

SB 13/2015

26 February 2015

## Grassland fires, 2013-14

Almost one fifth of Fire and Rescue Service (FRS) attendances at fires or false alarms in 2013-14 were due to grassland, woodland or crop fires. This bulletin examines the impact and patterns in grassland fires in the financial years 2001-02 to 2013-14. The Welsh Government compiles these statistics from reports on all fires attended submitted by all three Fire and Rescue Services in Wales to the Department for Communities and Local Government (CLG).

The bulletin presents the most recent data (2013-14) and shows time series from 2001-02. The 2013-14 data are currently provisional, extracted from the database in May 2014 and may be revised in subsequent publications. Revised figures for 2012-13 are included in this bulletin. The effect of the revisions is shown in the table in the Quality Information section.

Primary fires are the most serious type of fires attended, usually involving property, vehicles, casualties, or rescues. Secondary fires are the majority of outside fires, plus those in derelict structures.

### Summary

#### Fires:

- The Welsh Fire and Rescue Services attended 3,875 grassland, woodland and crop fires in 2013-14, an increase of 81 per cent on 2012-13, in which the numbers of fires was particularly low. Although there was a large increase in 2013-14 the numbers of these fires are prone to fluctuation and the 3,875 is the second lowest since 2001-02.
- In 2013-14, there were 128 primary grassland, woodland and crop fires, an increase of 103 per cent compared with the previous year, and 3,747 secondary grassland, woodland and crop fires, an increase of 80 per cent. However, the numbers of both primary and secondary grassland woodland and crop fires for 2013-14 is considerably lower than the two years prior (2010-11 and 2011-12).
- In 2013-14, 77 per cent of primary and secondary fires on grassland, woodland and crops were started deliberately.
- In 2013-14, around six in ten grassland, woodland and crop fires occurred in the spring months April, May (2013) and March (2014).
- Of the grassland, woodland and crop fires in 2013-14, 56 per cent were in South Wales, 32 per cent were in Mid and West Wales and 12 per cent were in North Wales.

#### Casualties:

- There was 1 non-fatal casualty but no fatal casualties from grassland, woodland and crop fires in Wales in 2013-14. The last fatality resulting from a grassland fire occurred in 2007-08.

#### Damage:

- In 2013-14, 56 per cent of grassland, woodland and crop fires damaged an area less than 20 square metres, the same proportion as the previous year.

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## Section 1: Fires

Fires are classed as primary, secondary or chimney fires.

**Primary fires** include all fires in non-derelict buildings and vehicles or in outdoor structures, or any fire involving casualties or rescues, or fires attended by five or more appliances.

**Secondary fires** are mainly outdoor fires including grassland and refuse fires unless they involve casualties or rescues, or are attended by five or more appliances. They include fires in single derelict buildings, derelict road vehicles and derelict outdoor structures.

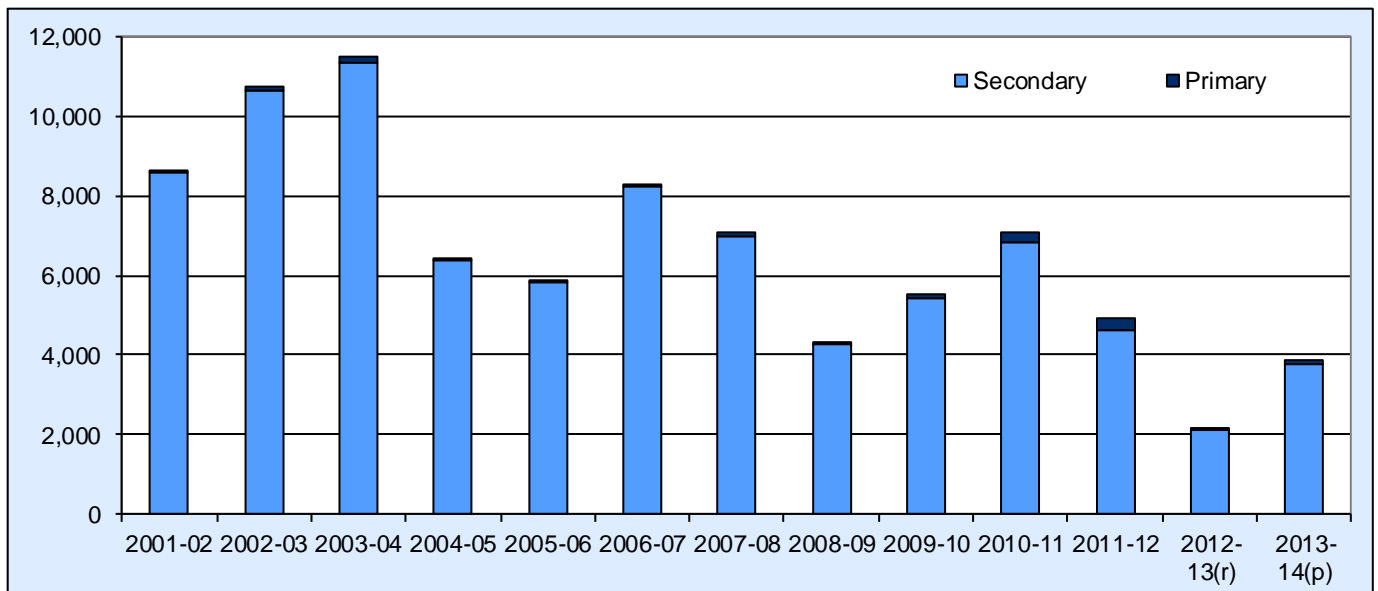
For the definition of chimney fires please see the [Glossary](#).

This section looks at the total number of grassland, woodland and crop fires that occurred as well as the total number of fires attended, which includes false alarms.

Welsh Fire and Rescue Services attended 28,463 fires or false alarms in 2013-14. Of these 18 per cent or 5,028 (including 1,153 false alarms) were due to grassland, woodland and crop fires as shown in Chart 1. These fires include primary fires in allotments, gardens, crops, woods and other agricultural locations and secondary fires on heathland and as a result of intentional straw and stubble burning as well as fires on grassland.

The number of grassland, woodland and crop fires attended by the Welsh Fire and Rescue Services rose by 81 per cent compared with 2012-13, but recorded a decrease of 55 per cent compared with 2001-02. The number of such fires in 2012-13 was particularly low and may have been affected by the high level of rainfall that year. The number of grassland, woodland and crop fires for 2013-14 is the second lowest since 2001-02.

**Chart 1: Number of grassland, woodland and crop fires, by type and year**



Source: 2001-02 to 2008-09 data from FDR1 fire incident data collection forms, 2009-10 onwards from Incident Recording System

(r) Revised data.

(p) Provisional data.

**Table 1: Number of grassland, woodland and crop fires and false alarms, by location and year**

Location	2009-10	2010-11	2011-12	2012-13(r)	2013-14(p)
<b>Primary fires</b>					
Domestic garden (vegetation not equipment)	3	5	5	3	0
Grassland, pasture, grazing etc	7	7	1	0	6
Heathland or moorland	8	15	18	3	8
Stacked/baled crop	28	32	26	18	38
Standing crop	2	9	35	3	10
Tree scrub	3	9	3	1	1
Woodland/forest - broadleaf/hardwood	14	36	32	8	19
Woodland/forest - conifers/softwood	35	161	130	22	44
Other (a)	2	5	6	5	2
<b>All primary grassland, woodland and crop fires</b>	<b>102</b>	<b>279</b>	<b>256</b>	<b>63</b>	<b>128</b>
<b>Secondary fires</b>					
Canal bank vegetation	40	61	47	29	70
Domestic garden (vegetation not equipment)	286	239	238	89	158
Grassland, pasture, grazing etc	1,872	2,293	1,329	595	1,220
Heathland or moorland	866	1,038	736	343	469
Railway trackside vegetation	48	84	57	32	22
Roadside vegetation	240	339	224	125	210
Scrub land	1,371	1,942	1,322	580	1,157
Straw/stubble burning	71	87	65	20	23
Tree scrub	616	727	616	167	253
Other (b)	4	6	8	102	165
<b>All secondary grassland, woodland and crop fires</b>	<b>5,414</b>	<b>6,816</b>	<b>4,642</b>	<b>2,082</b>	<b>3,747</b>
<b>All grassland, woodland and crop fires</b>	<b>5,516</b>	<b>7,095</b>	<b>4,898</b>	<b>2,145</b>	<b>3,875</b>
<b>False alarms with recorded location grassland, woodland and crop</b>	<b>1,456</b>	<b>1,742</b>	<b>1,483</b>	<b>823</b>	<b>1,153</b>
<b>Total (grassland, woodland and crop fires and false alarms)</b>	<b>6,972</b>	<b>8,837</b>	<b>6,381</b>	<b>2,968</b>	<b>5,028</b>

Source: Incident Recording System

(a) Nurseries, market gardens, road side vegetation and scrub land.

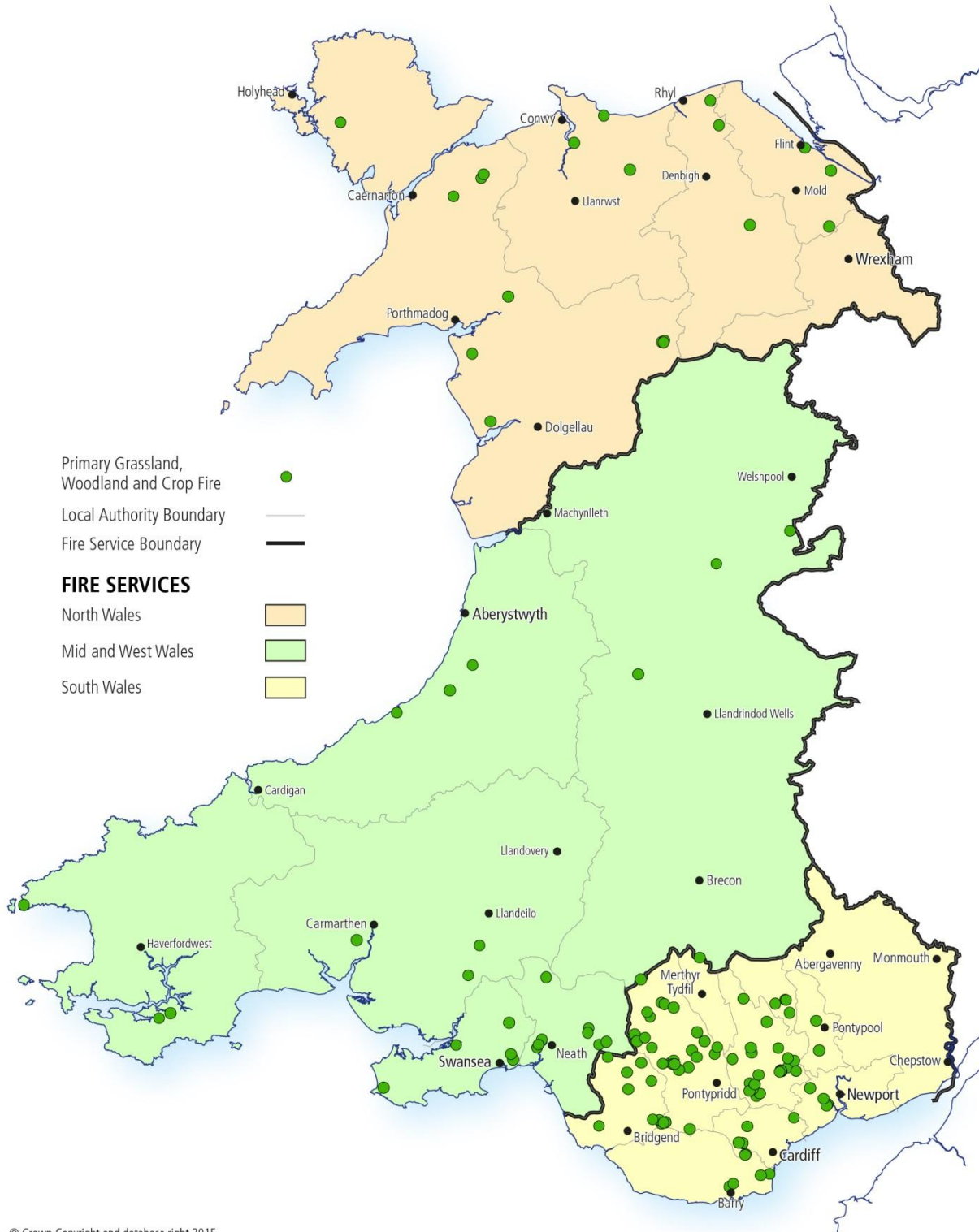
(b) Nurseries, market gardens, stacked/baled crop, woodland/forest - broadleaf/hardwood and woodland/forest - conifers/softwood.

(r) Revised data.

(p) Provisional data.

Primary fires are the most serious reportable fires in non-derelict buildings and vehicles or in outdoor structures, or any fire involving casualties or rescues, or fires attended by five or more appliances. In 2013-14, 128 primary grassland, woodland and crop fires were attended in Wales, and their locations are shown on the map below.

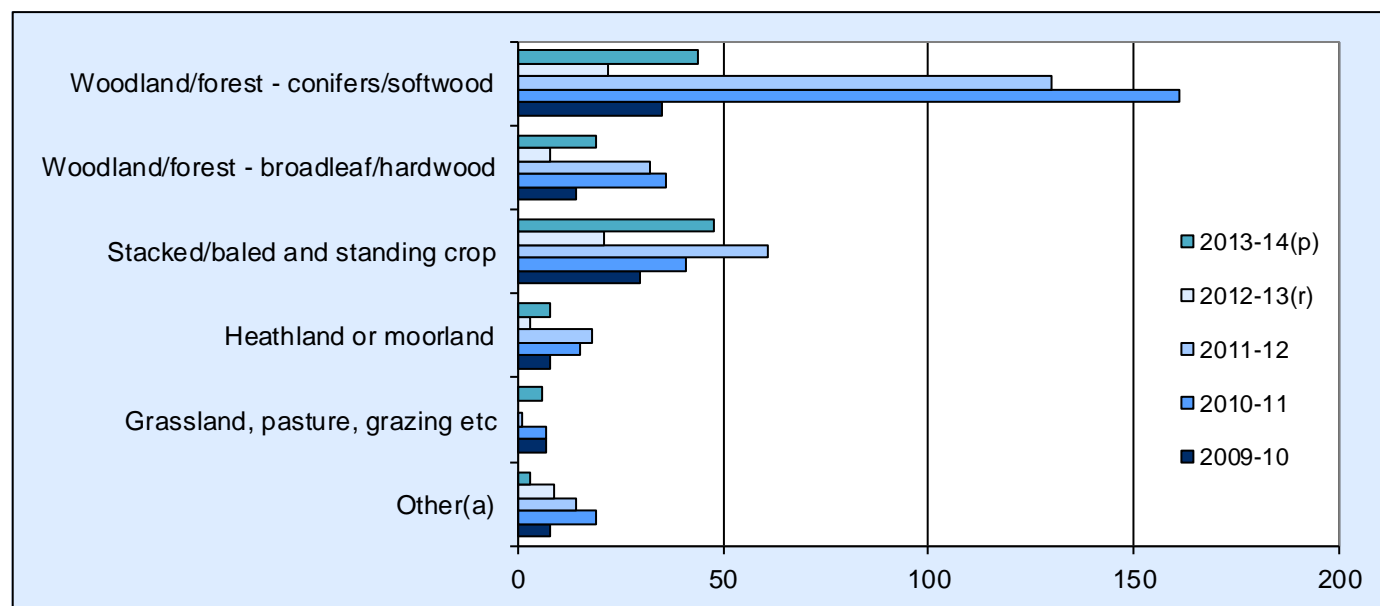
## Grassland, Woodland and Crop Primary Fires across Wales, 2013-14



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In 2013-14, 3 per cent of all primary fires took place on grassland, woodland or crops. In this year, there was an increase in primary fires in all grassland locations, except for 'other'. The number of fires in Woodland - conifers/soft wood has doubled compared to 2012-13 (Chart 2).

**Chart 2: Number of primary grassland, woodland and crop fires, by location and year**



Source: Incident Recording System

(a) Other includes domestic gardens, hedge, nurseries and market gardens, roadside vegetation, scrub land and tree scrub.

(r) Revised data.

(p) Provisional data.

In 2013-14 the number of deliberate primary grassland, woodland and crop fires in Wales more than doubled to 86. The number of accidental primary grassland, woodland and crop fires also rose, from 24 in 2012-13 to 42 in 2013-14. Two-thirds of primary grassland, woodland and crop fires were deliberate in 2013-14, a larger proportion than in the previous year, but remained lower than prior years.

**Table 2: Number and percentage of primary grassland, woodland and crop fires in Wales by motive** <sup>(a)</sup>

	Number			Percentage		
	Deliberate	Accidental	All	Deliberate	Accidental	All
2001-02	64	11	76	85	15	100
2002-03	84	21	105	80	20	100
2003-04	85	38	123	69	31	100
2004-05	50	22	72	70	30	100
2005-06	30	6	36	83	17	100
2006-07	47	11	58	81	19	100
2007-08	46	29	75	61	39	100
2008-09	26	10	36	72	28	100
2009-10	78	24	102	76	24	100
2010-11	222	57	279	80	20	100
2011-12	205	51	256	80	20	100
2012-13(r)	39	24	63	62	38	100
2013-14(p)	86	42	128	67	33	100

Source: 2001-02 to 2008-09 data from FDR1 fire incident data collection forms, 2009-10 onwards from Incident Recording System

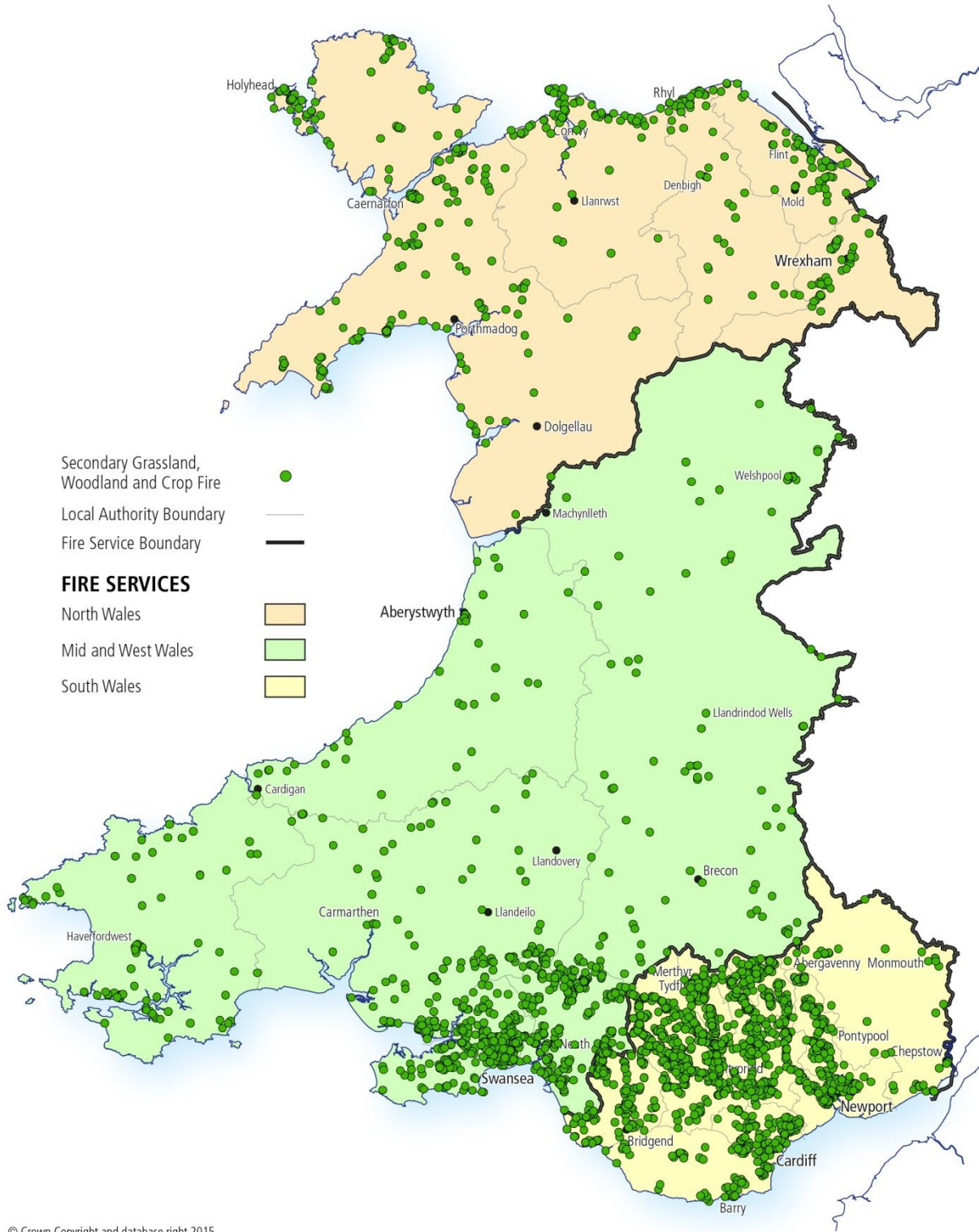
(a) It has been noted that following the introduction of IRS the number of primary outdoor fires has increased sharply. Please see the Comparability section of the quality information for more information.

(r) Revised data.

(p) Provisional data.

Secondary fires are mainly outdoor fires including grassland and refuse fires unless they involve casualties or rescues, or are attended by five or more appliances. They include fires in single derelict buildings, derelict road vehicles and derelict outdoor structures. In 2013-14 there were 3,747 secondary grassland, woodland and crop fires in Wales, the map below shows their locations.

## Grassland, Woodland and Crop Secondary Fires across Wales, 2013-14

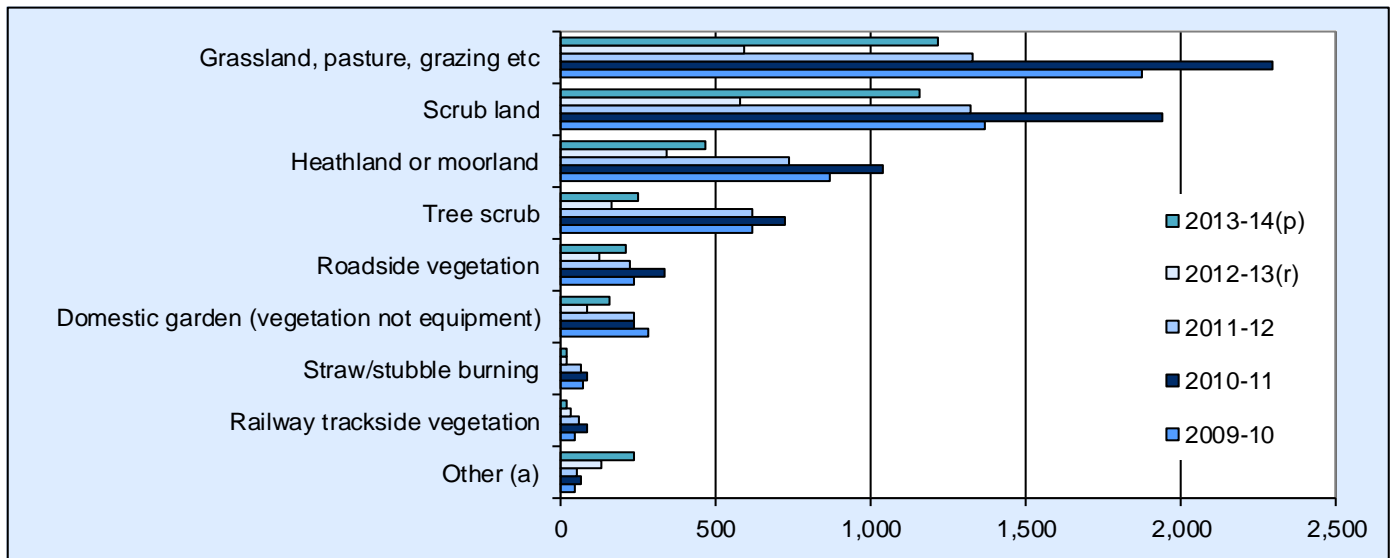


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Of all secondary fires that were reported in Wales, grassland, woodland and crop fires accounted for 48 per cent in 2013-14, an increase of 13 percentage points from the previous year.

A third of secondary grassland, woodland and crop fires occurred on either 'Grassland, pasture, grazing etc.' or scrub land in 2013-14.

**Chart 3: Number of secondary grassland, woodland and crop fires, by location and year**



Source: Incident Recording System

(a) 'Other' includes 'canal/riverbank vegetation', 'woodland/forest - broadleaf/hardwood' and 'woodland/forest - conifers/softwood', 'nurseries and market garden', 'stacked and baled crop' and 'hedge'.

(r) Revised data.

(p) Provisional data.

Since the introduction of the Incident Recording System (IRS) in April 2009 for collecting fire and rescue services incident data, greater detail relating to secondary fires has become available. There were 2,911 deliberate secondary grassland, woodland and crop fires in 2013-14, an increase of 68 per cent compared with the previous year, although still significantly lower than prior years. The proportion of secondary grassland, woodland and crop fires which were deliberate decreased by 5 percentage points to 78 per cent.



**Table 3: Number and percentage of secondary fires, by motive and year**

	Number			Percentage		
	Deliberate	Accidental	All	Deliberate	Accidental	All
Secondary grassland, woodland and crop fires						
2008-09	..	..	4,269	.	.	100
2009-10	4,585	829	5,414	85	15	100
2010-11	5,852	964	6,816	86	14	100
2011-12	3,814	828	4,642	82	18	100
2012-13(r)	1,731	351	2,082	83	17	100
2013-14(p)	2,911	836	3,747	78	22	100
All secondary fires						
2008-09	10,433	1,291	11,724	89	11	100
2009-10	10,022	1,540	11,562	87	13	100
2010-11	11,812	1,691	13,503	87	13	100
2011-12	8,596	1,566	10,162	85	15	100
2012-13(r)	4,993	929	5,922	84	16	100
2013-14(p)	6,222	1,575	7,797	80	20	100

Source: Data for 2008-09 from FDR1 and FDR3 Fire incident data collection forms, 2009-10 onwards from Incident Recording System

(r) Revised data. Secondary fire data were revised on the 28<sup>th</sup> April 2014.

(p) Provisional data.

.. Data unavailable.

. Data not applicable.

The majority of grassland, woodland and crop fires take place in the spring and summer months, April 2013 recorded the highest proportions of grassland fires for the financial year 2013-14, July 2013 had the second highest.

The occurrence of outdoor fires is likely to be influenced by the weather. Data from the Met Office shows that in 2013-14 the months with the least rainfall were April, June and July. In terms of hours of sunshine, the months April to July were the sunniest, in 2013. July 2013 saw a large increase in the number of grassland, woodland and crop fires (from 114 to 732). This was the largest figure for July since 2009-10 (the available time series).

Met Office data are available from: <http://www.metoffice.gov.uk/climate/uk/>

**Table 4: Number and percentage of grassland, woodland and crop fires, by month and year**

	Number					Percentage				
	2009-10	2010-11	2011-12	2012-13(r)	2013-14(p)	2009-10	2010-11	2011-12	2012-13	2013-14
April	1,209	2,443	1,617	496	1,196	21.9	34.4	33.0	23.1	30.9
May	518	1,205	830	376	592	9.4	17.0	16.9	17.5	15.3
June	441	1,034	251	74	434	8.0	14.6	5.1	3.4	11.2
July	160	324	332	114	732	2.9	4.6	6.8	5.3	18.9
August	186	176	219	53	176	3.4	2.5	4.5	2.5	4.5
September	367	137	116	77	107	6.7	1.9	2.4	3.6	2.8
October	221	132	142	36	40	4.0	1.9	2.9	1.7	1.0
November	48	36	53	51	57	0.9	0.5	1.1	2.4	1.5
December	40	20	22	16	33	0.7	0.3	0.4	0.7	0.9
January	50	69	46	12	13	0.9	1.0	0.9	0.6	0.3
February	262	40	96	216	18	4.7	0.6	2.0	10.1	0.5
March	2,014	1,479	1,174	624	477	36.5	20.8	24.0	29.1	12.3
<b>Total fires</b>	<b>5,516</b>	<b>7,095</b>	<b>4,898</b>	<b>2,145</b>	<b>3,875</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

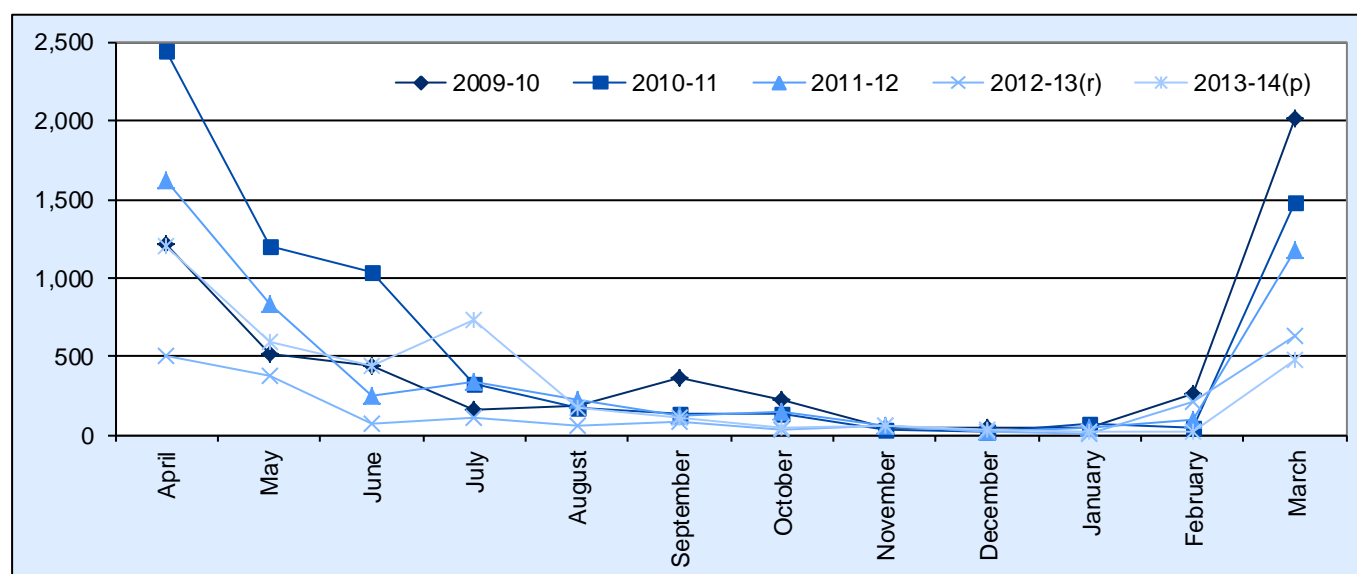
Source: Data for 2008-09 from FDR1 and FDR3 Fire incident data collection forms, 2009-10 onwards from Incident Recording System

(r) Revised data.

(p) Provisional data.

February and March 2014 were the only months to see a decrease in grassland woodland and crop fires, compared to the previous year, where the number of fires fell from 218 to 18 fires, and 624 to 477 respectively. The biggest increase was in April 2013, which more than doubled.

**Chart 4: Number of grassland, woodland and crop fires, by month and year**



Source: Data for 2008-09 from FDR1 and FDR3 Fire incident data collection forms, 2009-10 onwards from Incident Recording System

(r) Revised data.  
(p) Provisional data.

Of the grassland fires in 2013-14, 56 per cent were in South Wales, 32 per cent were in Mid and West Wales and 12 per cent were in North Wales. The number of grassland, woodland and crop fires rose in all three Fire and Rescue Services (FRS) in 2013-14; in South Wales the number rose by 91 per cent, whilst in North Wales and Mid and West Wales the corresponding increases were 70 per cent and 69 per cent respectively.

**Table 5: Number and percentage of grassland, woodland and crop fires, by Fire and Rescue Service and year**

	Number			Percentage		
	North Wales	Mid and West Wales	South Wales	North Wales	Mid and West Wales	South Wales
2001-02	1,048	2,337	5,259	12	27	61
2002-03	1,360	2,938	6,442	13	27	60
2003-04	1,741	2,912	6,842	15	25	60
2004-05	958	1,908	3,572	15	30	55
2005-06	856	1,739	3,277	15	30	56
2006-07	1,275	2,410	4,595	15	29	55
2007-08	825	2,185	4,054	12	31	57
2008-09	505	1,285	2,515	12	30	58
2009-10	675	1,471	3,370	12	27	61
2010-11	829	1,934	4,332	12	27	61
2011-12	837	1,441	2,620	17	29	53
2012-13(r)	282	724	1,139	13	34	53
2013-14(p)	480	1,223	2,172	12	32	56

Source: 2001-02 to 2008-09 data from FDR1 and FDR3 Fire incident data collection forms, 2009-10 onwards from Incident Recording System

(p) Provisional data.  
(r) Revised

## Section 2: Casualties

There has been one fatal casualty in grassland, woodland and crop fires since 2001-02, occurring in 2007-08. Since 2001-02 there have been 76 non fatal casualties in these fires and almost half of the injuries incurred were burns, 25 per cent were sent for precautionary checks.

There was 1 non-fatal casualty in 2013-14, 4 fewer than in 2012-13. This 1 casualty equates to less than 1 per cent of all casualties from fires in all locations in 2013-14.

**Table 6: Number of casualties in grassland, woodland and crop fires, by year**

	Fatalities	Non-fatal casualties
2001-02	0	1
2002-03	0	10
2003-04	0	9
2004-05	0	10
2005-06	0	5
2006-07	0	1
2007-08	1	0
2008-09	0	6
2009-10	0	8
2010-11	0	10
2011-12	0	10
2012-13(r)	0	5
2013-14(p)	0	1

Source: Data for 2008-09 from FD1 and FDR3 Fire incident data collection forms, 2009-10 onwards from Incident Recording System

(r) Revised data

(p) Provisional data.

### Section 3: Damage

In 2013-14, 45 per cent of primary grassland, woodland and crop fires in Wales damaged 20 square metres or less. For secondary fires this was higher at 56 per cent.

30 per cent of the primary fires damaged over 200 square metres, with the remaining proportion (24 per cent) damaging between 21 and 200 square metres. However for secondary fires, 29 per cent damaged between 21 and 200 square metres, and 15 per cent were over 200 square metres. This may be due to larger fires requiring the attendance of 5 or more appliances leading to the fire being classified as a primary fire.

**Table 7: Number and percentage of grassland woodland and crop fires, by area damaged and year**

	Number					Percentage				
	2009-10	2010-11	2011-12	2012-13(r)	2013-14(p)	2009-10	2010-11	2011-12	2012-13(r)	2013-14(p)
<b>Primary fires</b>										
0-20 sq m	51	142	137	37	58	50.0	50.9	53.5	58.7	45.3
21-200 sq m	16	44	38	10	31	15.7	15.8	14.8	15.9	24.2
201+ sq m	35	87	81	16	39	34.3	31.2	31.6	25.4	30.5
<b>Total (a)</b>	<b>102</b>	<b>279</b>	<b>256</b>	<b>63</b>	<b>128</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Secondary fires</b>										
0-20 sq m	3,025	3,319	2,487	1,169	2,093	55.9	48.7	53.6	56.1	55.9
21-200 sq m	1,458	2,189	1,294	564	1,074	26.9	32.1	27.9	27.1	28.7
201+ sq m	931	1,195	852	349	580	17.2	17.5	18.4	16.8	15.5
<b>Total (a)</b>	<b>5,414</b>	<b>6,816</b>	<b>4,642</b>	<b>2,082</b>	<b>3,747</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>All fires</b>										
0-20 sq m	3,076	3,461	2,624	1,206	2,151	55.8	48.8	53.6	56.2	55.5
21-200 sq m	1,474	2,233	1,332	574	1,105	26.7	31.5	27.2	26.8	28.5
201+ sq m	966	1,282	933	365	619	17.5	18.1	19.0	17.0	16.0
<b>Total (a)</b>	<b>5,516</b>	<b>7,095</b>	<b>4,898</b>	<b>2,145</b>	<b>3,875</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Incident Recording System

(a) Includes a small number of fires in 2010-11, 2011-12, 2012-13 and 2013-14 of unknown area.

(r) Revised data.

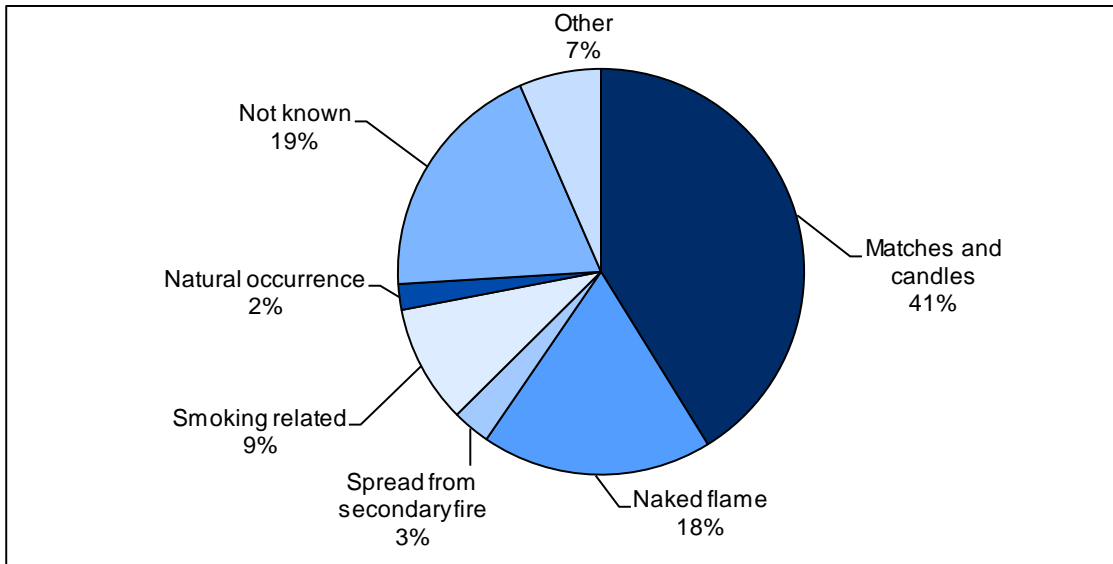
(p) Provisional data

## Section 4: Source of ignition and cause

Information is available on the source of primary fires, but not secondary fires. Chart 5 looks at the source of the flame, spark or heat that first ignited the fire. This differs from the cause of the fire, which refers to why the fire started, for instance careless handling, overheating or natural causes.

In 41 per cent of the primary grassland fires between 2009-10 and 2013-14 the source of ignition was matches or candles. The next largest category was 'not known' with 19 per cent.

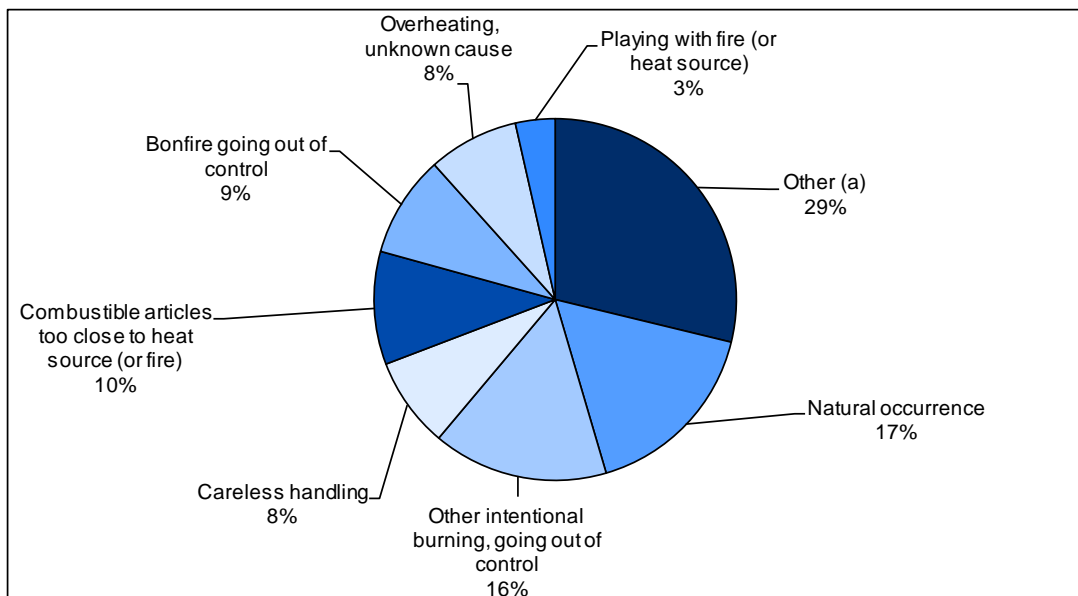
**Chart 5: Source of Ignition of primary grassland, woodland and crop fires 2009-10 to 2013-14**



Source: Incident Recording System

The causes of accidental primary grassland, woodland and crop fires are varied. In Chart 6 29 per cent of these fires are shown as having 'other' causes. They include negligent use of equipment, fault in equipment or appliance, faulty fuel supply and person too close to heat source (or fire) as well as unspecified causes. 17 per cent of these fires were determined to have been caused naturally.

**Chart 6: Main cause of accidental primary grassland, woodland and crop fires, 2009-10 to 2013-14**



Source: 2001-02 to 2008-09 data from FDR1 Fire incident data collection forms, 2009-10 onwards from Incident Recording System

Other includes 'Not applicable', 'Fault in equipment or appliance', 'Faulty fuel supply', 'Person too close to heat source (or fire)', 'Negligent use of equipment or appliance (heat source)', and 'Accumulation of flammable material'

## Glossary

**Accidental** fires include those where the cause was not known or unspecified.

**Cause of fire** The defect, act or omission leading to ignition of the fire.

**Dangerous substances** can spread fire, intensify fire, intensify smoke, render water unsuitable or produce toxic gases.

**Deliberate** fires include those where deliberate ignition is merely suspected.

**Explosion** An explosion is a very rapid build up of pressure giving rise to a characteristic 'bang'. The pressure may be sufficient to cause injury to people and structural damage to buildings. Explosions may result from gas leaks, including unburnt fire gases, or from overheated cylinders or unstable solid materials.

**False alarms** are events in which the Fire and Rescue Service believes they are called to a reportable fire and then find there is no incident.

**Fatal casualty** is a person whose death is attributed to a fire even if the death occurred weeks or months later. There are also occasional cases where it transpires subsequently that fire was not the cause of death. The figures for fatalities are thus subject to revision.

**Fire Data Reports (FDR1 and FDR3)** were the method of data collection via paper forms prior to the Incident Recording System (introduced in April 2009). FDR1 was used to record primary fires, FDR3 for secondary fires, chimney fires and false alarms.

**Fire and Rescue Services (FRS)** are the three regions (North Wales, Mid and West Wales and South Wales) into which Wales is divided in relation to the fire service. **Grassland fires**, from 2009-10, include fires in gardens, crops, woods, nurseries/market gardens, heathland/moorland, grassland/pasture/grazing etc, scrub land, railway trackside vegetation, roadside vegetation and roadside vegetation. Prior to this date **Grassland** fires referred to primary fires in allotments, gardens, crops, woods and other agricultural locations and secondary fires on grassland, heathland and as a result of intentional straw and stubble burning. This is a broader definition than the land use definition in agricultural publications.

**Incident Recording System (IRS)** is the electronic based system for recording fires, false alarms and Special Service Incidents. IRS replaced the FDR1 and FDR3 paper forms in April 2009.

**Location** is the type of premises, property or countryside in which the fire started. This is not necessarily the type of premises in which most casualties or damage occurred as a result of the fire.

**Non-fatal casualties** are recorded as being in one of four classes of severity as follows:

- (i) Victim went to hospital, injuries appear to be serious
- (ii) Victim went to hospital, injuries appear to be slight
- (iii) First aid given at scene
- (iv) Precautionary check recommended – this is when an individual is sent to hospital or advised to see a doctor as a precaution, having no obvious injury or distress.

Non-fatal casualties marked as 'not fire-related' have not been excluded due to widespread inappropriate use of this field. The issue is being investigated by the Department for Communities and Local Government (CLG).

**Primary fires** include all reportable fires in non-derelict buildings, vehicles and outdoor structures or any fire involving casualties, rescues, or fires attended by five or more appliances.

**Chimney fires** are reportable fires in occupied buildings where the fire was confined within the chimney structure and did not involve casualties or rescues or are attended by 5 or more appliances.

**Reportable fire** is an event of uncontrolled burning involving flames, heat or smoke and which the fire and rescue service attended.

**Secondary fires** are the majority of outdoor fires including grassland and refuse fires unless they involve casualties or rescues, property loss or five or more appliances attend. They include fires in single derelict buildings. They are reported in less detail than other fires and consequently less information concerning them is available.

**Source of ignition** The source of the flame, spark or heat that started the fire.

## Quality Information

### Policy context and supplementary information

Wales has had a devolved fire and rescue service since 2004-05 which is divided into three regions.

North Wales Fire and Rescue Service provides cover for a population of over 690,000 across a geographical area of 2,400 square miles; it has 44 fire stations.

Mid and West Wales Fire and Rescue Service covers over half the area of Wales and a population of almost 900,000. There are 58 fire stations.

South Wales Fire and Rescue Service is one of the largest fire and rescue services in the UK: it serves a population of almost 1.5 million people, covers 1,085 square miles and has 50 fire stations.

In November 2011 the Welsh Government consulted with users of fire statistics with regards to the existing outputs. The consultation closed in February 2012, however you are able to view the consultation and response to the consultation at:

<http://wales.gov.uk/consultations/statistics/fire/?status=closed&lang=en>

Fire Incident data are used as outcome indicators for the *Programme for Government*, the Welsh Government's plan of action for 2011-2016. The indicator measurements are number of fires attended (excluding false alarms) and number of casualties from fires and are included in the category 'Safer Communities'.

Fire Safety Advice from the Welsh Government can be found at:

<http://wales.gov.uk/topics/people-and-communities/communities/safety/fire/?lang=en>

### Prevention

Following the exceptional forest fires in Easter 2003 caused by weather conditions, Forest Research used geospatial mapping and qualitative techniques (interviews, observation, and surveys) to characterise and understand the problem of wildfires, focusing on the social factors behind the issue. Their [information paper](#) includes details of measures put in place to avoid similar occurrences.

The Welsh Government has issued [guidance on heather and grass burning](#). Currently, burning is only allowed during the following periods:

- 1 October - 31 March in Uplands
- 1 November - 15 March elsewhere

A license is required at all other times and can only be obtained in very specific circumstances.

Application for burning during restricted periods can be made through the Welsh Government Website at the above link. It is also illegal to burn between sunset and sunrise. In addition a Burning Management Plan has to be completed for all proposed burnings.

Burning in Wales is controlled by [The Heather and Grass Etc \(Burning\) Regulations 2008](#) and [The Heather and Grass Burning Code](#), which gives advice on burning best practice.

A leaflet, '[Heather and Grass Burning in Wales](#)', was published in January 2012 and provides important information about the burning season, what can be burned, and includes health and safety advice



## Data Source and Scope

Since April 2009 incident data (relating to fires, false alarms and Special Service Incidents) have been submitted by the Fire and Rescue Services to the Department for Communities and Local Government via the Incident Recording System (IRS). IRS does not currently collect data from FRSs in Northern Ireland.

Previously data was collected via the paper based forms FDR1 and FDR3. The change in collection method has allowed a greater volume of data to be captured:

- Data on Special Service Incidents are now recorded
- All fires are recorded; pre-IRS statistics were based on a sampled dataset.
- Detail on secondary fires and chimney fires are now recorded; pre-IRS, only aggregates were available.

Data in this statistical release has been provided by the Department for Communities and Local Government. The most recent statistics cover the financial year 2013-14.

Data for the most recent period is extracted in May following the financial year to which the data relates. Data for the period April 2012 to March 2014 were extracted from IRS in May 2014.

Information on the data collected via IRS system can be found on the Department for Communities and Local Government's website:

<https://www.gov.uk/government/publications/incident-recording-system-for-fire-and-rescue-authorities>

Databases for 1994 to 2008 contain all fires with casualties, but only a sample of other fires.

Prior to 2009-10 the data had been weighted to agreed fire and rescue totals. The detailed analysis of the data other than for casualties, or fires involving casualties is based on the sampled data grossed to fires and rescue service totals.

All percentages in the text and tables of this bulletin are calculated on unrounded figures.

## Rounding and Symbols

Data collected via the FDR1 and FDR3 paper forms (prior to 2009-10) are based on sampled datasets. Items and totals have been rounded separately to the nearest final digit, and therefore totals shown may differ slightly from the sum of the items. No rounding has been applied to data from 2009-10 onwards.

The following symbols may have been used in this release:

- negligible (less than half the final digit shown)

. not applicable

.. not available

~ not available yet

\* disclosive or not sufficiently robust for publication

p provisional

r revised

## Uses of the data

- The Welsh Government uses the information in this bulletin to monitor the trends in grassland fires occurring in Wales, for example monthly trends. This helps to monitor the effectiveness of current policy, and for future policy development. The data is also used as evidence for national fire safety initiatives and campaigns.
- The data is used by the fire and rescue services for comparisons and benchmarking. The data aids the allocation of resources and providing community safety projects.
- The data is used by Academic Institutions and Research Councils in funded research projects.
- We judge that the quality and reliability of the data is appropriate for these uses.

## National Statistics

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political reference.

## Data Quality

- Data for the most recent period is provisional. Whilst the data are accurate at the time they extracted, the database is updated throughout the year, and this may result in revised data appearing in subsequent publications. Please see Revisions section for more information.
- The Fire Statistics Quality Report covers the general principles and processes leading up to the production of our fire statistics. The report covers various topics including definitions, coverage, timeliness, relevance and comparability. You can see a copy of the report on the Welsh Government website here: <http://wales.gov.uk/statistics-and-research/fire-statistics/?lang=en#/statistics-and-research/fire-statistics/fire-statistics-quality-report/?lang=en>

## Disclosure

Disclosure is the result of being able to identify, directly or indirectly, and some personal or otherwise sensitive information being disclosed by the data. Although there are data held in IRS which have the potential to be disclosive we do not consider the data presented in this bulletin to require disclosure control.

More detailed quality information, which is not included in the quality report, is given below.

## Comparability

- From April 2009 Fire and Rescue Services began using the Incident Recording System (IRS). This may affect the reporting and recording of incidents.
- The Department of Communities and Local Government (CLG) carried out a Quality Assurance exercise for their first publication based on IRS data (Fire Statistics Great Britain 2010-11) which highlighted two areas of potential discontinuity due to the change in data collection method.

The first area relates to increases (typically slight) in the numbers of certain types of incident within the data of a handful of Fire and Rescue Services, notably in numbers of primary outdoor fires. These are apparently not real increases, but for example they may rather be the result of a small proportion of incidents in the past having been incorrectly reported as being 'secondary fires' rather than 'primary fires'.

The following conclusions can be drawn:

- it appears that these differences follow from incorrect reporting under the old Fire Data Report system
- the effect on national totals appears to be slight
- there is no suggestion of difference in completeness of recording of casualties.

The second area is the possibility of discontinuity in numbers of non-fatal casualties. Though the totals themselves do not suggest change in recording overall, the new categories have clearly affected sub-totals, notably the category 'precautionary check recommended'. This all follows from two improvements to the way in which non-fatal casualties have been recorded since the introduction of the Incident Recording System:

a. The first change is that each casualty or fatality can be marked as 'not fire-related'. Around eight per cent of non-fatal casualties were marked as not fire-related in April 2010 to March 2011. However, in fire incidents, almost all non-fatal casualties can be expected to be 'fire-related', since very few would have occurred if there had not been a fire. Due to this concern, those non-fatal casualties marked 'not fire-related' have **not** been excluded. It is also worth noting that excluding the 8 per cent of non-fatal casualties would have introduced a large discontinuity compared to data from before the introduction of the new Incident Recording System.

b. The other potential issue arises since the Incident Recording System collects details of the injury of each non-fatal casualty in two questions, the first categorising the casualty as one of: '*severe injury (hospital)*', or '*slight injury*', or '*first aid*' or '*precautionary check advised*', while the second question records the type of injury.

This contrasts with the Fire Data Report system where a single question was used instead, with no category for 'first aid'. It appears that casualty cases recorded under Incident Recording System as 'first aid' would have most commonly been recorded under the old Fire Data Report system as 'precautionary check', and a smaller proportion recorded as a specific type of injury. As noted, overall the total of all non-fatal casualty categories (including non-fatal casualties whose severity was either 'first aid' or 'precautionary check recommended' under Incident Recording System) appears to be consistent with totals under the Fire Data Report system.

- In order to assist with comparability between fire and rescue services, all data providers are issued with the same data collection guidance.

- In 2013-14 firefighters were involved in 9 periods of Industrial Action. During this time all incidents were attended, and all were recorded via IRS. The strike periods in 2013-14 were as follows:
  - 25th September 2013 (12:00-16:00)
  - 1st November 2013 (18:30-23:00)
  - 4th November 2013 (06:00-08:00)
  - 13th November 2013 (10:00-14:00)
  - 13th December 2013 (18:00-22:00)
  - 14th December 2013 (18:00-22:00)
  - 24th December 2013 (19:00-00:00)
  - 31st December 2013 (18:30-00:30 1st Jan 2014)
  - 3rd January 2014 (06:30-08:30)

## Revisions

- This bulletin contains provisional data for 2013-14. Whilst the data are accurate at the time they extracted, the database is updated throughout the year, and this may result in revised data appearing in subsequent publications. Data for 2012-13 have been revised in this publication and are now considered final. Since IRS is a live system, incidents in 'final data' may be updated, however these revisions will not appear in published data unless in exceptional circumstances.
- The table below compares the provisional 2012-13 data extracted from IRS in May 2013 (first published in July 2013 in Fire Statistics Wales 2012-13 and the subsequent Grassland Fires 2012-13 bulletin of February 2014), with the revised data (extracted in May 2014) which appeared in Fire Statistics Wales 2013-14 and is contained in this bulletin. Revisions show a 3 per cent increase in the number of primary grassland, woodland and crop fires. There were minor revisions to 2012-13 secondary fires data, as seen below.

## Comparison of provisional data with revised data (2011-12)

	Provisional 2012-13 Published in July 2013	Revised 2012-13 Published in July 2014	Percentage change
Primary grassland, woodland and crop fires	61	63	3.3
Secondary grassland, woodland and crop fires	2,081	2,082	0.0

- The schedule below indicates when data will be revised and finalised.

Data to be revised	When revisions will be made
Fatalities and Casualties	Revised 2013-14 figures to appear in quarterly headline relating to April 2014 – September 2014. (Typically published in January 2015)  Final 2013-14 figures (barring exceptional circumstances) to appear in quarterly headline relating to October 2014 – March 2015 and annual bulletin (Fire Statistics Wales 2014-15). (Typically published in June and July 2015 respectively)
Incident data	Final 2013-14 figures (barring exceptional circumstances) to appear in quarterly headline relating to October 2014 – March 2015 and annual bulletin (Fire Statistics Wales 2014-15). (Typically published in June and July 2015 respectively)

- Revised data is marked with an (r) in the statistical bulletin.
- We follow the Welsh Government's statistical revisions policy, details of which are available at: <http://wales.gov.uk/statistics-and-research/about/statement-of-compliance/revisions-errors-postponements/?lang=en>

## Related Statistics for Other UK Countries

General Fire incident statistics for other UK countries are available at the following links:

- **England:** The Department for Communities and Local Government in England produce an annual bulletin , Fire Statistics Great Britain, 2011 to 2012:  
<https://www.gov.uk/government/publications/fire-statistics-great-britain-2011-to-2012>  
The publication refers to outdoor fires in chapter 5.
- **Scotland:** Annual fire statistics bulletin, 2012-13 is available at:  
<http://www.scotland.gov.uk/Topics/Statistics/Browse/Crime-Justice/PubFires>  
The bulletin refers to outdoor fires in section 4.6, and tables 9 and 9a.
- **Northern Ireland:** Annual fire incident data is available from: <http://www.nifrs.org/statistics>

## Further information

More information is available in the form of StatsWales tables that accompany this release and can be found at <https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Community-Safety/Fire-Incidents>

or by contacting:

[stats.inclusion@wales.gsi.gov.uk](mailto:stats.inclusion@wales.gsi.gov.uk)

Analysis of annual Welsh fire incident data can be found in the bulletin 'Fires Statistics, 2013-14':

<http://wales.gov.uk/statistics-and-research/fire-statistics/?lang=en>

The bulletin includes charts and information on causes of fires and the presence of smoke alarms.

The link below shows an Evaluation of the Arson Prevention Programme which focuses on three of the main initiatives; Arson Reduction Teams (ARTs); the Arson Small Grants Programme; and the Grassland Fire Initiative.

<http://wales.gov.uk/about/aboutresearch/social/latestresearch/EvalArson/?lang=en>

**Operation Phoenix:** a partnership initiative aimed at reducing the number of grass fires in the Rhondda Valleys over Easter involving South Wales Fire and Rescue Service, South Wales Police, the Forestry Commission and Rhondda Cynon Taf (RCT) County Borough Council.

We actively encourage feedback from our users. If you have any comments please complete our [feedback form](#)

If you require any further information regarding this Welsh Government publication, contact details are as follows:

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<http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

## Annex 1: Grassland fire data available on Statswales

- Primary and secondary grassland, woodland and crop fires by month and financial year:

<https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Community-Safety/Fire-Incidents/Fires-and-False-Alarms/PrimaryAndSecondaryGrasslandWoodlandAndCropFires-by-Month-FinancialYear>

- Casualties by detailed location and financial year:

<https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Community-Safety/Fire-Incidents/Casualties/Casualties-by-DetailedLocation-FinancialYear>

The attached link filters to the grassland, woodland and crop fires data:

<https://statswales.wales.gov.uk/v/kIy>

- Accidental primary fires by cause and source of ignition (information only available at the high level, i.e. not available at the primary grassland, woodland and crop fires level):

<https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Community-Safety/Fire-Incidents/Fires-and-False-Alarms/AccidentalPrimaryFires-by-Cause-SourceIgnition>

- Fires by detailed location and motive:

<https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Community-Safety/Fire-Incidents/Fires-and-False-Alarms/Fires-by-DetailedLocation-Motive>

The attached link filters to the grassland, woodland and crop fires data:

<https://statswales.wales.gov.uk/v/kLK>