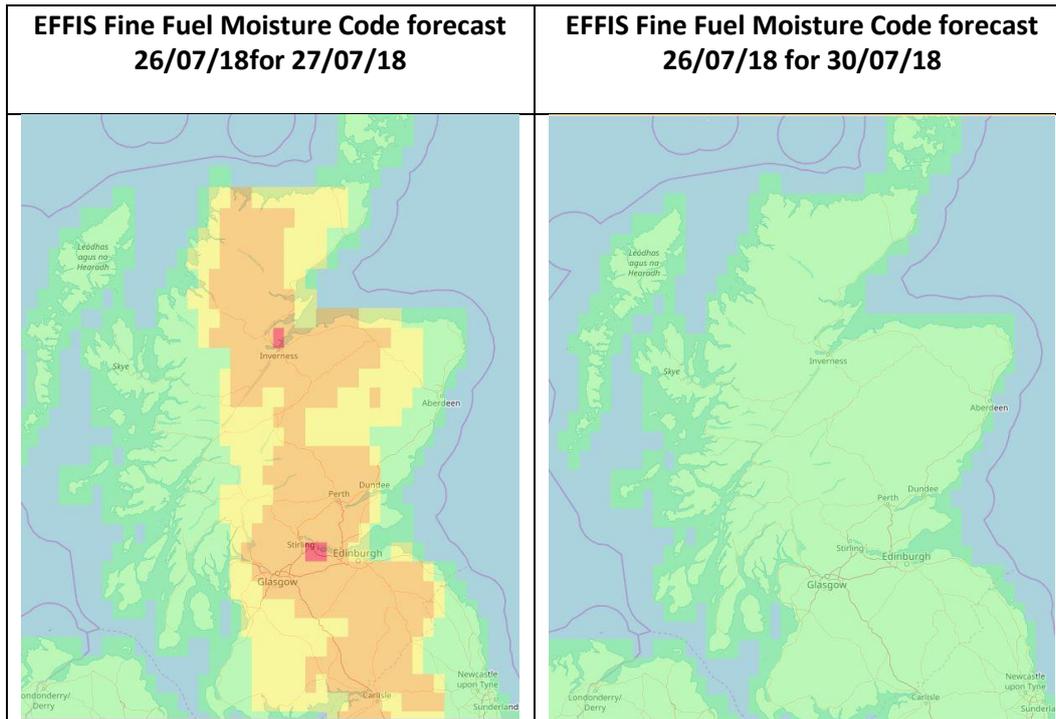


**Wildfire Danger Assessment for Friday 26<sup>th</sup> July to Monday 30<sup>th</sup> July 2018 for Scotland.**

Wildfire danger assessments are made on a broad area basis. For more local risk assessments both the seasonal condition of fuels and local weather conditions should be taken into account.

**The fire danger assessment is VERY HIGH for Fri 26<sup>th</sup>, reducing to LOW by Sat 27<sup>th</sup> July.**

**Ignition potential – Fine Fuel Moisture Code**



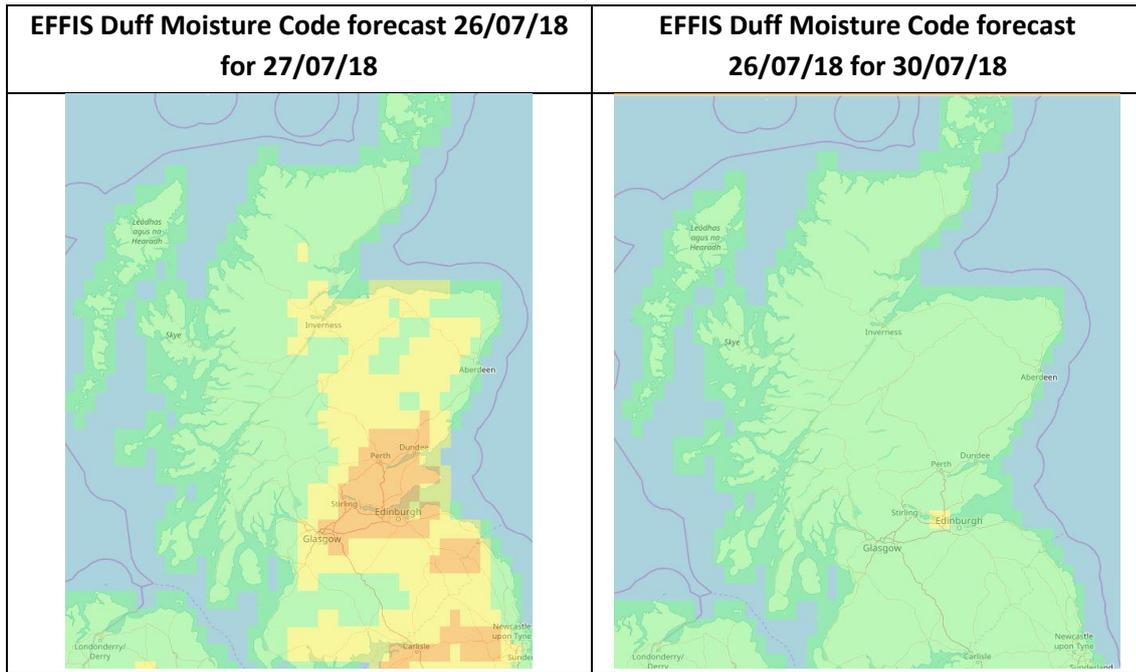
**The EFFIS FFMC forecast for the period 26/07/18 - 30/07/18 indicates a rising ignition potential over the whole of Scotland, except in the west, through to the weekend.**

Images courtesy of European Forest Fire Information Service (EFFIS)

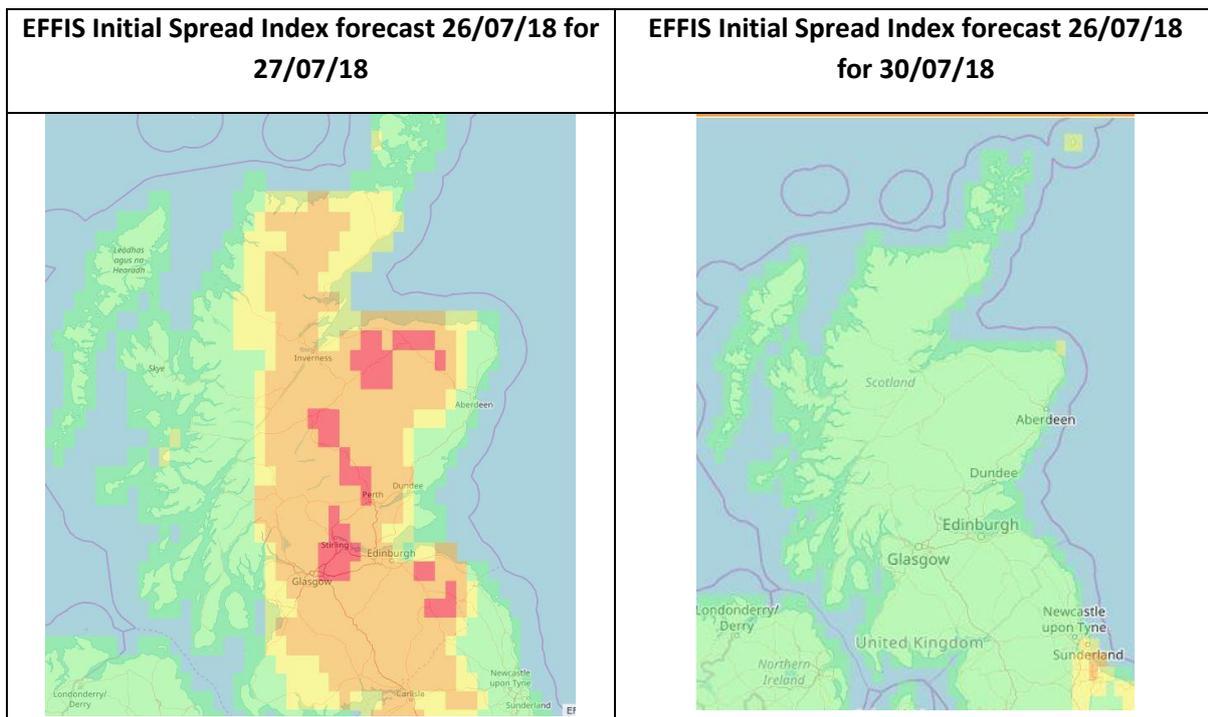
**EFFIS FFMC Fire Danger class bands:**

The scientific evidence indicates that significant numbers of wildfires often occur in the UK in the when FFMC is above 80. Any yellow area on the map indicates an FFMC of more than 83 and the brown areas are over 86 and red is over 89.

The condition of the fuels (vegetation) is not uniform over the country. Vegetation is still growing in the West. Grasses cured significantly in the recent hot, dry weather, especially in central and eastern Scotland and the moss and litter layer is also dry.



The Duff Moisture Code gives us an indication of the dryness of the deeper organic soil layers (1.2cm - 7cm).



The Initial Spread Index (ISI) is based on FFMC, plus an additional factor for wind. **This ISI forecast for the period 27/07/18 to 30/07/18 indicates the potential for fires to spread rapidly in nearly all parts of Scotland, for the next few days, which stops abruptly on the 28<sup>th</sup> July.**

**General weather forecast information:**

There are a series of weather fronts crossing Scotland from the west and east, bringing thunder and lightning, heavy rain and cooler. Winds across Scotland are moderate - strong southerly. Rain will cover the whole country.

**Discussion:**

**On Saturday heavy rain will dampen all fuel layers virtually everywhere.** From Saturday ignitions become very unlikely. The rain will reduce fire danger when and where it happens.

There are large areas of semi-natural vegetation, forest and grassland with last year's dead vegetation and cured vegetation from this year. There is a **reducing** ignition potential in these areas. Should a wildfire ignition occur it is likely **low** fire behaviour will occur, because of the increasing dampness of the grass, moss, litter and peat fuel layers.

Land managers should be continue with what fire prevention and preparedness activities on Friday but then should be able to reduce them over the weekend. The messages to the public are that they should exercise caution **throughout** Scotland on Friday.

**Fire Danger for period:**

**The fire danger for eastern Scotland from for 27th July is still very high but will reduce rapidly to low for all parts of Scotland, when the heavy rain arrives.**

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Date 24/07/18

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Appendix A: Background information

The EFFIS system is based on the Canadian Fire Weather Index system, of which FFMC is a sub-index. FFMC looks at the dead fuel moisture of the litter layer on the soil surface. The Initial Spread Index (ISI) is FFMC plus a wind function

Table 1 EFFIS Fine Fuel Moisture Code (FFMC) & Initial Spread Index (ISI) fire danger class bands:

	EFFIS FFMC Fire Danger classes				
	Very Low	Low	Moderate	High	Very High
	Green	Yellow	Brown	Red	Black
<b>FFMC</b>	< 82.7	82.7 - 86.1	86.1 - 89.2	89.2 - 93	>= 93
<b>ISI</b>	< 3.2	3.2 - 5	5 - 7.5	7.5 - 13.4	>= 13.4
<b>DMC</b>	< 15.7	15.7 - 27.9	27.9 - 53.1	53.1 - 140.7	>= 140.7

EFFIS fire danger classes were originally created to support decision making in Mediterranean areas. The equivalent fire danger with typical grass and shrub fuel types in the British Isles is significantly lower. European Forest Fire Information Service (EFFIS) can be viewed at:

[http://effis.jrc.ec.europa.eu/static/effis\\_current\\_situation/index.html](http://effis.jrc.ec.europa.eu/static/effis_current_situation/index.html)

The weather data that is used in the EFFIS Fire Weather Index model is from the European Centre for Medium Range Forecasts (ECMWF).