Wildfire risk and data

Cath Reynolds
Deputy Director
Fire & Resilience Directorate
Communities and Local government
Historically:

‘Primary fires’ – cause harm or damage or are attended by 5 or more appliances – reported individually (FDR1)

‘Secondary fires’ – monthly totals (FDR3)
Incident Reporting System (IRS)

• 120,000 ‘primary’ fires to 1.2 million ‘all incidents’ per annum

• In use in all FRSs from 1st April 2009

• More details on ‘secondary’ fires

• Improved details on attendance for all incidents

• More timely and better quality

• Joined up with United Kingdom Vegetation Fire Standard (UKVFS)
### UKVFS Data fields

**Table 1 – Hierarchy of Data Themes and Sections**

<table>
<thead>
<tr>
<th>Data Theme</th>
<th>Data Section</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Data</strong></td>
<td>1. Incident Reference Number (UK, and EU)</td>
</tr>
<tr>
<td></td>
<td>2. Fire Dates and Times (UK, and EU)</td>
</tr>
<tr>
<td></td>
<td>3. Fire Location (UK, and EU)</td>
</tr>
<tr>
<td></td>
<td>4. Fire Size (Burnt Area in Hectares) (UK, EU and UN)</td>
</tr>
<tr>
<td></td>
<td>5. Cause (UK, EU and UN)</td>
</tr>
<tr>
<td><strong>Impact Data</strong></td>
<td>6. Environmental and Heritage Impact (UK)</td>
</tr>
<tr>
<td></td>
<td>7. Access and Social Impact (UK)</td>
</tr>
<tr>
<td></td>
<td>8. Economic Impact (UK)</td>
</tr>
<tr>
<td><strong>Improvement Data</strong></td>
<td>9. Fire Behaviour (UK)</td>
</tr>
<tr>
<td></td>
<td>10. Fire Suppression (UK)</td>
</tr>
<tr>
<td></td>
<td>11. Fire Preparedness &amp; Prevention (UK)</td>
</tr>
<tr>
<td></td>
<td>12. Fire Safety (UK)</td>
</tr>
</tbody>
</table>
Property Type Selection

Please select a property type from the hierarchy control:

Search: [ ] Go [ ] Clear

- Outdoor
  - Grassland, woodland and crops
    - Standing crop
    - Stacked/baled crop
    - Woodland/forest - conifers/softwood
    - Woodland/forest - broadleaf/hardwood
    - Tree scrub
    - Straw/stubble burning
    - Domestic garden (vegetation not equipment)
    - Nurseries, market garden
  
You currently have not got a Property Type selected.
Inc. No: 321123 | Status: Incomplete | Time of Call: 16:40:00 05 May 2009

5.15 Cause/Motive
Accidental

Please enter information known about any damage caused to an outdoor area.

5.16 Estimated fire damage (sq. m.)

5.17 If grassland/woodland, was fire in an area designated as a National Park?

5.18 Were there any hazardous materials involved?

Please Select
None
Up to 5
6 - 10
11 - 20
21 - 50
51 - 100
101 - 200
201 - 500
501 - 1,000
1,001 - 2,000
Incident No: 321123 | Status: 50 Incomplete | Time of Call: 16:46:00 06 May 2009

**5.15 Cause/Motive**
- Accidental

**Please enter information known about any damage caused to an outdoor area.**

**5.16 Estimated fire damage (sq. m)**
- 21 - 50

**5.17 If grassland/woodland, was fire in an area designated as a National Park?**
- Yes
- No

**5.18 Were there any hazardous materials involved?**
- Yes
- No
- Don't Know

[Prev] [Save and Exit] [Next]
8.7 What was the item, if any, that was mainly responsible for the spread of the fire?

8.9 What, if any, dangerous substances were involved?

8.10 Was there an explosion?

8.14 What type of room/compartment did the fire start in (room of origin)?

8.35 What was the extent of the area damaged by the fire (sq. m.)?

8.36 Did the fire occur in an area designated as a National Park?
Wildfire risk and impact

Home Office
Further Development of Risk Assessment Toolkits for the UK Fire Service
Technical Note – Risk Rating System for Vegetation, Large Heathland and Woodland Fires

March 2000

Entec UK Limited
## Wildfire Risk and Impact

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Area (Thousand km²)</th>
<th>Average Economic Loss (£ per ha per Event)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forestry:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Coniferous</td>
<td>13.7</td>
<td>3,000</td>
</tr>
<tr>
<td>· Broad Leaved</td>
<td>13.0</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Agriculture:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Combinable crops</td>
<td>41.8</td>
<td>200</td>
</tr>
<tr>
<td>· Moorland/Grasses/Other Heaths without sporting interest</td>
<td>32.1</td>
<td>40</td>
</tr>
<tr>
<td>· Moorland/Grasses/Other Heaths with Sporting interest All Managed</td>
<td>3.56</td>
<td>415</td>
</tr>
<tr>
<td>· Grassland / horticulture and root crops/ other land</td>
<td>127.5</td>
<td>0</td>
</tr>
</tbody>
</table>
Area of damage

grassland damage (m²):

woodland damage (m²):

\[ Damage = 0.07 \sqrt{\frac{ctrl}{45.4}} \]

\[ Damage = 0.08 \sqrt{\frac{ctrl}{46.2}} \]
Integrated Risk Management Planning (IRMP)

- Risk Analysis
- Strategies
  - Prevention
  - Protection
  - Response
  - Recovery
- Delivery Mechanisms
  - Organisations
- Monitoring and Review
Closing the Loop

- IRS review
- Partnership working
- Data sharing protocol?
- CFOA climate change work

Improved data, knowledge and use
Thank you