

FLOOD RISK ASSESSMENT FOR BROOK COTTAGE BARFORD HILL WARWICK CV35 8BZ

OCTOBER 2021

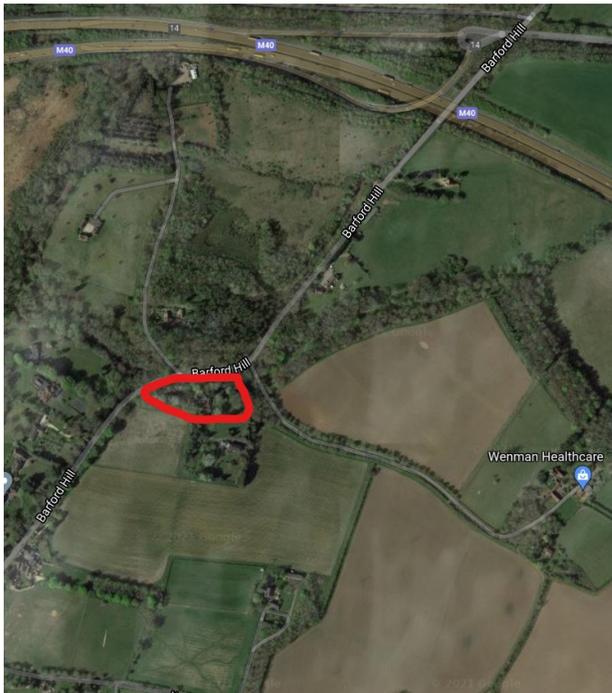
1. Description of development

The proposal is to form a new purpose-built timber barn for storage of a tractor
The proposed development lies in the outskirts of Barford, on Barford Hill, which leads directly into the village of Barford

The location is shown on map below.

The purpose of this flood risk assessment is to assess the potential for flooding as a result of the development proposal taking account of all reasonable mechanisms of flooding.

NPPF sets out key planning objectives in relation to land usage and flood risk management. This development is designed to be compliant with these requirements.



Aerial map indicating site location

1.2 Site location

The proposed development is located at Brook Cottage, Barford, Warwick. The site lies partly in MEDIUM RISK category for Surface Water flooding and MEDIUM RISK category for rivers or sea flooding, as identified in maps below.

1. Flood Zone – Rivers or sea

The site has a Medium identified Flood Risk Area, as indicated on the EA map below. This relates to risk from rivers.

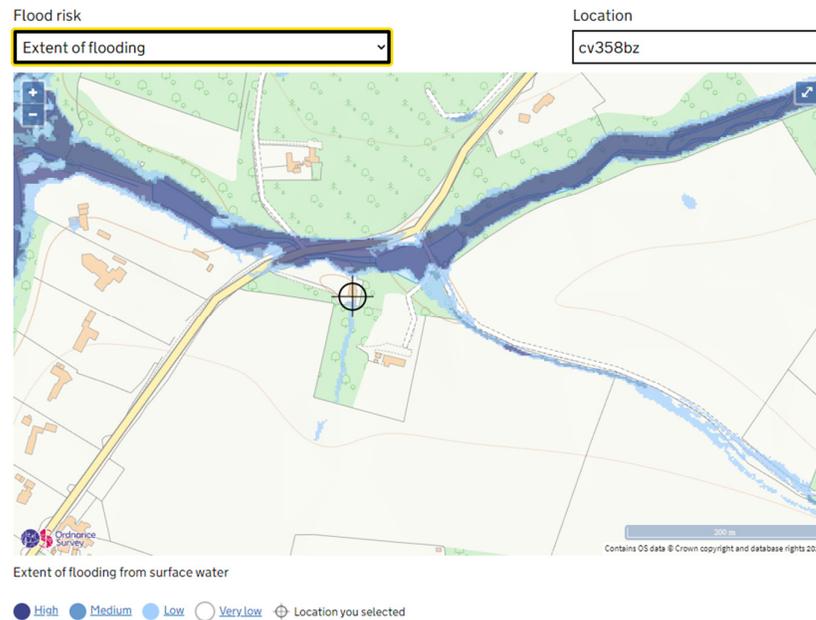
Select the type of flood risk information you're interested in. The map will then update.



FLOOD RISK MAP FROM RIVERS OR SEA

2. Flood Zone – Surface Water

The site lies within a Flood Risk Area Low, as indicated on the EA map below. This relates to risk from surface water.



FLOOD RISK MAP FROM SURFACE WATER

Definition

This flood risk summary reports the highest risk from surface water within a 20m radius of this property. Medium risk means that each year, there is a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%) This information is suitable for identifying:

- which parts of counties or towns are at risk, or have the most risk?
- the approximate extent and depth of flooding
- It's unlikely to be reliable for a local area and very unlikely to be reliable for identifying individual properties at risk.
- Surface water flooding, sometimes known as flash flooding:
- happens when heavy rain cannot drain away
- is difficult to predict as it depends on rainfall volume and location
- can happen up hills and away from rivers and other bodies of water
- is more widespread in areas with harder surfaces like concrete

Lead local flood authorities (LLFA – Warwickshire County Council) are responsible for managing the flood risk from surface water and may hold more detailed information.

3. Mitigation Measures

In compliance with the standing advice from the Environment Agency's FRSA minor development in Flood Risk zone Low, the development will be no lower than the existing levels.

- The internal floor level will be the same as existing garden
- All wiring, switches and socket outlets will be positioned min 1500mm above the internal floor level. (If required)
- Non-return valves fitted to all drainage outlets.
- Open walls at low level to aid in flood water dispersal and ventilation.

4. Depths and velocities of surface water flooding.

To demonstrate that the depths and velocities of surface water flooding will allow safe access and egress for site users, we have attached Table 13.1 from the Environment Agency report FD2320, which when read in conjunction with the long-term flood risk maps, indicates the proposal falls within the Medium Risk category. *Danger for Most*

The velocity taken from maps indicate a depth of between 300 and 900mm with a velocity of over 0.25m/s. risk maps are illustrated after Table 13.1

Table 13.1 Danger to people for different combinations of depth and velocity

Velocity (m/s)	Depth of flooding (m)											
	0.05	0.10	0.20	0.30	0.40	0.50	0.60	0.80	1.00	1.50	2.00	2.50
0.00												
0.10												
0.25												
0.50												
1.00												
1.50												
2.00												
2.50												
3.00												
3.50												
4.00												
4.50												
5.00												

Key:
 Danger for some
 Danger for most
 Danger for all

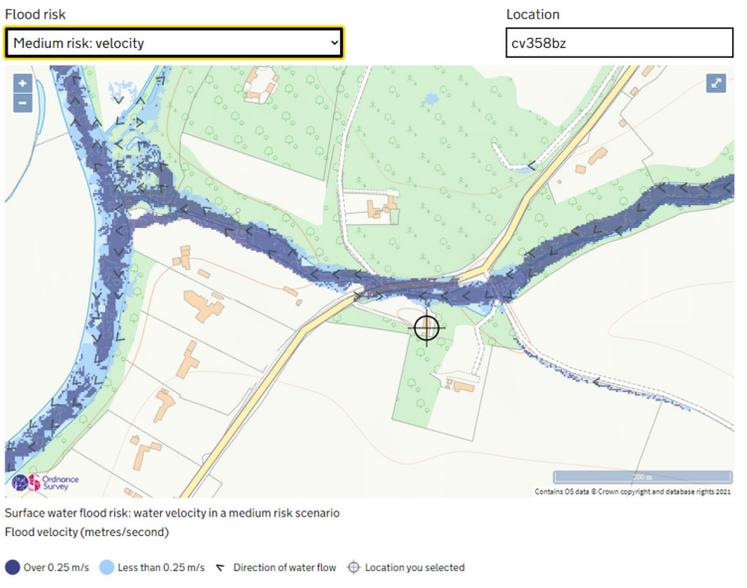
For details regarding the danger classifications of 'danger to all', 'danger to most' and 'danger to some' reference should be made to HR Wallingford (2005) *Flood Risks to People Phase 2, The Flood Risk to People Methodology*, Environment Agency/Defra R&D Technical Report FD2321/TR1, March 2005. However, the following provides a very simplified guide as to the groups of people that should be considered as falling into these danger classifications:

- Danger for some – includes children, the elderly and the infirm.
- Danger for most – includes the general public
- Danger for all – includes emergency services

TABLE 13.1



MEDIUM RISK DEPTH – MID BLUE INDICATES BELOW 300 TO 900mm



MEDIUM RISK VELOCITY – MID BLUE INDICATES OVER 0.25m/s.

5. Conclusion

The proposed building is solely for storing a tractor, there is no sleeping or living accommodation included in this application. The current occupiers of dwelling are not disabled or infirm, there will be no small children in the storage barn

The Occupants and members of the public are therefore no more vulnerable as a result of the proposed development.

Following the guidelines contained within the NPPF, the proposed development is considered to be suitable assuming appropriate mitigation can be maintained for the lifetime of the development.

End.