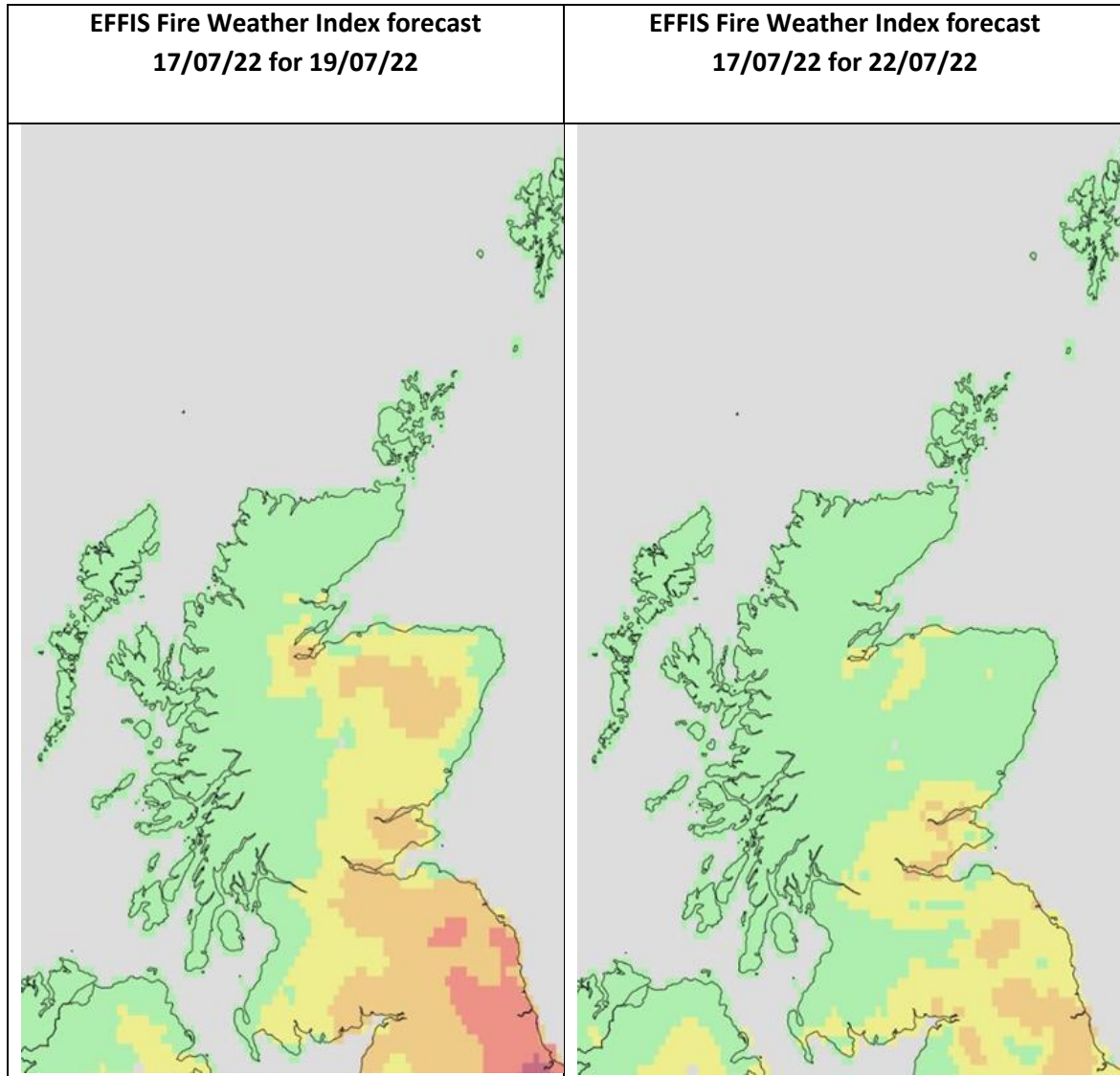




Wildfire Danger Assessment for Tuesday – 19th July – Friday 22nd July 2022 for Scotland.

The overall fire danger assessment is:

- Eastern and southern Scotland Very High 19th – 21st July 2022



Index / Codes keys for Scotland (summer):

- Green – Low**
- Yellow – High**
- Brown – Very High**
- Red/Black – Extreme**

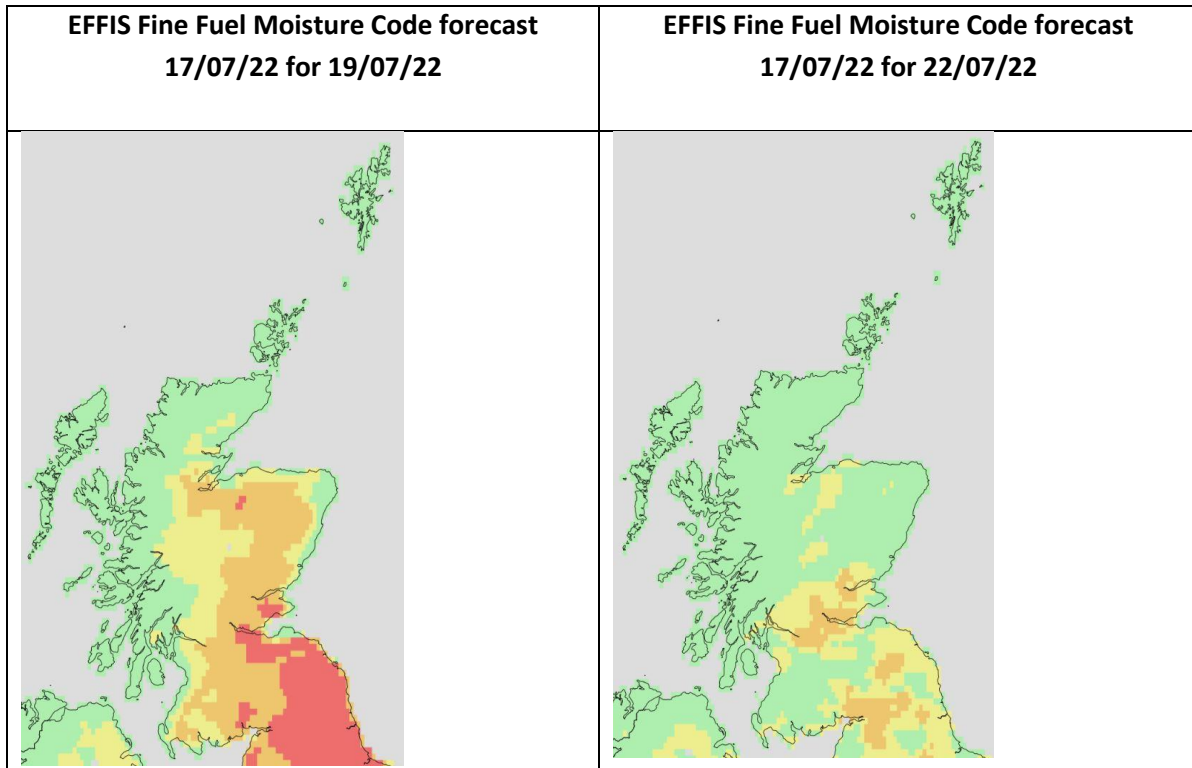


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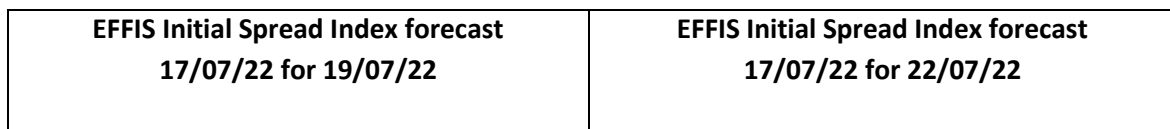


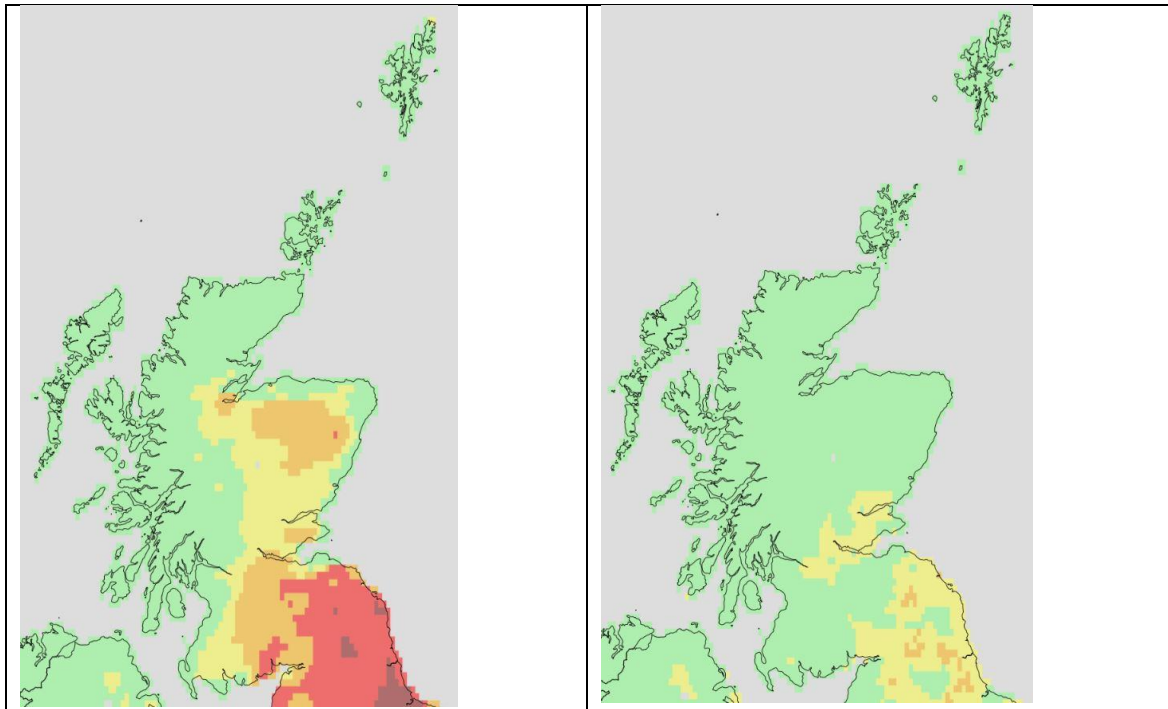


Ignition Potential - Fine Fuel Moisture Code:



Spread – Initial Spread Index:





Seasonal condition of the fuels:

Mid-July at this time of year, summer, the seasonal condition of the fuels (vegetation) will be a combination of live green above ground fuels with relatively high moisture content, cured grass and small dead vegetation called litter lying on the ground. Gorse will dry quickly. Grass more than 50% cured can support fire spread. Mosses with a poor root system can also dry out quite quickly. A layer of undecomposed organic matter is often below the soil surface that dries out a little more slowly. The combination is known as the moss and litter layer. These fuels dry out after a period without rain – drought conditions. There can also still be much dead grass and dead heather left over from the previous year, especially on higher ground or in northern Scotland, which can dry quickly.

Air temperature, low relative humidity, long day-lengths, sunshine, and wind contribute to high evapotranspiration over more extended periods. In addition, in most places, the above ground vegetation such as grass, heather and bracken will be growing, so live fuel moisture will be high. This means that FFMC needs to be slightly higher than in the spring to capture ignition potential. Therefore, it is important to look at the overall the Fire Weather Index as well.

General weather forecast information:

The effect of the bands of rain last week have diminished in the very hot weather. Some rain shadow areas of eastern Scotland did not get any rain. At the moment there is a high pressure centred over central England and a low-pressure system in the west Atlantic that will move north-west towards northern Norway. Warm and occluded fronts will gradually move across the Scotland from the west. The Met Office have issued an “Amber” warning for heat over the next couple of days.



There will be intermittent light rain, gradually spreading from the west in most parts of Scotland, except for the south-east. Wind direction initially will be variable with an on-shore element in the daytime. westerly. This will become north-westerly for Wed/Thurs. Windspeed over the mainland will be light 4-16kph (3-10mph) it will be slightly higher up to a moderate 24kph (14mph) in the west. Air temperatures will be highest on Tues, up to 30°C in south Scotland but are warm in the range of +12°C night time to +18°C during the day everywhere through the week. Humidity levels in the east-central highlands and the south are low in the middle of the day and drop to around 41% - 49%. In the west on Monday and everywhere from Tuesday humidity is much higher up to 60-78%. The continuing summer drought and heat are drying conditions, which will be constrained by a mixture of high humidity and light rain.

Discussion:

The key issues over the next few days in all areas are: whether your area has had any rain, the heat especially in east and south Scotland. Dead fine fuels will dry quickly, where there is no rain. The effect of light rain will be to only dampen surface fuels, which will dry again within 2-3 days.

For soil moisture, FFMC is above 86, i.e. very high for most areas of eastern Scotland until 19th July, after which it gradually diminishes until rain has covered most areas by Thursday/Friday. ISI, for fire spread has a similar pattern. ISI is high, i.e. over 5 in eastern areas from 19th July then gradually diminishes. FWI is above 11 in most of eastern Scotland and above 27 in the south east. DMC is above 20 in parts of north-east and south-east Scotland. DC is above 300 in similar locations.

Where FFMC and FWI are high dead fuels will ignite and burn with high intensity. ISI is above 5 on Tues- Thurs in eastern areas, so spread rates could be fast. The litter and moss layers are drying out in east but the lower soil layers are still wet in the west. In eastern and southern Scotland there is potential for re-kindling and smouldering from the surface down to the peat.

Overall, Sat-Sun 12-14th July 2022, surface fires could burn and spread in eastern and southern Scotland, with high fire intensity and fire danger is very high. Wind speeds are light-moderate. Fires could re-ignite and smoulder and therefore difficult to extinguish with hand tools, water will likely be required.

Important Notice

Wildfire danger assessments are made on behalf of the Scottish Wildfire Forum. They are done on a broad area basis. For more local risk assessments, the local condition of fuels, recent weather, and weather forecasts should be taken into account.

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