



There have been over 75,000 wildfires recorded within the South Wales Valleys over the past 20 years, causing significant damage to the landscape, nature and communities that live within it.

In 2011 a [report](#) was commissioned through Forestry Commission Wales that reviewed the perception and causes of wildfire within the area. Since then lots has changed including the formation of Natural Resources Wales (amalgamation of Forestry Commission, Environment Agency and the Countryside Council for Wales), nevertheless the Wildfire issue remains and has been anecdotally increasing.

Following discussions as part of the [Area Statement](#) trials in the Rhondda valley, the [Healthy HillSides Partnership](#) was created. It was recognised that multiple agencies were being impacted by wildfires and landscape scale approaches to land management could deliver multiple benefits. Since 2015 the Healthy HillSides partnership has been working together as a multi-agency approach into reducing the impact and severity of Wildfires within the area.

The problem:

NRW wishes to develop a risk-based approach to understanding the likelihood of wildfire and its severity in its woodland assets. In particular we have to get a handle on the risk of ignition. However, the [Healthy HillSides](#) partnership has taught us that wildfire impacts are wide ranging, there are multiple assets at risk including communities and natural habitats, and many more possible parameters than data observations.

By working together as a partnership between Land managers, Fire and Rescue Services and communities we wish to be able to structure risk severity indexes for areas across South Wales to alert and proactively manage key target areas for wildfires (notably those caused predominately by arson).

There are methods such as that outlined in [McMorrow et al \(2021\)](#) which provide a framework for risk analysis and productive forestry, but we are unsure as to whether this is adequate for use within the semi-urban area of the South Wales Valleys (& the focus on Arson), or if there are any other better approaches, or combination of approaches?

We are interested in your thoughts on incorporating stakeholder opinions using Bayesian approaches, agent-based simulations, the role and use of social media in forecasting trends and any other innovative ideas you might have about how we might begin to tackle this complex, messy, wicked problem!