Building our Resilience to Wildfires

Preparation and Prevention for 2012

South East of England Regional Wildfire Group

&

Home Counties Operational Wildfire Group

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Preparation and Prevention for 2012

Project Plan

April 2010

Prepared by

Rural Development Initiatives

on behalf of the

South East England Regional Wildfire Group and

Home Counties Operational Wildfire Group Partnerships

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Executive Summary

This document sets out a project plan for the South East of England Regional Wildfire Group (SEEWG) and the Home Counties Operational Wildfire Group (HCWG) for a two-year development phase up to 2012.

The South East England Regional Wildfire Group (SEEWG) is the deliverer of Wildfire Impact Reduction for the South East Fire and Rescue Regional Management Board[1] The group is formed of 12 Fire and Rescue Services, land management and environmental bodies as well as those delivering the regions infrastructure.

The Project Activities (section 5) proposed cover three areas: (A) Partnership working / improve communication - a cross cutting theme as it is relevant to every outcome and activity; (B) Prevention - activities to prevent wildfires being started; (C) Preparation - activities related to ensuring an efficient and effective response when a wildfire does occur. A total of 23 Outputs are defined, 17 linked to national policy and guidance needs.

The groups are uniquely able to deliver via its Project Activities and Outcomes the following policy and guidance: Open Habitats Policy, Integrated Risk Management Planning (IRMP), Heatwaves action plans, Adaptation to Climate Change, National, regional and local risk registers and infrastructure and building resilience in Green Infrastructure. See Section 8 for more details.

The plan covers an initial phase of two years, leading up to the 2012 Olympic Games. A number of Olympic related sites have been identified which could be impacted directly or indirectly by wildfires and which could lead to disruption to the games themselves, preparation for them, or transport to and from them. The plan prioritises activities which will minimise these risks.

The total cost of the plans proposed activities over the two years amounts to £116,000 – less than the cost of one significant wildfire event (see Case Study D) and a single fire appliance. This includes both direct project management activity and external expenditure.

[1] RMB Action Plan 2008/11 (Sept 2009) Reference 2.7

1 Introduction

This plan describes the background to the issue of wildfires in the South East of England, the potential impacts on the region, the structure and activities of the South East Regional Wildfire Group and Home Counties Wildfire Operations Group, the resource implications, and the benefits to the region.

Wildfire is an increasing threat to the South East as a result of climate change, increased public access to the countryside and increasingly inappropriate land management regimes. The impacts can be environmental (damage to habitats, air pollution, water quality), economic (direct damage to crops and infrastructure, disruption to businesses activity and transport) and social (health impacts, injuries to firefighters, anti-social behaviour). Wildfires are of concern to fire and rescue services because of their implications for wider resilience, due to wildfires being very resource demanding in terms of appliances and personnel.

Due to the particular nature of the South East Region, where wildfire prone sites (gorse, heath, grass), highly populated areas and transport infrastructure are located in close proximity, both the frequency and impact of even relatively small wildfires can be significant. DCLG statistics indicate that in the ten years up to 2004 there were 2750 primary fires and 70480 secondary fires in the South East Region. During the same period, over 1,500 ha of designated sites (SSSI's, SAC's, SPA's) were damaged by wildfires.

Wildfire groups seek to minimise the occurrence and impact of wildfires by promoting partnership working amongst fire and rescue services, government agencies, land owners and managers, and local communities. It is proposed that the South East Regional Wildfire Group will take the lead on strategic and co-ordination activities whilst landscape scale groups – of which the Home Counties Group is one – will lead on operational issues. Both groups will be overseen by a Steering Group made up of the partners and project managed by an independent organisation.

The plan has been prepared by Rural Development Initiatives Ltd. in association with, and on behalf of, the South East of England Regional Wildfire Group and the Home Counties Wildfire Operations Group partnerships.

2 Aims and Objectives

2.1 Aim

As specified in the Terms of Reference, the aim of the SEEWG is to create a forum between fire services, land management organisations and government that will provide strategic direction, planning and best practice to reduce the risks and hazards in the South East of England.

2.2 Objectives

1. Reduce the number, area burnt and impact of wildfires on:
    a. **Environment –** heritage, natural and built.
    b. **Infrastructure –** property, wayleaves and transport infrastructure.
    c. **Climate change –** reduce the emission of greenhouse gases and CO_2.
    d. **Social –** recreation, cultural, aesthetics, life, health and well being and community.
    e. **Economic –** food, fibre, fuel, sporting and tourism.
2. Provide a framework for partnership working and ensure that all partners are able to contribute to an integrated approach including; management, education, training, strategic planning, incident recording, regional policy, tactics and doctrine.
3. Reduce the amount of resources required and risk to safety that exists for major wildfire incidents by; sharing resources, tools, vehicles, equipment, knowledge and experience.
4. To advise the Regional Fire Management Board, via the South East Response and Resilience Group, and the English Wildfire Forum of key issues that affect the South East England region.

2.3 Definitions

Wildfire: Unplanned fire in the natural environment, in this instance, with a particular emphasis on heathland and forest fires.

Prescribed burning: Planned use of fire within a defined area for a particular management purpose. Wildfire can quickly develop from prescribed burning if adequate precautions are not taken.

Deliberate fires: A fire resulting from a person placing burning material to cause ignition. The intent of the person may have been to cause harm or destruction to life or property (arson-criminal offence) or to modify fuels and/or vegetation for land management purposes (summary offence).

Deliberate – own property	Where a fire is started deliberately. Own property refers to the normal occupiers – including a child in their own house.
Deliberate – others property	Where a fire is started deliberately by somebody who is not an occupier of the property. This includes fires in non-residential buildings where the owner is not involved e.g. fires in office buildings, fires in barns, cars.
Deliberate – unknown owner	Where a fire is started deliberately but it cannot be determined whether it was own or others property.

Source: Incident Reporting System Help and Guidance. Version 1.5 Communities and Local Government. Sept 2008.

SEEWG: South East of England Regional Wildfire Group. Works on strategic activities needed to deliver the aims and objectives.

HCWG: Home Counties Wildfire Operations Group. Works on operational activities needed to deliver the aims and objectives within the Home Counties

Home Counties: A landscape scale area across three countries; Hampshire, Berkshire and Surrey. Typified by Thames Basin Heaths Special Protection Area, Wealden Heaths Special Protection Area (SPA) and surrounding areas. Please see map in Appendix 1.

South East of England: The region as defined by Government Office of the South East of England.

3 Impacts of Wildfire

Wildfires can have significant short and long term effects on the economic, environmental and social sustainability of the landscapes and communities affected.

3.1 Wildfires - the problem

Wildfires are identified as hazards by Communities and Local Government (CLG). There is a long tradition of using controlled fire to manage some habitats, but out of control wildfires are entirely different and threaten the biodiversity, society and the economy. As shown in the table below, a considerable number of wildfire incidents occur in the United Kingdom. Due to only partial recording the number of primary fires in England between 1995 and 2004 is accepted as an under estimate by wildfire practitioners.

Table 1: Comparison of Number of 'Wildfires' by type and location between 1995 and 2004

	Primary Fires[2]	**Secondary Fires[3]**
United Kingdom	26,935	833,328
England	17,487	496,625
Average total per year in England	1,943	51,181
SE England	**2,750**	**70,480**

3.2 Major wildfire incidents in the South East

The South East region has suffered numerous wildfire incidents. The majority are small in size but numerous during spring and summer season. But the South East does suffer a small, infrequent but highly resource intensive number of major wildfires (as shown in Table 2). These have had a considerable impact on not just the South East's resilience, but the South West and London as well.

2 Known as Primary Grassland and Heathland Fires (FDR1). Those involve more than four fire appliances to the incident. Includes metropolitan Fire and Rescue Services. Data from Department of Communities and Local Government.

3 Known as Grassland Fires (FDR3). Those involving less than four fire appliances to the incident. Excludes metropolitan Fire and Rescue Services. Data from Department of Communities and Local Government.

Table 2: Major 'Wildfires' incidents in the Home Counties between 1999 and 2006

Year	Location	Area	Maximum number of fire appliances per shift	Duration (3 shifts per day)
1999	Ash Ranges, Surrey	300 hectares	24 appliances	4 days
2003	Pirbright Rangers, Surrey	870 hectares	24 appliances	4 days
2004	Sandhurst & Swinley Forest, Berkshire & Surrey	50 hectares	20 appliances	4 days
2006	Thursley Common, Surrey	300 hectares	28 appliances	7 days

3.3 Providing guidance on National, Regional and Local Risk Registers

In 2008 the South East England Wildfire Group in partnership with the government office of the south east to defined wildfire on the regional risk register. When linked to county councils and local authorities this provides guidance on the severity and likelihood of wildfire incidents in community risk registers. Additionally both groups, via Fire and Rescue Services and landowners, will be able to provide evidence of impacts linked to National Risk Registers[4].

Case study A: Building resilience – Local Risk Register

In January 2009 the South East England Wildfire Group in partnership with the Government Office of the South East, Surrey and Royal Berkshire Fire and Rescue Service defined wildfire as a risk for local authorities. This has provided a standardised approach to wildfire risk assessment that covers land uses (forestry, grassland and agriculture, heath and green infrastructure), duration and area. Additionally it helped determine impacts including the thresholds for evacuation, causalities and disruption to property, major infrastructure and sustainable development criteria.

3.4 Environment – heritage, natural and built

The South East has exceptional environmental assets, in terms of both landscape and biodiversity. The Region has many internationally, nationally and locally important habitats which are highly susceptible to wildfire damage, including:

[4] National Risk Register, Cabinet Office (2008)

- 40 % of the UK's lowland heathland;
- Numerous designated sites, including SPAs and SSSIs.

Within the South East over 1,500 hectares of Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Areas (SPA) were burnt by wildfires between 1999 and 2006, many as a result of deliberate or accidental fires. For example wildfires have had a significant impact on the Thames Basin Heaths SPA and New Forest National Park as well as other statutory designated sites in the South East.

Case study B: Pirbright Ranges Fire 2003

Over 870 hectares of lowland heath designated as Special Protection Area (SPA), Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI) was burnt over a four day period from the 17th to the 20th April 2003. This area, in conjunction with Bagshot Heath, forms one of the most extensive tracts of heathland in south east England. The area also forms part of the Thursley, Ash, Pirbright and Chobham candidate SAC which is considered to be one of the best examples of extensive wet and dry heathland and depression on peat substrates in the UK.

The extent of damage to the vegetation varied depending on the intensity of the fire. In the small valleys the burn appears to have been particularly intense and all herbaceous material to ground level was removed and seeds and shallow roots in the surface layer also being killed off. In this situation it is likely that heather will take longer to regenerate and the increased bare ground will enable annuals and grasses such as *Molina* to colonise and bracken to re-establish unchecked.

The effect of the fire on the sensitive wetland, bog areas and valley mires may well result in a significantly altered species composition. *Sphagnum* mosses are very vulnerable to fire damage and where nutrient levels are increased by layers of ash on the surface, bryophytes such as *polytrichum spp* and *Camplopus introflexus* will tend to replace the bog mosses. The incidence of fire in itself may result in significant drying out of this habitat.

The fire was highly damaging to invertebrate and reptiles, such as Sand Lizard, Smooth snake and specialist invertebrates. It is also inevitable that any ground nesting birds such as Skylark will have lost their first clutch. It may take upwards of 10 years for the area to return to a suitable state for many heathland fauna.

From 'Pirbright Fire 17 - 20 April 2009' MOD

3.5 Property and Infrastructure (Wayleaves and Transport)

The South East region faces a particular threat from wildfire due to the intimate mixture of at risk areas (forestry and heathland) and property (including transport and wayleaves) which can be damaged or disrupted by wildfire incidents.

Much critical infrastructure in the South East is located on or adjacent to agricultural, forestry, defence training and other rural land uses - all of which are susceptible to wildfire. This infrastructure is vital to the region's economy and societal needs, and plays a critical role in response to emergency incidents. Temporary closure or damage to infrastructure has occurred several times in recent years, as illustrated in the case study below. A wildfire could result in serious disruption to the South East's infrastructure and result in significant economic consequences.

Given the density of major highways in the South East Region the risk and impact of wildfires is particularly acute. The Highways Agency has undertaken a number of modelling scenarios to estimate the cost of closure of a variety of road types which indicate that costs of up to £1m per hour for rural routes in proximity to wildfire at risk sites shown in Table 3.

Table 3: Road closure modelling scenarios caused by wildfire incidents

Scenario 1: Rural Motorway closure - diversion via rural 'A' roads

- A rural motorway has an AADT (Annual Average Daily Traffic) flow of 80,000 vehicles.
- The motorway is closed in both directions for 24 hrs to deal with a fire.
- Traffic is diverted to a high standard rural 'A' roads and allowed to rejoin the motorway at the next junction. They experience an average delay over the 24 hr period (increase in journey time) of 15 minutes.
- The 'A' road also experiences congestion; AADT 32,000, average 5 minutes delay over 24 hr period.

Cost of delay: £315,067

Scenario 2: Rural Motorway closure - diversion via inter urban routes

- A rural motorway 100,000 AADT is closed and the traffic diverts via an inter urban route.
- An average delay of 45 minutes is experienced by the M/way traffic. Other impacts 200000 vehicles delayed by an average of 15 minutes.
- If the inter-urban route is primarily non-trunk then the cost to HA traffic is approx: £1,042,500

Cost of delay: £1,737,500

Scenario 3: Motorway Closure – diversion via other motorways and trunk roads

- M25 J13 (dual 4 lane at 1800 vehicles per lane) closed for 1 hour during a peak period.
- M25 - 14400 vehicles experience a 1.5 hour delay diverting via alternative routes.
- Other Impacts A3, A320, M3, A30, A3113, M4 & M40 affected, allow for 36 lanes flowing at 1,800 vehicles/hour. Assume a delay of 45 minutes to 64,800 vehicles on their journey on or across the M25.

Cost of delay: £975,780

Case study C: Disruption to Infrastructure

Ash Ranges (1999)

The Ash Ranges Fire was deliberately started and the wildfire caused the temporary closure of the Waterloo to Alton Train Line, as well as local A-roads during the four-day incident.

Pirbright Ranges (2003)

The Pirbright Ranges Fire again closed local A-roads but also lead to the evacuation of military homes and concerns about Farnborough Airport flight path. The impact of both these wildfires had regional implications on major infrastructure and reduced Fire and Rescue resources to respond to other emergencies.

Sandhurst & Swinley Forest (2004) and Thursley Common (2006)

Reports have been produced for incidents in 2004[5] at Sandhurst Training Area and Swinley Forest and in 2006[6] at Thursley Common both of which caused significant disruption including damage to power lines and closure of A roads.

3.6 Climate change – impacts of changes in climate and reducing the loss of greenhouse gases and CO_2

It is predicted that the South East of England will be considerably affected by the impacts of climate change. The region is predicted to see lower levels of rainfall, an increase in evapo-transpiration and increases in summer temperatures - conditions which are set to prolong the period that vegetation will be susceptible to wildfires and result in more severe wildfires.

Wildfire fires are extreme weather events (i.e. high temperatures, low humidity) brought about by climatic changes (i.e. drought caused by low spring and summer rainfall), inappropriate land use/management and human motives (deliberate or accidental).

The years of 1995 and 2003 saw the driest springs and warmest summers in recent years and consequently suffered a far greater the average number of wildfires; the number of primary fires recorded by the Fire and Rescue Services during these years disproportionally account of almost 40% of fires in the entire nine year period between 1995 and 2004. By 2040 the temperatures seen in

[5] Report of fire at Sandhurst Training Area and Swinley Forest, April 2004. High voltage powerlines effects fire suppression strategy and tactics (Surrey, Hampshire and Berkshire)

[6] Report of fire at Thursley Common, July 2006. Evacuation of homes at Thursley and 'A – Road' closures

1995 and 2003 will be average temperatures, and consequently it is predicted that the number of fires experienced in these years will also become the norm.

Table 4: Number of wildfires in United Kingdom 1995 - 2004

Calendar Year	1995	1996	1997	1998	1999	2000	2001	2002	2003*	2004*
Primary wildfires**	627	511	380	107	197	183	118	169	303	155
Secondary wildfires***	13,510	7,629	6,060	3,456	5,721	4,081	6,097	5,466	13,100	5,360

Notes:

* = Excluding incidents not recorded during periods of industrial action in November 2002 and Jan/Feb 2003
** = Primary fires include grassland and heathland fires where 5 or more fire appliances attended
*** = Secondary fires include grass, straw and stubble fires where less than 5 fire appliances attended
Red = United Kingdoms lowest rainfall and highest temperatures during spring and summer and worst wildfire years.
Source = Fire Directorate, Communities and Local Government Fire Statistics, HM Government 1995 to 2004 (19 June 2006).

This increase in fires is likely to result in an increase in green house gas emissions and reduce carbon sinks from vegetation and soils. Due to poor data recording the South East region is unable to define the net loss of carbon and release of green house gases due to wildfire.

To achieve government performance targets (National Indicator 188: Planning to Adapt to Climate Change) local authorities must measure the progress of climate change events using risk assessments. This requires the definition of a baseline, identify future impacts, conduct comprehensive risk assessment and action plan as well as implement, monitor and review progress. In order to do this two elements are require; a risk analysis tool and a monitoring and recording system.

3.7 Social – recreation, cultural, aesthetics, life, health and well being and community

For Fire and Rescue Services and their partners, wildfire poses a direct and indirect risk to the communities they protect. Directly there is the risk to life, and indirectly large wildfires can seriously reduce emergency resilience to other incidents, especially during critical periods (e.g. school holidays, periods of sustained high temperatures, rush hours etc.). Wildfire creates safety issues for those living in isolated properties either in forests or on, or properties adjacent to heathland. Many sites that are at risk of wildfire are also heavily used for recreation, putting walkers, cyclists and dog owners in danger. In the worst case scenario fires can result in serious injury and loss of life.

Health and Safety for Fire & Rescue Personnel

Due the nature of wildfires they present particular health and safety implications. Wildfires can often occur over prolonged periods of time and in remote locations with difficult site conditions.

Dorset Fire & Rescue Service recorded that 42% of accidents and adverse occurrences occur on rural and heathland fires.

The risk of wildfire can create a conflict between the interests of land owners and managers and those that wish to access the countryside: it is believed the vast majority of wildfires in the South East are caused by members of the public[7]. Land managers are keen to protect their assets and to protect the biodiversity. However, access to the countryside is a key priority for promoting health and recreation objectives. This potential for conflict could be ameliorated through improved public understanding of the risks and impact of wildfire and of fire prevention.

Wildfire has been identified by the National Health Service as being an anticipated impact during a level 4 heatwave[8] along with impacts on: transport infrastructure, power lines, environmental pollution, animal welfare, water shortages, crops and children. As illustrated in this section a wildfire incident has the potential to further reduce the resilience of these sectors during heatwaves.

3.8 Economic – food, fibre, fuel, sporting, tourism, operational costs

Wildfire has potentially significant and wide-ranging economic costs:

- Loss of income from the land - a fire can eliminate income from field sports for as long as 10 years and destroy timber, fuel and agricultural crops.
- The costs of fighting large scale wildfires are high due to the number of personnel and equipment required and due to the prolonged time periods involved.
- Increased costs to deliver and maintain Green Infrastructure and Nature Conservation objectives as well as considerable costs to re-establish and restore damaged/destroyed facilities and habitats after wildfire incidents.

[7] Moorland Association (2003) Burning Issues

[8] Level 4 – Heatwave for four or more days in two or more regions

- Damage to assets – from buildings to fences. Restoring damaged habitats is a hugely costly and time consuming operation.
- Landscape damage from fire also impacts on tourism enterprises which rely on attractive rural settings. Negative publicity in the media could have a significant impact on the numbers of visitors coming into the area.
- Longer term, land or home owners may be unable to obtain fire insurance cover at a reasonable cost.

The combined effect of the various costs can severely impact the viability of individual businesses, threaten jobs and damage the sustainability of local economies.

Case Study D: Thursley Wildfire

Thursley Common Fire 14th – 21st July 2006

Surrey Fire and Rescue Service have estimated that the cost of responding to the Thursley Fire was in the region of £200,000. This includes additional costs labour (not normal wages), damage to vehicles, other Brigades costs, additional fuel etc.

The first call to the Service was received shortly after midday on the 14th July. Initial crews were faced with a serious fire situation and quickly requested additional appliances (4 fire appliances, 3 land rovers, 1 water carrier and further specialist appliances from by Hampshire).

A combination of the difficult access, firefighting terrain and the environmental conditions saw rapid fire spread however and this was matched by the attendance of up to 20 fire appliances and 8 land rovers at any one time, coming from all over the region. The fire was declared a major incident at around 1500hrs and silver commend was set up at Thursley Cricket Club.

By 1900 hours on the first day of this incident over 40 hectares of undergrowth and woodlands were involved in the fire and appliances from West Sussex, Hampshire and Royal Berkshire as well as Surrey were deployed at the incident.

By midnight on the first day there were 3 fire fronts and 5 firefighting sectors in use. Firefighting continued throughout the second day, but with difficult conditions again being faced the fire grew to cover an area of 60 hectares. East Sussex's forest firefighting vehicle was called in to assist the operations.

Steady progress was made over the next 4-5 days with the stop message being sent on the 20th July at 0955 hrs. In total nearly 300 hectares of undergrowth and woodlands had been affected by the fire, over 300 appliances of different types and from different Services across the South East had been used, up to 1000 firefighting personnel deployed and 140 gruelling shifts undertaken by officers – some of them returning day after day.

3.9 Green Infrastructure

The South East Green Infrastructure Partnership has identified that Green Infrastructure has the potential to support health eco-systems which '*will be more resilient to climate change an so more able to maintain the supply of ecosystem services on which our prosperity and well being depend*'[9]. Wildfire incidents can affect the key attributes of Green Infrastructure causing in the short to medium term impacts. These can reduce, limit, damage or destroy the quality, quantity, accessibility and functions[10] provided by:

- Biodiversity conservation and enhancement
- Sense of place and appreciation of landscape and cultural heritage
- Recreational opportunities and supporting healthy living
- Water recourse and flood management
- Climate change adaptation and mitigation
- Sustainable transport, education and crime reduction
- Food, fibre and fuel production

Given the impacts listed in this section it is critical that for successful Green Infrastructure Strategies, Action plans and works recognised and addressed wildfire incidents. Ideally this could be achieved via integrated working with other policy and guidance needs i.e. Adaptation to Climate Change, Open Habitats Policy, Integrated Risk Management Planning, Regional and Local Risk Registers.

[9] Reference from 'South East Green Infrastructure Framework: From policy to practice'. Section 3: Contribution of GI to spatial planning and sustainability in the South East – climate change adaptation and mitigation.

[10] Reference from 'South East Green Infrastructure Framework: From policy to practice'. Section 3: Contribution of GI to spatial planning and sustainability in the South East – Table 3.1 GI and regional policy objectives

3.10 Increasing Risk

Risk is defined by the likelihood and severity of wildfire incidents in the South East. Wildfires are predicted to increase within the region for the following reasons:

Climate Change:

The UK Climate Projections[11] for the South East in the 2020s predict that global warming will bring hotter and drier summers. As described in section 3.4 the extreme temperature experienced in 2003 will become the norm. It is under these conditions that wildfire is more likely to occur and be of significantly greater severity and difficulty to control.

Increased regional and older population:

The South East is home to 8.2 million people, predicted to grow by 64,300 p.a. to 9.5 million by 2026. Whilst it has the nation's highest quality of life, there is considerable pressure to provide accessibility to the 80% of the region that is defined as rural. Already the impact of the increased future population and desire for rural recreation has created conflict with Priority Habitats[12]. As the majority of wildfires in the south east are caused by the public, this increase in population will inevitably result in a corresponding increase in the risk of accidental ignition.

Land use change:

The south east is under considerable pressure to balance housing, recreation, natural resources (i.e. food and timber) and nature conservation. Successful management of change, to ensure sustainable development for future generations as well as adaptation to climate change needs is vital.

3.11 2012 Games

The South East region will have a significant role in the 2012 games. The region will provide over 130 training camps on the lead up to the games. Team Great Britain (Team GB) will be centred at Aldershot Super Garrison at the heart of the Home Counties Wildfire Operations Group. Historically this location has high numbers of wildfires during their stay, but within the sub-regional a notable number of major incidents (as shown in Table 2). The region will also be home to large numbers of personnel (volunteers and staff), resources, transport and communication infrastructure as well as

[11] UK Climate Projections (2009) Key Findings for South East England, 2020's, medium emissions scenario

[12] Impacts caused by proposed development on site defined for nature conservation of European importance which require a Habitats Regulations Assessment i.e. Special Protection Areas (SPA) and Special Areas of Conservation (SAC)

other sensitive national assets (i.e. power lines, water supplies etc.) during the Olympic and Para-olympic Games. Consideration of Wildfire is therefore essential for the following reasons:

- During spring / summer 2012 major wildfires regional can significantly reduce fire and rescue / civil contingency resources in the South East and London, as well as impact on their resilience over prolonged periods.

- Wildfires can have a regional impact upon national and major infrastructure used for the 2012, especial transport (motorways and rail) into London, power lines and health & welfare, especially during heat waves.

- Wildfires are of significant interest to the media due to their dramatic images, connection to climate change and the environment.

4 Why is this Project Needed?

Despite the risks and impacts outlined in the previous section, members of both fire groups have identified a number of key weaknesses in the preparedness, prevention and response to wildfires.

4.1 Need for joint working

To effectively reduce the risk and impact of wildfires we must bring together the knowledge and responsibilities of the fire and land management sectors. This is because:

- National policies and guidance require land mangers, Defra agencies and Fires and Rescue Authorities to work together to reduce risk to land use. Examples include the Forestry Commissions Open Habitats Policy, Fire and Rescue Service Integrated Risk Management Plans (IRMPs), increasing our resilience to Level 4 heatwaves and adapting to the impacts of climate change.
- Due to relative infrequency of wildfires in comparison to urban incidents, the Fire and Rescue Services and land managers suffer from a lack of regular experience in jointly responding to these incidents.
- Fire and Rescue Services are responsible for extinguishing fires and are highly trained to respond to a wide range of incidents. Recently there has been considerable investment in training and equipment to ensure a professional response to wildfire incidents. However, this is a relatively recent phenomenon and as such their relative lack of wildfires experience makes them vulnerable.
- Landowners and managers have no statutory responsibility for providing effective preparedness and prevention measures. They require increased awareness and guidance to reduce the severity and likelihood of wildfires, and enable effective communications with the Fire Services.
- Landowners and managers and Fire and Rescue Services have no framework for joint working. This is a critical hurdle restricting the effectiveness of response to wildfire incidents.
- Incidents require specialised equipment to extinguish wildfires. This equipment exists but we need to identify owners and investigate the barriers and solutions to sharing equipment.
- To provide a cost effective approach to wildfires to reduce the financial burden upon; landowners, local authorities, fire and rescue services and land management agencies as well as communities. With the pressure on public spending in coming years it is vital that joint working

and best practice is adopted in order not only to reduce the impact of wildfires but the costs of preparedness.

Case Study E: Operational partnership working – Sandhurst Ranges & Swinley Wildfire 2004

The fire, lasting four days, occurred on the boundary of two landowners (Ministry of Defence and Crown Estates) and the operational boundaries of three Fire and Rescue Services (Hampshire, Surrey and Berkshire). By effective joint working, these services and agencies (as well as two other supporting Fire and Rescue Services) managed to restrict and contain the fire resulting in far less damage. This was achieved by the bringing together of different specialist skills, equipment and knowledge from foresters and fire fighters. Examples include; the use of specialist earth moving and vegetation clearing equipment, vegetation species types and attributes, fire behaviour, logistics and communication.

4.2 Strategic Fit

Due to the wide ranging impacts of wildfire, tackling wildfire risk will assist in the delivery of numerous strategic objectives and performance indicators (Appendix 2).

4.3 Development of SEEWG and HCWG

At present there are very limited existing mechanisms to address the issues outlined. The fire services cannot tackle these on their own and working in partnership is seen as essential. The concept of a wildfire group is now well established in the UK as the key mechanism for tackling the risk of wildfire and groups such as the Peak District Fire Operations Group and Northumberland Fire Group have had considerable success in improving the response and reducing wildfires. A wildfire group is a partnership of public and private organisations that work together on a range of activities to reduce the wildfire occurrence and promote preparation of an effective response if they do occur.

Both the South East of England and Home Counties Wildfire Groups trace their origins to large wildfires in 1999, 2003 and 2004 following which two land managers and a fire station manager decided at a local level to work together. Their aim was to raise awareness of the risks to colleagues, communities and the environment. The Thursley Fire in 2006 resulted in three fire fighters being injured, considerable equipment destroyed and large areas of habitat lost. This incident further reinforced the need for the Fire and Rescue Services and land management organisations to work together in a more strategic and operational manner. Their past experiences emphasised the need for partnership and a framework for joint working.

In less than a year the regional group successfully evolved. All the region's Fire and Rescue Services are now linked to the group. This is achieved through reporting to the Fire Regional Management Board via the Regional Resilience and Response Group. All the governmental statutory bodies for environment and rural affairs are represented along with governance and resilience issues via representatives from the Government Office.

At the landscape level a wide range of local land managers and non-governmental organisations were engaged at the very early stages. Use of established groups[13] helps to reduce administration and ensure cost effective delivery.

The achievements of the groups to date have been delivered by members of the group in addition to their prescribed job roles. The groups have now reached the point where they are unable to deliver their aims, objectives and outputs without dedicated staff time and funded resources. For a number of activities the groups have established working groups to define what they would like to achieve but do not have the capacity to deliver. The amount of time and resource required cannot be found from within the groups due to existing workloads and commitments.

Given their experience in developing and managing wildfire groups elsewhere in the UK, Rural Development Initiatives Ltd. (RDI) were approached by the fledgling SEEWG/HCWG to facilitate the development of this project plan for the groups' activities that will drive a change in approach to wildfire management in the South East.

Development of this project to this stage has been funded through in-kind contributions of staff time of members, predominantly Rob Gazzard (Forestry Commission), and financial contributions to undertake the facilitation and project development work:

Organisation	**Contribution**
Natural England	£1000
Royal Berkshire Fire and Rescue Service	£2000
Hampshire Fire and Rescue Service	£2000
South East Fire Improvement Partnership	£2000
Forestry Commission	£5000 (In kind staff time and venue hire)

[13] Example are the New Forest Wildfire Group and Thames Basin Heaths Protection Group

RDI have carried out a number of facilitated sessions during SEEWG and HCWG meetings (September to July 2009) to gather the necessary information required to shape the objectives of both groups. Through facilitated sessions at a number of fire group meetings over the last year, the group members have worked towards agreeing their desired outputs and priorities for a two year development phase. This project plan is the outcome of this process.

4.4 Structure and Organisation

Wildfire activity in the South East operates on two levels: there is a strategic group that operates at a regional level and several groups that work on more operational issues based on logical landscape areas that fit with wildfire risk.

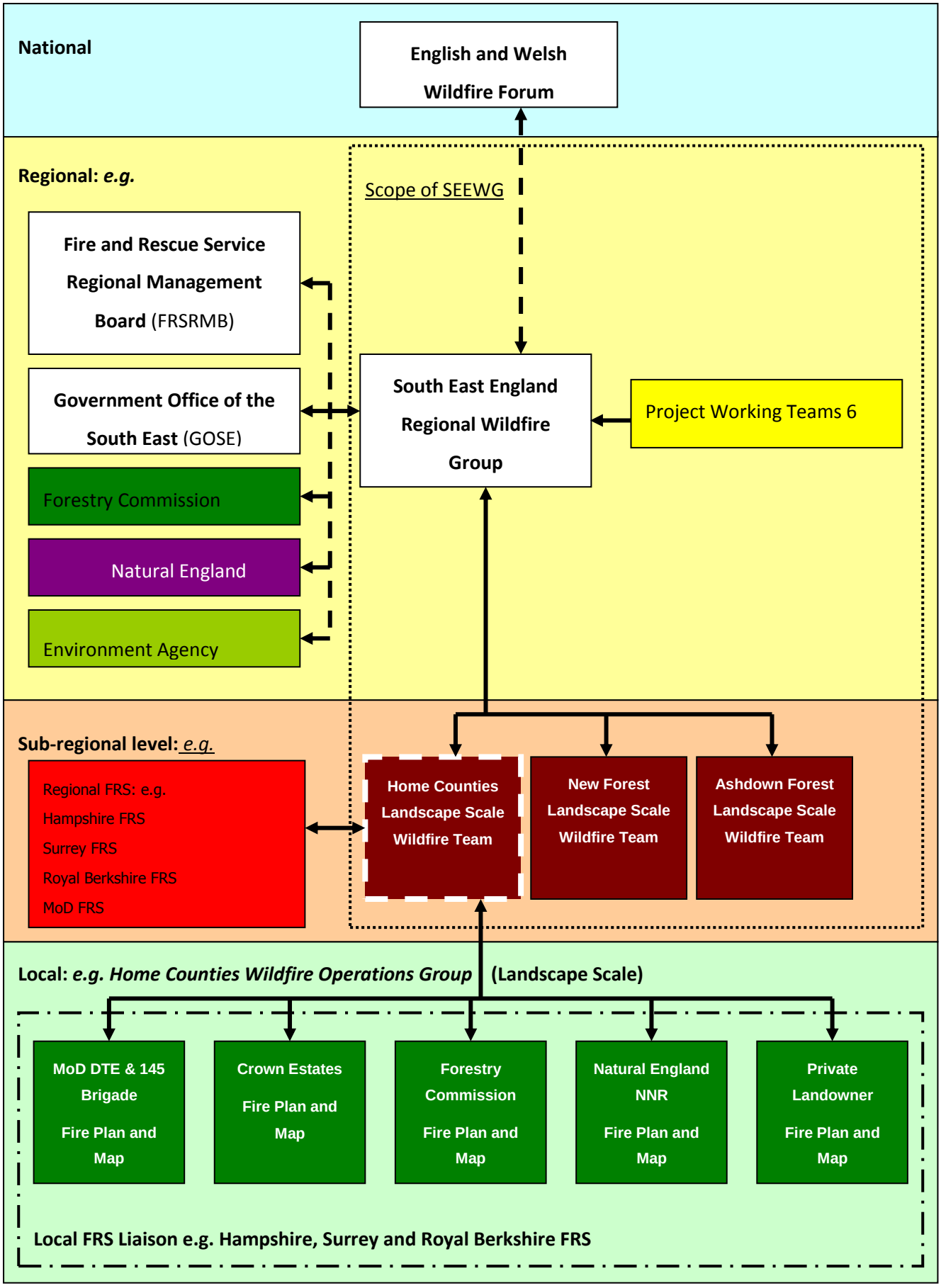
The SEEWG is a group of key organisations that wish to drive forward the wildfire agenda at a regional level and promote cooperation across administrative boundaries. This group tends to deal with strategic and policy issues. This group focuses on ensuring coordinated activity between fire services and across county boundaries in the South East. It also creates a forum that is capable of influencing key policies which operate at regional level.

The HCWG is a pilot area for an operational level group. Within this landscape scale area this group will work on the delivery of the majority of the project activities, such as fire plans, public awareness and training. This is where local knowledge and contacts are really important. Due to geographical size of the South East Region, it has been agreed that it would be too ambitious to attempt to establish operation groups in all areas where they are required in this early stage. In the long term, beyond this two year development phase, other operational groups are planned, including Ashdown Forest, and further development of the New Forest Wildfire group is already active. The lessons learned from the Home Counties can be applied to these other areas.

To ensure good communication between the two groups, the chairs of the operation groups will sit on the SEEWG and vice versa. It is essential that ideas can be fed up to the SEEWG as well as down to the operational groups.

Chairman:	Rob Gazzard (Forestry Commission)
Lead Organisation:	Alan Clark (Surrey Fire and Rescue Service)
Project Manager:	Martin Glynn (Rural Development Initiatives)

South East England Regional Wildfire Group & Home Counties Wildfire Operations Group Structure



4.5 What has been achieved to date?

Since 2005 the group has achieved the following:

- Identified significant demand for wildfire groups in the South East of England and achieved a strong core membership
- Generated letters of support for the establishment of the group and preliminary work programme (see Appendix 4)
- 5 meetings of the SEEWG
- 7 meetings of the HCWG
- Agreed terms of reference (See Appendix 3)
- Fire Plan Working Group, agreed template, symbology and working towards process for collection and use
- 2 Wildfire Awareness Days for General Public held by Surrey Fire and Rescue Service
- Local Risk Register - Wildfire Guidance (Text for Community/Local Resilience Registers within SE England Region.)
- Land management policy working group established and objectives identified

5 Project Activities

The activities all fall into one of the three areas of work:

A. Partnership working / improve communication - this is a cross cutting theme as it is relevant to every outcome and activity, however there are specific activities which are needed to ensure the concept is embedded in all other activities

B. Prevention - activities to prevent wildfires being started

C. Preparation - activities related to ensuring an efficient and effective response when a wildfire does occur

In the lead up to 2012 the Group will work with the Olympic authorities in prioritising its activities. This will ensure the potential risks to relevant infrastructure and venues are: (i) comprehensively identified (ii) measures taken to minimise the risk of wildfires occurring in these areas (iii) strategies for dealing with wildfires that impact on these locations are in place and tested prior to the games

5.1 Partnership working / improving communication

Partnership working, improving communication and mutual understanding between different bodies and individuals is core the work of a fire group. Sharing expertise, experience and resources will lead to more effective approach to prevention, preparation and fighting of wildfires.

<u>Group Membership</u>

The majority of land at risk from wildfire is owned by public bodies, notably the Forestry Commission and the Ministry of Defence, and to a lesser extent local authorities. Smaller, but significant areas are owned or managed by conservation bodies, notably Natural England, the National Trust, the Wildlife Trusts and the RSPB. It will also be important to involve bodies that represent the smaller land owners. To ensure the group is fully effective we will work towards including bodies that at present may not consider wildfire to be a priority, but which are key to an effective response to wildfire.

A number of activities have been identified to develop this area:

- Audit current membership and encourage new members - are all appropriate interests and organisations represented? Continue to build relationships with existing networks and look at opportunities to formalise feedback. (1a)

- Directory of contacts/roles. (1b)
- Strategy for maintaining organisations' involvement in the event of staff change over. (1c)

Group Meetings

During this phase of the project there are a lot of discussions and decisions needed in order to define the details of what the groups wish to achieve. Getting together in one place is also the best way to build relationships. During this two-year project the groups will meet 4 times a year. After this phase it is likely the groups will only need to meet twice a year, pre and post fire season.

It is important that there is a secretariat function for these meetings to ensure actions are recorded and delivered.

- 4 meetings per year. (1d)

Web Presence

The purpose of the WebPages will be to aid communication and sharing of information between group members and those interested in the groups' activities.

- Set up pages on Rural Development Initiatives website (www.ruraldevelopment.org.uk). (1e)

E-newsletters

It will be important to expand the number of organisations and individuals who are aware of the groups' activities but would not wish to attend meetings. For example organisations that may wish to be involved in training or completing fire plans. An email list will be developed and in addition members will be asked to forward to relevant contacts and networks.

- Three email newsletters per year. (1f)

Basic logo

A basic logo will be developed for use in marketing the groups, both to potential beneficiaries and also for public awareness work (see below).

5.2 Prevention

Public Awareness

Addressing the causes of wildfire is a priority. Although there are no quality statistics on the causes of wildfires in the UK, it is widely acknowledged that very few are caused entirely by natural events. There are three main causes of wildfire are but no data to support which causes are most prevalent in the South East, however it is the anecdotal experience of group members that all three are significant:

- Deliberate ignition
- Accidental - members of the public and other legitimate site users, e.g. public playing with fire, barbecues and bonfires, military training, land management operations, etc.
- Out of control prescribed burning due to poor management or sudden change in weather conditions.

This is a key element of the project and it must be effective. Due to the relative lack of understanding of where to target effort and what methods to use to achieve greatest impact, it has been agreed that during this phase we will undertake a research project and develop a communication strategy and toolkit for the reduction in wildfire ignitions. In order to achieve maximum impact we intend to research methods of influencing people's behaviour, for example research by the University of Layden[14] has found the effective fire prevention is more complicated than simply putting up dramatic fire warning signs.

- Communication strategy and toolkit. (2a)

In addition, group members will undertake wildfire awareness work as an in-kind contribution.

- Wildfire awareness event - one per year (See Appendix 6 for details) (2b)

Land management to reduce wildfire risk

There are serious concerns in the South East that the risk of severe wildfire is being exacerbated due to land management practices. Key concerns include the fuel load and lack of fire breaks. The group have produced draft wildfire guidance for land management policy which can be found in Appendix 7.

[14] Cairngorms National Park (2004) The burning issue: a briefing paper on fire and the natural heritage.

Workshops/site visits to areas demonstrating lessons learned and good practice will be held for group members will be delivered:

- Workshops/Site visits (2c)

Influencing Planning

There is a critical relationship between land management, planning policy and wildfire incidents. Developments that are adjacent to land at risk of wildfire, which do not take this into account during the planning stage may increase the factors, frequency and impact of incidents.

- Lobbying key organisations and policies to include potential impacts related to wildfire. (2d)

Spatial Risk Analysis

As the South East Region is both very large (geographic size, population etc.) and diverse (habitats, land use etc.) there is a need to prioritise the approach to reducing wildfire incidents. Using member's experience and professional judgement, three broad areas of greatest wildfire hazard have been defined; New Forest, Home Counties and Ashdown Forest. In order to effectively focus and reduce the wildfire risk within these areas it is necessary to risk assess at a site or management unit level. This would then exclude large areas of non-susceptible habitat and target resources and effort more efficiently.

This risk-based approach will significantly improve preparedness, prevention and ultimate response to wildfire incident. Additionally it will promote appropriate land management technique to reduce vegetation fuel loading. When linked to better wildfire reporting systems (output 3l) it would better inform contingency plans (i.e. Fire and Rescue Service's Integrated Risk Management Plans) and further improve targeting. In addition data could be utilised to inform development of policies that could impact on wildfire risk.

The risk of wildfire can be broken down into likelihood of occurrence and severity of the impact. The aim is to look at wildfire risk in a holistic way, incorporating a wide range of factors that contribute to risk. This process would define:

- priorities during wildfire incidents (in order: life, property and environment)
- historical occurrences
- identify habitat / species hazards and risks
- provide a risk assessment (hazard severity and likelihood of occurrence)
- use of control measures to reduce to a low risk

- manage the impact of public access upon risk
- identify risk factors (key infrastructure and assets)

There are a number of opportunities and challenges when it comes to mapping areas of high risk, the key factors identified to date are set out in Appendix 8.

During this phase of the project the priority will be to fully understand these issues and develop a toolkit for mapping risk. The purpose of the toolkit would be to set out guidelines on how to map wildfire risk.

- Toolkit for wildfire risk analysis (2e)

5.3 Preparation

Fire Plans

A fire plan is an essential tool to enable fast and efficient response to wildfire. The plan consists of a map and additional information document which contain vital information such as key contact details, location of water sources, access points etc. A working group has been established which has already agreed core fields and symbology.

Surrey and Hampshire fire and rescue services will be developing processes to collect fire plan information and then to ensure that it is available in the event of a wildfire.

- To have all SSSIs and coniferous woodlands in the Thames Basin Heaths area by end of the two year project. (3a)

Standard Operating Procedures

Standard Operating Procedures (SOP's) are vital to the effective and efficient management of a wildfire incident. In particular, wildfire SOPs need to consider how the fire service works with other organisations and individuals who hold essential information about the terrain etc.

Surrey FRS is currently leading on a regional SOP for wildfires and will consult with SEEWG and HCWG in the preparation of this document. Once completed, the groups will be instrumental in ensuring the SOP are widely distributed and adopted by FRS within the region.

Once finalised, it is intended that a pocket version of this manual will be developed and distributed to land managers and other group members.

- SOP Manual (3b)
- Dissemination of pocket version of SOPs.(3c)

Equipment/Resources

Access to the right equipment is vital to bring a wildfire under control; it can also mean that fewer fire tenders are required reducing resilience issues. However, the fire services often do not have access to equipment designed for working on heathland and wildfires. In the event of a wildfire knowing what equipment partner organisations hold is extremely useful. The information on equipment will be collected through the fire plans and will then be collated into a directory for the fire service who can indemnify if they need equipment.

- Directory of equipment (3d)

Training

Training is fundamental to the activities of a fire group. Due to the relatively infrequent occurrence, there are very few people in the region who have significant experience and skills in wildfire. Dealing with a wildfire is not what fire fighters are trained to do and applying structural fire fighting techniques in a wildfire will at best be ineffective and at worst result in lives being put at risk. Both fire fighters and land managers can find themselves on a fire ground with no formal training and no understanding of wildfire behaviour or how to keep themselves out of danger.

There are courses available but they are targeted at upland wildfires. The existing courses require some amendments to ensure that they are suitable for lowland habitats.

- Basic Wildfire Training (One day, Lantra approved, for anyone expected to assist on a fire ground) - target 60 trainees (3e)
- Advanced Wildfire Training (4 Days, aimed at personnel that are expected to assist in the management of a wildfire) - target 20 trainees from the fire groups (non fire service). The fire services in the region will each be taking responsibility for putting a significant number of personnel through this training. (3f)

  In addition to the training courses, it is the experience of other wildfire groups that two other types of training activities are provided; (a) live fire exercises and (b) incident command exercises. These are an excellent method of putting the training theory into practice and are a very good mechanism for developing relationships between partner organisations by working together on these exercises. Areas of land are offered by group

members, where burning is required and will not cause any damage to the habitat. A structured scenario is then carried out often over two days. Incident command exercises focus on testing and reviewing co-ordination and command procedures and provide opportunity for different agencies to work together.

- Training exercises (3g)

A further training need has been identified for fire service personnel, which is improving the understanding of the ecology and recognition of habitat types and their relative importance. This will enable firefighters to direct their efforts towards protecting areas that are of the greatest ecological importance.

- Training fire fighters on ecology (3i)

5.4 Ensuring Best Practice

Fundamental to Rural Development Initiatives approach to the delivery of the Groups and their activities is the investigation and implementation of best practice. We strive to learn from the experiences of other areas and organisations in order to deliver the most effective solutions and method in terms of both processes and products.

- Project Manager and Chair to attend 4 key seminars/conferences. (4a)

5.5 Joint Vegetation Fire Reporting

There is a strong need for improve the wildfire evidence base to ensure effective regional and local decision-making. This is to ensure that the business plan and other important performance management systems have the most appropriate data. For Fire and Rescue Service this approach should support and compliment the Incident Reporting System (IRS). Landowners could adopt approaches similar to the Dorset Explorer, which allow numerous partners to record information.

Fire reporting can be used in the following ways:

- Enhance Fire and Rescue Service Integrated Risk Management Plans (IRMPs)
- Enhance Regional and Local Authorities Emergency Plans and relevant National Indicators
- Define CO2 and Green House Gas emissions due to wildfire incident
- Costs and impacts of wildfires on the South East infrastructure and sustainable development (social, economic and environmental) assets

- Provide evidence and targets for future wildfire projects and business plans
- Create and maintain joint vegetation fire reporting resource (4b)

5.6 Project Sustainability

This project plan is for a two year phase that will build the foundations for wildfire activity in the South East for the coming years. The approach from the outset with all activities and methodologies that we will be developing will be to look for delivery mechanisms through partner organisations mainstream activities. For example, rather than RDI collecting data for fire plans, we will work with the fire services to develop mechanisms so they can collect and update this information.

It is proposed that a forward planning and evaluation exercise should be carried out during year two of this project, ideally completed 6 months before the end of the funding. This will allow the groups' time to consider whether all activities can be mainstreamed and also allow time for new project activities to be developed and funding sourced.

- Evaluation/Forward Planning Exercise (4d)

6 Outputs

The project delivers a range of soft and hard outputs. In addition to those listed below the project will deliver a number of outputs which cannot easily be quantified or measured, for example improved communication between members of the rural community and the protection of the environment and heritage of the region.

Area of Work	**Activity**	**Outputs**	
Partnership working / improving communication	Group Membership	1a	Audit current and potential membership
		1b	Contact Directory
		1c	Strategy for Maintaining Organisational Involvement
	Group meetings	1d	4 Meetings per group per year
	Web presence	1e	Webpages for sharing key documents and information
	E-Newsletters	1f	3 E-newsletters per year
Prevention	Public Awareness	2a	Communication Strategy and Toolkit
		2b	2 Wildfire Awareness event per year
	Land management to reduce wildfire risk	2c	4 Workshop/site visits
		2d	Lobbying
	Identifying Risk Areas	2e	Toolkit for wildfire risk analysis

Preparation	Fire Plans	3a	Fire Plans for all SSSIs and coniferous woodlands in the Thames Basin area by end of the two year project
	Standard Operating Procedure	3b	Manual
		3c	Print and dissemination of pocket guide - 250
	Equipment/Resources	3d	Directory of equipment
	Training	3e	Lantra approved basic wildfire fighting certificate - 60 Land managers and FRS
		3f	Advanced Wildfire Fighting - 20 Land managers and FRS
		3g	2 Training Exercises per year
		3h	Vegetation Fires for Fire Fighters - course developed
		3i	Vegetation Fires for Fire Fighters - training enacted for all stations where significant wildfire risk
Project Management	Ensuring best practice	4a	Attend key seminars and conferences - 4 (Chair and Project Manager)-
	Monitoring and Evaluation	4b	Create and maintain joint vegetation fire reporting resource
	Project Sustainability	4c	Evaluation/Forward Planning Exercise and Report

7 Indicative Project Plan

Outputs		Year 1												Year 2											
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1a	Audit current and potential membership	■	■	■										■											
1b	Contact Directory				■																				
1c	Strategy for Maintaining Organisation Involvement	■	■	■	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
1d	4 Meetings per group per year	■			■			■			■			■			■			■			■		
1e	Webpages for sharing key documents and information	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
1f	3 E-newsletters per year	■			■			■				■				■				■					
2a	Communication Strategy and Toolkit				■	■	■	■	■	■	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
2b	2 Wildfire Awareness events			■												■									
2c	4 Workshop/site visits	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
2d	Lobbying								■				■							■					■
2e	Toolkit for wildfire risk analysis													■	■	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
3a	To have Fire Plans for all significant lowland heath SSSIs and coniferous woodlands in the Thames Basin Heaths area	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
3b	Manual	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨												

3c	Print and dissemination of pocket guide	
3d	Directory of equipment	
3e	Lantra approved basic wildfire fighting certificate - 60	
3f	Advanced Wildfire Fighting - 20 trainees	
3g	2 Training per year	
3h	Ecology for Fire Fighters - training materials developed	
3i	Ecology for Fire Fighters - training enacted for all stations where significant wildfire risk	
4a	Attend key seminars and conferences - 4 (Chair and Project Manager)	
4b	Joint Vegetation Fire Reporting	
4c	Evaluation/Forward Planning Exercise and Report	

8 Delivering Policy and Guidance

The SEEWG and its Operational Wildfire Groups are uniquely able to help deliver via its Project Activities (Section 5) and Outcomes (Section 6) the following policy and guidance:

- **Open Habitats Policy –** Forestry Commission, Natural England and Fire and Rescue Authorities
- **Integrated Risk Management Planning (IRMP) –** Fire and Rescue Services and Authorities
- **Heatwaves action plans –** Primary Care Trusts, Fire and Rescue Services and local authorities
- **Adaptation to Climate Change –** Forestry Commission, Natural England, Government Office of the South East, local authorities and government agencies
- **National, regional and local risk registers and infrastructure** – Government Office of the South East, local authorities and government agencies
- **Resilience in Green Infrastructure strategies and implementation –** Forestry Commission, Natural England, Government Office of the South East, local authorities and government agencies

The policies and guidance can be delivered by the 'Project Activities' and 'Outputs' shown across.

Outputs		**Policies and Guidance**					
		Open Habitats Policy	Integrated Risk Management Plans	Heatwave Action Plans	Adaptation to Climate Change	National, Local and Regional Risk Registers	GI Strategy and Action Plans
1c	Strategy for Maintaining Organisational Involvement	✓	✓	✓	✓	✓	✓
1d	4 Meetings per group per year	✓		✓	✓	✓	✓
1e	Webpages for sharing key documents and information	✓		✓	✓	✓	✓
1f	3 E-newsletters per year	✓		✓	✓	✓	✓
2a	Communication Strategy and Toolkit	✓		✓	✓	✓	✓
2c	4 Workshop/site visits	✓		✓	✓	✓	✓
2e	Toolkit for wildfire risk analysis	✓	✓	✓	✓	✓	✓
3a	Fire Plans for all SSSIs and coniferous woodlands in the Thames Basin area by end of the two year project	✓	✓		✓		✓
3b	Manual	✓					
3e	Lantra approved basic wildfire fighting certificate - 60 Land managers and FRS	✓			✓		
3f	Advanced Wildfire Fighting - 20 Land managers and FRS	✓			✓		
3g	2 Training Exercises per year	✓	✓		✓		
3h	Vegetation Fires for Fire Fighters - course developed	✓	✓		✓		

3i	Vegetation Fires for Fire Fighters - training enacted for all stations where significant wildfire risk	✓	✓		✓		
4a	Attend key seminars and conferences - 4 (Chair and Project Manager)	✓		✓	✓	✓	✓
4b	Create and maintain joint vegetation fire reporting resource	✓	✓	✓	✓	✓	✓
4c	Evaluation/Forward Planning Exercise and Report	✓					

9 Budget

SEEWG/HCWG Outline Budget 24 Months

	Outputs	Staff Days	External Exp (£)	External Exp (In-Kind)
1a	Audit current and potential membership	5.5		
1b	Contact Directory	2		
1c	Strategy for Maintaining Organisation Involvement	5		
1d	4 Meetings per group per year	22	£1,580	
1e	Webpages for sharing key documents and information	3		
1f	3 E-newsletters per year	6	£50	
2a	Communication Strategy and Toolkit	6	£25,000	
2b	2 Wildfire Awareness events			£4,134
2c	4 Workshop/site visits	5	£1,100	
2d	Lobbying	3		
2e	Toolkit for wildfire risk analysis	8	£20,000	
3a	To have all SSSIs and coniferous woodlands in the Thames Basin Heaths area by end of the two year project	5		
3b	Manual	0.5		
3c	Print and dissemination of pocket guide HOW MANY budget currently based on 250?	3	£764	
3d	Directory of equipment	5		
3e	Lantra approved basic wildfire fighting certificate - 60	9	£6,000	
3f	Advanced Wildfire Fighting - 20 trainees	2	£3,000	
3g	2 Training Exercises per year	16	£520	
3h	Ecology for Fire Fighters - course developed	2		
3i	Ecology for Fire Fighters			
4a	Attend key seminars and conferences - 4 (Chair and Project Manager)-	10	£2,000	
4b	Joint Vegetation Fire Reporting	10		
4c	Evaluation/Forward Planning Exercise and Report	5	£300	
	Project Management	41.5	£2,120	
	Total	174.5		
	Sub-Total £	£49,558	£62,434	£4,134
	TOTAL			**£116,126**

10 Project Management and Delivery

It is proposed that Rural Development Initiatives Ltd. will lead on project management.

It is critical to the success of the project that an individual organisation is charged with project management and development in order to ensure continued momentum and to deliver the outputs and long term benefits. From a management perspective, this mechanism ensures continuous monitoring of quality and achievement against targets with the capacity to report regularly to the funding partners.

The majority of the delivery will be carried out by RDI, based on the needs of the group. Some delivery will be carried out by partner organisations as in-kind contributions to the project.

10.1 Background to Rural Development Initiatives Ltd.

Formed in 2005 as a not for profit company limited by guarantee, RDI works at the forefront of sustainable rural development across the UK and other parts of the EU in partnership with and under contract to local, regional and national public, private and charitable bodies. We deliver programmes which make a significant difference to the rural economy, the environment and the fabric of rural society.

Our team of highly experienced and skilled staff have extensive experience of partnering both public and private sector organisations in delivering multi-agency projects. Partner organisations include the One North East, Yorkshire Forward, Scottish Government, Scottish Enterprise, Highlands and Islands Enterprise, Forestry Commission, Local Authorities, Northumberland FRS, Cumbria FRS, ConFor, the Institute of Chartered Foresters, National Parks, AONBs, DEFRA and Lantra Sector Skills Council.

In successfully developing and delivering these often large, complex programmes with multiple outputs and high numbers of beneficiaries, RDI staff have become well respected within the rural sector for the benefits they have collectively delivered to local businesses and individuals and a number of projects have won industry awards, most notably the National Training Award for our Ignite Woodfuel Training programme.

Further details of these, together with other initiatives in RDI's wide-ranging project portfolio can be found on our website at www.ruraldevelopment.org.uk

10.2 Wildfire Experience

RDI have been working in the field of wildfire since 2003, RDI are the UK's leading of wildfire project management solutions aimed at supporting both public and private sectors in working together to prepare for and effectively tackle wildfires:

Since 2003 RDI have organised the biennial Wildfire conference, the UK's only comprehensive wildfire event. Wildfire 2009 was held in the New Forest National Park, the first time the event has been held in the South of England.

Fire Groups: RDI have been working with the Northumberland Fire Group since its inception in 2004, including writing business plans, sourcing funding and now managing the project delivery. In Cumbria, RDI supported the Cumbria Wildfire Group to define the priorities, wrote the project plan, sourced funding and now manage the project delivery.

Eurofire: RDI project managed and assisted in the delivery of this project which developed a European Wildland Fire Management Handbook on behalf of the UN Global Fire Monitoring Centre. This project will improve the quality of and access to vocational training for wildfire management.

Wildfire Training: RDI have developed two wildfire training courses based on demand from the land based sector and in keeping with the current fire service training and the Lantra Awards occupational standards; Basic Wildfire Fighting and Advanced Wildfire Fighting.

English Wildfire Forum: RDI have recently been appointed to provide a secretariat to the English Wildfire Forum, which provides for national and regional policy and delivery organisations to meet and discuss issues relevant to wildfire across England.

10.3 Project Staffing

- RDI Project Manager - project management, training co-ordination, delivery and quality control, liaison with project funders.
- RDI Director - Project oversight, monitoring against targets, project design, line management.
- RDI Admin/Accounts Assistant – project administration, secretariat functions, claims processing and submission
- RDI Finance Director - financial oversight.

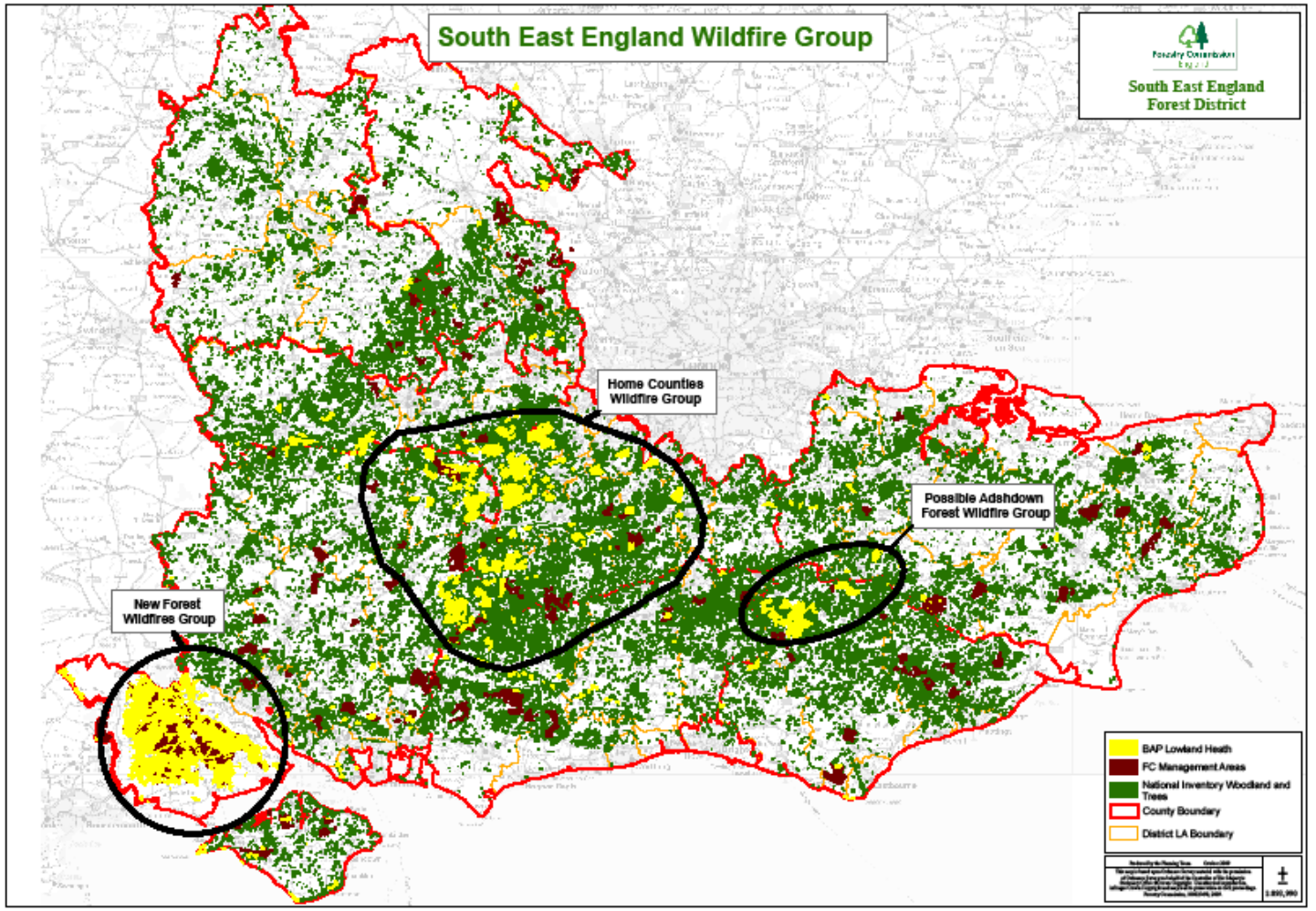
10.4 Project Management & Reporting

In terms of project management and reporting systems established by RDI for the implementation and delivery of our project portfolio, audit and monitoring visits by EU Programme Managers reported *"Some very good examples of best practice in relation to systems and administration"* and *"A very well run project which could be used as a model for other ESF applicants"*.

These systems would be utilised for the management of this project and would include:

- MS Dynamics NAV for budgeting & forecasting, cost control and financial reporting including:
    - Purchase order approval by budget holders prior to issue
    - Purchase invoicing authorisation prior to process and payment
    - Monthly accounts review, reconciliation and approval of project expenditure
- Microsoft Office software for all other reporting systems including:
    - Compatible software (Word and PDFF formats) for production/circulation of written communications
    - Web-based timesheets for accurate recording of staff time allocation
    - Contact management database (Access) for capture, review and query of beneficiary/potential beneficiary information
- Company developed QA systems for administrative and accounting processes including:
    - Documented procedures for information handling, circulation & storage
    - Defined limits of authority for purchase ordering & sales
    - Identified staff responsibilities
    - Customer/beneficiary recording
    - Product & service evaluation
- Codes of Ethics and Rules of Professional Conduct including:
    - Institute of Chartered Foresters
    - Royal Institution of Chartered Surveyors
    - Chartered Institute of Management Accountants

Appendix 1: Map of Boundaries of SEEWG and HCWG



Appendix 2: Strategic Fit

Level	Document	Reference
National owners		
Communities and Local Government	Fire and Rescue Services Act 2004	Part 2 Sections 7 & 11
Communities and Local Government	Civil Contingencies Act 2004	Part 2 Sections 19 & 22
Natural England, Forestry Commission and National Park Authorities	Countryside and Rights of Way Act 2004	Part 1 Chapter 2 Section 25
A Strategy for England's Trees, Woodlands and Forest and Delivery Plan	Defra	Land and Natural Environment – Resilience to the Changing Climate
Forestry Commission and Natural England	England's Trees, Woodlands and Forest Delivery Plan	• Aim 2 Climate Change: Objective CC1: Increasing resilience of trees and woodland • Objective CC2: Adapting the rural landscape
Forestry Commission	Forestry Commission England and Wildfire – Policy and Programmes Group Update Note 018	Policy approach to wildfires
Forestry Commission	Forestry in Defra's Climate Change Plan – Policy and Programmes Group Update Note 019	Annex 1: Forestry in defra's climate change plan: adaptation actions
Forestry Commission	When to convert woodland to open habitat in England: Government Policy	5.4.3 Wildfire

Communities and Local Government	IRMP Steering Group (2008) Integrated Risk Management Planning: Policy Guidance – Wildfire	Fire and Rescue Service Integrated Risk Management Planning for wildfire incidents
National Health Service	Heatwave plan for England 2010: protecting health and reducing harm from extreme heat and heatwaves	Anticipated impacts for other sectors during a Level 4 heatwave
Regional owners		
Fire and Rescue Service Regional Management Board (South East)	Action Plan 2008/11	2.7 Wildfire Impact Reduction
Government Office South East	South East Plan	Policy CC2: Climate Change (Adaptation and Mitigation)
Sub-regional owners		
Surrey Fire and Rescue Service	Integrated Risk Management Plan (IRMP)	Public Safety Plan 2008 – 2011. Section 4.1 effective response, 4.2 reducing preventable incidents
Hampshire Fire and Rescue Service	Community Response Medium Term Plan 1010/13	Objective: CR7

Appendix 3: Terms of Reference and Structure

Aim:

"*To create a forum between fire services, land management organisations and government that will provide strategic direction, planning and best practice to reduce the risks and hazards in the South East of England*".

Objectives:

1. Reduce the number, area burnt and impact of wildfires on:

- **Environment –** heritage, natural and built,
- **Infrastructure –** property, wayleaves and transport,
- **Climate change –** reduce the loss of greenhouse gases and CO2,
- **Social –** recreation, cultural, aesthetics, life, health and well being and community,
- **Economic –** food, fibre, fuel, sporting, tourism.

2. Provide a framework for partnership working and ensure that all partners are able to contribute to an integrated approach including; management, education, training, strategic planning, incident recording, regional policy, tactics, doctrine.
3. Reduce the amount of resources and risk to safety that exists for major wildfire incidents by; sharing resources, tools, vehicles, equipment, knowledge and experience.
4. To advise the Regional Fire Management Board, via the South East Response and Resilience Group, and the English Wildfire Forum of key issues that effect the South East England region.

SEEWG ACTION PLAN

Strategic priorities:

1. Develop an action and business plan for the forum.
2. Provide Wildfire management awareness training to Fire and Rescue Services, land managers and land management bodies (Environment Agency, Forestry Commission and Natural England).
3. Plan a half-day Wildfire training event in co-operation with 'Wildfire 2009' conference promoting the groups achievements.
4. Identify operational training opportunities for FRS and Land Managers.
5. To development and agree a standardized fire plan and fire maps template for the region, and then promote to fire and rescue services and land managers.

6. Develop and agree Standard Operating Procedures (SOP's) between FRS and land managers in the event of Wildfires.
7. To identify areas of high risk within the region where there is a need to promote partnership working.

First year outcomes:

1. Standardised Fire Plans and Maps
2. Operational and Awareness Training
3. South East England event for Wildfire 2009

ORGANISATION

Chairman: Rob Gazzard

Lead Organisation: Alan Clark for Surrey Fire and Rescue Service

Programme Manager: Martin Glynn (Rural Development Initiatives)

TERMS OF REFERENCE IS SUPPORTED BY

- Natural England (South East)
- Forestry Commission (Forest Enterprise - SE England Forest District and New Forest District)
- Environment Agency (EA)
- Hampshire Fire and Rescue Service
- Surrey Fire and Rescue Service
- West Sussex Fire and Rescue Service
- East Sussex Fire and Rescue Service
- Dorset Fire and Rescue Service
- Royal Berkshire Fire and Rescue Service
- Defence Training Estate (MoD)
- Defence Fire & Rescue Service (MoD Defence Fire Risk Management Organisation)
- Crown Estate Commissioners
- Government Office of the South East

Rob Gazzard

Chairman – South East England Wildfire Group

18th December 2009

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Appendix 4: Letters of Support

Government Office South East

Forestry Commission

Hampshire Fire & Rescue Service

Royal Berkshire Fire & Rescue Service

Surrey County Council/Fire and Rescue Service