WILDFIRE STATEMENT
May 2020

1   Introduction

1.1   The purpose of this statement is two-fold:

1.1.1   To highlight that there has been limited progress in planning or preparation for wildfire incidents in England and Wales, since the 2018 fires.

1.1.2   To suggest that the cross-sector knowledge and experience available to the England and Wales Wildfire Forum (EWWF) can be used to better effect.

1.2   The wildfire activity in 2018 raised the profile of the wildfire threat and this was further elevated by the wildfire incidents that took place in the early part of 2019.

1.3   The wildfire threat has been high, almost without a break, since the last week of March, this year, and there have been many incidents. One of these could develop into another major incident, as occurred at Saddleworth. At the time of writing,

1.3.1   There have been about 65 wildfires which meet the National Operational Guidance criteria since 19th March,

1.3.2   There is a large incident in progress in Wareham Forest,

1.3.3   A fire on Hatfield Moors, a peatland site near Doncaster has been burning for two days, and

1.3.4   In South Wales alone, there have been 500 deliberately started grass fires, since the start of lockdown on 23rd March.

2   Lessons from 2018

2.1   The EWWF wrote to The Home Office and Defra in July 2018 to offer support for any "action that will follow the recent high-profile wildfires at Saddleworth and Winter Hill", whilst making it clear that these two incidents were only the tip of a large iceberg. Highlights from the letter are in Appendix 1.

2.2   A lessons-learned paper was referred to in the Home Office's response to the EWWF in August 2018, but this has not yet been shared with the EWWF. It is hoped that this paper can be circulated more widely.

2.3 In response to the 2018 wildfire incidents, Defra carried out a review of wildfire, but this has not yet been published. It will be helpful to see this report as soon as possible.

2.4 The EWWF ran a workshop in February 2019, which was funded by Defra, to capture the lessons learned from case studies of wildfire incidents that occurred in England and Wales during 2018.

    2.4.1 The report from the workshop posed many questions that remain unanswered. The 12 conclusions are listed in Appendix 2.

2.5 Some progress has been made since 2018, such as: increased resilience within the Fire and Rescue Services, the expansion in the number of Wildfire Tactical Advisors, and incident command training carried out by the Forestry Commission. However, this progress has been patchy, and needs to be joined up.

3   Wildfire Strategy

3.1 It has been proposed that England and Wales would benefit from the development of a strategy to address all wildfire issues, in conjunction with the other devolved administrations.

3.2 A problem that has always faced the development of a coherent wildfire strategy is the cyclical nature of the threat. As the COVID-19 pandemic has demonstrated, there is a need to prepare for infrequent, high-risk threats; wildfire clearly falls into a similar category. A national wildfire strategy would remove the episodic approach to wildfire and allow progress to be made between periods of high wildfire risk.

3.3 A strategy would make responsibilities clear and facilitate better coordination at government level and effective engagement between key wildfire stakeholders.

3.4 There is a recent example of the need to adapt to new risks. In the UK budget, in March 2020, £640m was allocated to policies to promote peatland restoration and woodland generation. The assets produced by these policies will be at risk from wildfire incidents.

4   Wildfire Leadership

4.1 Wildfire can be considered to be unique in the wide range of interests it affects, and as a result there is a danger that responsibility for leadership is not clear.

4.2 In England, The Home Office is the lead government department for wildfire and the focus of this department is on the response and prevention capabilities provided by the FRS. Defra, with Natural England, has an important role in controlling the management of the habitat which provides the fuel, and The Cabinet Office is concerned with risk and resilience through the National Risk Assessment (NRA) and the Local Resilience Forums.

4.3 The split of responsibility, and the resulting lack of an overview of wildfire issues, may be contributing to the lack of progress with developing a response to the increasing wildfire threat.

4.4 Questions:
- 4.4.1 Is the current split of responsibilities, with The Home Office being the lead department, the best solution?
- 4.4.2 As Government departments are struggling to develop a response to the increasing wildfire threat, especially while COVID-19 is absorbing so much effort, is there another way to approach this?
- 4.4.3 Could responsibility for a coordinated approach to wildfire be delegated to someone empowered to work across departments and across sectors?

5 Role of the EWWF

5.1 The Forum is a voluntary strategic body, independent of government, created to expand knowledge and understanding of wildfire, with the overall purpose of reducing the harmful impact of wildfires by promoting joint working and collaboration.
- 5.1.1 The Forum works closely with the National Fire Chiefs Council, the Scottish Wildfire Forum, Fire Groups, and other groups and organisations with an interest in wildfire.
- 5.1.2 Members of the Forum are a committed, willing group of people with a large amount of knowledge and experience. Members are also well connected with wildfire practitioners around the world.

5.2 The Forum sees its approach to government as that of a 'critical friend'. The Forum wants to help to deliver the objective of reducing the risk and amount of damage from wildfire.

5.3 However, if it is to fulfil its potential, the Forum needs support from government, as it needs to be at the centre of the debate about wildfire in England and Wales.

6 Funding the EWWF

6.1 Currently the Forum operates on voluntary support and some subscriptions provided by members. The Forum's finances are supplemented by any surplus generated from the wildfire conferences held in England and Wales. The 2019 conference provided £2,054.

6.2 The reliance on voluntary support from members to achieve any action restricts the amount of progress that can be made.

6.3 Some government funding would allow the Forum to be more effective, and to give financial recognition to the role of the Forum. A small grant could make a huge difference.

7   Conclusions

7.1   There is no room for complacency about wildfire, as it is clear that the wildfire threat is increasing year on year.

7.2   To mitigate their impact, there is an outstanding requirement to improve the level of preparation and planning for wildfire incidents at national, regional and local level.

7.3   The level of support from government for the role of the EWWF should be reviewed.

7.4   Where possible, responsibility for developing and implementing a wildfire strategy should be delegated from government officials to allow progress to be made.

WILDFIRE ISSUES TO ADDRESS
(Supporting Information is in Appendix 3)

8   Development of a Fire Danger Rating System

8.1   There is unanimous support for the need to develop an effective fire danger rating system to provide accurate advance notification of increasing wildfire risk to aid planning by local responders such as fire fighters, land managers and local resilience forums.

8.2   Two research projects are in progress and the MetOffice is supporting development of their Daily Hazard Assessment.

9   Use of Aerial Assets

9.1   There is no coordination of support for wildfire by aerial assets and it is recognised that this is something that should be improved at an early stage.

10   Use of Non-FRS Resources

10.1   Fire Groups have an important role to play in coordinating the use of non-FRS resources and they will benefit from additional coordination and support.

10.2   The establishment of formal, mutual arrangements with other countries should be considered to support wildfire fighting activities in event of large-scale events that overload an individual country's firefighting resources.

11   Carbon Emissions

11.1   All wildfires have the potential to emit considerable amounts of carbon dioxide into the atmosphere, but the amount escalates enormously when peat is ignited during a fire that takes place on peatland.

12   Public Health

12.1 Air pollution is a feature of wildfire, but the understanding of the impact of wildfire incidents on public health is in its infancy.

13   Wildfire Costs

13.1 To place the cost of a wildfire incident in context, the impact of wildfire should be assessed holistically and a value attached to all aspects of the fire.

14   Data Collection

14.1 There are an inadequate amount of data collected to allow full analysis of the impact of wildfire.

Appendix 1

Key Issues from the EWWF's Letter to The Home Office and Defra in July 2018

1   Lack of awareness of the threat posed by wildfire and strategic planning by government in advance of this wildfire season.

2   To avoid reliance on a reactive response to wildfire, planning needs to be carried out as a routine part of land management and resilience planning.

3   Where good cooperation exists between land managers, local authorities and the fire service to develop response plans, the risk of damage from wildfires is much reduced.

4   Wildfire is not just a phenomenon of remote, rural areas; wildfires on the rural-urban interface can pose a greater risk to life and property.

5   There is a need for national strategic direction to provide a framework for action.

6   The split of responsibility between The Home Office, Defra and the Cabinet Office means that no department has overall responsibility for wildfire. This is a concern and a possible explanation for the current, fractured approach to wildfire.

7   EWWF has the potential to play an important role to play in helping to bridge the gap between government departments and stakeholders and build consensus about wildfire.

8   Four Actions were proposed:

    8.1   Development of a more accurate and comprehensive Fire Danger Rating System (FDRS) to provide advance warning of high fire risk periods,

    8.2   Provision of support to existing fire groups to allow capacity development and the setting up of additional fire groups to cover all high fire risk areas,

    8.3   Consider the development of a wildfire strategy that would address issues identified by the recent incidents, and

    8.4   Provision of guidance about how to manage open land to minimise the impact of wildfire.

Appendix 2

Conclusions from the Report of the Wildfire Workshop held on 8th February 2019

1   There is a lack of awareness of the threat from wildfire.

2   Climate change predictions indicate the conditions that produced the fires in 2018 are likely to occur more often; wildfire threat levels are increasing.

3   Wildfires have the potential to have a serious, negative impact on carbon storage and the delivery of Defra's 25-year Environment Plan and Clean Air Strategy.

4   Public health issues must be considered as part of planning for wildfire.

5   During the 2018 wildfires, fire behaviour was often beyond the capacity of the FRS to control. Fuel management must be considered to reduce the intensity of fires below the threshold of control by FRS.

6   Planning and preparation for wildfire should become a routine part of land management. Development of guidance about the wildfire risk in standing crops should be considered.

7   Wildfire is not confined to remote, rural areas. There is a greater risk to people and property from wildfires in the rural–urban interface.

8   There is a need for a national strategic direction that could be addressed by developing a national wildfire strategy.

9   Development of an effective Fire Danger Rating System would provide warning of periods of high fire risk. This would allow the FRS to prepare to respond to wildfire incidents and land managers to plan their prescribed burning programmes.

10   Fire Groups should link to Local Resilience Forums so that planning for wildfire incidents could take place with other sectors.

11   The deployment of Wildfire Tactical Advisers for the first time at incidents during 2018 was deemed to be successful.

12   Air assets could be used more effectively.

Appendix 3

Supporting Information about Wildfire Issues

1   Development of a Fire Danger Rating System

1.1   Two research programmes are in progress.

1.2   The first is being led by the James Hutton Institute in Scotland and this completes this year.

1.3   The second is led by the University of Manchester and started on 1st January, this year. It was due to run for three years, but due to the delay with field work, as a result of COVID-19 restrictions, this is likely to be extended.

1.4   Discussions have taken place with the MetOffice to revise the boundaries between the wildfire threat levels that are published in the Daily Hazard Assessment (DHA).
        1.4.1   This is an advisory heads-up product that is issued by the Natural Hazards Partnership.
        1.4.2   Definition of a revised definition of the red alert state is also being considered.
        1.4.3   Implementation of changes to the DHA has been delayed by COVID.

2   Use of Aerial Assets

2.1   Aerial assets provide an ability to tackle fires that is not possible using other techniques. Their support to lift firefighters and their equipment to remote areas is also important.

2.2   It is a recognised feature of wildfire that time is of the essence.
        2.2.1   Delay in mobilising response assets can allow a fire to expand to a size that makes it much harder to control with an associated increase in the amount of damage it causes and the cost of bringing it under control.
        2.2.2   If available without delay, aerial assets can provide a rapid deployment of resources and possibly an early attack on a fire.

2.3   Aerial Assets
        2.3.1   There are no fixed-wing aircraft based in the UK that have a firefighting capability.
        2.3.2   There are only six helicopter companies in the UK that have the equipment and certified pilots to 'water bomb' wildfires. Four of these companies provide this service with a single helicopter; there is little resilience.
        2.3.3   It is believed that the only call-off contract that exists with a helicopter company is placed by NRW in Wales. As a result, the private sector response is reactive and availability may depend on other prior bookings.

2.4 Military Helicopters
2.4.1 The use of military helicopters is governed by the Military Aid to Civilian Authorities (MACA) arrangements.
2.4.2 Military helicopters have no capability to carry out 'water bombing'.
2.4.3 They are able to provide lifting support but the response requires a decision at high level in government, and therefore might be subject to delay.

3   Other Resources

3.1 Non-FRS Resources
3.1.1 A private contractor, Babcocks, provides much of the aerial assets for wildfire fighting in Spain, Italy and Portugal and has offered support in the UK[1]. This is something that could be investigated.
3.1.2 There are 17 fire groups across England and Wales and discussions are taking place to establish another group in south-west England. These groups aim to coordinate the use of non-FRS resources to fight fires occurring in their area.
3.1.3 Suppliers and operators of specialist ground-based wildfire fighting equipment exist in the UK. Consideration could be given to establishing a framework to allow their services to be called on in the event FRS resources get swamped by multiple large-scale incidents.

3.2 International Cooperation
3.2.1 There is no agreement with other countries who might be able to provide support with specialised air assets (for example: fixed-wing water bombing aircraft).

4   Carbon Emissions
4.1 It is likely that the carbon emissions from a peat fire are large enough to register on national, annual, emission statistics, and this will affect the achievement of the government's targets for the reduction of carbon emissions.
4.2 Currently, the carbon emissions from wildfire are not recorded to a common standard; this should be rectified to allow emissions to be quantified accurately.

5   Public Health
5.1 A report from the study of the impacts of the Saddleworth and Winter Hill incidents on public health has been published[2].
5.2 This report indicates that: "since concentrations were up to 2 times the WHO recommended guideline limit (25 μg m^{-3}) there are likely to have been considerable negative health impacts for individuals exposed, particularly for those with underlying health conditions".

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[1] https://www.babcockinternational.com/what-we-do/aviation/emergency-services/firefighting/

[2] A M Graham *et al* 2020 *Environ. Res. Commun.* **2** 031001

5.3   The fires substantially degraded air quality. $PM_{2.5}$ concentrations increased by more than 300% in Oldham and Manchester and up to 50% in areas up to 80 km away such as Liverpool and Wigan.

5.1   This equates to 4.5 million people being exposed to $PM_{2.5}$ above the WHO 24-hour guideline of 25 µg m-3 on at least one day.

5.2   The impact of mortality due to $PM_{2.5}$ from the fires on the economy was also substantial (£21.1m).

6   Wildfire Costs

6.1   To place the cost of a wildfire incident in context, the impact of wildfire should be assessed holistically and a value attached to all aspects of the fire.

6.2   The assessment of costs should include such issues as:

     6.2.1   FRS and other firefighting direct and in-kind costs,

     6.2.2   The impact on public health,

     6.2.3   The value of the environmental damage, including impact on ecosystem services.

     6.2.4   Impact on land management enterprises: forestry, fishing, farming, sporting.

     6.2.5   Damage to infrastructure

     6.2.6   Impact on access and recreation.

7   Data Collection

7.1   There is a general lack of appropriate and useful data in relation to wildfire.

7.2   As a result, it is difficult or impossible to provide sufficient information to allow evidence-based decision making to take place.

7.3   Agreed protocols need to be established to capture data from all sources at wildfire incidents to allow a complete picture of all the impacts that wildfire is having.

7.4   The protocols need to cover: what information should be recorded, what system should be used for doing this, and who will be responsible for collating and analysing the data.