



DEVON &
SOMERSET
FIRE & RESCUE SERVICE

Service Delivery

Strategic Fleet Alignment

Tiered Response Project

Full Business Case

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Table of Contents

1.	EXECUTIVE SUMMARY	5
1.1	HM Treasury Five Case Model	5
1.2	Project Background	5
1.3	Strategic Case	5
1.4	Economic Case	7
1.5	Commercial Case	8
1.6	Financial Case	10
1.7	Management Case	11
2.	INTRODUCTION	12
2.1	Background	12
2.2	Service Delivery Review	12
2.3	Tiered Response	12
2.4	Scope of this Full Business Case	13
3.	STRATEGIC CASE	14
3.1	Introduction	14
3.2	DSFRS Strategy for 2011-2014	14
3.3	DSFRS Corporate Plan 2011-2014	14
3.4	The Case for Change	15
3.5	Existing arrangements	18
3.6	'As Is' Financial Model	19
3.7	Benefits	22
3.8	Investment Objectives and Main Benefits	23
3.9	Main Risks of this Business Case	25
4.	ECONOMIC CASE	27
4.1	Introduction	27
4.2	The Recommended Way Forward	30
4.3	Recommendation	31
5.	COMMERCIAL CASE	32
5.1	Procurement Regulations	32
5.2	Alternative Routes to Market	32
5.3	Scope of Procurement	34
5.4	Approach to the Market	34
5.5	Evaluation Process and Results	36
6.	FINANCIAL CASE	40
6.1	Introduction	40
6.2	The 'To Be' Financial Model	40
6.3	Additional Financial Benefits	42
6.4	Financial Benefit	42
6.5	'To Be' Financial	43
7.	MANAGEMENT CASE	44
7.1	Introduction	44
7.2	Role of the Portfolio, Programme and Project Boards	44
7.3	Roles and Responsibilities	46

7.4	V Model Framework	48
	The V Model.....	49
7.5	Controls.....	50
7.6	Benefit Realisation	53
7.7	Resource Plan.....	57
ANNEX A1– ERBA		58

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"> • A LRP will cost significantly less to buy than a MRP it will replace • Lower cost of capital borrowing • Lower operating costs – improved fuel efficiency • By matching resources to risk it will be possible to reduce the amount of equipment carried on each LRP • Reduced incidents of accidental vehicle damage • The stock levels of stores can be reduced • The introduction of a standard fleet will reduce the training needs of workshop staff

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

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 23rd 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 23rd November 2012 to the six highest scoring Potential Providers from the evaluation of the Pre-qualifying responses.

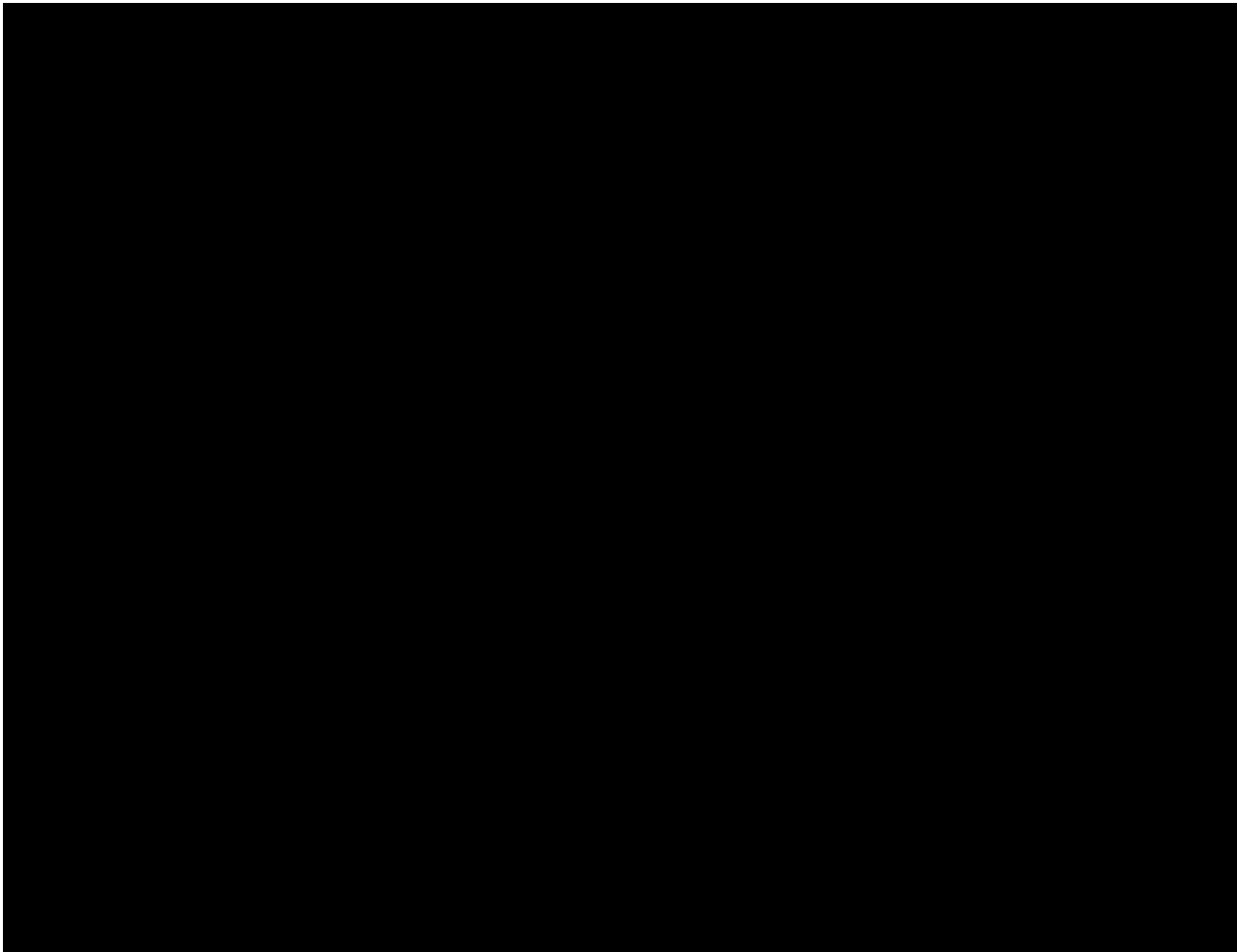
In the event, four Potential Providers submitted tender responses by 12 noon on 23rd January 2013 that being the deadline set for responses. The Potential Providers were:

- [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 DSFRS' 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.

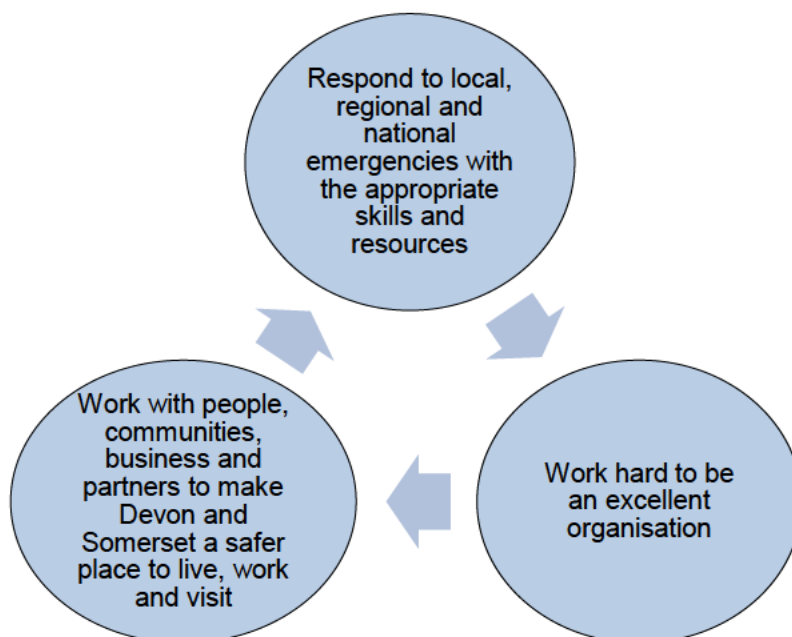
3. STRATEGIC CASE

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 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 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
Cost of Funding Operational MRP Fleet	£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
Insurance for Operational Fleet	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252
Fuel expenditure for Operational Fleet	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388	£240,388
Maintenance (Planned and Defect)	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224
Maintenance Parts (Planned)	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752
Maintenance Parts (Defects)	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257
Accident Damage Repair	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152	£6,152
Accident Damage Parts	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202	£51,202
Tyres	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678
Total Cost of Funding Operational MRP Fleet	£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

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

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)	Section 3.2.1 (2.1) Section 3.2.2 (3.3)
<ul style="list-style-type: none"> 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. 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 	Improve Firefighter safety	Section 3.2.1 (2.2) Section 3.2.2 (3.4)
<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	Section 3.2.1 (2.3) (2.4)
<p>A standardised fleet with standardised equipment will:</p> <ul style="list-style-type: none"> Simplify end user training requirements Allow stores to reduce the number of items held; Allow the maintenance department to reduce their training requirements; Allow one set of operating procedures to be used across Devon and Somerset; Enable effective attribute based mobilisation; Simplify procurement procedures. 	Achieve standardisation	Section 3.2.2 (3.1)

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	Section 3.2.2 3.2
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	Section 3.3.2

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"> • Early and continuous briefing of SMB members • Production of the Full Business Case • Circulation of the Full Business Case before the meeting • Targeted briefing slide presentation at the meeting 	R
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.	R
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"> • Detailed and rigorous review of the preferred suppliers bid document and transformation into the actual build specification • Regular inspection of the prototype during the build cycle. • The introduction of a comprehensive change management process. • Place the governance of change control under a Charge Review Board 	R
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"> • Detailed feedback to be provided to unsuccessful contractors • Face-to-face feedback to be offered within first week of stand-still period 	A

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"> • Appoint a Benefits Realisation Manager. • Produce a Benefits Realisation Plan 	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 MRP'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 MRP'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

5.1 Procurement Regulations

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 Public Contracts Regulations 2006 (as amended) – the Regulations - govern the approach to all public procurement.

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.

5.2 Alternative Routes to Market

In planning the approach to be used for this procurement exercise a number of methodologies were assessed, including accessing existing Framework Agreements.

In the Outline Business Case the following options for procurement to establish Prime Contractor to build and supply Light Rescue Pumps were considered:

5.2.1 Option 1 – Access a Framework Agreement

Where one is available, OJEU compliant framework agreements may be accessed which may reduce the resources needed to undertake a procurement exercise.

Frameworks create a pre-competed route to market. However, in order to comply with the Regulations (clauses 19.7 (b), 19.8 and 19.9) the contracting authority must undertake a further competition between the economic operators which are parties to that framework agreement and which are capable of performing the proposed contract.

Additional terms and conditions that are outside of the original scope envisaged in the framework agreement or making substantial amendment to existing terms and conditions are not allowed and can make the call-off contract ineffective. Authorities cannot add unrelated evaluation criteria that are not specified in the framework agreement. Authorities cannot award unusually long call-off contract towards the end of the term of a framework agreement.

Firebuy as the ‘Consortium’ has a framework contract available for Pumping Appliances. This framework expires on 19 December 2014.

The suppliers on the framework are:

- Angloco Ltd;
- Browns Coachworks Ltd;
- Emergency One (UK) Ltd;
- John Dennis Coachbuilders Ltd;
- Plastisol BV incorporating Plastisol UK Ltd;

- Rosenbauer/Angloco, Sides France;
- Volvo Group UK Ltd and
- W.H. Bence (Coachworks) Ltd.

The specification for the Light Rescue Pumps was not fully considered at the time that the framework was established. There is limited selection of chassis types and manufacturers. Terms and Conditions are set by Firebuy/Consortium. There is little scope to influence the final design and build of the appliances or to influence or be involved in discussions with second tier suppliers. Pricing is pre-competed with little scope for suppliers to amend them.

5.2.2 Option 2 - Undertake full OJEU Compliant Tender Exercise

Undertaking a full tender, which complies with the provisions of the Public Contracts Regulations 2006 (as amended), offers a number of advantages.

5.2.2.1 Advantages

The project can:

- schedule resources to fit with workloads;
- Ensure robust preparation of documentation and award criteria;
- Undertake pre-qualifying of potential providers 'due diligence' and allow for supplier engagement and market influence from the outset of the exercise;
- Ensure that the terms and conditions of the contract are established to meet our requirements and
- Ensure that the Service Level Agreements and contract management and standards of performance are within our control.

This approach would test the current market, potentially widen the market and competition by providing opportunity to traditionally 'second tier' suppliers to act as prime contractors and encourage innovation.

Moreover, this opens an opportunity for Devon and Somerset Fire and Rescue Service to establish a framework contract for other Fire and Rescue Authority's to access, with the possibility of income generation/cost recovery.

5.2.3 Selected - Option 2

After due consideration, the decision was taken for DSFRS to undertake a full, independent tender exercise and establish a new Framework Agreement, on the basis that there was opportunity to:

- Attract new suppliers to market;
- Use new approaches to supply;
- Adopt a risk based approach;
- Provide greater control of outcomes;
- Illuminate commission charges;
- Establish DSFRS's own Terms and Conditions;
- Secure competitive prices;
- Allow innovation from suppliers and encourage new ideas
- Work with other FRS.

The new Framework Agreement will be available to Fire and Rescue Authorities in England, as defined by the Fire and Rescue Services Act 2004 and by any other bodies associated with Fire and Rescue activities with similar requirements, including the:

- Ministry of Defence Fire Service (DFRMO);
- Department of Communities and Local Government;
- Fire and Rescue Authorities in Scotland, Wales, Northern Ireland;
- States of Jersey and Guernsey;
- Isle of Man;
- Fire Service College;
- Ambulance Services in the UK;
- Airport Fire Services in the UK and
- Metropolitan Police and the British Transport Police.

DSFRS will provide Fire and Rescue Services in the UK and other bodies associated with Fire and Rescue activities, on request, with details of the Framework Agreement Terms and Conditions, Call-off Contract Terms and Conditions, and guidance on the ordering process.

5.3 Scope of Procurement

The new Framework Agreement will primarily be established to meet the specific requirements of DSFRS and to ensure that DSFRS will be able to obtain (approximately) seventy vehicles meeting a consistent specification and standard over a five to six year period.

The OJEU Contract Notice stated that the period of the Framework Agreement would be six years and would be awarded to a sole Contractor.

Provision is made for a prototype Light Rescue Pumping Appliance to be designed and assembled for DSFRS in 2013 and, subject to improvement and modification resulting from lessons learned during acceptance testing of the prototype vehicle, for all subsequent vehicles to be assembled against that specification and sample for consistency of product throughout the period of the Framework Agreement.

The prototype vehicle will be subject to testing for compliance against the Standard for Fire Appliances EN1846 1/3. Testing will be carried out by an independent third party, the Vehicle Certification Agency (VCA).

The Framework Agreement includes a limited range of options to the basic specification of the Light Rescue Pumping Appliance, (e.g. providing a choice of manual or automatic transmission, optional fire engineering without Compressed Air Foam System (CAFS), optional enhanced Canbus, optional on-board CCTV) to enable Participating Services and Participating Customers to consider individual requirements.

These options will not vary the base vehicle specification significantly and, therefore, customers will be able to call-off from the Framework Agreement whilst remaining compliant with the Public Contracts Regulations 2006 and without needing to undertake a full procurement exercise.

The options will also not impact on results of the Vehicle Certification Agency (VCA) test of the finished vehicle for compliance against EN 1846 1-3, although additional customers may wish to commission their own VCA test to satisfy themselves as to continued compliance with EN 1846 1-3.

5.4 Approach to the Market

The 'Restricted' procedure was followed in accordance with the Public Contracts Regulations 2006 (as amended). The Restricted procedure followed two stages, firstly to pre-qualify Potential Providers and secondly to invite a limited number of Potential Providers to submit tenders, selected as a result of the evaluation of the initial pre-qualifying submissions.

Tender documentation was prepared, including draft Terms and Conditions for the Framework Agreement and draft Terms and Conditions for subsequent Call-off Contracts.

The User Requirements and Technical Specification were compiled by the Tiered Response Project team and this document forms the basis of the specification for these vehicles and services.

The user requirement and technical specification covered the following areas:

- Chassis
- Power train
- Driver and crew cab
- Body design and construction
- Electrical systems
- Fire engineering
- Governance
- Delivery plans
- Acceptance testing
- After sales support
- Whole life cycle management
- Training
- Warranty

The user requirement and technical specification identified over 330 individual statements of requirement.

Diverse stakeholders from within Devon & Somerset Fire and Rescue Service were involved in the preparation, review, comment and approval of the documentation prior to its release to the market, to ensure that the needs of DSFRS and the potential external customers would be reflected in the resultant Framework Agreement.

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

The Contract Notice indicated that a minimum of five and maximum of six Potential Providers would be invited to tender following the evaluation of the pre-qualifying submissions.

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 23rd November 2012 to the six highest scoring Potential Providers from the evaluation of the Pre-qualifying responses.

An information session was held at DSFRS Headquarters on 5th December 2012 to enable the Potential Providers to meet members of the DSFRS project team and to gain a greater understanding of the DSFRS aims, objectives, requirements and approach for this procurement.

Potential Providers were allowed more time to submit responses than the minimum timescales laid down in the Public Contracts Regulations 2006 to take into account Christmas holidays and the complexity of the tender.

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

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

[REDACTED] did not bid and gave no explanation. [REDACTED] did not bid on the basis that they were not confident that they had sufficient capacity to meet the proposed volumes / deadlines.

5.5 Evaluation Process and Results

5.5.1 Weighting and 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.

High level weighting was applied to the evaluation of the tender as follows:

Invitation To Tender Evaluation Criteria	Weightings
Quality (Build Standards & materials)	3%
Technical merit (ability to meet requirements)	40%
Aesthetic and functional characteristics	2%
Service – governance and delivery	12%
Service – after sales service and support	8%
Environmental characteristics	2%
Whole life costs	5%
Price	28%

Sub-weightings were applied to individual requirements. The weightings, sub-weightings and marking guidelines were included with the tender documentation for the Potential Providers information.

Each of the Potential Provider response to each of the 330 requirement was evaluated and scored by the following panel members:

Functional Requirements:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Non-functional Requirements

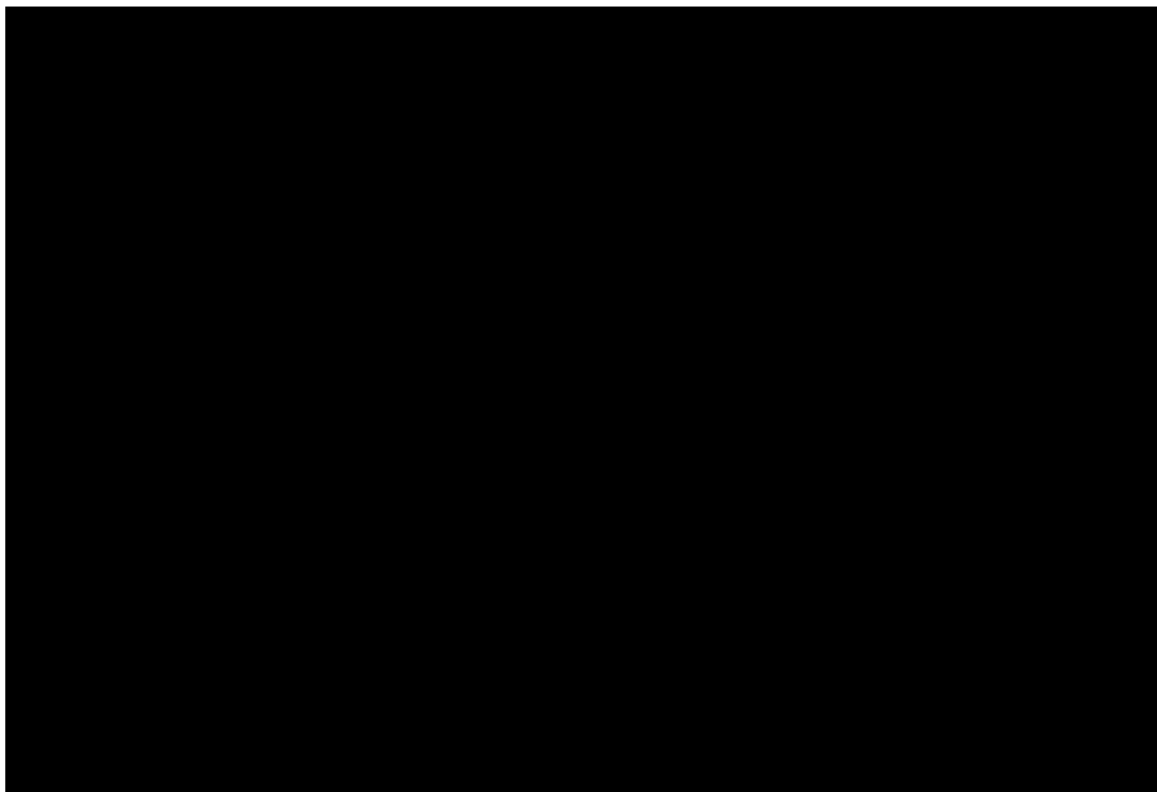
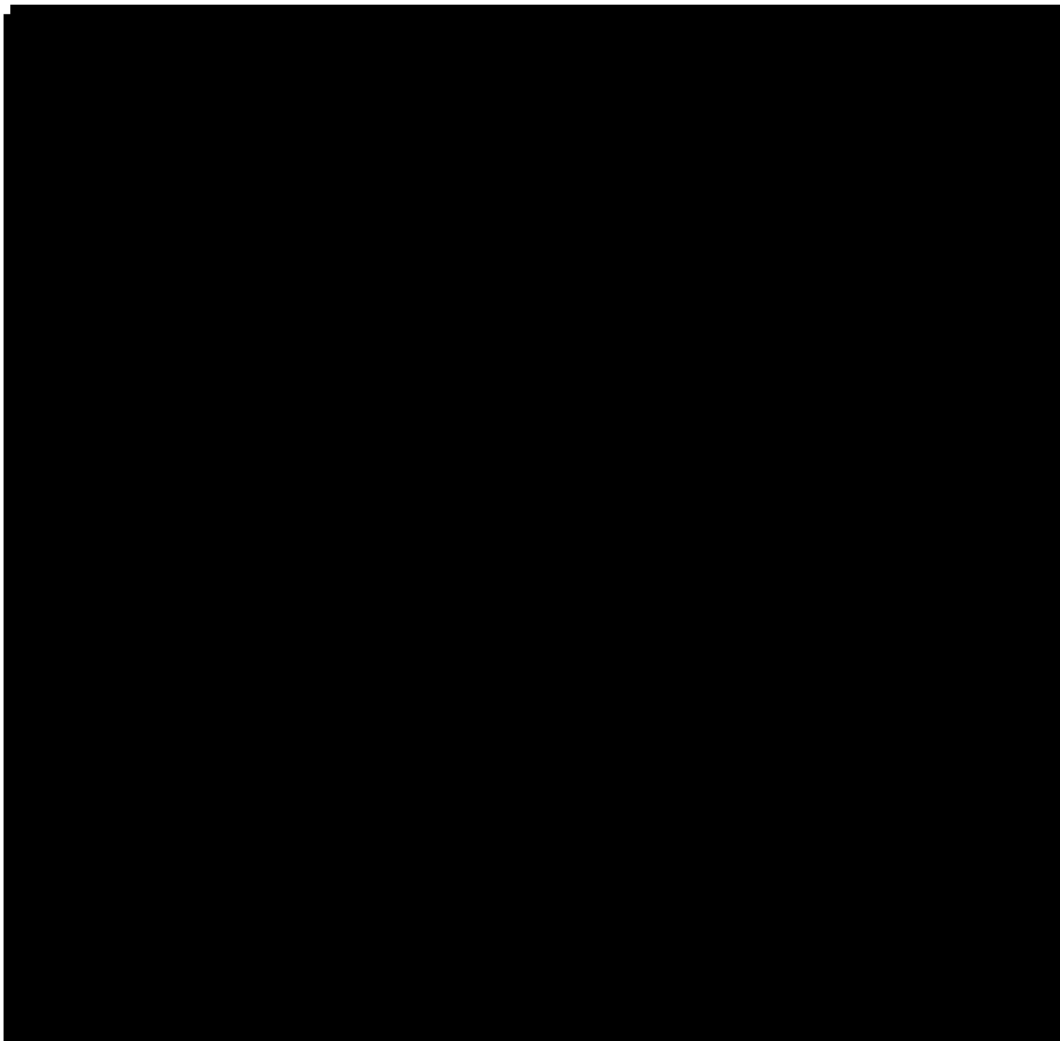
[REDACTED]
[REDACTED]
[REDACTED]

Financial Modelling

[REDACTED]

5.5.2 Evaluation Results

[REDACTED]



5.5.3 Framework Contract Award

The Framework Agreement for Light Rescue Pumping Appliances has been 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.

Devon and Somerset Fire and Rescue Service (DSFRS) will, for the duration of the Framework Agreement, be responsible for:

- Managing and monitoring the performance of the Contractors against the Service Level Agreement and providing an overview of the Contractors performance against all subsequent Call-off Contracts.
- Monitoring the financial stability of the Contractors for the period of the Framework Agreement
- Monitoring the certification of Contractors products against the relevant Standard.
- Providing advice, guidance and support to Participating Services and Participating Customers.

A notification of DSFRS intention to award the Framework contract to **Emergency One** was issued on the 28 March 2013. The stand still period ran from the 28 March 2013 to the 12 April 2013. None of the losing companies lodged an appeal against the decision. The Framework Contract was awarded on the 12 April 2013 and will come into effect on the 1 May 2013.

6. FINANCIAL CASE

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 3.6.3: The tables represents the base line figures that the 'To Be' model is compared with 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

The following 'To Be' 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 'To Be' financial model of based on the actual cost of funding a new mixed fleet of 70 LRPs and 51 MRPs and so still maintaining an operation fleet of 121 fire appliances. The funding of all future fire appliances will be via the use of capital and not leasing. The capital cost of purchase is borrowed and paid back in 12 equal annual instalments plus the cost of borrowing (interest).

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 MRP and LRP 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 total 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 fleet of 121 MRP's and LRP's 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 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

The 'To Be' financial model is based on the assumption that:

- The Senior Management Board (SMB) will approve the implementation of 70 LRPs over a 5 year period starting in 2013/14;
- The agreed plan is to implement 70 operational LRPS. No allowance has currently been made from any LRPs will be needed for training or reserve;
- The award of the contract for the first Batch of LRPs will take place on the 1 May 2013;
- Following the successful evaluation of the prototype, the next five LRP's will be deployed during the 2013/14 financial year;
- Sixteen LRPS will be deployed in each of the following four years;
- 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;
- The normal operating life of a LRP appliance is 12 years;
- The unit cost of MRP appliances, currently in service, is based on their actual cost when they were procured via either capital expenditure or a leasing arrangement;
- The annual cost of each MRP and LRP appliances is based on the annual cost of borrowing the capital (5%) plus one twelfth of the capital cost as a repayment;
- The unit cost of new MRP appliances is estimated as £215,000;
- The unit cost of a new LRP appliance is £120,000 (This the unit cost of the LRP £140,000 minus the cost of CAFS £20,000. This reduction has been made to show the true benefits as the LRPs will be replacing MRPs that predate the introduction of CAFS.);
- 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 and LRP appliances and will drop to approximately £160,258 by 2018;
- 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 will drop to £4,101 by 2018;
- The current annual coat of accident damage repair parts will drop to £34,134 by 2018;
- 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, and:
- Equipment that is common to both the MRP appliance and the LRP are NOT included in the financial model. Therefore, the financial model should not be seen as a budget but rather and means of illustrating the delta between the 'As Is' state and the 'To Be' state when these cost factors are taken into consideration.

6.3 Additional Financial Benefits

The LRP will carry less equipment than the current MRP. The following table illustrates the cost of some of the major equipment carried by a MRP appliance and where there are reductions in cost by using LRPs.

Equipment	MRP	LRP	Savings
Main Ladder	£4.2k	£2.8k	£1.4k
Road Traffic Rescue Equipment	£18k	£5.8k	£12.2k
Light Portable Pump	£2.9K	£0	£2.9k
Positive Pressure Fan	£1.5k	£0	£1.5k
BA Sets & Cylinders (reduction from 4 to 3)	£4.4k	£3.3k	£1.1k
Hose Reels	£1k	£0.5k	£0.5k
Gas Tight Suits	£1.2k	£0	£1.2
Total			£20.8k

In addition there will be cost savings associated with BA maintenance but there have not yet been quantified

The cost of replacing defective or worn out equipment should also be less than currently being experienced by the current MRP fleet of appliances. The anticipated saving in equipment costs have been built into the 'To Be' cost model in Paragraph 6.5

6.4 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
£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
£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
£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.

The full 'To Be' model is shown below:

6.5 'To Be' Financial

The following 'To Be' financial model covers the costs financing and running a fleet of 121 MRP's and LRP's over a twelve year period from the 12/13 financial year to the 23/24 financial year.

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Financing Operational MRP and LRP Fleet	£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
Insurance for Operational Fleet	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252	£98,252
Fuel expenditure for Operational Fleet	£240,388	£233,520	£215,205	£196,889	£178,574	£160,258	£160,258	£160,258	£160,258	£160,258	£160,258	£160,258
Maintenance (Planned and Defect)	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224	£258,224
Maintenance Parts (Planned)	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752	£17,752
Maintenance Parts (Defects)	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257	£104,257
Accident Damage Repair	£6,152	£5,977	£5,508	£5,039	£4,570	£4,101	£4,101	£4,101	£4,101	£4,101	£4,101	£4,101
Accident Damage Parts	£51,202	£49,740	£45,838	£41,937	£38,036	£34,134	£34,134	£34,134	£34,134	£34,134	£34,134	£34,134
Tyres	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678	£32,678
Equipment Savings	£0	£-124,800	£-332,800	£-332,800	£-332,800	£-332,800	£-58,626	£-58,626	£-58,626	£-58,626	£-58,626	£-58,626
Total Cost of Financing Operational MRP and LRP Fleet	£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

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.

NOTE: The capital cost of equipment carried by the mixed fleet of MRPs and LRP has yet to be quantified. The capital equipment cost will be added to the model prior to setting the future capital and revenue budgets for 14/15 and beyond.

7. MANAGEMENT CASE

7.1 Introduction

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

7.2 Role of the Portfolio, Programme and Project Boards

7.2.1 Portfolio Board

Proactive and visible senior management commitment is absolutely essential for effective portfolio management. The Portfolio Board is responsible for providing a mechanism to prioritise the programme and project portfolio in line with the business objectives. The Board should create a clear decision-making structure with agreed line of accountability that facilitates swift decision making. Portfolio Board members should:

- Take effective steps to ensure compliance with portfolio governance and prevent pet projects from being progressed under the portfolio 'radar';
- Cascade down the rationale for their decisions to all programme and project staff;
- Demonstrate behaviours essential to the success of portfolio management by taking a portfolio-wide perspective rather than departmental.

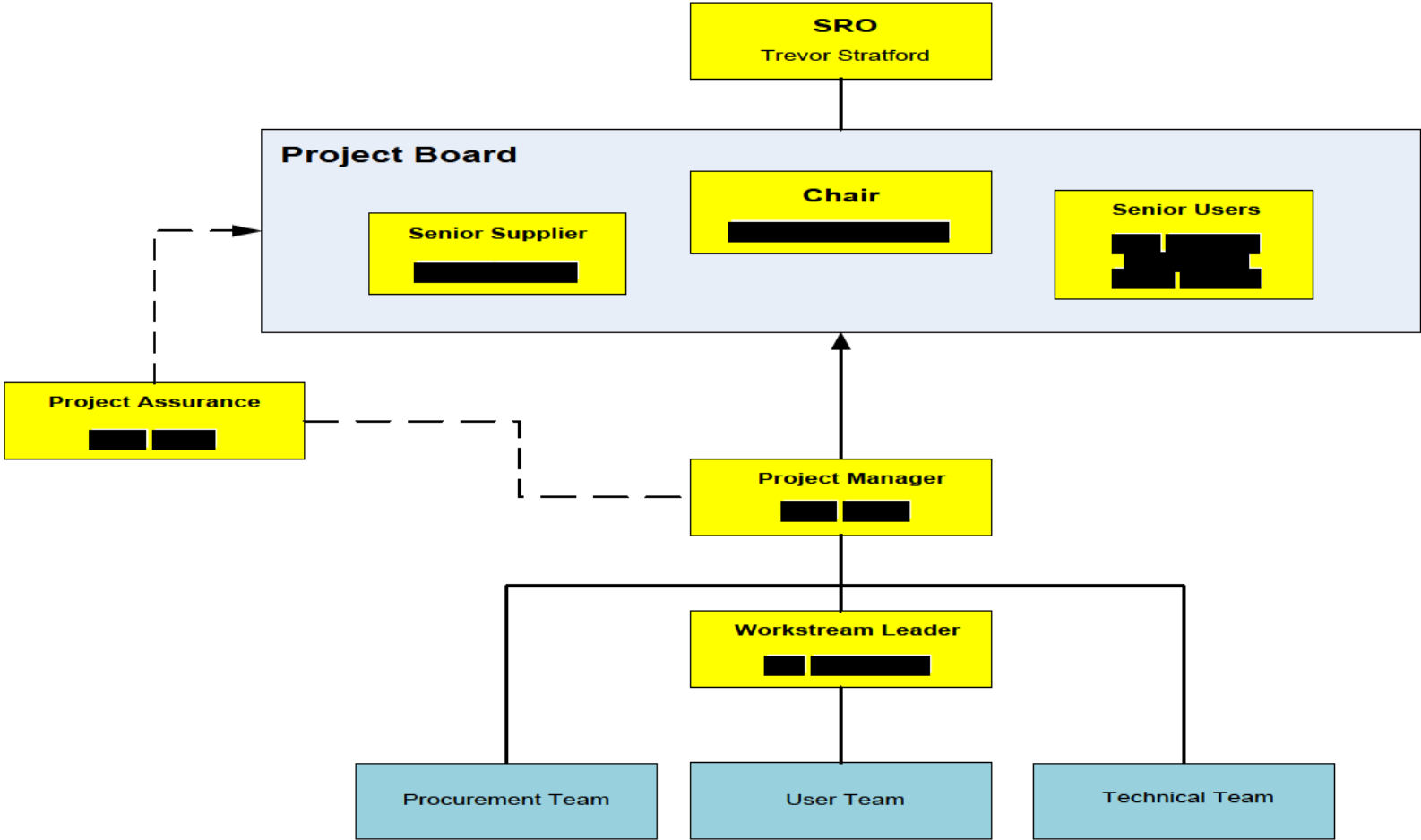
7.2.2 Programme Board

The Programme Board is responsible for investment decisions, defining the direction of the business and establishing frameworks to achieve the desired outcomes. The Board should create an environment in which the programme can thrive and provide continued commitment and endorsement in support of the Senior Responsible owners efforts to deliver the strategic objectives.

7.2.3 Project Board

The Project Board is responsible for ensuring that the project remains on course to deliver products to the required quality, time and budget as defined in the Business case. The Project Board is the projects 'voice' to the outside world and is responsible for ensuring that progress, issues and risks are escalated upwards and the stakeholder communication plan is effectively implemented.

Project Governance Structure



7.3 Roles and Responsibilities

7.3.1 Senior Responsible Owner

The Senior Responsible Owner (SRO) is ultimately accountable for the success of the Service Delivery Programme, of which the Tiered Response Project is part. The SRO is responsible for enabling the DSFRS to exploit the new business environment resulting from the programme, meeting the new business needs and delivering new levels of performance, benefits and service delivery.

The SRO responsibilities include:

- Owning the vision for the programme and being its 'champion', providing clear leadership and direction throughout its life;
- Securing the investment required to set up and run the programme, and fund the transition activities into 'Business as Usual' so the desired benefits can be realised;
- Providing overall direction and leadership for the delivery and implementation of the programme, with personal accountability for its outcome;
- Being accountable for the programme's governance arrangements by ensuring the programme, including its investment, is established and managed according to appropriate requirements and quality;
- Being responsible for key programme documentation especially the Business Case;
- Managing the interface with key stakeholders;
- Managing the key strategic risks;
- Maintaining the alignment of the programme to the organisations strategic direction;
- Commissioning and chairing reviews of the programme;
- Managing and supporting the Programme Manager.

7.3.2 Executive (Project Board Chair)

The executive is ultimately responsible for the project, supported by the senior users and senior supplier.

The executive is responsible for:

- Overall project guidance & strategy compliance;
- Ensuring the project delivers value for money;
- Representing corporate and programme management;
- Appointing key personnel;
- Approving and monitors costs & timescales;
- Project assurance (delegated to Terry Amos);

The Executive chairs project board meetings.

7.3.3 Senior User

The Senior User represents the interests of all those who will use the output of this project.

The Senior User is responsible for:

- Representing user interests;
- Monitoring progress from user perspective;
- Ensuring outcomes reflect user needs;

- Contributing to decisions for proposed changes;
- Ensuring user resources are available;
- Briefing users.

7.3.4 Senior Supplier

The Senior Supplier is accountable for the quality of the products delivered by the suppliers during the procurement stage. The Senior Supplier is responsible for:

- Representing procurement interests;
- Agreeing the objectives for procurement activities;
- Monitoring progress from procurement perspective;
- Committing procurement resources;
- Contributing to decisions on proposed changes;
- Resolving procurement requirements/priority conflicts.

7.3.5 Project Assurance

Although the Project Board is ultimately responsible for Project Assurance they may delegate the responsibility to someone who can have a greater 'hand-on' involvement in the project and provide the Project Board members with the assurance that the Project remains under control.

The Project Assurance Role is responsible for:

- Confirming the project plan is sound and being monitored correctly;
- Confirming that the quality plan is being implemented correctly;
- Confirming the Business Case remains viable;
- Ensuring that the proposed controls provide adequate safeguards;
- Acting as a quality reviewer;
- Supporting the Project Manager;
- Benefits Assurance

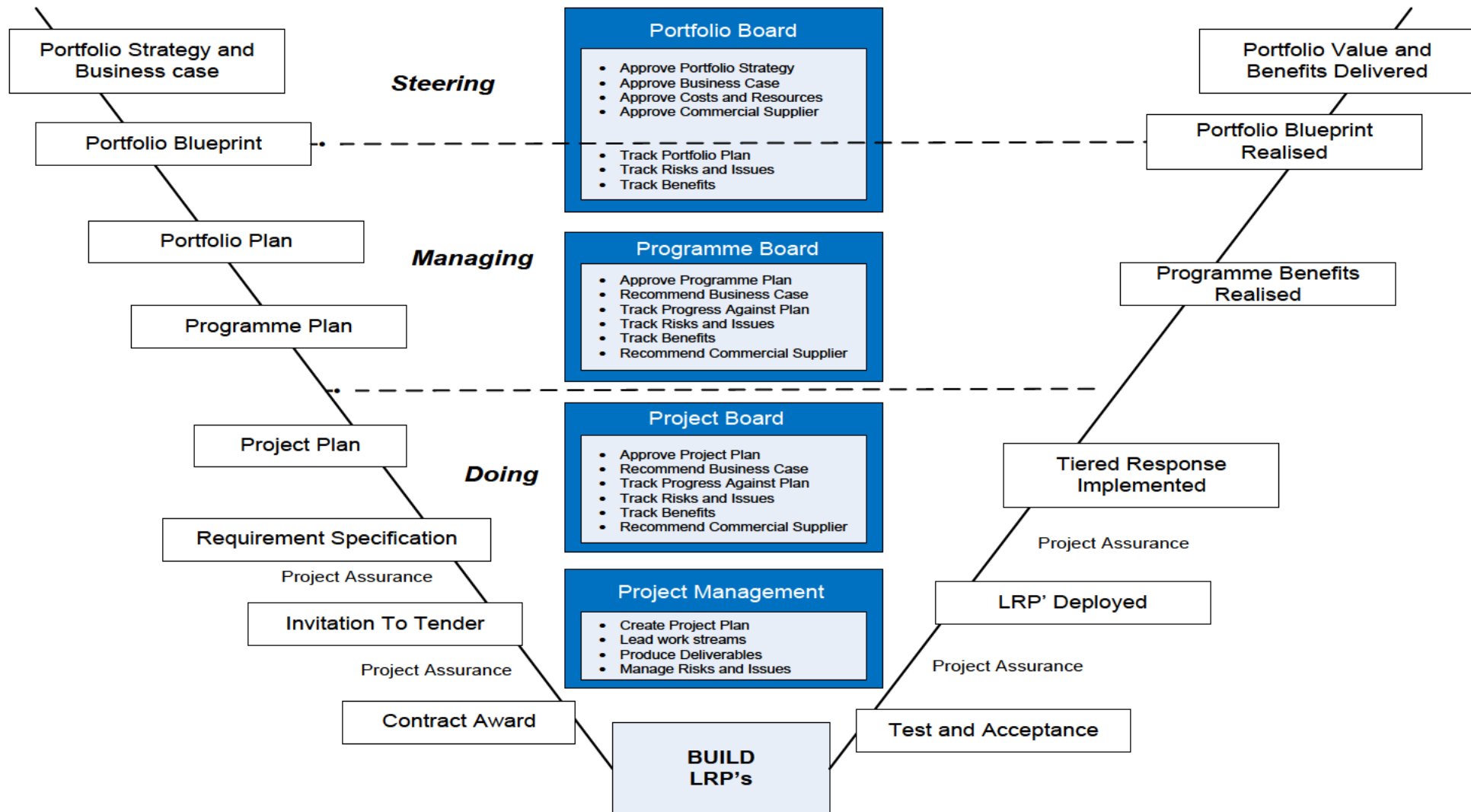
7.4 V Model Framework

The V-Model is a graphical representation of the development lifecycle. It summarises the main steps to be taken in conjunction with the corresponding high level deliverables.

The V-Model represents the sequence of steps in the life cycle that are applied to Portfolio of Programmes and Projects. It identifies the activities and results that have to be produced during analysis, requirement specification, procurement, build and release into live operation. The left side of the 'V' represents the steps needed to identify requirements, and the creation of user specifications. The right side of the 'V' represents integration of all parts of the build and their quality verification. It operates at a cascade of three levels, from Steering to Managing to Doing. It is designed to ensure that:

- The DSFRS portfolio is clearly articulated in a Blueprint for the Service;
- The Blueprint will be brought into service through a series of Delivery Plans;
- Each Programme and Project is initiated in line with the plan;
- Each Programme and Project delivers its intended scope, to time, cost and quality
- Each component is tested and properly integrated together before a released into service;
- The DSFRS Strategic Vision associated benefits are realised.

The V Model



7.5 Controls

7.5.1 Quality Management

7.5.1.1 Quality Policy

The DSFRS Quality Policy will be used as the basis for ensuring this project delivers a quality product. It is designed to provide guidance and direction to the project teams on all aspects of quality.

The Quality Management System (QMS) is built on the principles identified in the Quality Policy.

The successful delivery of the Tiered Response Project will rely on forming customer/supplier relationships. The LRP supplier will have their own QMS. The DSFRS Quality policy is based on implementing a common QMS based on national and international best practice.

7.5.1.2 Quality Management System

The DSFRS Quality Management System (QMS) will be used as the basis for managing project quality. It provides a set of processes and practices that ensure a common sense approach to the management of quality. The system is designed to deliver products that meet and maintain the customers' requirements. The QMS covers:

- Quality review process;
- Assurance process;
- Change management process;
- Configuration process;
- Quality tolerance and acceptance criteria.

7.5.1.3 Quality Review Process

At the core of the QMS is the Quality Review Process. For the Tiered Response Project, the key to success is identifying the characteristics of the LRP and the supporting documentation that makes it fit for purpose.

Quality Review is the process by which the project ensures that products meet the quality criteria specified for them. The Quality Review process is about examining products to determine that they meet the requirements. The Quality Review process increases productivity by:

- Catching errors early in the development of a product;
- Reducing rework;
- Improving recognition and identification of dependencies across Programmes and Projects
- Enabling accuracy of the finished product;
- Encouraging the concept of deliverables as team property, rather than belonging to an individual;
- Enabling the monitoring of the use of the correct standards and templates;
- Ensuring that sufficient time is built into project plans for product reviews.

Standards are drawn from the PRINCE2 and Managing Successful Programmes, OGC guidance.

7.5.1.4 Assurance Process

A holistic approach to assurance will be taken to ensure that it encompasses:

- Quality Assurance - creating and maintaining the quality system to ensure its application is effective in achieving the end product that meets quality and customer expectations, in accordance with the Quality Management Strategy;
- Technical Assurance - assessing the solution is compliant with technical DSFRS and British Standards (BS EN 1846-1);
- Business Assurance - assessing the Business Case and the continued viability of the project against its predicted benefits;
- Stakeholder Assurance - assessing the mechanisms and performance of the stakeholder management arrangements.

The activity of quality assurance creates and maintains the Quality Management System (QMS). The activity also monitors the QMS to ensure that it is being operated correctly and that it is producing end products that meet the customer's quality expectations. The quality assurance function is separate and external from the organisations project management and operational activities.

7.5.2 Change Control Process

Changes to requirement specification or scope can ruin a project unless they are carefully controlled. Change is, however, highly likely. The DSFRS Change Control Process will be used to ensure that any Requests for Change (RFCs) that are raised for a change to a Tiered Response Project over the duration of the project life-cycle is fully understood, impact assessed and authorised within the appropriate governance structure. The process provides an audit trail for all RFCs that have been implemented.

In general the Change Control Process does not encompass how the outputs from the Project are implemented as a Business Change. This is covered by the Business Change Manager role.

A project issue may be raised at any time. All issues are captured on the Issue Log. Following an initial assessment two types of specific change can occur:

- A Request for Change – which, for whatever reason, will cause a change to a product. Any additional cost to carry out the change will have to be funded by DSFRS;
- An Off-Specification – covering error or omissions found in the work that has already been undertaken or is planned in the future. Any additional cost to carry out the change will **NOT** have to be funded by DSFRS.

7.5.3 Configuration Management

7.5.3.1 File Naming Convention

The formal file naming convention will be a plain English description of the product that is then followed by a version number. For example:

Tiered Response Project Full Business Case v0.7

7.5.3.2 Document version Number

The standard lifecycle for a document is:

- Initial Creation
- Working Drafts
- Informal Reviews
- Redrafts
- Formal Reviews

- Approval.

It should be noted that even at the initial draft stage; a Security Classification must be applied at the top and bottom of every page and centred.

The method for version numbering to be used is illustrated in the following table:

Status	Version	Review
Initial Draft	v0.01	Informal
2 nd Draft	v0.02	Informal/Formal
3 rd Draft	v0.03	Informal/Formal
4 th Draft	v0.04	Informal/Formal
Approval	v1.00	Formal
1 st Revision	v1.01	Informal/Formal
2 nd Revision	v1.02	Informal/Formal
Approval	V2.00	Formal

The first draft is designated V0.01, and this can be described as the 'Initial Draft' in the Document History. The second draft is V0.02, the third draft V0.03, and so on until the document achieves Sign-off and Approval, at which point it becomes V1.0 and is baselined and published. The Author/Product Owner decides at which points they want to have informal Peer-to-Peer reviews and when formal reviews should take place. A formal review must take place prior to the document being offered for sign-off and approval.

Further modification and development of a product starts with the designation V1.01 and progresses through V1.02, V1.03 etc until V2.0 is attained (via a Request for Change – see Section 7.7.2).

7.5.4 Issue Management

A project issue is anything that could have an effect on the project, For example:

- A change to the requirement;
- A change to corporate direction;
- A problem that was not anticipated;
- A new risk;
- A query.

Managing project issues involves:

- Capturing and formally logging the issue in the Issues Log;
- Assessing the project issue;
- Investigate the required action;
- Document the action;
- Review the Issues Log on a regular basis.

7.5.5 Risk Management

Managing risk effectively across the project increases the likelihood of successfully delivering the project's objectives. The project will use Management of Risk (MoR) methodology, as the best practice guidance to managing risk. This methodology defines the risk management principles, approach, process and how to embed the process.

The methodology defines the four high level process steps as:

- Identify risks in relation to key objectives;
- Evaluating the risks to establish:
 - the probability of the risks occurring
 - the potential impact if the risks did occur
 - the organisations attitude to the risks in terms of willingness to accept them or not
- Decide what to do about the risks – transfer, tolerate them or mitigate the likelihood of them occurring;
- Monitor the situation and regularly report.

Managing risk also involves escalation through the Project Board and Programme Board levels of governance and where appropriate up to the Portfolio Board.

7.5.6 Stakeholder Management

Stakeholder management is a vital component to running a successful project. Stakeholder Management is designed to ensure proactive communications, consistency of language and the reduction the number of obstacles placed in the way of the project. It is vital that the project team understand the stakeholder's objectives, goals and needs.

The approach to stakeholder management will be to:

- Define the goals of the Scheme;
- Identify the stakeholders;
- Map identified stakeholders against influence on the desired outcome and involvement in the project;
- Understand the stakeholders needs;
- Develop a stakeholder plan;
- Manage and review the map, plan and stakeholder engagement against the project goals.

7.6 Benefit Realisation

7.6.1 Benefits realisation strategy

The DSFRS is forecasting to deliver a range of quantified and un-quantified s to stakeholders across the service and to members of the public. The benefits that have been identified will be realised through the delivery of a new Light Rescue Pump (LRP) and a re-alignment of the existing fleet.

The majority of the projects benefits can only be fully realised once all elements of the three tiered approach are in place; therefore, attributing these benefits to individual tiers is inappropriate, because any one tier on its own delivers only a part of the infrastructure which is needed in its entirety for the benefits to be realised.

Analysis has produced a Benefits Model that provides a logical linkage between capabilities implemented by individual tiers and DSFRS strategic objectives.

7.6.2 Benefits Realisation Plan

The Benefits Realisation Plan (BRP) is an evolving document; the DSFRS Benefits Manager should start drafting the BRP during the benefits planning Stage and it should generally be finalised before the project proceeds into implementation.

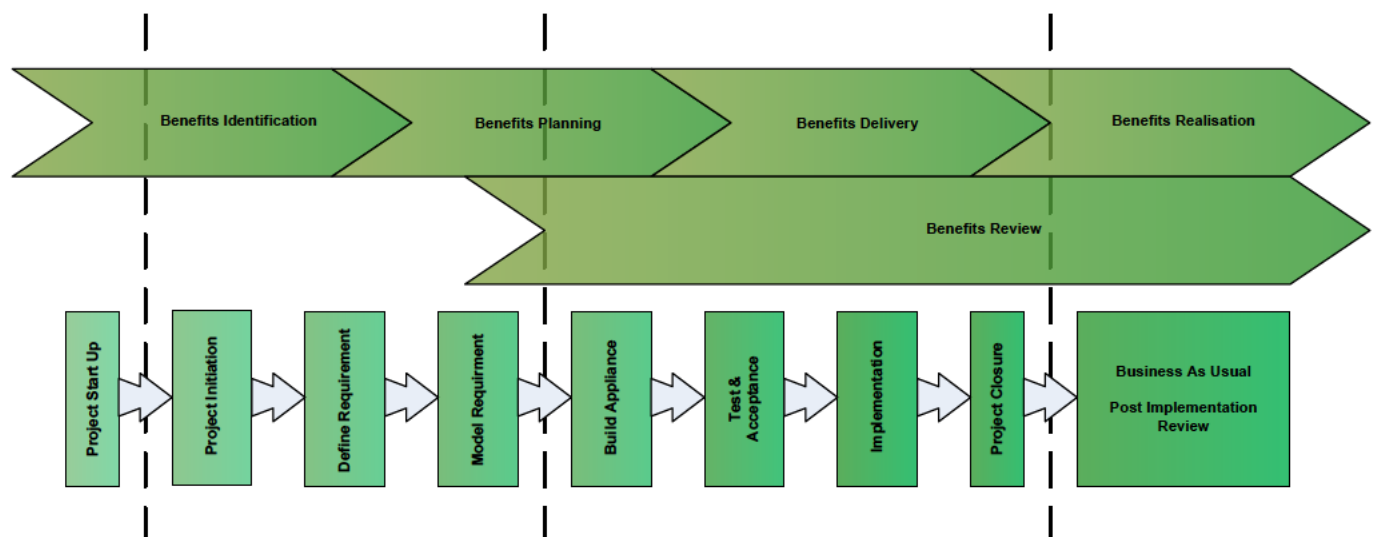
The BRP is separate from the project delivery plan, but the two need to be closely linked to ensure that the business changes and project milestones / deliverables are aligned. This alignment is critical because once the service or capability is implemented; the BRP continues and stays live beyond the end of the project until such time that the benefits have been realised to the satisfaction of the business.

It is recommended that the Benefit Realisation Plans should contain the following minimum level of information:

- A map of the anticipated benefits and how these build up over time;
- Benefits monitoring and measurement methods - the method to be used to measure benefits realisation, which will vary according to the type of benefit being realised (i.e. different measurement methods will be employed for performance benefits versus financial benefits);
- Review mechanisms, including appropriate milestones when benefit reviews should be carried out;
- On-going benefits tracking and reporting process, which will define what benefits realisation information is to be provided to the DSFRS and how often the information is required;
- Planned Benefit Review dates and involved stakeholders;
- Corrective action processes to address under-realisation of forecast benefits;
- Governance structures, roles, responsibilities and accountability for delivering benefits;
- The assumptions and risks underpinning the realisation of benefits;
- Details of handover activities to sustain the benefits realisation process after the project has finished.
- Details and responsibilities for realisation beyond the closure of the project.

7.6.3 Benefits management lifecycle and approach

Benefits Management is a continuous process that starts when a new idea or business need has been identified and continues beyond the formal closure of the project. A summary of each benefits management “activity”, mapped to the high-level project management lifecycle, is defined below.



7.6.4 Benefits Identification

Benefits identification is an iterative and on-going process. During the Project Start-Up stage, an assessment is made to identify how the project contributes to DSFRS strategic and business objectives.

Once the strategic fit and anticipated benefits of the project has been identified, the benefits need to be mapped to capabilities, enablers, business changes and strategic outcomes via the creation of Benefits Dependency Networks (BDN); and the anticipated benefits should be documented.

7.6.5 Benefits Planning

During Project Start-Up and Initiation, the benefits identified in the Project Mandate are detailed further for inclusion in the Full Business Case (FBC).

Benefits Profiles, which describe aspects of the benefit such as ownership and measurement, should be created. A Benefits Realisation Plan - detailing who is responsible for benefits management, where the benefits will be realised and when realisation will occur - should also be drafted during this stage.

7.6.6 Benefits Delivery and Benefit Reviews

As the project moves through the project lifecycle and the scope and delivery plan are further defined, the Benefits Profiles and Benefits Realisation Plan should be refined and updated (and any revised measurement details and forecasts should be fed into the relevant cases of the Full Business Case (FBC).

Regular reviews and on-going monitoring of benefits should be conducted during the execution and implementation of the project. The reviews should analyse the original benefit assumptions and forecasts and the progress towards realisation.

At Project Closure a formal benefits review should take place, in conjunction with key stakeholders, to evaluate the level of benefits achieved and identify any further benefits that can be realised by the delivered capability or service. This information should be formally recorded in the End Project Report, which will also detail on-going benefits realisation activities and plans for Post-Implementation Review activities.

7.6.7 Benefits Realisation

During the benefits realisation stage (which will continue until the benefit becomes "business as usual"), post-implementation reviews should be held to examine ways of maximising benefits and minimising costs on an on-going basis. The information collated during post-implementation activities will be incorporated into a final Benefits Realisation Report.

7.7 Resource Plan

The resource plan indicates the average effort in person days per month to deliver the first 6 LRPs.

	Financial Year 2013/14												Annual Cost	Pro rata Cost
Role	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
Senior Responsible Owner	1	1	1	1	1	1	1	1	1	1	1	1	BAU	£0
Project Executive	1	1	1	1	1	1	1	1	1	1	1	1	BAU	£0
Senior User	1	1	1	1	1	1	1	1	1	1	1	1	BAU	£0
Senior User	1	1	1	1	1	1	1	1	1	1	1	1	BAU	£0
Senior User	1	1	1	1	1	1	1	1	1	1	1	1	BAU	£0
Senior Supplier	4	4	4	4	4	4	4	4	4	4	4	4	BAU	£0
Project Assurance	3	3	3	3	3	3	3	3	3	3	3	3	BAU	£0
Project Manager	20	20	20	20	20	20	20	20	20	20	20	20	£38,000	£38,000
Workstream Manager	5	5	5	5	5	5	5	5	5	5	5	5	£50,000	12,500
User	10	10	10	10	10	10	10	10	10	10	10	10	£45,000	22,500
User	10	10	10	10	10	10	10	10	10	10	10	10	£38,000	19,000
Technical Support	1	1	1	1	1	1	1	1	1	1	1	1	BAU	£0
Project Support Officer	5	5	5	5	5	5	5	5	5	5	5	5	£31,000	7,750
													Resource Costs	£99,750
													Travel and Expenses	£12,000
													Total	£111,750

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: Negative: What are the risks? Positive: What are the benefits and/or opportunities?
A person of a particular age	<input checked="" type="checkbox"/>		<input type="checkbox"/>	Neutral: 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"/>	Negative: 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"/>	Neutral: As per policy and procedure of the B-Type appliances. Positive: 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"/>	
Community considerations (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>Positive: The LRP is smaller and therefore has the ability to access remote areas via country lanes.</p> <p>Positive: 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>Negative: Any person over 6'4" may have issues with the roof height.</p> <p>Positive: People living in rural isolation, LRP's have better access to people in rural locations.</p> <p>Positive: 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 section 6
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.**