

LANCASHIRE COMBINED FIRE AUTHORITY  
PLANNING COMMITTEE

Meeting to be held on the 31<sup>st</sup> July 2008

**THE EMERGENCY RESPONSE IMPLICATIONS OF CLIMATE CHANGE  
(Appendix 1 refers)**

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**Executive Summary**

Included within the Risk Management Plan 2008/11 was an action item to consider the implications of climate change on the Lancashire Fire and Rescue Service (LFRS) emergency response capability. An in-depth examination of the current position has been undertaken and a detailed report is attached at Appendix 1. An overview of the report, which contains seven recommendations, is outlined below.

The report has also been summarised in the Performance Report and Action Plan 2008 and will be subject to formal consultation over a twelve-week period.

**Recommendation**

The Planning Committee is asked to endorse publication of the report and associated consultation arrangements.

**Information**

Global temperature has risen over the last 100 years and the UK climate has changed over the same period e.g. central England temperature rose by almost 1 °C in the twentieth century, whilst the decade of the 1990's was the warmest in central England since records began. In years to come, it is predicted that temperatures will further rise, winter rainfall will increase whilst summer rainfall decreases, and heat waves, droughts, storms and floods will become more frequent and severe.

Research by Communities and Local Government (CLG) on the implications of climate change for the UK Fire and Rescue Service, resulted in the publication of Fire Service Technical Report 1/2006 in December 2006. This report identifies four key areas for the Fire and Rescue Service to consider in relation to climate change and the emergency response function, namely:

- Increased Summer Temperatures
- Flooding
- Drought
- Increased Windspeed and Storms

As a consequence, an in-depth assessment of current LFRS preparedness has been undertaken which considers each aspect, the impact upon operational activities, the current level of preparedness and related emerging issues. How LFRS operational and day-to-day activities contribute to climate change is not within the scope of this report though it should be noted that recent reductions in property, vehicle and secondary fires, together with further planned reductions in years to come, will have a direct effect on the climate through reduced carbon emissions.

Evidence suggests a clear and demonstrable link between hot, dry summers and the number of secondary fires, with substantial increases in years with hot summers and an associated increase in workload for fire and rescue services. Warmer, drier summers may also lead to water shortages through drought, and fire and rescue services will need to reduce the amount of potable (drinking quality) water used for firefighting and training purposes.

The widespread major flooding that occurred in 2007 illustrated the devastating effect that such events can have on the UK. Thirteen deaths were reported and approximately 48,000 homes and 7,000 businesses were damaged. Critical infrastructure was inundated, with power and pumping stations unable to operate, motorways and railways closed, and thousands of people stranded. Whole communities were without access to drinking water and thousands of people were made temporarily homeless. Such events can no longer be considered to be 'one off' and flooding is now an ever present risk.

The subject of climate change is high on the national and global agenda with such initiatives as the Kyoto Protocol and the UK Climate Change Bill seeking to slow down the impacts by introducing measures to reduce the emissions of 'greenhouse gases', principally through the burning of fossil fuels. Although such measures are being taken, scientific opinion is that any reduction in emissions will take generations to have an impact and whilst it may be possible to slow the rate of change, it is not considered feasible to prevent it altogether.

The issue of climate change within Lancashire is being assessed through the Lancashire Climate Change Partnership which has been established to prepare a strategy for Lancashire which addresses the challenges posed. The Partnership, which includes representatives from each of the local authorities, the County Council, The Environment Agency, Lancashire Constabulary and Lancashire Fire and Rescue Service, has set challenging targets to cut carbon emissions and help people deal with the effects of global warming. In October 2007, the Secretary of State for Communities and Local Government announced a new set of 198 national indicators for English local authorities and local authority partnerships, designed to measure against the national outcomes through Comprehensive Area Assessments. A number of the national indicators link into climate change with one, 'NI 188 Planning to Adapt to Climate Change' of particular relevance.

Whilst uncertainty surrounds the real global impact of climate change, available evidence would suggest that increased summer temperatures, more persistent heavy winter rainfall and an increase in the number and severity of storms will have an impact on the number of incidents attended by the UK FRS. This report has therefore sought to identify and highlight the issues arising out of climate change and

the potential impact on the emergency response capability of LFRS. Importantly also, it has permitted an assessment of current preparedness.

The CLG report into the effects of climate change concluded that although serious incidents are predicted to become more common in the future, the short term risk is low. Whilst this assessment is supported, and current LFRS operational capability is considered to provide adequate resilience, the ongoing monitoring of climate change implications is essential. This should be achieved through the Lancashire Climate Change Partnership where emerging risks can be identified/addressed, whilst operational climate change implications should feature in the LFRS Corporate Risk Register.

It is also accepted that higher summer temperatures, drought, floods and storm will necessitate different approaches and shared solutions. As a consequence, LFRS will need to ensure that equipment, systems of work and training are appropriate to meet any new challenges, and that horizon scanning mechanisms are fit for purpose. An effective emergency response will also require enhanced multi-agency and multi-jurisdictional arrangements, with a need for LFRS to develop revised working protocols with partner agencies across the Civil Contingencies Community.

As a consequence, the following recommendations feature in the report.

#### Recommendation 1

Whilst the current assessment of operational capability suggests an adequate degree of resilience, ongoing monitoring of climate change implications should continue as part of the wider risk management process. To this end, Lancashire Fire and Rescue Service should maintain an active membership of the Lancashire Climate Change Partnership in order to identify and/or address emerging risks, whilst operational climate change implications should be formally included as a key risk in the LFRS Corporate Risk Register.

#### Recommendation 2

A detailed analysis of water usage within LFRS should be undertaken thereby permitting future strategies to be developed which address operational and related requirements during periods of drought.

#### Recommendation 3

The Civil Contingencies Secretariat and DEFRA (Department for Environment, Food and Rural Affairs) have recently issued preliminary national guidance on developing a Multi-Agency Flood Plan (MAFP) which will necessitate a revision of Lancashire Resilience Forum's *Multi-Agency Response Plan for Flooding in Lancashire*. When completed, relevant information should be utilised for planning purposes and made available to operational crews via the Vehicle Mounted Data System.

#### Recommendation 4

LFRS should further evaluate the Pitt Report, and the Chief Fire and Rescue Adviser's review of the summer 2007 floods and where relevant incorporate recommendations into Service policies and procedures.

#### Recommendation 5

LFRS should monitor ongoing work in relation to improving the quality of flood warnings and where relevant incorporate into emergency planning arrangements.

#### Recommendation 6

Business continuity arrangements in respect of fire stations that are considered to be at risk from flooding should be re-examined to assess this specific threat and to institute, where necessary, appropriate mitigating strategies.

#### Recommendation 7

Existing firefighting PPE should be assessed to ensure it is suitable for the conditions associated with wildland firefighting such as extended working durations in arduous conditions.

### **Business Risk**

Low – Whilst the existing LFRS capability is considered adequate, ongoing work in relation to climate change is necessary and appropriate monitoring mechanisms are required to ensure that adequate resilience is maintained.

### **Environmental Impact**

Moderate – Whilst more detailed work will be required before any quantifiable benefits can be identified, it is considered that the Service's approach to climate change and associated emergency response issues will, in the longer-term, result in a lowered environmental impact.

### **Equality and Diversity Implications**

None

### **Financial Implications**

None identified at present

### **Human Resource Implications**

Existing staff will undertake the relevant work.

**Local Government (Access to Information) Act 1985  
List of Background Papers**

Paper	Date	Contact
<p>The following background documents (as defined in Section 100D(5) of the Local Government Act 1972 and amended by the Local Government Act 2000 - Commencement No 1 Order), have been relied on to a material extent in preparing this report</p> <p>The Emergency Response Implications of Climate Change</p>	<p>July 2008</p>	<p>Peter O'Brien 01772 866801</p>
<p>Reason for inclusion in Part II, if appropriate:</p>		