



DEVON &  
SOMERSET  
FIRE & RESCUE SERVICE

# Service Delivery

## Strategic Fleet Alignment

### Tiered Response Project

### Full Business Case

**Project Number:** D0009

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# 1. EXECUTIVE SUMMARY

## 1.1 HM Treasury Five Case Model

HM Treasury recommends that all spending proposals should be accompanied by a proportionate and well-structured business case.

HM Treasury recommends the use of a Five Case Model:

- Strategic Case – Does the project support the strategic aims and objectives of the organisation?
- Economic Case – Will the project deliver value for money?
- Commercial Case – Is the project commercially viable?
- Financial Case – Is the project financially affordable?
- Management Case – Is the project achievable?

Only if the answer to all five questions is YES should the project proceed

## 1.2 Project Background

The production of a set of comprehensive risk/response maps has provided information based on six years' worth of incident data. Analysis of the data identified the shortcomings of a 'one size fits all' approach to fire appliance design and operation.

Service Delivery Review clearly indicated that the majority of front line personnel were concerned that the MRP's were too big for the stations grounds in which they were located.

The review report provided evidence that the current Medium Rescue Pump (MRP) appliances carry too much equipment, the majority of which is very rarely if ever used. An analysis of this issue identified that only **40%** of this equipment carried was used on **80%** of incidents attended.

The review proposed a fundamental change in the DSRFS' approach to service delivery and introduced the concept of four layered **Tiered Response**.

- **Tier 1** - Capability will be provided at all stations using either a Light Rescue Pump (LRP) and/or a Medium Rescue Pump (MRP) as the primary response;
- **Tier 2** - Capability will be provided using a Medium Rescue Pump;
- **Tier 3** - Strategic Support will be met using specialist appliance;
- **Tier 4** - The resilience support will be provided using regional and national assets as well as subject matter experts, for example, Urban Search and Rescue (USAR), national search and rescue assets.

**This Full Business Case (FBC) covers the results of the procurement exercise for a fleet of Light Rescue Pumps. Further work will then be needed to implement the Tiered Response model.**

## 1.3 Strategic Case

### 1.3.1 Strategic Objectives

The proposal in this business case contributes to the delivery of the Devon and Somerset Fire & Rescue (DSFRS) strategic objectives from the 2014 Corporate Plan:

Strategic Objective
Fulfil obligations under the Fire & Rescue Services Act 2004, to make provisions for dealing with emergencies
Ensure that our emergency response teams will be deployed with the appropriate skills and resources
Work with partner agencies to respond to local and regional emergencies with the appropriate skills and resources
The number, composition and distribution of our emergency response teams will be based on the risks to the communities they serve
Optimise our use of resources
Minimise our environmental impact
Manage partnerships to ensure that they deliver improved outcomes to the community and value for money
Review and continually improve the way we work

### 1.3.2 Funding

The impact on DSFRS of the Government grant reduction as part of the Comprehensive Spending Review for 2011/2014 is predicted to be:

Year	% Decrease	Impact
2013/14	10.3%	£3.3m cut
2014/15	7.3%	£2.1m cut

### 1.3.3 Aging Fleet of Fire Appliances

There is currently a moratorium on the procurement of new fire and rescue appliances until a decision on the future of LRPs has been made. The freeze on procurement has resulted in a number of appliances having to continue in service beyond their scheduled 'end-of-life' date. As the appliances age there is likely to be an increase in the number of mechanical failures experienced.

The following table indicates the number of appliances expected to be on-the-run, by command area, up to 2014 that are beyond their end-of-life date.

	2010-2011	2011 - 2012	2012-2013	2013-2014
Western Command	8		1	
Central Command	13		3	
Somerset Command	4			
Cumulative Total	25	25	29	29

In addition 15 of the 17 MRP's in the reserve fleet are also beyond their operational life.

### 1.3.4 'As Is Model

The 'As Is' model sums the actual cost of funding the purchase of each of the 121 operational MRP fire appliances over a 12 year period and provides a total for each year. Whenever a MRP reaches the end of its operational life the model assumes that it will be replaced by a new MRP at today's price.

The following table represents the total annual cost of financing the current MRP fleet if it was decided not to introduce LRPs:

2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
£2,136,982	£2,288,476	£2,605,181	£2,913,261	£3,165,653	£3,341,300	£3,351,060	£3,351,060	£3,412,732	£3,412,732	£3,468,586	£3,468,586

In addition to the cost of financing the annual cost of running the fleet of 121 MRPS includes:

- Insurance
- Fuel
- Planned and defect maintenance
- Parts
- Accident damage and parts
- Tyres
- Training

The following table represents the total annual cost of financing and running the fleet of 121 MRP's, based on the measures identified above, if it was decided not introduction LRPs:

2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
£2,945,887	£3,097,381	£3,414,086	£3,722,166	£3,974,558	£4,150,205	£4,159,965	£4,159,965	£4,221,637	£4,221,637	£4,277,491	£4,277,491

## 1.4 Economic Case

By replacing up to seventy Medium Rescue Pumps (MRP's) with Light Rescue Pumps (LRP's) to be based at locations where they are best matched to the predominant local risk **AND** the relocation of some of the fleet of specialist appliances (Tier 3) to provide improved levels of strategic support, the following benefits can be achieved:

### 1.4.1 Benefits

Benefit Type	Benefits
Direct Financial	<ul style="list-style-type: none"> <li>• A LRP will cost significantly less to buy than a MRP it will replace</li> <li>• Lower cost of capital borrowing</li> <li>• Lower operating costs – improved fuel efficiency</li> <li>• By matching resources to risk it will be possible to reduce the amount of equipment carried on each LRP</li> <li>• Reduced incidents of accidental vehicle damage</li> <li>• The stock levels of stores can be reduced</li> <li>• The introduction of a standard fleet will reduce the training needs of workshop staff</li> </ul>



Benefit Type	Benefits
Direct Financial	<ul style="list-style-type: none"> <li>The reduction in the volume of equipment being carried will reduce the training needs of firefighters.</li> </ul>
Direct Non-financial	<ul style="list-style-type: none"> <li>Improved performance against ERS as LRP's are more manoeuvrable than MRP's and where limited access exists, will arrive at incidents quicker.</li> <li>Improved coverage in the same ERS time</li> <li>By reducing levels of equipment carried on LRP's means that more time can be spent training firefighters on the actual equipment that is most often used</li> <li>Reduced and simplified driver training needs</li> <li>One set of operating procedures to be used across all the DSRFS fire grounds</li> <li>Standardisation of equipment carried on every LRP based on OPAP task analysis plus incident type</li> <li>Enable effective attribute based mobilisation</li> <li>Reduced impact on the environment through LRP's producing less CO2 emissions than MRP's</li> </ul>
Indirect	<ul style="list-style-type: none"> <li>The IRMP is designed to provide the right resources at the right time in the right place (this benefit has yet to be quantified)</li> </ul>

## 1.5 Commercial Case

### 1.5.1 Route to Market

The EU Procurement Directives set out the legal framework for public procurement. They apply when public authorities and utilities seek to acquire supplies, services, or works. They set out procedures which must be followed before awarding a contract when its value exceeds set thresholds.

The Regulations state that for contracts where the total value of the contract exceeds a given threshold, currently set at £173,934, the procurement process must follow a prescribed route to effect 'a fully OJEU compliant tender'.

The purpose of the EU procurement rules is to open up the public procurement market and to ensure the free movement of supplies, services and works within the EU. In most cases they require competition. The EU rules reflect and reinforce the Value For Money (VFM) focus of the government's procurement policy. This requires that all public procurement must be based on VFM, defined as "the optimum combination of whole-life cost and quality to meet the user's requirement", which should be achieved through competition, unless there are compelling reasons to the contrary.

A Contract Notice (2012/S 141-235757) was despatched to OJEU on 23<sup>rd</sup> July 2012 and the tender opportunity advertised through the Bluelight e-tendering portal later on the same date.

A total of ten Potential Providers submitted completed pre-qualifying questionnaires with supporting documents by the closing date for expressions of interest.

The pre-qualifying submissions were evaluated, under due diligence, to establish that the Potential Providers had the capacity, capability and resources to provide the required goods/service under the Framework Agreement and were suitable, in terms of financial stability, organisational structure, processes and procedures and compliance with legislative requirements.



Two Potential Providers were assessed as posing an unacceptable financial risk and were consequently disregarded from the process. Of the remaining eight Potential Providers identified as suitable to invite to tender the highest scoring six were duly invited. Some areas were identified which could be improved including Equalities Policies, Data Management and Information Security policies. The successful contractor will be encouraged to review these areas.

The Invitation to Tender was duly issued on 23<sup>rd</sup> November 2012 to the six highest scoring Potential Providers from the evaluation of the Pre-qualifying responses.

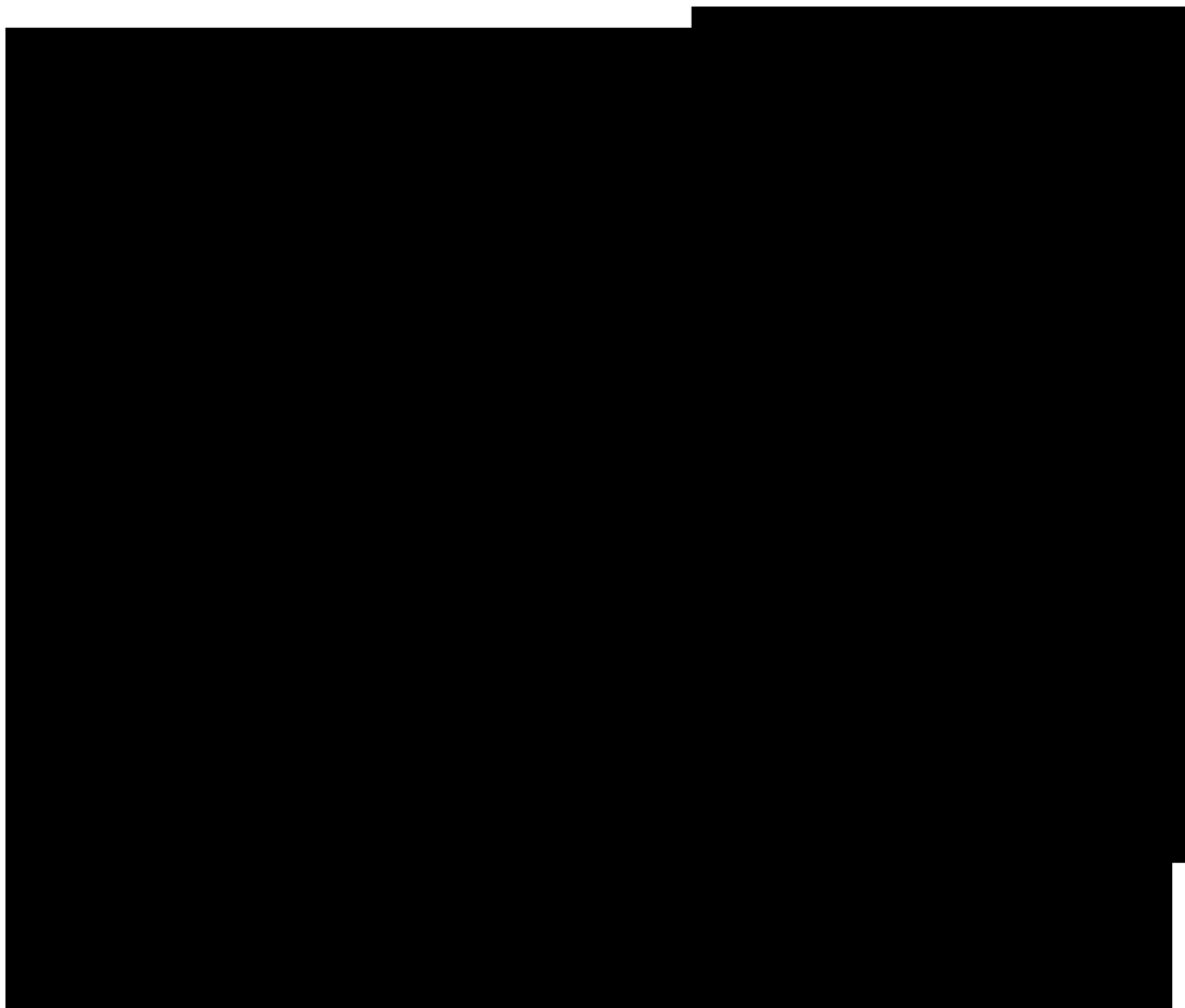
In the event, four Potential Providers submitted tender responses by 12 noon on 23<sup>rd</sup> January 2013 that being the deadline set for responses. The Potential Providers were:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

### 1.5.2 Evaluation

The Evaluation of the Invitation To Tender (ITT) was based on establishing whether the Potential Providers could design and supply a Light Rescue Pumping Appliance to meet the User Requirements and Technical Specification and provide services to support the vehicles during their operating life.

The table below indicates the final evaluation scores:



### 1.5.3 Framework Contract Award

The Framework Agreement for Light Rescue Pumping Appliances will be established for a six year period, commencing on 1 May 2013 and expiring on 30 April 2019, this being the term stated in the OJEU Contract notice and tender documentation for the Framework Agreement.

A notification of DSFRS intention to award the Framework contract to **Emergency One** was issued on the 28 March 2013.

## 1.6 Financial Case

### 1.6.1 Introduction

The following table represents the 'As Is' total annual cost of financing and running the fleet of 121 MRP's, as defined in Paragraph 1.3.4: The tables represents the base line figures that the 'To Be' model is compared against to illustrate the potential financial benefits of introducing LRP's.

2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
£2,945,887	£3,097,381	£3,414,086	£3,722,166	£3,974,558	£4,150,205	£4,159,965	£4,159,965	£4,221,637	£4,221,637	£4,277,491	£4,277,491

### 1.6.2 The 'To Be' Financial Model

The 'To Be' financial model sums the actual cost of funding the purchase of each of the 121 operational LRP and MRP fire appliances and provides a total for each year. Whenever a MRP reaches the end of its operational life the model assumes that it will be replaced by a new LRP at today's price until all 70 LRP's have been deployed. Once all 70 LRP's have been deployed whenever an MRP reaches the end of its operational life it will be replaced by a new MRP at today's prices.

The following table represents the annual cost of financing the new mixed fleet of 70 LRPs and 51 MRPs:

2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
£2,136,982	£2,212,480	£2,377,193	£2,431,953	£2,481,689	£2,454,680	£2,464,440	£2,464,440	£2,526,112	£2,526,112	£2,581,966	£2,581,966

In addition to the cost of financing the annual cost of running the new mixed fleet of 70 LRPs and 51 MRPs includes:

- Insurance
- Fuel
- Planned and defect maintenance
- Parts
- Accident damage and parts
- Tyres

The following table represents the total annual cost of financing and running the new mixed fleet of 70 LRPs and 51 MRPs, including the additional costs identified above:

2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
£2,945,887	£2,888,080	£2,822,107	£2,854,181	£2,881,232	£2,831,536	£3,115,470	£3,115,470	£3,177,142	£3,177,142	£3,232,996	£3,232,996

### 1.6.3 Financial Benefit

The financial benefit of introducing a 70 LRP's into the fleet of 121 fire appliances is shown below:

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
A	£2,945,887	£3,097,381	£3,414,086	£3,722,166	£3,974,558	£4,150,205	£4,159,965	£4,159,965	£4,221,637	£4,221,637	£4,277,491	£4,277,491
B	£2,945,887	£2,888,080	£2,822,107	£2,854,181	£2,881,232	£2,831,536	£3,115,470	£3,115,470	£3,177,142	£3,177,142	£3,232,996	£3,232,996
C	£0	£209,301	£591,979	£867,985	£1,093,326	£1,318,669	£1,044,495	£1,044,495	£1,044,495	£1,044,495	£1,044,495	£1,044,495

**A** - Represents the total annual cost of financing and running the fleet of 121 MRP's, if it was decided not to introduce LRPs:

**B** - Represents the total annual cost of financing and running the mixed fleet of 70 LRPs and 51 MRPs

**C** – Represents A-B = the total reduction in expenditure

It should be noted that the reduction in expenditure of £1,044,495 will continue, year on year, after 2024.

The total cost purchasing 70 LRPs is **£9,800,000** (split between capital and revenue) spread over 5 Years against a budgetary estimate of £10,850,000. In the Outline Business case the level of optimism bias was set at 15%. As the final design specification will not be baselined until the prototype has been tested and accepted it would be prudent to retain a reduced level of optimism bias. It is recommended that optimism bias be reduced to 6% and the budget remain at £10,580,000 until the final unit cost is established

Return On Investment (ROI) is estimated at **£10,348,230** after 11 years.

## 1.7 Management Case

The management case is concerned with the deliverability of the project.

The purpose of this Management Case is to identify the governance and controls in place to support the successfully delivery of the Tiered Response project. It describes:

- The governance structures in place to support the Portfolio, Programme and Project Boards in delivering the key project aims and objectives.
- The development cycle
- Roles and responsibilities
- Quality management
- Change control
- Configuration management
- Issue management
- Risk management
- Benefits realisation
- Resource plan

## 2. INTRODUCTION

### 2.1 Background

DSFRS has in the past predominantly provided their core service via a fleet of standard Medium Rescue Pumps. As each appliance reached the end of its operation life it was replaced on a like-for-like basis. The acquisition of these assets was achieved using a mixer of sole contracts and the Firebuy consortium framework.

In 2009 a 'Concept of Operations' was developed that proposed the re-alignment of the fleet and equipment assets so that they were more closely matched to local risk and demand.

### 2.2 Service Delivery Review

The introduction of new Emergency Response Standards (ERS) in 2009 required the service to evaluate its distribution of resources with the aim to improving response times, geographic cover whilst at the same time placing emphasis on local risk.

A full Service Delivery Review was undertaken between June 2009 and June 2011. The review examined a range of appliances/equipment against a range of risk factors and modelled a number of possible appliance distribution scenarios against the national Emergency Response Standards (ERS).

Two user forums were set up, one of them dealt with appliances and the other with equipment. These forums provided the opportunity for the end users and other specialists to discuss/identify what was good, not so good and what could be done better from a range of perspectives.

#### 2.2.1 Risk Response Maps

The production of comprehensive set of risk/response maps provided management information based on six years' worth of incident data. Analysis of this data provided the evidence to support a fundamental change in the DSRFS' approach to service delivery.

It was proposed that DSFRS should move away from the 'one size fits all' approach of Medium Rescue Pumps (MRPs) and replace a proportion of the fleet with smaller lighter appliances as these would be better-suited to accessing many of the more rural areas in Devon and Somerset.

A Response Asset Blueprint for the future was produced and recommended that a **Tiered Response** should be implemented. A significant number of LRP's supported by a number of strategically located standard appliances or Medium Rescue Pump's (MRP's). A mixture of LRP's and MRP's would provide the emergency response standards (ERS) for the majority of DSFRS incidents.

In simple terms LRP's would be designed and equipped to be able to handle with the majority of incident types DSFRS are currently being called upon to deal with. LRP's would be considered Tier 1 assets and MRP's Tier 2. The decision as to which category of appliance to dispatch would be based on type of incident they are responding to and the attributes required. These attributes are derived from the Operational Processes and Procedures (OPAP) work that embraces the views of 14 FRS's.

There will however, be on occasion, the need for specialised support at incidents and this would be delivered through Tier 3 and 4. Strategic support for Tier 3 would be provided by specialist appliances however, at the moment some of these appliances are not located in the most strategically beneficial locations therefore will require relocation. Tier 4 would be provided using regional and national assets.

### 2.3 Tiered Response

The Tiered Response approach differs from the existing model as it risk based in that the core driver is to ensure that the capability of resources being dispatched is matched to the level of incident risk.

Adopting the Tiered Response approach ensures that the appropriate type of resource will be geographically located based on the type of incidents that most often occur on that fire ground.

This approach enhances the services ability to deal with the most common and life threatening incident types in line with the ERS and link in with the on-going work to develop Standard Operating Procedures (SOP's).

### **2.3.1 Tier 1**

**Primary Response** (meeting new ERS)

This is provided at all stations by using either an LRP and/or a MRP.

### **2.3.2 Tier 2**

**Enhanced Support** (meeting ERS, or a specific risk, or Material Incident Type requirements)

This is provided by MRP's.

The MRP's will provide an enhanced capability over a LRP as they will carry items such as light portable pumps, positive pressure fans and dedicated cutting and spreading tools etc.

### **2.3.3 Tier 3**

**Strategic Support** will be met using specialist appliances

This is a strategic response providing specialist capabilities. There is currently no ERS for this type of appliance however, to ensure that the most suitable strategic bases are identified specific risk maps will be produced.

### **2.3.4 Tier 4**

**Resilience Support**

This is provided using regional and national assets as well as subject matter experts, for example, Urban Search and Rescue (USAR), national search and rescue assets.

There is no ERS for this level of response.

## **2.4 Scope of this Full Business Case**

This Full Business Case (FBC) **ONLY** covers the delivery of the Tiered Response approach.

The Tiered Response approach deals with the physical response assets i.e. appliances and equipment but NOT the people/crews. There is however a direct correlation between the type of appliances deployed and its crew. This piece of work should be the subject of separate business case.

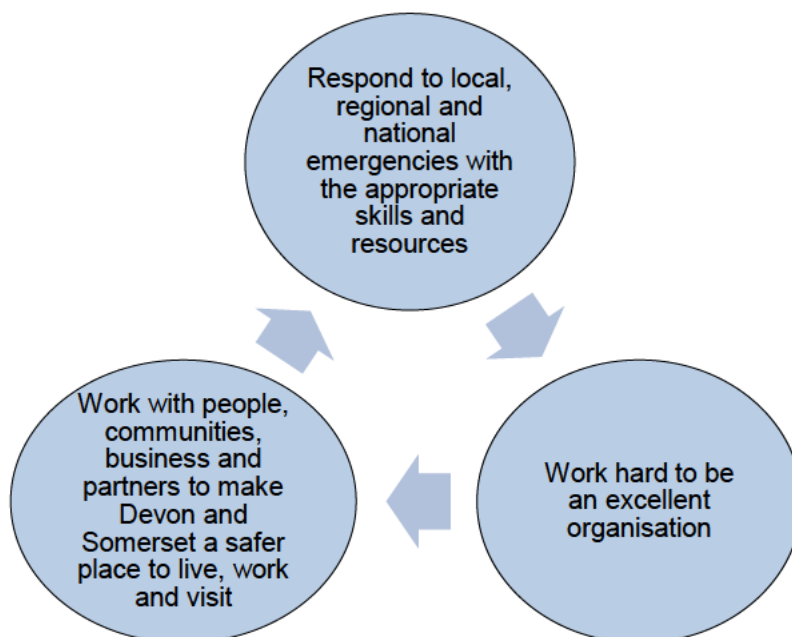
### 3. STRATEGIC CASE

#### 3.1 Introduction

The proposed operational change contained in this document is in line with the organisations Vision, Strategic Principles and financial constraints of the service.

#### 3.2 DSFRS Strategy for 2011-2014

The DSFRS vision for the future is based on three Strategic Principles:



#### 3.3 DSFRS Corporate Plan 2011-2014

##### 3.3.1 Strategic Principle 2

**‘Respond to local, regional and national emergencies with appropriate skills and resource’**

The following strategic objectives are designed to deliver Strategic Principle 2.

No	Strategic Objective
2.1	Fulfil obligations under the Fire & Rescue Services Act 2004, to make provisions for dealing with emergencies
2.2	Ensure that our emergency response teams will be deployed with the appropriate skills and resources
2.3	Work with partner agencies to respond to local and regional emergencies with the appropriate skills and resources
2.4	The number, composition and distribution of our emergency response teams will be based on the risks to the communities they serve



How this Business Case contributes to the delivery of Strategic Principle 2 is identified in Section 3.4.

### 3.3.2 Strategic Principle 3

**‘Work hard to be an excellent organisation’**

The following strategic objectives are designed to deliver Strategic Principle 3.

No	Strategic Objective
3.1	Optimise our use of resources
3.2	Minimise our environmental impact
3.3	Manage partnerships to ensure that they deliver improved outcomes to the community and value for money
3.4	Review and continually improve the way we work

How this Business Case contributes to the delivery of Strategic Principle 3 is identified in Section 3.4.

## 3.4 The Case for Change

The following elements when considered together make a compelling argument for the implementation of the Tiered Approach:

### 3.4.1 Strategic

The proposals in this full business case contribute to the delivery of the following strategic objectives;

*‘DSFRS will be established as a modern, flexible and responsive Fire and Rescue Service meeting local, regional and national needs’.*

*‘When local, regional or national incidents do occur, our emergency response teams will be even more agile to deploy the skills and resources needed to deal safely and effectively with the range of challenges that they face’.*

### 3.4.2 Funding

The impact on DSFRS of the Government grant reduction as part of the Comprehensive Spending Review for 2011/2014 is predicted to be:

Year	% Decrease	Impact
2013/14	10.3%	£3.3m cut
2014/15	7.3%	£2.1m cut

DSFRS have a three year rolling programme that supports capital investment. The tests of affordability are measured by compliance with the CIPFA Prudential Code for Capital Financing for Local Authorities. Under this code, the Authority is required to set a suite of indicators to provide assurance that capital spending is prudent, affordable and sustainable. These indicators are reviewed annually, although set for the three year period. They also include setting maximum borrowing limits to provide assurance around prudence and the setting of maximum debt ratios to provide assurances in relation to affordability and sustainability.



The focus of the Fire Authority has been to control the debt ratio within a 5% revenue ceiling. To achieve this, the Service has, over the last three years, suspended the vehicle replacement programme whilst this Tiered Response project was developed and piloted. One of the implications of this freeze is that there is now a considerable number of fire appliances have passed their normal renewal date.

### **3.4.3 Standardisation**

Although Devon and Somerset Fire & Rescue Services combined in 2007 very little has been done about standardising the operational resources, processes and procedures.

Not standardising assets and operating procedures presents a range of challenges for the service. For example, DSFRS is currently operating two different road traffic collision (RTC) strategies. In Somerset only one appliance per station is equipped with rescue equipment in the form of a Combi tool. A combi tool is a dual tool that both cuts and spreads albeit with limited capacity. Therefore, when attending a RTC in Somerset the Pre-Determined Attendance (PDA) vehicle is the nearest appliance with a combi tool and one of three dedicated Rescue Tenders (RT). The RT's are located at Yeovil, Taunton and Glastonbury. This approach can, on occasion, negatively impact Emergency Response Standards (ERS) as the RT's could have considerable distances to travel and the attending appliance only has limited rescue capability.

In comparison within the Devon Commands, every appliance is equipped with rescue equipment, the number one appliance is equipped with a set of dedicated cutters and spreaders and the number two a combi-tool. There are no dedicated Rescue Tenders in Devon. Therefore, the Pre-Determined Attendance (PDA) vehicle for an RTC in the Devon is the nearest two pumping appliances.

The current approach means that attending appliances in Devon have greater capability to meet the ERS than those in attending in Somerset.

The current approach requires the management of two different types of PDA vehicle, different operating procedures, different training requirements and skill sets. The lack of a consistent approach means that there are three Rescue Tenders (RT) that are designed for only one very specific use but still need to be supported and maintained.

It is anticipated that there is the potential for considerable benefits, both operationally and financially, in standardising across the whole DSFRS.

### **3.4.4 Integrated Risk Management Plan (IRMP)**

The Integrated Risk Management Plan (IRMP) process entirely replaces the Standards of Fire Cover (SOFC) first formulated in 1937 to deal with the effects of aerial bombing, and the 1985 SOFC review which detailed risk category attendance requirements.

The primary focus of SOFC was to assess and manage the risk posed by buildings in relation to size, usage, population and density. These issues were, at that time, both reasonable and practical, but In the modern era with the installation of efficient fire protection systems and with effective workplace health and safety legislation an imbalance of resources has occurred with fire stations positioned to guard already well protected buildings and occupants. The more pressing risk is to people's lives in their homes and vehicles. In DSFRS scope of responsibility there is a broad range of risk from the population risk in cities through to remote rural locations.

The IRMP is designed to provide the right resources at the right time in the right place. The review team used a predictive risk mapping tool called the Fire Services Emergency Cover toolkit (FSEC) and workload predictive software called PHOENIX as well as analysing 5 years' worth of DSFRS incident data. This has ensured that consideration has been given to as wide a range of hazards and risks as reasonably practicable. These risks have been assessed and control measures identified to ensure that we reduce both the risk of incidents occurring and their consequences.

### 3.4.5 Service Delivery Review

The purpose of the Service Delivery Review was to analysis the service response risks, mapped against the DSFRS Emergency Response Standards, based on 5 years' worth of incident data.

The analysis has been carried out on eighty three stations taking into account type and number of incidents, demand curves, hours off the run and station efficiency (Station 60 and Lundy excluded)

### 3.4.6 Service Delivery Review Outcome

One of the outcomes of the Service Delivery Review clearly indicated that the majority of front line personnel were concerned that the MRP's were too big for the stations grounds in which they were located.

The review report provided evidence that the current appliances carry too much equipment, the majority of which is very rarely if ever used. An analysis of this issue identified that only **40%** of this equipment carried was used on **80%** of incidents attended. Further, with regards to dwelling fires, **92%** of these were confined to the room of origin and are dealt with using one Breathing Apparatus (BA) team consisting of two wearers and one hose reel jet.

Irrespective of whether equipment is used or not it still has to be purchased, training provided and maintained. Because the DSFRS has adopted a 'one size fits all' approach this means that all fire fighters have to be trained across a broad range of activities and equipment which they may very rarely use.

Ironically although incidents/activity levels are decreasing year on year (**25%** over the past five years) fire fighter fatalities and serious injuries across the UK are increasing. Retained Duty Staff (RDS) have limited time allocated for training, currently this is two hours per week, and so some degree of 'skills' fade' is inevitable.

### 3.4.7 Location of Response Assets

The current methodology used to decide where response assets are located is based on the 1985 SOFC and is therefore out of date. This guidance sought to provide a response standard that was focussed on the commercial density of property rather than risk to life in residential areas. The SOFC guidance assumed that all risks were comparable and therefore fire appliance design and equipment should be also be similar (one size fits all). Therefore operational resources are currently mobilised to incidents based on the number of pumps not he actual attributes required to under the task. This approach means that at the larger incidents there will be significant numbers of appliances parked not being used.

Over the years pumping appliances have gradually got larger in size with the average appliance having a maximum gross weight of 15 tons although there are some slightly smaller appliances in the DSFRS fleet.

### 3.4.8 Service Delivery Review - Key Findings

The Service Delivery Review identified a number of issues that need to be addressed

No	Issue
1	Response assets are currently distributed/located in line with an out-of-date methodology
2	Response assets and their locations have not been reviewed in line with the year on year reduction in operational activity
3	Response assets are not currently located based on risk

No	Issue
4	Significant amounts of equipment that is carried on current appliances is very rarely used
5	There is evidence to indicate that some locations are over resourced
6	Only a limited number of response assets have been standardised following combining Devon Fire and Rescue Service with Somerset Fire and Rescue Service
7	At the moment some retained fire fighters are struggling to maintain their competences particularly with regards to the equipment carried on appliances that they never or very rarely use
8	For the larger incidents where additional pumping appliances are required these assets are mobilised based on the numbers of pumping appliances required and not the actual attributes required to deal with the incident
9	Some special appliances are not located where the most strategic coverage/support can be provided
10	Some appliance are too big for the locations that they are based

In addition the following issues have been identified as part this project:

No	Issue
11	Up till now MRPs have been procured via a national framework that provides a pick list of components (chassis, engine, transmission, body). The result of this approach has been that the responsibility for the effectiveness of the total packages then passed from the supplier to the customer.

**How the Tiered Response project is specifically designed to address all the issues is identified in Section 3.7.**

### 3.5 Existing arrangements

The DSFRS has a current operational fleet of 140 MRP appliances, 121 deployed with 17 available in reserve plus 2 currently unallocated. There is currently an expectation that the working life of a MRP appliance twelve years.

The MRP appliances are acquired via two separate routes:

- Capital purchased via a finance agreement
- Leased
  - Primary lease with an option to a:
  - Lease extension

There is currently a moratorium on the procurement of new fire and rescue appliances until a decision on the future of LRP has been made. The freeze on procurement has resulted in a number of appliances having to continue in service beyond their scheduled 'end-of-life' date. As the appliances age there is likely to be an increase in the number of mechanical failures experienced.

The following table indicates the number of appliances expected to be on-the-run, by command area, up to 2014 that are beyond their end-of-life date.

	2010-2011	2011 - 2012	2012-2013	2013-2014
<b>Western Command</b>	8		1	
<b>Central Command</b>	13		3	
<b>Somerset Command</b>	4			
<b>Cumulative Total</b>	<b>25</b>	<b>25</b>	<b>29</b>	<b>29</b>

In addition the 15 of the 17 MRP's in the reserve fleet are also beyond their operational life.

If the DSFRS did not introduce Tiered Response and Light Rescue Pumps they would have to continue to maintain a fleet of 121 Medium Rescue Pump and address the critical problem of having to rely on 44 appliances that are already beyond their operational life.

### 3.6 'As Is' Financial Model

The 'As Is' financial model covers a twelve year period from the 12/13 financial year to the 23/24 financial year. A period of 12 year based on the current scheduled operating life of a MRP.

The 'As Is' financial model of based on the actual cost of funding the current operation fleet of 121 fire appliances. There has previously been two types of funding model in place; either capital or leasing

#### 3.6.1 Capital

The capital cost of purchase is borrowed and paid back in 12 equal annual instalments plus the cost of borrowing (interest). At the end of the 12 year period the vehicle is owned by DSFRS.

#### 3.6.2 Lease

The vehicle is purchased by the leasing company. DSFRS pay the leasing company an annual charge for the use of the vehicle. At the end of the lease (12 years) the vehicle is returned to the leasing company. The lease can be extended beyond the 12 years but DSFRS continue to pay the leasing charge even though the vehicle is beyond its standard operational life.

#### 3.6.3 The 'As Is' Model

The 'As Is' model sums the actual cost of funding the purchase of each of the 121 operational MRP fire appliances over a 12 year period and provides a total for each year. Whenever a MRP reaches the end of its operational life the model assumes that it will be replaced by a new MRP at today's price.

The following table represents the total annual cost of financing the current MRP fleet if it was decided not to introduce LRPs:

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
£2,145,314	£2,136,982	£2,136,982	£2,288,476	£2,605,181	£2,913,261	£3,165,653	£3,341,300	£3,351,060	£3,351,060	£3,412,732	£3,412,732	£3,468,586	£3,468,586



In addition to the cost of financing the annual cost of running the fleet of 121 MRPS includes:

- Insurance
- Fuel
- Planned and defect maintenance
- Parts
- Accident damage and parts
- Tyres

The following table represents the total annual cost of financing and running the fleet of 121 MRP's, based on the measures identified above, if it was decided not introduction LRP's:

2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
£2,945,887	£3,097,381	£3,414,086	£3,722,166	£3,974,558	£4,150,205	£4,159,965	£4,159,965	£4,221,637	£4,221,637	£4,277,491	£4,277,491

The 'As Is' model is based on the following assumptions:

- The annual cost of the MRP appliances, currently in service, is based on their actual cost when they were procured via either capital expenditure or a leasing arrangement and not on today's cost.
- The normal operational life of a MRP appliance is 12 years
- If an individual MRP is funded via capital expenditure then the annual cost of each MRP appliances is based on the annual cost of borrowing the capital (5%) plus one twelfth of the capital cost as a repayment;
- If an individual MRP is funded via a leasing arrangement then the annual cost of each MRP appliance is based on the actual cost of that individual lease.
- The unit cost of new MRP appliances is estimated as £215,000.
- The current annual cost of vehicle insurance is £812. Therefore annual cost of the fleet is £98,252
- The current annual cost of fuel is based on the average fuel usage of all 121 operational MRP appliances and is approximately £240,388;
- The current annual staff cost of planned and defect maintenance is £258,224;
- The current annual cost of planned maintenance parts is £17,752;
- The current annual cost of defect maintenance parts is £104,257;
- The current annual cost of accidental damage repair is £6,152;
- The current annual cost of accident damage repair parts is 51,202
- The current annual cost of tyres is £32,678;
- The cost of a full loaded MRP appliance inventory has NOT been built into this financial model.
- Equipment that is common to both the MRP appliance and the LRP are NOT included in the financial model

The full 'As Is' model is shown on the next page.

## ‘As Is’ Financial Model

The following ‘As Is’ financial model covers the costs financing and running a fleet of 121 MRP’s over a twelve year period from the 12/13 financial year to the 23/24 financial year and is based on the assumption that LRPs will not be introduced.

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Cost of Funding Operational MRP Fleet</b>	£2,136,982	£2,288,476	£2,605,181	£2,913,261	£3,165,653	£3,341,300	£3,351,060	£3,351,060	£3,412,732	£3,412,732	£3,468,586	£3,468,586
<b>Insurance for Operational Fleet</b>	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252
<b>Fuel expenditure for Operational Fleet</b>	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388
<b>Maintenance (Planned and Defect)</b>	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224
<b>Maintenance Parts (Planned)</b>	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752
<b>Maintenance Parts (Defects)</b>	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257
<b>Accident Damage Repair</b>	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152
<b>Accident Damage Parts</b>	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202
<b>Tyres</b>	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678
<b>Total Cost of Funding Operational MRP Fleet</b>	<b>£2,945,887</b>	<b>£3,097,381</b>	<b>£3,414,086</b>	<b>£3,722,166</b>	<b>£3,974,558</b>	<b>£4,150,205</b>	<b>£4,159,965</b>	<b>£4,159,965</b>	<b>£4,221,637</b>	<b>£4,221,637</b>	<b>£4,277,491</b>	<b>£4,277,491</b>

NOTE: It is important to recognise that the purpose of the ‘As Is’ financial model is to provide a base line against which the options for change, identified in the Economic Case, can be compared. The figures do NOT include costs that are common across all of the options and so should not be taken as a budget. For the purposes of this model no allowance has been made for year on year increase due to inflation.

### 3.7 Benefits

Benefits can be thought of as the **outcomes** an organisation is trying to achieve – not necessarily a saving in cash terms. Benefits fall into three categories:

- Direct financial benefits – those that can be quantified and valued
- Direct non-financial – those that can be quantified but are difficult to value
- Indirect – those that cannot easily be quantified.

The benefits of introducing a Tiered Approach are:

Benefit Type	Benefits
Direct Financial	<ul style="list-style-type: none"> <li>• A LRP will cost significantly less to buy than a MRP it will replace</li> <li>• Lower cost of capital borrowing</li> <li>• Lower operating costs – improved fuel efficiency</li> <li>• By matching resources to risk it will be possible to reduce the amount of equipment carried on each LRP</li> <li>• Reduced incidents of accidental vehicle damage</li> <li>• The stock levels of stores can be reduced</li> <li>• The introduction of a standard fleet will reduce the training needs of workshop staff</li> <li>• The reduction in the volume of equipment being carried will reduce the training needs of firefighters.</li> </ul>
Direct Non-financial	<ul style="list-style-type: none"> <li>• Improved performance against ERS as LRP's are more manoeuvrable than MRP's and where limited access exists, will arrive at incidents quicker.</li> <li>• Improved coverage in the same ERS time</li> <li>• By reducing levels of equipment carried on LRP's means that more time can be spent training firefighters on the actual equipment that is most often used</li> <li>• Reduced and simplified driver training needs</li> <li>• One set of operating procedures to be used across all the DSRFS fire grounds</li> <li>• Standardisation of equipment carried on every LRP based on OPAP task analysis plus incident type</li> <li>• Enable effective attribute based mobilisation</li> <li>• Reduced impact on the environment through LRP's producing less CO2 emissions than MRP's</li> </ul>
Indirect	<ul style="list-style-type: none"> <li>• The IRMP is designed to provide the right resources at the right time in the right place (this benefit has yet to be quantified)</li> </ul>



### 3.8 Investment Objectives and Main Benefits

The following table indicates the link between the expected benefits, through the investment objectives to the DSFRS strategic objectives published in the DSFES Corporate Plan 2011/12 to 2013/14.

Main Expected Benefits	Investment Objectives	Strategic Objectives
Due to their enhanced manoeuvrability it is predicted that LRP's will arrive at incidents quicker than MRP's and so ERS will be improved. Conversely, LRP's will be able to travel further than MRP appliances in the same time span stretching ERS range and reaching more properties.	Improved performance against Emergency Response Standards (ERS)	<b>Section 3.2.1 (2.1)</b> <b>Section 3.2.2 (3.3)</b>
<ul style="list-style-type: none"> <li>Reduced levels of equipment on LRP's will mean that there will be more time available for training on the equipment that is actually carried and used.</li> <li>LRP's don't carry any equipment in the cab and so this has the potential to reduce injuries in the case of vehicle accidents</li> </ul>	Improve Firefighter safety	<b>Section 3.2.1 (2.2)</b> <b>Section 3.2.2 (3.4)</b>
<p>By matching resources against risk it will be possible to reduce the amount of equipment required to be carried and also the overall size of the fleet (e.g. BA sets).</p> <p>MRP's only use 40% of the equipment they carry on 80% of the incidents they attend. The equipment carried by an LRP is specifically tailored so that it will enable the crew to effectively deal with 80% of the types of incident that currently occur.</p>	Improve efficiency through better use of resources	<b>Section 3.2.1 (2.3) (2.4)</b>
<p>A standardised fleet with standardised equipment will:</p> <ul style="list-style-type: none"> <li>Simplify end user training requirements</li> <li>Allow stores to reduce the number of items held;</li> <li>Allow the maintenance department to reduce their training requirements;</li> <li>Allow one set of operating procedures to be used across Devon and Somerset;</li> <li>Enable effective attribute based mobilisation;</li> <li>Simplify procurement procedures.</li> </ul>	Achieve standardisation	<b>Section 3.2.2 (3.1)</b>

Main Expected Benefits	Investment Objectives	Strategic Objectives
LRP's are more fuel efficient than MRP's. In addition LRP's carbon emissions are significantly lower than MRP's	Reduce impact of the environment	<b>Section 3.2.2 3.2</b>
LRP's will be cheaper to purchase and run compared to MRP's. Reduced equipment levels on LRP's will reduce both capital and revenue expenditure.	Reduce both Capital & Revenue Expenditure	<b>Section 3.3.2</b>

### 3.9 Main Risks of this Business Case

Risk	Counter Measure	RAG
There is a risk that the Senior Management Board will fail to make a decision on the 23 April 2013 to place an order for the LRP prototype.	<ul style="list-style-type: none"> <li>• Early and continuous briefing of SMB members</li> <li>• Production of the Full Business Case</li> <li>• Circulation of the Full Business Case before the meeting</li> <li>• Targeted briefing slide presentation at the meeting</li> </ul>	<b>R</b>
There is a risk that insufficient capital funding is available to procure replacement LRP fire appliances for the MRPs that have reached the end of their life	Early and continuous engagement with the Fire Authority to ensure they understand the risk DSFRS is exposed to if sufficient funding is not made available to maintain the fleet of operational fire appliances.	<b>R</b>
There is a risk that the preferred supplier cut the estimated unit cost to build an LRP and their profit margin in order to win the contract.	<ul style="list-style-type: none"> <li>• Detailed and rigorous review of the preferred suppliers bid document and transformation into the actual build specification</li> <li>• Regular inspection of the prototype during the build cycle.</li> <li>• The introduction of a comprehensive change management process.</li> <li>• Place the governance of change control under a Charge Review Board</li> </ul>	<b>R</b>
There is a risk that one of the unsuccessful potential providers will mount a challenge, resulting in legal costs and delays to the award of the Framework Agreement.	<ul style="list-style-type: none"> <li>• Detailed feedback to be provided to unsuccessful contractors</li> <li>• Face-to-face feedback to be offered within first week of stand-still period</li> </ul>	<b>A</b>

Risk	Counter Measure	RAG
<p>There is currently a moratorium on the procurement of new fire and rescue appliances until a decision on the future of LRPs has been made. The freeze on procurement has resulted in a number of existing appliances having to continue in service beyond their scheduled 'end-of-life' date.</p> <p>There is a risk that the number of mechanical failures of these appliances will increase putting greater demands on the ever decreasing number of operational appliances</p>	<p>Obtain a decision at SMB on the 23 April on the future DSFRS strategy for replacing its aging fleet. Is the LRP procurement to go ahead or does the service revert back to procuring the more expensive MRPs</p>	A
<p>There is a risk that there will be resistance to change from the front line operation firefighters.</p>	<p>Continuous engagement with the every fire station to ensure they understand the development cycle and the reasons why decision have been taken.</p>	A
<p>There is a risk that there will be resistance to change from the representative bodies.</p>	<p>Continuous engagement with the all representative bodies to ensure they understand the development cycle and the reasons why decision have been taken.</p>	A
<p>There is a risk that no one is appointed to ensure that the benefits identified in this FBC are delivered</p>	<ul style="list-style-type: none"> <li>• Appoint a Benefits Realisation Manager.</li> <li>• Produce a Benefits Realisation Plan</li> </ul>	A

## 4. ECONOMIC CASE

### 4.1 Introduction

The following options have been considered:

#### 4.1.1 Option 1 - Do Nothing

This option will mean that:

- Light Rescue Pumps (LRP's) will not be introduced into DSRFS;
- The number of MRP's in service will not be reduced;
- There will be no reduction in the numbers of specialist/Tier 3 appliances;
- The original fleet replacement approach, where all MRP appliances were replaced on a like for like basis and are not located based on risk would be reinstated.

For the last three years there has been a freeze on the procurement of new fire and rescue appliances and so there are currently seven MRP appliances operating beyond their scheduled 'end-of-life' date. By 2012/13 there will be twenty five MRP appliances due for replacement. Whilst the original fleet replacement plan looked to replace between ten to twelve appliances a year there is now a significant backlog.

- The plan to achieve standardisation across the Commands would be stalled and require a new initiative and take considerably longer to achieve.
- There would be a small reduction in the DSRFS impact on the environment as any new vehicles procured would have to meet stricter emission standards.
- There would be little if any reduction in fuel consumption.
- Some appliances would still be too large for their risk areas and there would be less opportunity for improvement in performance against the ERS.
- There would be no reduction in equipment levels.
- There would be no improvement in efficiency through better use of resources.

The cost of this option is defined at Section 3.6 'As Is' Financial Model.

#### 4.1.2 Option 2 - Introduce LRP's Only

This option would involve replacing up to seventy MRP's with LRP's to be based at locations where they best matched to the predominant local risk and have been agreed by each of the Command Management teams (CMT).

However, this option does not include the relocation or reduction in the numbers of specialist appliances (Tier 3 assets). Therefore, the benefits associated with this element would not be realised.

This option would enable improvement in the following areas:

- Improve performance against ERS as LRP's are more manoeuvrable than MRP's and where limited access exists, will arrive at incidents quicker.
- Reduced levels of equipment on LRP's mean that more time can be spent training on the actual equipment carried and used
- By matching resources to risk it will be possible to reduce the amount of equipment carried and also the overall size of the fleet;
- Standardisation of the appliance fleet;
- Allow one set of operating procedures to be used

- LRP's will be cheaper to purchase and operate compared to MRP's
- A more cost effective fleet through increased fuel economy of the LRP's
- Improved efficiency through better use of resources;
- Reduced impact on the environment through LRP's producing less CO2 emissions than LRP's

#### 4.1.3 Option 3 - Relocate Tier 3 (Specials) to Improve Strategic Response

This option only involves the relocation of some of the fleet of specialist appliances to provide improved levels of strategic support; it would also enable a reduction in the total fleet size (do more for less). It does not include the introduction of LRP's in place of existing MRP's.

The following benefits would be achieved:

- Reduced impact on the environment through a reduction in the size of the Tier 3 fleet;
- Improved strategic coverage/support;
- Improve efficiency through better use of resources - fewer Tier 3 assets providing better levels of support;
- Assist with achieving standardisation (Tier 3 assets only).

#### 4.1.4 Option 4 - Introduce LRP's & Relocate Some Tier 3 Assets

By replacing up to seventy Medium Rescue Pumps (MRP's) with Light Rescue Pumps (LRP's) to be based at locations where they are best matched to the predominant local risk **AND** the relocation of some of the fleet of specialist appliances to provide improved levels of strategic support, the following benefits can be achieved:

- Financial saving as the LRP Fleet will cost significantly less to buy than the matching MRPs;
- Improved performance against ERS as LRP's are more manoeuvrable than MRP's and where limited access exists, will arrive at incidents quicker.
- Reduced levels of equipment on LRP's mean that more time can be spent training on the actual equipment carried and used
- By matching resources to risk it will be possible to reduce the amount of equipment carried and also the overall size of the fleet;
- Assist in achieving standardisation of the full appliance fleet;
- Allow one set of operating procedures to be used
- A more cost effective fleet through increased fuel economy of the LRP's
- Improved efficiency through better use of resources;
- Reduced impact on the environment through LRP's producing less CO2 emissions than LRP's
- Reduced impact on the environment through a reduction in the size of the Tier 3 fleet;
- Improved strategic coverage/support;
- Improve efficiency through better use of resources - fewer Tier 3 assets providing better levels of support.

#### 4.1.5 Summary Chart of the Four Options

OUTCOMES	Option 1	Option 2	Option 3	Option 4
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	Do Nothing	Introduce LRP's Only	Relocate Some Tier 3 Assets to Improve Strategic Response	Introduce LRP's & Relocate Some Specials (Tiered Approach)
Improve ERS Performance	R	G	A	G
Improve Firefighter Safety	A	A	A	G
Improve efficiency through better use of resources	R	A	A	G
Achieve Standardisation	R	A	A	G
Reduce impact on the environment	R	A	A	G
Reduce both capital and revenue expenditure	R	A	A	G
Resources Matched to Risk	A	A	A	G
Improve Public Safety	R	A	A	G

**Red** –Does not achieve outcome

**Amber** – Partially achieves outcome

**Green** – Does achieve outcome



## 4.2 The Recommended Way Forward

### 4.2.1 Service Delivery Review Recommendations

It is important that DSFRS future fleet of appliances and equipment are matched to risk and are designed to improve service to the community, fire fighter safety, be cost effective whilst at the same time reducing our impact on the environment.

The Service Delivery Review found that the existing locations and distribution of appliances and the distribution of equipment were not aligned to risk and are not standardised. As a result of the review of the appliances and equipment, the following recommendations were made:

No	Recommendations
1	That in the future all vehicles and equipment should be distributed based upon the principles of a tiered approach and of matching resources to risk
2	<p>The current number of pumping fire appliances should be reduced to a number that is better matched to risk</p> <p>Delivery of this recommendation has been assessed using the Fire Service Emergency Cover (FSEC) software application. FSEC is designed to assess response arrangements against risk.</p> <p>If the total number of MRP's and LRP's in the DSFRS response fleet were to be reduced from the current level of 121 to 109 the FSEC software application predicts that there is a risk of one additional loss of life every 33.1 years.</p>
3	It is predicted that the trial of light rescue pumps (LRP) will demonstrate that these vehicles are better matched to the risk at a significant number of locations
4	That the service works towards operating a mixed fleet of pumping appliances containing both medium rescue pumps (MRP) and LRPs
5	That the future pumping appliance fleet contains a ratio of vehicles with off road capability ( 4x4 Drive)
6	Key user requirement specifications should be written for all future vehicle requirements and that the end user should be involved in this process
7	If the trial is successful, the LRP vehicle replacement programme should commence immediately
8	The appliances and equipment should be aligned using the risk map, local profiles and other research including POAP task analysis
9	The standardisation of service equipment, such as breathing apparatus should continue and gather momentum
10	The harmonisation of response strategies, such as RTC should commence
11	New specialist vehicles should be introduced and be distributed strategically according to risk

No	Recommendations
12	The introduction of the new specialist vehicles will facilitate the removal of several items of equipment from pumping appliances
13	The review identified that the location of current specialist vehicles was not aligned to risk, therefore, a programme of re-location should be initiated
14	Outdated special appliances should be removed from the fleet as and when their lease agreements expire

### 4.3 Recommendation

On the basis of the above analysis, the recommended way forward is to adopt:

**Option 4 is the Recommended Approach**

## 5. COMMERCIAL CASE

[REDACTED]

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Date	Time	Location	Weather	Temperature (°C)	Humidity (%)	Wind Speed (km/h)	Wind Direction	Pressure (hPa)	Visibility (km)	Clouds (%)	Sunrise (hh:mm)	Sunset (hh:mm)	Moonrise (hh:mm)	Moonset (hh:mm)	Notes
2023-10-27	06:00	Station A	Clear	15.0	65	5	N	1013.2	10	0	06:45	17:30	18:15	05:45	Start of observation period.
2023-10-27	07:00	Station A	Clear	16.0	68	6	N	1013.5	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	08:00	Station A	Clear	17.0	70	7	N	1013.8	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	09:00	Station A	Clear	18.0	72	8	N	1014.0	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	10:00	Station A	Clear	19.0	75	9	N	1014.2	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	11:00	Station A	Clear	20.0	78	10	N	1014.5	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	12:00	Station A	Clear	21.0	80	11	N	1014.8	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	13:00	Station A	Clear	22.0	82	12	N	1015.0	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	14:00	Station A	Clear	23.0	85	13	N	1015.2	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	15:00	Station A	Clear	24.0	88	14	N	1015.5	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	16:00	Station A	Clear	25.0	90	15	N	1015.8	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	17:00	Station A	Clear	26.0	92	16	N	1016.0	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	18:00	Station A	Clear	27.0	95	17	N	1016.2	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	19:00	Station A	Clear	28.0	98	18	N	1016.5	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	20:00	Station A	Clear	29.0	100	19	N	1016.8	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	21:00	Station A	Clear	30.0	100	20	N	1017.0	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	22:00	Station A	Clear	31.0	100	21	N	1017.2	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-27	23:00	Station A	Clear	32.0	100	22	N	1017.5	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-28	00:00	Station A	Clear	33.0	100	23	N	1017.8	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-28	01:00	Station A	Clear	34.0	100	24	N	1018.0	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-28	02:00	Station A	Clear	35.0	100	25	N	1018.2	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-28	03:00	Station A	Clear	36.0	100	26	N	1018.5	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-28	04:00	Station A	Clear	37.0	100	27	N	1018.8	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-28	05:00	Station A	Clear	38.0	100	28	N	1019.0	10	0	06:45	17:30	18:15	05:45	Continued observation.
2023-10-28	06:00														

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## 6. FINANCIAL CASE

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## 7. MANAGEMENT CASE

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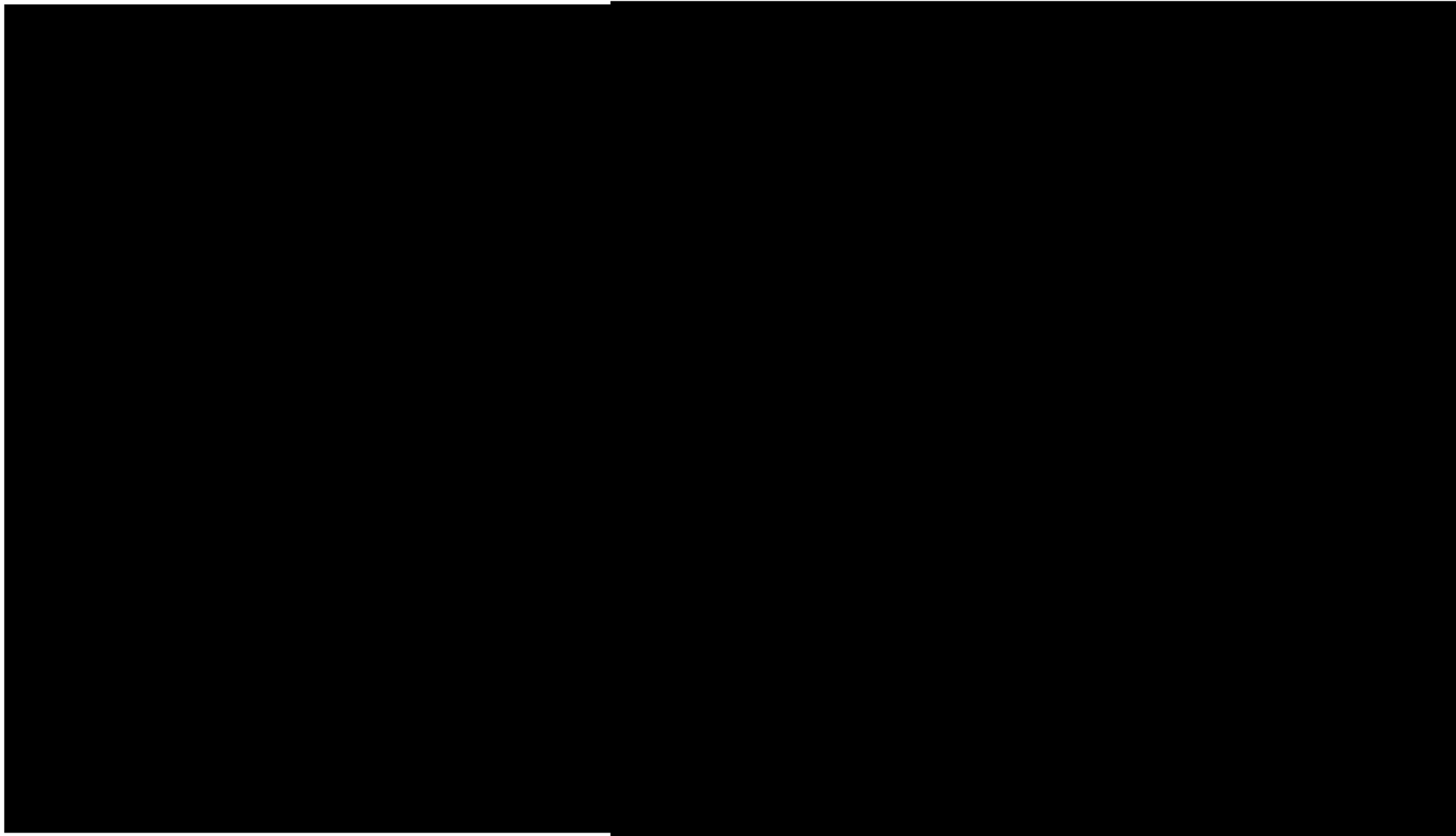
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## Project Governance Structure



### 7.3 Roles and Responsibilities

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## 7.5 Controls

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### 7.5.5 Risk Management

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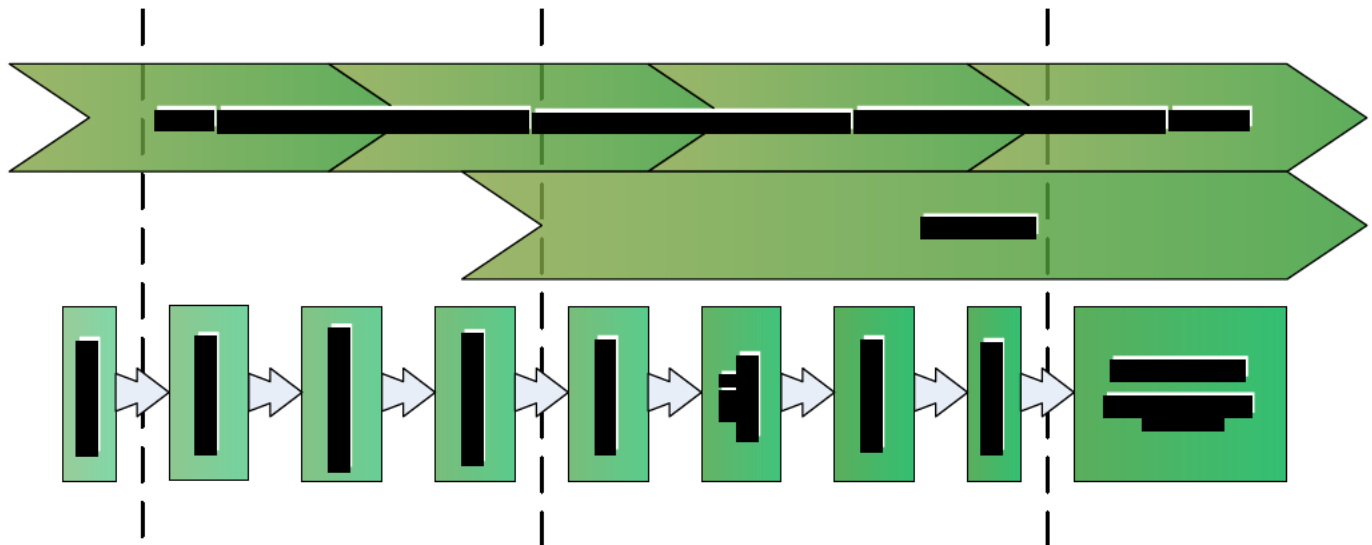
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## ANNEX A1– ERBA

1. Name of activity:	Light Rescue Pump (LRP's)
2. Main purpose of activity:	Use of Light Rescue Pump (LRP's)
2a. Project manager/process owner	
2b. Project/process linked to	Tiered Response
3. List the information, data or evidence used in this analysis:	Consultation with Subject Matter Experts

### 4. Assessment

Characteristics	Neutral (x)	Negative* (enter score)	Positive (x)	Describe the particular characteristic you are assessing and explain:  <b>Negative: What are the risks?</b>  <b>Positive: What are the benefits and/or opportunities?</b>
A person of a particular age	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<b>Neutral:</b> This will be used by active firefighters who are required to maintain a set fitness level.
A disabled person	<input type="checkbox"/>	1 likelihood x 2 impact = 2	<input type="checkbox"/>	<b>Negative:</b> This will be used by active firefighters who are required to maintain a set fitness level. Any disability will be assessed on an individual basis in line with being an operational firefighter.
A person of a particular sex, male or female, including issues around pregnancy and maternity	<input checked="" type="checkbox"/>	1 likelihood x 2 = 2	<input checked="" type="checkbox"/>	<b>Neutral:</b> As per policy and procedure of the B-Type appliances.  <b>Positive:</b> Body shapes will be catered for in accordance with EN1846 which defines cab sizes for firefighters.
A person of a gay, lesbian or bisexual sexual orientation	<input checked="" type="checkbox"/>		<input type="checkbox"/>	

4. Assessment				
A person of a particular race	<input type="checkbox"/>		<input type="checkbox"/>	
A person of a particular religion or belief	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Transgender	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>Community considerations</b> (e.g. applying across communities or associated with socio-economic factors, criminal convictions, rural living or Human Rights)	<input type="checkbox"/>	3 likelihood x 4 = 12	<input checked="" type="checkbox"/>	<p><b>Positive:</b> The LRP is smaller and therefore has the ability to access remote areas via country lanes.</p> <p><b>Positive:</b> Persons of a restricted height will be catered for with ladder gantries and by virtue that the LRP is a lower appliance than a standard B-Type</p> <p><b>Negative:</b> Any person over 6'4" may have issues with the roof height.</p> <p><b>Positive:</b> People living in rural isolation, LRP's have better access to people in rural locations.</p> <p><b>Positive:</b> LRP's will reduce response times compared to the standard B-Type appliance.</p>

5. Results			
	Yes	No	
Are there negative scores in Low?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, list any actions required to adjust the activity and any mitigation you will implement in the action plan below in <b>section 6</b>
Were positive impacts identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If No, Community and Workplace Equalities will contact you about this
Are some people benefiting more than others? If so explain who and why.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are one or more negative scores in Medium or High?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, consult Community and Workplace Equalities (CWE) on further consultation

**6. Consultation, decisions and actions**

If medium or high range results were identified who was consulted and what recommendations were given?

Response and Resilience Department – build minimum requirements for seating and door opening sizes into the technical specification.

Describe the decision on this activity

Proceed with the advice given from the Response and Resilience department.

List all actions identified to address/mitigate negative risk or promote positively

Action	Responsible person	Completion due date
Build minimum requirements for seating and door opening sizes into the technical specification.	[REDACTED]	1 June 2012

When, how and by whom will these actions be monitored?

Evaluation of suppliers response to the ITT (Invitation to Tender)

**7. Signatures**

Assessor

Name: [REDACTED] Signature\*\* [REDACTED]

Validated by (Line manager)

Name: [REDACTED] Signature\*\* [REDACTED]

**Forward to CWE**

Equalities team/monitoring group member name:

Signature\*\*

Assessment date:

Review date:

**\*\* Please type your signature to allow forms to be sent electronically.**