

Gilestone Farm flooding - Suitability of Gilestone Farm in terms of flood risk

Gilestone Farm is situated on a floodplain and most of it is identified by Natural Resources Wales (NRW) as being at medium or high flood risk. Realistically, the only significant field on the farm that is level and not built on is the glamping site. This is less than 1 hectare in extent.

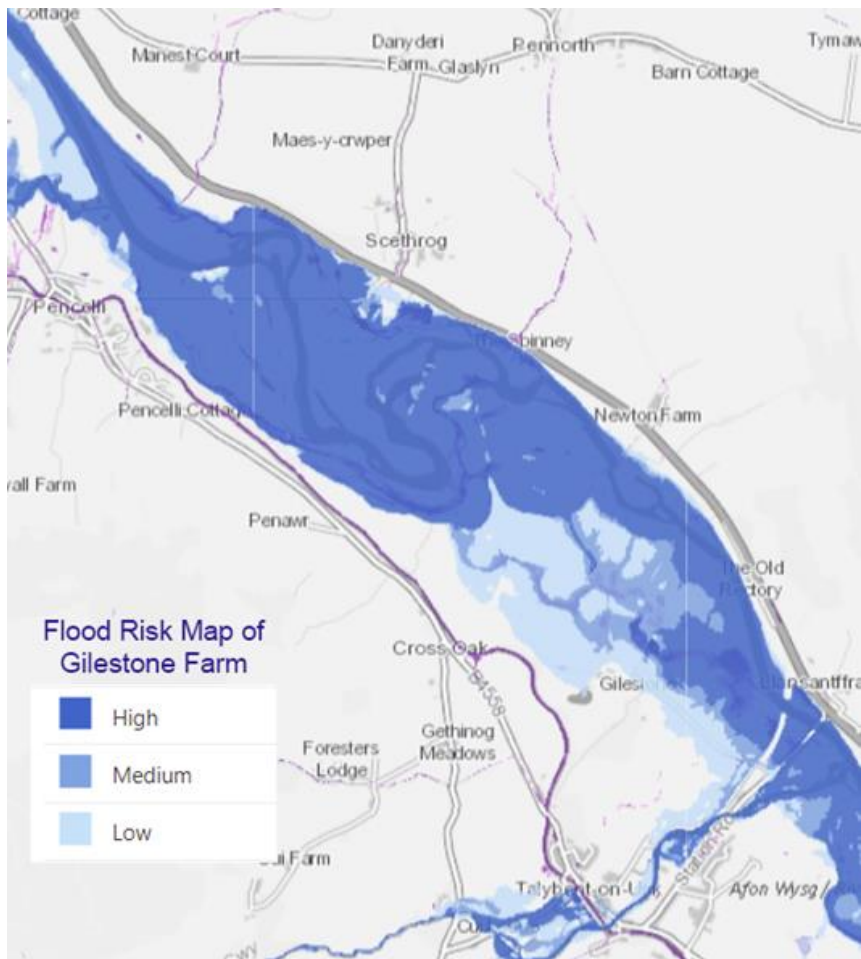
From observation we know of certain dates when the farm was subject to flooding. By correlating these with data on river flow rates we estimate that a 2-day average flow rate of 197 m³/sec or more leads to serious flooding. Based on NRW flow rate data for the Usk near Gilestone, we note these conditions were met on 6 occasions in the 21 years from January 2000. This gives a mean time between serious flood events of c.3.5 years, although as some years are wetter than others it may be more realistic to say that we estimate that the farm experienced serious flooding in at least 5 of those 21 years, or approximately 1 out of every 4 years.

The term 'serious flooding' is used here to mean times when both the high and medium flood risk areas (as delineated in the NRW flood risk map) are inundated. Together these represent about 85% of the farm. Lesser degrees of flooding occur very much more frequently and the impacts of climate change should be expected to increase the frequency and severity of flooding in coming years.

This approach to estimating the frequency of flooding is pragmatic, but not scientifically rigorous - although the results do seem to be in line with local experience. It is noted that the actual frequency of flooding is very much greater than that predicted by the NRW flood risk maps. This may be because the model operates at a national level and makes assumptions about channel capacities rather than using site specific conditions. In particular, it is likely that the road bridge and railway embankment are significant features in terms of local flooding. There is also a possibility of inundation caused by over-bank flows from the Caerfanell, immediately to the south of the farm.

Given that flooding should be a key determinant in assessing the suitability of the farm for festivals and potentially other developments, a better understanding of the actual frequency of flooding is urgently needed. This requires hydrological modelling but that is currently beyond the resources of the UVCG.

Natural Resources Wales: Flood Risk Map



The photograph below records a particular incident of flooding during September 2008 when the then (unauthorised) caravan site was present on the farm.



The 1980's and 2019 records flooding of the public highway near the entrance to Gilestone Farm, and on a field adjacent to the farm

1980s



2019

Usk bridge impassable due to flooding

Police said a bridge over the River Usk at Talybont-on-Usk is impassable. Officers have warned drivers to "stay away".

Breconshire Police
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8058 The bridge over the Usk at Talybont-on-Usk is impassable local farmer just pulled this delivery van out #staysafe stay away



4:06 PM · Oct 26, 2019