered Surveyors (RICS). This requires an Asset Management Policy to provide rules and consistent structure to how we manage key assets, this includes the creation of Asset Management Principles, which will link to the higherlevel organisational strategic objectives.

The Asset Management Policy is designed to ensure that Strategic Asset Management Plans (SAMPs) are reflected in the business decisions of all parts of the organisation. The SAMPs support this approach with clear

principles and objectives as a framework for the continuous maintenance and development of our physical assets across the Service. It sets down the rules of behaviour for the organisation, as far as asset decision making is concerned, to ensure that the SAMPs can be delivered transparently through a consistent process. The SAMPs contains a suite of living documents divided into three clear parts that can be updated separately to remain relevant and each one of three SAMPs that underpin the overarching Asset Management Policy clearly detail how asset performance and risk will be managed effectively The replacement of Hydraulic Rescue Equipment (HRE) with Powered Rescue Equipment (PRE) is an example of a risk-based asset management approach, which facilitates the de-risking of SFRS of HRE by expediting PRE-deployment as well as the effective management of risk associated with HRE. Appendix 1 details the Asset Management risk matrix and links this to the SFRS strategic risk register.



5.0 Property

5.1 Introduction

SFRS has insufficient budget provision to meet the 2018 Audit Scotland recommendation of an average annual investment requirement of £80.4 million for property, vehicles and equipment assets. In 2022 the Risk Based report detailed investment requirements for Property of £41 million per annum. Due to a combination of factors including tender price inflation that figure has changed in 2024 to a £50 million requirement per annum. Lack of investment compounds the continual deterioration of the condition of SFRS properties.

In 2020 the SFRS Board agreed to support the principles of Standard Station Design, (SSD) as the starting point for all future new build fire station developments, and also agreed for this to be adopted where reasonably practical in subsequent refurbishment projects. However, it is widely acknowledged there is insufficient funding available to implement SSD to any meaningful extent. The combination of age, condition, suitability and restrictions of existing land and buildings are all risk elements which will further prevent the implementation of the SSD to a significant number of properties. Work remains ongoing to continually make the case for investment with the Scottish Government; as well as to seek additional sources of funding such as Government grants for energy projects and also to seek collaborative opportunities with partner organisations to share the burden of investment.

5.2 Property Issues

Over the last eleven years SFRS has been successful at diversifying relatively its workforce with regards to gender; the ratio of female to male recruits has significantly increased over this period. There are a number of requirements specific to fire stations which are assessed under suitability but there are also some basic requirements associated with them as places of work such as meeting the minimum legal requirements of the Workplace (Health Safety & Welfare) Regulations 1992. SFRS are currently in breach of these regulations due to some stations not having toilets or washing facilities. To achieve legal compliance, SFRS require funding for identified stations.

SFRS has set a timescale to achieve Net Zero Carbon in line with Scottish Government requirements however has insufficient funding for the works identified in the Carbon Management Plan making it very likely we will fail to meet targets within the identified timescales therefore making Net Zero Carbon another risk factor.



5.3 Strategic Service Review Programme (SSRP)

The Strategic Service Review Programme (SSRP) SSRP was established to explore ways to look at how we deliver our services across the whole of Scotland while resolving immediate financial challenges that we faced during 2023-24. Last year this involved the closure of our West SDA Headquarters in Hamilton and the temporary withdrawal of 10 second or third wholetime appliances.

SFRS want to be a modern, sustainable fire and rescue service that is ready for the challenges of Scotland's future. To achieve this, there are changes we must make. For example, Scotland has changed, and we know that some of our stations and appliances are located based on historical risks that no longer exist. At the same time, we have many ageing buildings that are no longer fit for purpose and require urgent action. Through SSRP, we want to address those challenges and free up or redistribute our resources to invest in other areas such as training, innovation and prevention. This could involve changes to where our stations and appliances are based; and how and when we staff our resources.

The next phase of SSRP will involve an online public survey and series of engagement events. This is the first stage in our engagement with staff, communities, representative bodies and people across Scotland. The views we gather will help us to develop change options for full public consultation.

5.4 Reducing Exposure to Contaminants

Worldwide research into the potential effect of contaminants on firefighters continues to provide evidence that exposure may put those responding to, or attending incidents, at an increased risk of related future health issues. It has been established that unburnt products of combustion produced by fire are a major source of contaminants, some of which have proven to be carcinogenic. The SFRS is committed to mainstreaming behavioural, cultural, and organisational change to ensure the protection of our personnel and has developed initiatives such as 'clean cab' appliances and established a cross Directorate SFRS Contaminants Group. We will continue this work, incorporated within the approach to SSD.

The SFRS have undertaken work to minimise the risk of contaminants for staff. This includes a substantial review of how training is undertaken, and fire appliances, personnel and Personal Protective Equipment (PPE) are decontaminated during and following training or an incident. Station zoning systems have been trialled to prevent cross contamination from contaminated to clean items/areas. SFRS also operates a specialist cleaning and repair contract which allows Firefighters PPE to be fully decontaminated post-incident with specialist decontamination wipes; repaired as per manufactures instructions and in line with the British standard for the cleaning and repair of firefighters PPE.



The process for contaminant control in some older stations is hindered by their design not allowing reconfiguration without major investment or replacement. Recognising the need to ensure the wellbeing of firefighters, replacement of these stations is required to meet contaminant control and welfare facilities.

Most of the SFRS training Centres Compartment Fire Behaviour Training (CFBT) units are approaching end of useful economic life. A program of replacement is required which should be informed by the Service Asset Management Plan for Training Assets currently being developed to ensure correct facilities in correct locations meet services training needs. Additionally, only two, Newbridge and Portlethen, have smoke capture and this is an outstanding requirement at all other sites. Significant funding is required to replace these.

5.5 Service Asset Management Plan for Training Directorate



A suite of strategic asset management plans (SAMPS) has been completed in support of the Asset Management Policy. Work is now underway on a service asset management plan for the Training Directorate. Site visits and face to face consultations have been undertaken with online questionnaires issued to seek the opinions of trainers and course attendees. This consultation exercise will aid and inform the plan whilst enabling an action plan within the document.

This plan will follow the principles set out in the SAMPS and reflect the condition of fleet, property and equipment within the Training Estate and prioritise expenditure in support of the Training Vision and Strategy. This capital expenditure has been set at a total of £6m within the capital plan for Training property upgrades over the next three years.

5.6 Standard Station Design (SSD)

Each fire station is a key symbol of SFRS presence within a local community, and in many cases, is used directly by the community, as well as being a strategic location from which our services are provided. In August 2020 the SFRS Board agreed to support the principles of SSD, as the starting point for all future new build fire station developments, and agreed for this to be adopted where reasonably practical in subsequent refurbishment projects. SSD is a set of design standards that will be applied when building a new fire station or refurbishing an existing property and contains the undernoted strategic design principles:

- Accommodation
- Corporate Specification
- Design Flexibility
- Staff and Visitor Welfare
- Safety

- Adjacency
- Contaminant Control
- Environmental, Energy and Carbon
- Security
- Training

When measured for suitability against the developed SSD, 62% of the existing fire station estate has been assessed as poor or worse. Issues include insufficient dignified welfare facilities; lack of disabled access and facilities; insufficient space to store and dry kit, garage the vehicle, or maintain breathing apparatus.

5.7 Reinforced Autoclaved Aerated Concrete (RAAC) Plank Roofs



In 2019 a safety alert was issued by the building and civil engineering industry's Standing Committee on Structural Safety (SCOSS) following a failure in a flat roof constructed from RAAC. The Service has undertaken extensive inspection and assessment of the estate and identified 14 sites which have RAAC plank roofs. These 14 sites have been subject to survey to identify deterioration and temporary works such as localised propping and the erection of crash decks have been designed and installed. The 14 sites remain subject to an ongoing quarterly inspection regime at a cost of £100,000 to monitor condition and any further signs of deterioration.

The 14 sites confirmed to have RAAC roofs have been surveyed with regards to addressing the failed roof and in conjunction with age, existing condition of all built elements and infrastructure and the development required to address suitability issues and compliance with SSD. The estimated overall project cost of £72 million is based as at today's prices using the Building Cost Information Service (BCIS), however it should be noted that currently the Tender Price Indices (TPI) are approximately 9%, which suggests the cost for projects delivered in the future will be far greater than the current estimated cost. The 14 stations, 6 Wholetime, 4 wholetime and on-call and 4 on-call, are listed below:

- Crewe Toll
- Cumbernauld
- Dalkeith
- GalashielsLivingston

- Hawick
- Helensburgh
- Huntly
- Liberton
- Marionville
- Milngavie
- Portree
- Stewarton
- Tranent

5.8 Design Principles

A key element of this strategy is a series of guiding design principles developed in consultation with stakeholders across our organisation. They reflect our core organisational strategic drivers, the need for our evolving estate plans to be demand-led, collaborative and modernising where possible, ensuring that our asset estate is cognisant of the SSD principles and the work on-going with regards to the SDMP.



Kinlochewe Fire Station



Colintraive Fire Station

Following agreement of SSD, the requirement for individual dorms where applicable, gender neutral facilities and the control of contamination has resulted in a further risk factor and has a negative impact on the suitability of the entire estate. There are a further 60 on-call stations classed as unsuitable for a modern service where stations consist of buildings such as a shed, a farm out building, or a metal container. The age profile of the current estate shows 61% of the property estate is over 30 years old. We also have a huge investment requirement detailed in Carbon Management Plan to reduce Carbon footprint by 60% by 2030.

5.9 Property Condition

The fundamental basis of effective property asset management is the need for robust and up to date information on property condition and investment need, including the future cost of replacement of building components as well as replacement of the property asset as a whole.

In addition to ongoing RAAC condition surveys and monitoring, SFRS have a planned five year rolling program of condition surveys which in conjunction with other property information such as asbestos surveys, legionella risk assessments, gas risk assessments, fire risk assessments, full electrical inspections, drainage surveys and reports from our planned preventative maintenance programme allow us to assess all our properties through a method of weighted scoring to determine the current and changing condition of the property portfolio and position our property in pre-determined

categories.



SFRS currently operate a system, as defined by the Scottish Government Condition Core Fact document, whereby each defined element of a building is allocated a condition rating A to D. This

same rating system is used to determine the overall condition of the building. SFRS select from three priority ratings when deciding upon the nature and urgency of the works required. Condition and priority information subsequently feeds into an overarching risk prioritisation matrix that helps to inform strategic asset management decision making.

Property Condition	Good	Satisfactory	Poor	Bad	Total	
Operational	No. of Properties	Maintenance Backlog (£)				
On-call	0	167	109	5	281	£18,414,760
Wholetime	1	27	36	10	74	£29,132,721
Operational Total	1	194	145	15	355	£47,547,481
Corporate	1	23	9	0	33	£2,852,599
Training	8	228	65	0	301	£534,443
Other Total	9	251	74	0	334	£3,387,042
Total	10	445	219	15	689	£50,934,523

Table 1: Property Condition

5.10 Property Suitability

Condition assessments provide only part of the overall property performance evaluation and these are augmented by assessments of suitability for each property to determine 'fitness for purpose'. The aim of these assessments is to measure the ability of the asset to meet the current and future needs of the organisation and the building occupants whilst identifying the need for any additional, improved or alternative accommodation or services infrastructure.

Property & Facilities have developed and adopted a SSD identifying all rooms, spaces and facilities and their adjacencies and tested the Operational estate against this to assess current suitability.

These surveys have been undertaken in all our properties, and through a method of weighted scoring, similar to the condition surveys, we have determined the current suitability of properties within the portfolio and positioned them in pre-determined categories;

Property Suitability	Good	Satisfactory	Poor	Bad	Total
Operational	No. of Properties				
On-call	4	13	190	74	281
Wholetime	35	29	8	2	74
Operational Total	39	42	198	76	355
Corporate	12	16	5	0	33
Training	293	8	0	0	301
Other Total	305	24	5	0	334
Total	344	66	203	76	689

Table 2:	Property	Suitability
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5.11 Property Condition and Suitability Matrix

In order to examine the property condition and suitability information in more detail we have created a condition and suitability matrix, see image below, that shows our 355 fire stations placed within one of four quartiles. As this illustration shows 116 of our fire stations have poor condition and poor suitability and are most in need of replacement



5.12 Community Resilience Hubs

SFRS are developing a business case for approximately 50 Community resilience Hubs using Modern methods of construction (MMC). MMC is a process which focuses on off-site construction techniques, such as mass production and factory assembly, as alternatives to traditional building. We are working with SFT and Hub North Scotland to develop the business case for approximately 50 net-zero fire stations; we will utilise the Treasury Green Book Checklist for submission to Scottish Government. These stations will be designed using the principles of SSD and the place-based approach described within the Scottish Government's Infrastructure Investment Plan.



A strategic brief has been developed and has been approved by the SFRS leadership team and board. Strategic Services Support on a funded pilot project has been commissioned on the Isle of Skye to Version 1.5 P a g e | 16 establish an affordability cap with the learning from this project being used to inform the wider programme. If we were to be successful in obtaining funding for this project, the expectation is that this would be **in addition** to the £32.5 million allocated to the capital budget, Departmental Expenditure Limit – DEL, by the Scottish Government. The key advantages of implementing a level of MMC can be organised in 5 key areas:

- 1. **Speed** Whether it is due to stacking of activities between the factory and on site, or just improvements in site productivity from better on-site methodologies, MMC projects can deliver time savings of between 10 to 50% of construction time.
- 2. **Safety** As all MMC methodologies offer improved efficiency and productivity, the activities in an MMC process are more predictable with a consequential reduction in risk.
- 3. **Sustainability** Due to more rigorous and elemental design processes, factory quality control, reduced waste, higher levels of air tightness and fewer transport loads, the use of MMC has a direct impact on the sustainability and carbon content of a project, in construction and in use.
- 4. **Quality** It is much easier to control the quality of the finished product when you have more meticulous processes and are carrying out those processes in a controlled, dry, easily accessible enjoinment. Consequently, defects are captured at source and significantly reduced.
- 5. **Predictability** As a direct consequence of implementing MMC strategies on a project the possibility for unforeseen circumstances to impact upon the project programme or costs are minimised, thus increasing project certainty and the completion of the project within budget.

5.13 Risk Matrix Assessment

In order to make effective property decisions and in line with our risk-based approach, we have created a risk framework that shows the fire stations with the greatest areas of risk and therefore most in need of either replacement or major refurbishment. This matrix takes account of property condition, suitability and operational activity data, excluding false activations, for the 355 stations averaged over the last three years. With regards to operational activity data the stations have been ranked 1, least activity, to 355, greatest activity.

The Risk Matrix Assessment = Station Activity Rank * Condition Score * Suitability Score. Two examples of the risk matrix are shown below. A Risk Matrix table will be mapped and sorted by location; station type; or any other specific suitability factor.

League Position	Building Description	Duty System	Operational Activity Score	Condition Score	Suitability Score	Risk Matrix Score	RAAC	Shared Services Partner(s)
9	Dalkeith Fire Station	WHOLETIME	307	4	2	2456	yes	N/A
253	Clydesmill Fire Station	WHOLETIME	324	2	1	648	no	Scottish Ambulance Service

Table 3: Risk Matrix examples

The Risk Matrix Scores will be colour coded and mapped, using thematic mapping, onto our Geographical Information System (GIS). Based on the Risk Matrix Scores a table of fire stations has been created as shown below. For this list we have used a filter to ensure that the RAAC roofing properties are at the top of the list as this is the area of biggest risk

Risk Position	Property	Duty System	Operational Activity Score	Condition Score	Suitability Score	Risk Score	RAAC	Shared Services Partner(s)
1	Huntly Fire Station	ON-CALL	242	4	4	3872	yes	DVLA
2	Stewarton Fire Station	ON-CALL	230	4 4		3680	yes	N/A
3	Tranent Fire Station	ON-CALL	251	4	3	3012	yes	Scottish Ambulance Service
4	Portree Fire Station	ON-CALL	183	4	4	2928	yes	N/A
5	Crewe Toll Fire Station	WHOLETIME	349	4	2	2792	yes	Scottish Ambulance Service
6	Livingston Fire Station	WHOLETIME	336	4	2	2688	yes	N/A
7	Liberton Fire Station	WHOLETIME	320	4	2	2560	yes	N/A
8	Marionville Fire Station	WHOLETIME	314	4	2	2512	yes	N/A
9	Dalkeith Fire Station	WHOLETIME	307	4	2	2456	yes	N/A
10	Milngavie Fire Station	WHOLETIME	288	4	2	2304	yes	N/A
11	Galashiels Fire Station and LSO Office	WHOLETIME	287	4	2	2296	yes	N/A
12	Hawick Fire Station	WHOLETIME	280	4	2	2240	yes	N/A
13	Cumbernauld Fire Station	WHOLETIME	318	4	1	1272	yes	N/A
14	Helensburgh Fire Station & Offices	WHOLETIME	270	4	1	1080	yes	N/A
15	Stonehaven Fire Station	ON-CALL	262	3	4	3144		N/A
16	Kilmarnock Fire Station	WHOLETIME	330	3	3	2970		N/A
17	Dalmellington Fire Station	ON-CALL	246	3	4	2952		N/A
18	Stirling Fire Station	WHOLETIME	319	3	3	2871		N/A
19	Beith Fire Station	ON-CALL	238	3	4	2856		N/A
20	Polmadie Fire Station	WHOLETIME	355	2	4	2840		N/A
21	Calton Fire Station & Offices	WHOLETIME	352	2	4	2816		4 Partners
22	Newcraighall Fire Station	WHOLETIME	312	3	3	2808		N/A

Table 4: Risk Matrix

5.14 Opportunity

As detailed throughout this document SFRS recognise that Scottish Government (SG) and UK finances are constrained due to global events, such as the continuing impact of Brexit and the war in Ukraine. Therefore, SFRS has revised the approach to allocating capital funding over the next three years adopting the risk-based approach to minimise the risk of failure of service delivery.

However, there will be occasions where the Risk Based Approach has not been followed. For example, included within the current proposed 3-year programme is a replacement station at Blackness Road in Dundee. Whilst this station, which has a property condition rating of C (Poor), is not at the top of the list with regards the risk matrix assessment, it does nevertheless have a potential to realise a significant Capital receipt which can be re-invested into the Capital Programme.



Option to develop the current Fire Station site have been identified through retention of the existing appliance bay and the construction of suitable fire station accommodation and facilities in line with Standard Station Design (SSD) Principles. The proposal can be progressed with minimal disruption to operational activities of the station and without the requirement for temporary accommodation. The area in grey in the image below could be sold to realise a Capital receipt which would be reinvested. Discussions on proposed works at this station are on-going, final approval will be made by the SFRS Estates Development Board.



- 1. Proposed Station Building
- 2. Existing Appliance Bay
- 3. Yard facilities
- 4. Appliance Exit
- 5. Appliance Return

5.14 Indicative Property 10 Year Programme

Based on the information provided from the Risk Matrix Assessment we have prioritised the investment required for the fire stations over the next ten years. As the table below shows around £500 million worth of works would be required simply to bring the fire station property estate up to an average condition score rating of B, satisfactory condition.

Projects	10 Year Total	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031	2031-2032	2032-2033	2033-2034
PROPERTY TOTAL	£495,685,000	£18,950,000	£28,300,000	£23,265,000	£59,390,000	£62,390,000	£62,570,000	£59,620,000	£60,000,000	£60,000,000	£61,200,000
MAJOR WORKS - NEW BUILD PROGRAM	£81,425,000	£1,000,000	£14,100,000	£10,355,000	£11,390,000	£18,390,000	£19,370,000	£6,820,000	£0	£0	£0
Strategc Intent	£7,600,000	£300,000	£4,500,000	£2,800,000	£0	£0	£0	£0	£0	£0	£0
RAAC	£67,325,000	£700,000	£9,600,000	£7,555,000	£11,390,000	£17,740,000	£13,520,000	£6,820,000	£0	£0	£0
Wholetime Fire Station Replacement	£6,500,000	£0	£0	£0	£0	£650,000	£5,850,000	£0	£0	£0	£0
On call Fire Station Replacement	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Rural On call Fire Station Repalcement (Wholly dependant on separate funding from SG)	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
ACQUISITIONS & DISPOSALS & Project Management	£20,440,000	£3,780,000	£350,000	£2,310,000	£2,000,000	£2,000,000	£2,000,000	£2,000,000	£2,000,000	£2,000,000	£2,000,000
MAJOR WORKS - DEVELOPMENT	£215,400,000	£6,450,000	£5,350,000	£2,400,000	£24,000,000	£20,000,000	£19,200,000	£28,800,000	£36,000,000	£36,000,000	£37,200,000
Corporate - Refurbishment and/or Reconfiguration and/or Extension	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Wholetime Phase 1- Suitability (Reconfiguration and/or Extension for Dignified Facilities and Contaminant Control)	£73,300,000	£5,000,000	£4,700,000	£2,400,000	£4,000,000	£10,000,000	£9,200,000	£8,800,000	£10,000,000	£10,000,000	£9,200,000
Wholetime Phase 2 - Condition (Refurbishment of life limited stations 84% currently over 30 years old)	£70,000,000	£0	£0	£0	£0	£10,000,000	£10,000,000	£10,000,000	£18,000,000	£12,000,000	£10,000,000
On Call Fire Station Refurbishment and Development Program	£72,100,000	£1,450,000	£650,000	£0	£20,000,000	£0	£0	£10,000,000	£8,000,000	£14,000,000	£18,000,000
MINOR WORKS	£178,420,000	£7,720,000	£8,500,000	£8,200,000	£22,000,000	£22,000,000	£22,000,000	£22,000,000	£22,000,000	£22,000,000	£22,000,000
Minor Works - Condition based Planned Maintenance	£171,720,000	£5,720,000	£6,000,000	£6,000,000	£22,000,000	£22,000,000	£22,000,000	£22,000,000	£22,000,000	£22,000,000	£22,000,000
Carbon Manangement Plan (Wholly dependant on Separate funding from SG)	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Environmental Improvement - Pollution Prevention & Control Legal Compliance	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Training Sites	£6,700,000	£2,000,000	£2,500,000	£2,200,000	£0	£0	£0	£0	£0	£0	£0

Version 1.4

6.0 Fleet

6.1 Introduction

The key drivers with regards to the SFRS Fleet exist both internally and externally. There are a number of key internal drivers such as the increased threat of wildfires and flooding events, the SSRP, development of a SAMP for fleet, changing community risks, the use of new technology in both operational and support functions and the recently approved Operational Strategy, which is a vehicle for identifying, developing and implementing future operational response and driving transformation.

As part of the Wildfire project, we have recently procured 10 Wildfire packages consisting of an ATV vehicle a Fire Fogging System and all associated tools and equipment. This will be transported on a dedicated trailer and towed by a 4x4 pick-up which has additional kit and hand cleaning station. Four support units will consist of an array of dedicated tools and equipment.



4X4 vehicles are strategically located throughout Scotland to assist with flood response. Fleet update Command and Control monthly on the location of these vehicles to assist with Operations and the ever-changing weather. We have procured chassis and equipment to have four dedicated Line/Rope Rescue Units built and delivered to us in the 2024-2025 financial year. This is to ensure firefighters have fit for purpose vehicles.

In addition to the above, Fleet have introduced new appliances which support the decontamination process for firefighters. The new appliances include hand washing facilities to allow operational personnel to wash prior to returning to the station. Aligning our fleet operations to the internal changes we are making is fundamental to successfully supporting our frontline operational staff.

Externally, there are a wider set of external policies and Government initiatives that have significant implications on our future fleet. For example, as a public-sector service with a significant fleet, we are committed to aligning ourselves with the Scottish Government and demonstrating progress towards decarbonisation. As the Ultra-Low Emissions Vehicle (ULEV) market is maturing, the availability and viability of ULEVs is being continually advanced. SFRS want to be at the forefront of adopting this technology into our operational duties taking cognisance of the availability of robust charging structure throughout Scotland. SFRS can only successfully move to ULEVs if there is a supporting charging infrastructure.

Modernising our fleet is a component of the overall strategic development of SFRS and is an integral part of our new Operational Strategy and overall strategic vision of being a fit for purpose, efficient, effective and sustainable 21st century fire and rescue service. Our fleet assets are an essential

requirement to enable our people to deliver their operational duties, continued investment will always be necessary to maintain depreciating assets and it is critical that SFRS look to invest in a sustainable manner.



6.2 Climate Change

Every organisation, industry and area of society has been impacted by, and will continue to be, influenced to a significant degree by reform to Governmental policy to mitigate and reverse the effects of Climate Change. In Scotland, an estimated 284,000 homes and premises are at risk of flooding, with an additional 110,000 properties at risk by the 2080s.

The 2019-20 Programme for Government established an ambitious aim to phase out fossil-fuelled cars by 2025 and all other fossil-fuelled vehicles within the public sector by 2030. The strategy also states that a pragmatic approach will be applied to emergency service vehicles. The recently published Programme for Government reinforces the aim to decarbonise public sector fleet.

More stringent vehicle emission standards and clear air zones are examples of environmental factors driving changes in fleet. The impact that weather-related incidents are having on the SFRS emergency response profile is already recognised by the Service. The number and scale of incidents that fall into this category is increasing in volume, and severity. The Scottish Government has set a legally binding target of net zero greenhouse gas emissions by 2045. To do this, the Programme for Government outlines the next steps and aligning our SFRS Fleet to support this is a key component and driver for change.

The Service has made some inroads to meet Scottish Government's targets of phasing out internal combustion vehicles and moving to ULEVs by 2030 already, through:

- Replacement of ICE vehicles with ULEV as a prerogative where possible;
- 192 electric/hybrid vehicles across the light fleet of 847 vehicles;
- 250 EV charge points spread across 140 sites;
- Our ULEV network now extends to all locations capable of supporting fast charge points.;
- Transport Scotland may provide additional funding if further sites with available power provision can be identified;
- We have been working with our partners at Police Scotland and the Scottish Ambulance Service in developing a national Blue Light ULEV charging network.

However, there is also a significant cost uplift to be factored in when replacing an internal combustion engine (ICE) vehicle with an Ultra-Low Emissions Vehicle (ULEV). With the current levels of funding, it

is very unlikely that SFRS will achieve the ambition of achieving 100% light fleet being ULEV by 2030 in line with Scottish Government target.



6.3 Funding Constraints

It is recognised that funding constraints have put pressure on our existing assets and limited the ability of SFRS to meet the current replacement schedule. The impact of this has been a significant increase in the age of our vehicles and the associated repairs and maintenance costs, increasing our resource spend. Further impacts include limited investment in new technology to support operational staff and a restricted ability to grow our partnership working. There are a number of issues that are affecting the global supply chain with regards to fleet, particularly the war in Ukraine, which we envisage will continue to have an impact over the next few years, as well as boats in the Red Sea which are being targeted by rebel groups and the rising cost for materials.

Should additional Capital investment not be forthcoming then the fleet will continue to age and incur increasing maintenance costs, which is already below the required levels of funding to maintain our fleet in a sustainable manner. Continuation of capital investment at existing levels will increase the pressure on the Resource budget as well as decrease vehicle availability associated with an ageing fleet. The present levels of Capital funding under this option could only be utilised to cover existing urgent replacements of Internal Combustion Engine (ICE) vehicles with like-for-like ICE vehicles.

6.4 Investment Backlog

As at March 2024 SFRS have an overall investment backlog for its fleet assets of over £108 million. The pace of change outlined within this Plan will be driven by the funding available for fleet. Furthermore, we recognise that if the level of investment stays at current levels the investment backlog will increase at a substantial rate.

Since 2016 the size of the fleet has increased from 1,277 to 1,570 vehicles, this represents an increase of around 23%. Appendix 2 details the number and type of each vehicle currently held by SFRS; the unit cost of each vehicle as at 2024 prices, as well as the manufacturers recommended replacement cycle. In the current year 677 vehicles are older than the stated vehicle replacement cycle, representing the investment backlog of over £108 million. Over the next 5 years as vehicles require replacement this will increase by approximately £66 million. This means that in order to "stand still" SFRS require to allocate £13 million per annum in capital investment to fleet, the capital allocation this financial year, 2024/25, is £5.426 million.

Due to the nature of depreciating fleet assets, capital investment will continue to be a requirement to provide fit for purpose vehicles to carry out operational roles. The overarching principles of investing in ULEVs and strategic partnerships in this strategy will ensure that we are reducing ongoing costs whilst investing in future technology. The Service is continually monitoring and assessing new technology as it emerges and has recently completed an exercise with the aid of a £500,000 grant from Transport Scotland to implement the world's first fully electric fire engine.

The SFRS is therefore at the forefront of advances in electric appliance technology, which seek to drive down our carbon emissions. However, the cost of replacing a combustion engine vehicle with an electric vehicle is in most instances nearly double the cost. Decarbonising operational fire vehicles is more of a challenge, due to the size and weight but also due to the length of time currently required to charge the vehicle. Whilst it is hoped that the costs for electric vehicles may fall in the future as electric vehicle ownership increases, at the moment however the table below highlights the scale of the issue currently.

Vehicle Type	Replacement Cycle (years)	2024 Replacement Required	Unit cost	2024 Backlog cost	UNIT COST EV	2024 Backlog cost EV
MINIBUS	7	5	£35,000	£175,000	£69,000	£345,000
MULTI ROLE VEHICLE	7	10	£28,000	£280,000	£65,000	£650,000
OFFICER PROV CAR	4	7	£37,000	£259,000	£60,000	£420,000
POOL CAR AUTOMATIC/ ELEC	3	106	£30,000	£3,180,000	£32,000	£3,392,000
POOL CAR MANUAL	7	51	£17,000	£867,000	£32,000	£1,632,000
POOL VAN LARGE	7	22	£27,000	£594,000	£62,000	£1,364,000
POOL VAN SMALL	7	32	£18,000	£576,000	£33,000	£1,056,000
RESPONSE CAR	7	56	£22,000	£1,232,000	£34,000	£1,904,000
SUPPORT VEH HYDRANTS	7	1	£22,000	£22,000	£36,000	£36,000
SUPPORT VEH OCC HTH	7	1	£29,000	£29,000	£49,000	£49,000
SUPPORT VEH STORES	7	1	£27,000	£27,000	£47,000	£47,000
SUPPORT VEHICLE	7	3	£27,000	£81,000	£47,000	£141,000
				£7,322,000		£11,036,000

6.5 Light Fleet Review

Recognising the significant budget challenges and as part of the Strategic Services Review Programme (SSRP), SFRS have commenced work on a review of the light fleet. Supporting the aims of The SFRS is at the heart of this review. In broad terms, this review looks at the harmonisation, rationalisation and more importantly optimisation of the light fleet. It proposes a significant detailed review into the prevailing situation in order to meet the needs of SFRS today and into the future.

Also in order to ensure better utilisation of the light fleet and to help shape future fleet requirements, a short life working group composed of Operations, Health and Safety and Asset Management staff have been undertaking a further more detailed review of the Light Fleet and will report back their findings later this year.

6.6 Fleet Risk Grading

Appendix 4 of this document explains the vehicle risk condition grading matrix in detail. All vehicles are assessed on a number of risk factors to assess an overall condition grade. Grade 5 is the best grade and grade 1 is the worst condition grade. This graphic is an overview of the vehicle grading scale that is used to assess vehicles that require replacement:



- Cab, chassis and underside
- Mechanical and fire engineering

Condition score up to maximum of 15 combined with the **age** score to give a vehicle an **overall** score

The Fleet condition chart below highlights that 31% of the overall SFRS fleet is in the lowest grade category. The rescue pump chart highlights that 47% of SFRS rescue pumps are in the lowest condition grades of 1 to 3.





6.7 Indicative Fleet 10-year Programme

By investing upfront capital now to deliver the additional fleet through spending to save, we would ensure that we future proof our fleet and move towards a more sustainable cost base, subsequently reducing capital and revenue spend in future years. In order to deliver this Strategy, we would require

significant capital investment of nearly £290 million over the 10-year strategy period, this includes nearly £11 million per annum in order to offset the investment backlog as at the start of the programme. The current anticipated Capital for Fleet over the same 10-year period is around £60 million, therefore the additional requirement is £230 million or £23 million additional per annum. However, this is a spend to save initiative that will deliver significant Resource savings as well as delivering a sustainable future model for investing in fleet.



Chart 2: Proposed 10-year programme for Fleet

At its core, this Plan delivers against spend to save principles, delivers a more cost efficient and sustainable long-term cost model, enables SFRS to meet the Scottish Governments low carbon requirements and provides our staff with modern, fit for purpose vehicles that serve our communities.

With regards to Fleet the undernoted proposals announced within the 2023/24 Strategic Service Review Programme (SSRP) should help to reduce Capital and Resource costs:

- A reduction in the number of High Reach Appliances deployed from 26 to 16;
- Light Fleet Review.

SFRS will look to secure funding through public and private sources as well as work with the Scottish Government as they expand their public infrastructure network. Through adopting this approach, it is anticipated that partnership working will develop the required infrastructure in a collective manner that drives economies of scale and maximises benefits to all partners. The additional funding will enable the key SFRS objectives to be met as outlined below:

• The replacement cycle will be met, providing a fit for purpose fleet assets for our staff;

- The average age of the fleet will fall thereby ensuring that an adequate quality of reserve vehicles is available, ensuring that our people have access to replacement vehicles which are fit for purpose and do not impinge on their operational responsibilities during servicing and maintenance;
- Investment in ULEV vehicles in line with Scottish Government low carbon target requirements can be achieved;
- Significant contribution to reducing our CO2 emissions will be realised;
- An increase to overall vehicle availability.





7.0 Equipment

7.1 Introduction

The Equipment section within the Asset Management function is responsible for evaluating, procuring and validating all the equipment and PPE for use on appliances, fire stations and by personnel, whilst also ensuring that equipment is serviced and maintained to the highest standards of operational readiness and compliant with legal and statutory obligations.

There are thousands of items of operational equipment items, ranging from ladders, fire hose, helmets, torches and breathing apparatus. As we evolve the SFRS asset portfolio, we will work towards maximising the standardisation of assets, enabling them to be deployed as flexibly as possible, both within our organisation and in working with partners to achieve integrated service delivery. This principle is illustrated in the early implementation of a single design of breathing apparatus across Scotland, through a single strategic contract. We have also introduced a variety of new equipment such as Safe Working at Height (SWAH) kits, Thermal Image Cameras (TIC), smoke curtains, Wildfire PPE roll out and Powered Rescue Equipment (PRE).

7.2 Powered Rescue Equipment - Risk Based Approach



SFRS have recently implemented a balanced risk-based approach to facilitate the de-risking of The SFRS of Hydraulic Rescue Equipment (HRE) by expediting Powered Rescue Equipment (PRE) deployment within stations. SFRS have prioritised deploying PRE sets based on the risk of injury from the current HRE. The twin hose model of HRE is deemed as high risk due to its structural composition. Asset Management have prioritised the roll out of PRE based on a combination of statistical information such as the number of HRE twin hoses in service, the number of HRE events and the usage of HRE within stations. Recent significant investment in PRE has helped to reduce the equipment backlog for Equipment assets.

7.3 Equipment Lifespans and Review Periods

Some items of equipment are governed by factors such as legal compliance and manufacturer's guidance with end-of-life dates or component expiry dates. Where there are no such constraints, indicative review dates have been identified in this document (Appendix 3) and form part of the annual work planning processes for the Equipment section. These key dates inform how we plan for the mid-term evaluation and end of life replacement of our equipment to ensure that Service equipment meets user requirements.

With a number of items currently tracked and maintained in the Service, the procurement of new and replacement equipment requires careful planning. Planning for the lifespan of equipment is not necessarily a process that can be applied evenly across all equipment types. Some equipment may have fixed manufacturer determined or safety led lifespans which force the disposal at a set date of

equipment that may appear to be in perfectly serviceable order, whilst other equipment, whilst well used and worn, may be perfectly suitable to stay in service and will continue to perform well for many years. This document does establish lifespans for equipment (Appendix 3) which in some cases are fixed, however, in many cases may be aspirational only and might need to be flexible and regularly revised, based on a number of considerations at any given time.



Equipment replacement programmes vary across the UK Fire Services, and there is no appropriate industry benchmark to measure average lifespans for most pieces of equipment. The increasing age of a piece of equipment can have the potential to present increased maintenance and repair costs, however, this must be offset against the replacement costs and procurement processes needed to replace it. In many cases low operational usage, above average maintenance cycles alongside the quality of the product that is procured at the outset will determine the lifespan of many pieces of equipment. Conversely, consideration is also given to whether the lifespan of a piece of equipment will limit the ability to respond to technological advances. It is important to regularly assess the current lifespans of the equipment in use to determine whether it is beneficial to reduce or extend these lifespans further.

7.4 Standardisation

Since the formation of SFRS in 2013, we have standardised Equipment and PPE for 6,500 Firefighters. Working with Local Senior Officers (LSOs) and other stakeholders we have determined where to locate resources so that they can be deployed in the most effective way. Commensurate with this approach, is the understanding that the Service needs to retain standardisation for identified areas of operational response, for example Water and Rope Rescue, in line with a risk-based approach, where stations may come together to form a team for specialist rescue.



Employing a risk-based approach enables the Service to retain flexibility and the agility to review existing appliances and equipment disposition and deployment models and modify operational response as necessary. £600,000 has also been invested on 24 new Water Rescue Boats. This includes the standardisation of Water Rescue Capability and Water Rescue Stations across Scotland.

7.5 Breathing Apparatus Sets

Central to an effective operational response, is a state-of-the-art Breathing Apparatus Set (BA Set) which has the confidence of the workforce. As the single most risk critical and identifiable item of equipment used to ensure the safety of the Firefighter within the risk area, the modern BA Set must be high performing, simple to use and enable SFRS personnel to make effective interventions to save life and resolve incidents.

In 2015 SFRS replaced 4 legacy suppliers of Self-Contained Breathing Apparatus (SCBA) Sets to a single SCBA supplier in a 10-year contract award. This meant the introduction of over 2,500 SCBA sets and over 5,200 cylinders. An increase to 50% communications across sets, every set has downloadable bodyguard systems which increases Firefighter safety. SFRS also introduced a total care package for service and maintenance of SCBA Sets.

The SCBA contract is due for renewal in 2026. A User Information Group (UIG) will be established in 2024 in order to identify opportunities to enhance safety using research and innovation to inform the procurement of our next generation SCBA Set. The SFRS will pro-actively, and at an early stage, commit resources to research and understand the most effective technologies to inform the procurement of the next generation of SCBA Sets. Areas for research include biotelemetry, integrated safety systems, thermal imagery and enhanced SCBA Sets for specialist response. The cost to replace the SCBA sets is estimated to be between £10 and £12 million, this does not include the additional cost of training.

The option to extend the existing maintenance contract, upgrade in a phased basis or undertake a full tender process for complete replacement of BA sets across SFRS will be determined through the UIG, which will utilise an options appraisal/business case approach.



7.6 Indicative Equipment 10 Year Programme

The current capital allocation for operational equipment this financial year is £5.48 million. Appendix 3 details the number and type of each piece of equipment currently held by SFRS; the unit cost of each item at 2024 prices, as well as the manufacturers recommended replacement cycle. In the current year over 19,000 equipment items are older than the stated replacement cycle, representing an investment backlog of nearly £12 million. Approximately £1.2 million per annum has been added to each year within the indicative 10-year programme to offset this, the total 10-year requirement for Equipment and PPE is £34,065,125.

Unlike Fleet and Property, the Equipment backlog is relatively low. Significant Capital investment in PRE, Wildfire PPE, equipment standardisation and the helmet replacement programme has helped to reduce the overall backlog for equipment assets. Further as previously detailed due to worldwide research into the potential effect of contaminants on firefighters and the consequential need to

reduce exposure to contaminants, significant funding, £2.3 million, has been included within the Capital Programme for the next three years to replace structural fire kit, as well as £2.7 million in 2024/25 for Contaminate Infrastructure Requirements / PPE / Storage / Gassing Off / Waste Bins.



Chart 3: Indicative Equipment 10 Year Programme



8.0 Conclusion

The Risk based Capital Investment Plan will be embedded throughout the Strategic Service Review Programme (SSRP) of work. Through SSRP we will be working to explore opportunities to deliver a modernised and sustainable service, which may enable the asset base to evolve as we work with partner organisations and seek to embrace public service reform. Next year the Risk Based Capital Investment Plan will take account of evolving asset requirements based on the outcomes from SSRP and assist with data led decisions for the provision of future asset requirements for the Service.

This document has detailed key risks that affect SFRS and provided a detailed breakdown of critical investment required to make the current asset base fit for purpose and how that investment would be prioritised.

The cost of failing to significantly increase funding in the SFRS fleet, equipment and property estate is an increased risk of asset failures, such as vehicle breakdowns, as well as higher maintenance costs to service ageing assets and a failure to comply with health and safety legislation and protect our staff from contaminants. The resource costs of not increasing capital funding should also be considered. SFRS has a timescale to achieve Net Zero in line with Scottish Government requirements, however has insufficient funding for works identified in the Carbon Management Plan, making achieving Net Zero Carbon a risk factor. Any delay in investment only exacerbates the investment backlog due to the fact that tender price inflation is extremely high.

SFRS has a significant number of properties within the inherited estate which are not fit for purpose, do not support operational response and fail to comply with the minimum standards of the Workplace (Welfare) Regulations 1992 and there is insufficient funding to develop or replace these buildings. SFRS have further identified 14 Fire Stations which have deteriorated RAAC roofs and the stations have reached the end of their useful life and need urgent replacement prior to failure and loss of operational capacity. Similarly, in terms of fleet retaining older vehicles and equipment in operational service can result in higher maintenance costs to service ageing assets, with an increased risk of breakdown or equipment failure. An average of £81 million per annum, more than double the current allocation, over a 10-year period would be required for equipment, fleet and property assets as a minimum in order to support the existing asset base.

SFRS have a commitment to collaborate with partner organisations to maximise the return on public investment and are actively working with other blue light partners as well as SFT to identify co-location opportunities. Further we recognise that the concept of Place is a key pillar of Scottish Government public policy and investment and will utilise the services of SFT to review our property estate utilising a place-based approach.

In order to facilitate this, work has recently completed on an Asset Management Policy. The Asset Management Policy is essentially a planning tool that clarifies intentions, priorities and certain practices that will be adopted. It takes a long-term view, and considers the combination of organisation needs, stakeholder expectations, and the realities of existing assets and asset management capabilities. It sets down the rules of behaviour for the organisation, as far as asset decision making is concerned, to ensure that the SAMPs can be delivered transparently through a consistent process.

8.1 Indicative SFRS 10 Year Programme for Property, Fleet and Equipment

Recognising that Scottish Government and UK finances are constrained by the current economic impacts of EU exit and rising inflation, which have also led to increased construction costs and inflationary pressures throughout supply chains, SFRS has revised the approach to allocating capital funding adopting a risk-based approach which would minimise the risk of failure in terms of service delivery. The proposed 10-year capital investment plan aims to transform SFRS's legacy asset estate to one which is Collaborative, Service Led, Net Zero and Modernising. Risk management is an integral part of good asset management practice, risk-based asset management is a process in which risk is used to balance the operational performance of the asset against life-cycle cost. SFRS have developed a framework of risk decision criteria relative to its assets which recognises the vital role of decision-making in effective asset management.

The Service has completed a review of our 10-year Asset Investment Plan (AIP) for Property, Fleet, and Equipment. The AIP indicates a 10-year programme of investment totalling £817 million is now required. The AIP will be used to shape future capital investment in combination with the new Asset Management Policy and the Strategic Asset Management Plans for Property, Fleet and Equipment.

Work is also underway on the Strategic Services Review Programme as well as the Light Fleet Review, so as to help in part to address the funding challenges and free up or redistribute our resources to invest in other areas such as training, innovation and prevention. This could involve changes to where our stations and appliances are based; and how and when we staff our resources.

Section	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	Total
Property	£18,950,000	£28,300,000	£23,265,000	£59,390,000	£62,390,000	£62,570,000	£59,620,000	£60,000,000	£60,000,000	£61,200,000	£495,685,000
Fleet	£30,991,100	£20,958,100	£23,313,100	£27,119,100	£26,880,100	£26,432,100	£26,400,100	£31,296,100	£30,472,100	£42,611,100	£286,473,000
Equipment	£2,811,107	£2,505,012	£3,380,906	£1,548,684	£4,859,240	£4,155,187	£4,475,992	£3,515,967	£4,480,463	£3,406,512	£35,139,070
Total	£52,752,207	£51,763,112	£49,959,006	£88,057,784	£94,129,340	£93,157,287	£90,496,092	£94,812,067	£94,952,563	£107,217,612	£817,297,070

 Table 5: Indicative 10 Year Capital Investment Programme

9.0 Risk Based Capital Investment Plan on a Page



Appendices

Appendix 1: Asset Management Risk Matrix

Appendix 2: Fleet Investment Backlog

Appendix 3: Equipment Investment Backlog

Appendix 4: Vehicle Grading Matrix

Appendix 5: Emergency Services Co-location

Appendix 1: Asset Management Risk Matrix

Risk	Impact	Mitigating Action if Required	Aligned to Strategic Risk Register
Failure to minimise communities' exposure to risk and harm	There is a risk that assets in poor condition due to age, defect, or poor maintenance fail in operational use resulting in poor service delivery, a pollution event, or injury to a member of the public	Robust procedures for asset use and maintenance, coupled with the monitoring of relevant performance indicators, appropriate business continuity arrangements and reporting of incidents/near misses will mitigate this risk	Ability to improve the safety and well- being of people throughout Scotland through the delivery of our services
Failure to ensure the Health, Safety and Wellbeing of firefighters and other employees	There is a risk that assets in poor condition due to age, defect, or poor maintenance fail in operational use or training resulting in injury to an SFRS employee	Robust procedures for asset use and maintenance, coupled with the monitoring of relevant performance indicators, appropriate business continuity arrangements and reporting of incidents/near misses will mitigate this risk	Ability to have in place a suitably skilled, trained and motivated workforce that is well supported both physically and mentally
Failure to procure equipment which is fit for purpose	There is a risk that not undertaking a PUWER assessment during the UIG process will result in equipment not being fit for purpose or compatible with other equipment	Robust procedures to be followed during the UIG process which must include PUWER assessments to ensure the correct equipment is procured, safe, compatible with other equipment and fit for purpose.	Ability to have in place a suitably skilled, trained and motivated workforce that is well supported both physically and mentally
Failure to deliver Service Transformation	There is a risk that through poor planning or lack of affordability assets required to deliver service transformation are not available when required	By ensuring early cross directorate visibility of organisational priorities through the Asset Management Liaison Board, realistic timelines can be developed, and plans put in place	Ability to anticipate and adapt to a changing environment through innovation and improved performance
Failure to ensure Financial Sustainability	There is a risk that insufficient funding is available to maintain an adequate asset portfolio to deliver our service.	Work will continue with Scottish Government to highlight asset investment requirements	Ability to deliver a high quality, sustainable service within the funding envelope
Failure to ensure Legal Compliance	There is a risk that assets are not available, used or maintained in	By maintaining an ongoing review of the legislative environment and ensuring funding is available	Ability to ensure legal and regulatory compliance

Failure to have	accordance with legal and regulatory requirements There is a risk that SFRS	and policies and procedures are subject to regular review across all disciplines, this risk will be mitigated Through follow up engagement	Ability to have in
in place a suitably skilled, engaged and flexible workforce, ensuring capacity, to deliver service priorities	cannot attract or retain sufficient skilled staff to support, develop and maintain an adequate asset base	arising from the recent Staff Survey and the implementation of identified actions to address concerns raised, this risk can be mitigated	place a suitably skilled, trained and motivated workforce that is well supported both physically and mentally
Failure to maintain effective systems of control	There is a risk that procedures for the use, maintenance and support of assets are not adhered to	The Service's Assurance Framework is designed to ensure that effective controls are maintained and any weaknesses are highlighted and addressed	Ability to ensure legal and regulatory compliance
Failure to implement contamination control measures resulting in firefighters being exposed to potential carcinogenic at operational incidents	There is a risk of contaminants entering the firefighters' body at operational incidents or during Compartment Fire Behaviour Training (CFBT)if policy and procedures are not updated and implemented as discussed at the contaminants group.	Contaminants group in place to progress with control measures. The contaminants Policy and Operational Guidance (POG) and the Management Arrangement shall provide the minimum requirements to be achieved in order to reduce the risk of contaminants entering the body. Annual health screening is to be explored by the FBU and the NHS. Liaising with the Fire Brigade Union (FBU), UK FRS and Prof Stec. on achievable control measures for contaminants. Information, instruction and training is being given to all staff that don't require additional finances. Additional PPE being issued to allow for additional laundering requirements.	Ability to ensure legal and regulatory compliance
Failure to maintain confidence in the Service	There is a risk that high profile asset-related failure leads to high profile political and media interest	The actions outlined above are intended to ensure such failures are avoided or at least minimised.	Ability to collaborate effectively with partners and communities, to enhance service delivery and best value

Appendix 2: Fleet Investment Backlog

Vehicle Type	Total on fleet (2024)	Replacement Cycle (years)	Quantity to replace 2024/25	Unit Cost	Backlog Cost
Aerial Ladd Platform	9	15	9	£760,000	£6,840,000
Aerial Rescue Pump	8	12	8	£760,000	£6,080,000
All-Terrain Vehicle	11	10	0	£40,000	£0
Cfs Interactive Veh	3	12	3	£180,000	£540,000
Command Support Unit	8	15	6	£180,000	£1,080,000
Det Id Monitoring	4	15	4	£135,000	£5,400,000
Env Protection Unit	2	15	1	£100,000	£100,000
Forklift Truck	2	15	2	£65,000	£130,000
Heavy Rescue Unit	4	15	1	£240,000	£240,000
Incident Supp Unit	7	15	7	£220,000	£1,540,000
Investigation Unit	3	12	0	£130,000	£0
Major Incident Unit	4	15	4	£325,000	£1,300,000
Minibus	10	7	5	£69,000	£345,000
Multi Role Vehicle	17	7	10	£65,000	£650,000
Muti Role Veh 4 X 4	61	7	46	£30,000	£1,380,000
Officer Prov Car	10	4	7	£60,000	£420,000
Pool Car Automatic/Elec	106	3	106	£32,000	£3,392,000
Pool Car Manual	98	7	51	£32,000	£1,632,000
Pool Van Large	61	7	22	£62,000	£1,364,000
Pool Van Small	93	7	32	£33,000	£1,056,000
Prime Mover	24	15	19	£220,000	£4,180,000
Pump	54	15	35	£280,000	£9,800,000
Rapid Response Unit	40	12	0	£210,000	£0
Rescue Pump	457	15	178	£280,000	£49,840,000
Response Car	345	7	56	£34,000	£1,904,000
Rope Rescue Vehicle	4	12	3	£125,000	£375,000
Spec Ops Resp Unit/Mtfa	4	10	4	£160,000	£0
Support Lorry Small	6	7	0	£29,000	£0
Support Veh Hydrants	10	7	1	£36,000	£36,000
Support Veh Occ Hth	1	7	1	£49,000	£49,000
Support Veh Stores	14	7	1	£47,000	£47,000
Support Veh Workshop	21	7	12	£50,000	£600,000
Support Vehicle	3	7	3	£47,000	£141,000
Tractor	1	12	1	£60,000	£60,000
Turntable Ladder	3	15	0	£735,000	£0
Vol.Support Unit	35	12	33	£210,000	£6,930,000
Water Carrier	6	15	6	£200,000	£1,200,000
Water Rescue Unit	21	7	0	£70,000	£0
Total	1570		677		£108,651,000

Appendix 3: Equipment Investment Backlog

Equipment Type	Total Inventory	Replacement Cycle (years)	Quantity to replace 2024	Unit Cost	Backlog cost to replace 2024
13.5 metre ladder	561	16	58	£2,675	£155,150
12 metre ladder	8	16	8	£2,200	£17,600
10.5 metre ladder	205	16	67	£2,075	£139,025
9 metre ladder	419	16	23	£1,575	£36,225
7.5 metre ladder	3	16	4	£1,500	£6,000
7 metre ladder	9	16	9	£1,500	£13,500
5.5 metre ladder	41	16	9	£400	£3,600
short Ext ladder	759	16	170	£350	£59,500
Roof ladder	660	16	137	£600	£82,200
Split stow ladder	41	16	0	£300	£O
PPV Fan	183	10	106	£2,202	£233,412
Light Portable Pump	879	10	326	£3,854	£1,256,404
Portable Generator	249	10	216	£700	£151,200
Inflatable Boats	30	3	10	£8,250	£82,500
Rib Boat	6	5	6	£12,000	£72,000
Boat Trailer	37	5	9	£2,000	£18,000
Outboard Motors	45	3	17	£5,750	£97,750
Hydraulic Cutters	620	10	0	£3,275	£O
Hydraulic Spreaders	528	10	0	£3,237	£O
Hydraulic Combi tool	307	10	0	£3,319	£O
Hydraulic Ram	964	10	0	£3,028	£O
Hydraulic Pedal cutter	445	10	0	£1,088	£O
Hydraulic Hand pumps	310	10	0	£400	£O
Hydraulic power packs	561	10	0	£2,200	£O
Life jackets	3353	10	2163	£100	£216,300
Gas Tight Suit	1033	10	0	£800	£O
PRPS Suit	300	10	0	£1,300	£O
Air bags	775	18	234	£1,500	£351,000
Air Bag Regulator	316	18	50	£350	£17,500
Air bag Controller	453	18	120	£700	£84,000
Air Bag Hoses	601	18	267	£170	£45,390
Air Shore Kits	9	5	9	£60,000	£540,000
SCBA Sets	2498	10	0	£600	£0
SCBA Cylinders	5263	15	0	£300	£O
SCBA Compressor	125	10	91	£20,000	£1,820,000
Electronic Personal Dosemeter	1072	10	1072	£500	£536,000
Lay Flat Fire hose	15000	10	4000	£160	£640,000

Equipment Type	Total Inventory	Replacement Cycle (years)	Quantity to replace 2024	Unit Cost	Backlog cost to replace 2024
Portable Gas Monitors	362	5	362	£500	£181,000
Thermal Image Camera	418	5	250	£5,000	£1,250,000
FF Decon Showers	29	10	25	£8,000	£200,000
Mass Decon Structures	9	10	9	£70,000	£630,000
Tyre Compressor	84	10	84	£1,000	£84,000
Air Structures	15	5	15	£5,000	£75,000
AED	598	5	8	£1,300	£10,400
Hapsite Smart	9	10	9	£50,000	£450,000
Hazmat ID	5	10	5	£80,000	£400,000
Radiation monitors	51	5	51	£1,500	£76,500
Hose reel branch	789	10	725	£400	£290,000
Mainline FF Branch	1057	10	936	£600	£561,600
Fire fighting Helmets	6600	15	200	£200	£40,000
FF Tunic	13200	10	0	£320	£0
FF Leggings	13200	10	0	£260	£O
USAR Helmet	415	10	415	£120	£49,800
USAR Tunic	415	10	415	£130	£53,950
USAR Leggings	415	10	415	£100	£41,500
USAR Rescue Boots	415	5	415	£140	£58,100
Wild fire Helmet	256	10	0	£120	£O
Wild fire Tunic	429	10	0	£194	£0
Wild fire Leggings	256	10	0	£150	£0
Wild fire Boots	256	10	0	£150	£O
Wild fire Gloves	256	10	0	£50	£O
Rope Rescue Helmet	170	10	170	£120	£20,400
Rope rescue PPE	170	10	170	£400	£68,000
SRT Helmet	800	10	800	£90	£72,000
Dry suit	800	10	800	£410	£328,000
Light weight under suit	800	10	800	£43	£34,400
Heavy Under suit	800	10	800	£90	£72,000
water recue boots	800	10	800	£80	£64,000
Water rescue Gloves	800	3	800	£15	£12,000
PFD	400	10	100	£120	£12,000
Flood response Helmets	400	10	200	£40	£8,000
Foul weather suits	6600	10	0	£90	£O
Foul weather under suit	6600	10	0	£60	£O
Flood response boots	400	10	400	£80	£32,000
HVP Helmet	120	10	120	£90	£10,800
HVP Suits	120	10	120	£200	£24,000
Total	97987		19600		£11,883,706

Appendix 4: Vehicle Grading Matrix

Grade 5 – in excellent condition

- PAINT, BODY & INTERIOR
- Only minor defects in panel surfaces and bodywork requiring no body or paint work;
- No missing, broken or damaged parts that require replacement;
- No visible glass damage;
- No missing, broken or damaged parts that require replacement;
- No cuts, tears or burns that require repair;
- Shows no signs of wear.
- CAB / CHASSIS / UNDERSIDE
- Cab/Chassis/structure has no sign of corrosion;
- Expected to meet required specifications.
- MECHANICAL / FIRE ENGINEERING
- Mechanically sound;
- All equipment and accessories are operable.

Grade 4 – is better than average

- PAINT, BODY & INTERIOR
- Minor chips or scratches in panel surfaces requiring minor conventional body and paint work;
- May require removal of small dents that have not broken the paint;
- May require replacement of minor missing or broken part;
- No visible glass damage beyond minor pitting of windscreen;
- Clean, showing minimal wear;
- May require replacement of minor missing or broken part
- CAB / CHASSIS / UNDERSIDE
- Cab/Chassis/structure has minor signs of corrosion;
- Expected to meet required specifications.
- MECHANICAL / FIRE ENGINEERING
- Mechanically sound;
- All equipment and accessories are operable

Grade 3 – Normal wear and tear

- PAINT, BODY & INTERIOR
- May require minor body and paint work;
- May require replacement of parts;
- May have sustained cosmetic or light damage;
- No visible glass damage beyond minor pitting of windscreen;
- Shows signs of normal wear and usage;
- May require repair or replacement of parts.
- CAB / CHASSIS / UNDERSIDE
- Cab/Chassis/underside has signs of corrosion;
- May require repair or replacement of parts;
- Expected to meet required specifications.
- MECHANICAL / FIRE ENGINEERING
- Mechanically sound;
- May require minor mechanical repairs;
- May require minor repair of equipment or accessories.

Grade 2 – Shows signs of excessive wear and tear

- PAINT, BODY & INTERIOR
- Dents, scratches, and body panels that may require replacement;
- Parts may be broken and missing;
- May have multiple prior repairs to be carried out;
- May have repaired or unrepaired damage;
- Windscreen may be damaged;
- Shows signs of excess wear;
- May have burns, cuts, tears, and non-removable stains.
- CAB / CHASSIS / UNDERSIDE
- Cab/Chassis/underside has excessive signs of corrosion and deformation;
- May not meet required specifications.
- MECHANICAL / FIRE ENGINEERING
- May have mechanical damage that prohibits vehicle from operating properly;
- Engine and/or transmission may be in poor condition;
- Operability of equipment or accessories is questionable.

Grade 1 – Shows signs of severe abuse

- Paint and body work requiring major work;

- May be cost prohibitive to extensively recondition this vehicle to Fire Service Standards;

- Cab/Chassis/underside severely corroded, deformed or cracked and does not meet required specifications;

- May have severely worn, missing or disconnected mechanical parts;
- Although operable, this vehicle is at the end of its useful life;
- Operability of equipment or accessories is doubtful.

Grade 0 – Vehicle is inoperative

- Good for parts only;
- Mechanical and body parts may be inoperable, disconnected, damaged or missing.

Mark each vehicle 0 – 5 in three categories:

- Body / interior;
- Cab/Chassis & components;
- Mechanical / Fire engineering.

Property	Occupier
Aberdeen - Central	Scottish Ambulance Service
Aberfeldy	Police Scotland
Aberfoyle	Police Scotland
Annan	Maritime Coastguard Agency
Ardrossan	Scottish Ambulance Service
Ayr	Mountain Rescue
Ballater	Driver and Vehicle Standards Agency
Balmossie	Scottish Ambulance Service
Bathgate	Scottish Ambulance Service
Bo'ness	Scottish Ambulance Service
Braemar	SAS First Responders
Braemar	Ordnance Survey
Buckie	Driver and Vehicle Standards Agency
Buckie	Ordnance Survey
Callander	Scottish Ambulance Service
Calton	Scottish Ambulance Service
Calton	Apex Scotland
Calton	Who Cares ? Scotland
Calton	Street Cones
Castlebay	Ordnance Survey
Castle Douglas	Mountain Rescue
Castlemilk	Scottish Ambulance Service
Clarkston	Scottish Ambulance Service
Clydesmill	Scottish Ambulance Service
Coldstream	Police Scotland
Crieff	Driver and Vehicle Standards Agency
Crewe Toll, Edinburgh	Scottish Ambulance Service
Dreghorn	Scottish Ambulance Service
Dumfries Stores	Blood Bikes
Dyce	Maritime Coastguard Agency
Dyce	Scottish Ambulance Service
East Linton	Scottish Ambulance Service
Elgin	Scottish Ambulance Service
Fort Augustus	Ordnance Survey
Fraserburgh	Scottish Ambulance Service
Greenock	Police Scotland
Greenock	Maritime Coastguard Agency
Hamilton - Modular Building	Scottish Ambulance Service
Huntly	Driver and Vehicle Standards Agency
Inverary	Maritime Coastguard Agency
Kinlochbervie	Ordnance Survey

Appendix 5: Emergency Services Co-location

Property	Occupier
Kinloch Rannoch	Police Scotland
Kirkcubright	Police Scotland
Kyle of Lochalsh	Driver and Vehicle Standards Agency
Larbert	Scottish Ambulance Service
Lesmahagow	Police Scotland
Lerwick	Scottish Ambulance Service
Lochcarron	Ordnance Survey
Lybster	Driver and Vehicle Standards Agency
Maud	SAS First Responders
Maryhill	Scottish Ambulance Service
McDonald Road, Edinburgh	Scottish Ambulance Service
Montrose	Scottish Ambulance Service
Montrose	Driver and Vehicle Standards Agency
Newbridge	Police Scotland
Newbridge	Civil Nuclear Constabulary
Newbridge	ROSPA
Newcastleton	Police Scotland
Penicuik	Scottish Ambulance Service
Perth	Perth & Kinross Council
Portsoy	Maritime Coastguard Agency
Sighthill	Scottish Ambulance Service
Tomintoul	Police Scotland
Tomintoul	Scottish Ambulance Service
Tongue	Scottish Ambulance Service
Tranent	Scottish Ambulance Service
Turriff	Scottish Ambulance Service
West Linton	Scottish Ambulance Service
Unst	Scottish Ambulance Service

Occupier	Total in Place
Police Scotland	10
Civil Nuclear Constabulary	1
ROSPA	1
Scottish Ambulance Service	32
Maritime Coastguard Agency	5
Driver and Vehicle Standards Agency	7
Perth & Kinross Council	1
Charity	4
Ordnance Survey	6
Mountain Rescue	2
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