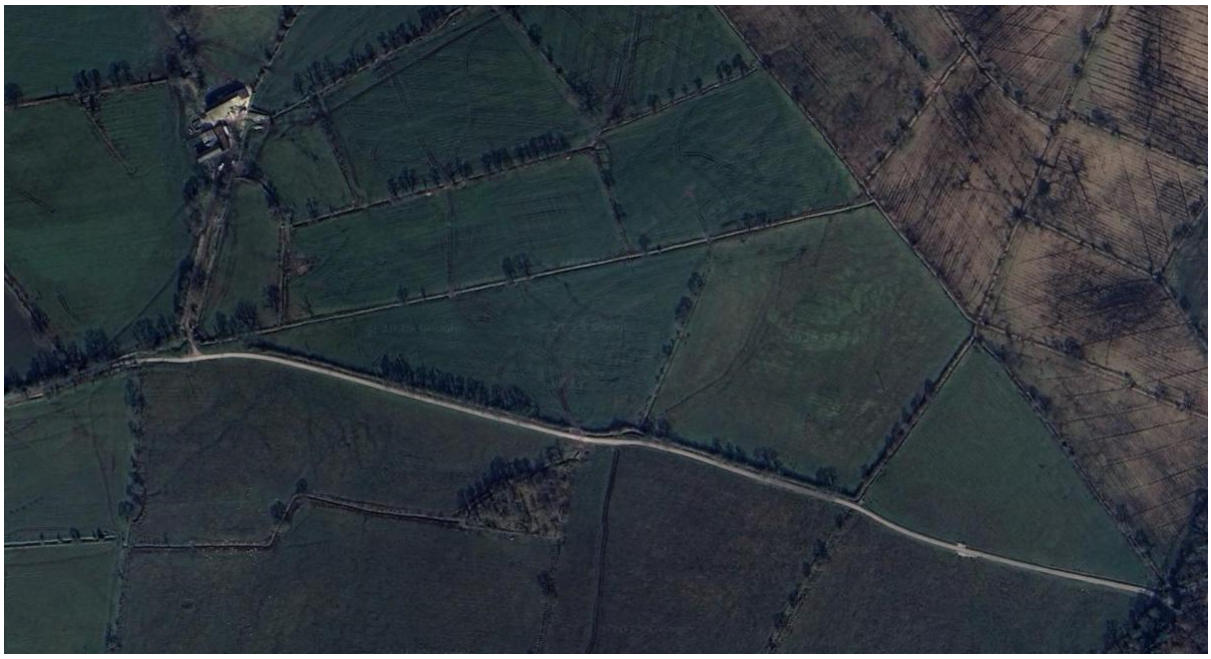
Flood Risk Assessment

IN SUPPORT OF A PLANNING APPLICATION AT
Lords Farm
BB7 4LY



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1.0 Introduction

“Flood risk” is a combination of the probability and the potential consequences of flooding. Areas at risk of flooding are those at risk of flooding from any source, now or in the future. Sources include rivers and the sea, direct rainfall on the ground surface, rising groundwater, overwhelmed sewers and drainage systems, reservoirs, canals and lakes and other artificial sources. Flood risk also accounts for the interactions between these different sources. This term is key to the application of the presumption in favour of sustainable development in paragraph 11 of the National Planning Policy Framework.

For areas at risk of river and sea flooding, this is principally land within Flood Zones 2 and 3 or where a Strategic Flood Risk Assessment shows it will be at risk of flooding in the future. It can also include an area within Flood Zone 1 which the Environment Agency has notified the local planning authority as having critical drainage problems.

1.1 Background and Site Details

This report is produced to support a planning application for the construction of a sheep housing building and handling pens at Lords Farm, Hellifield Road, Bolton-By-Bowland BB7 4LY. The building will provide housing for lambing ewes during the winter months. Handling pens will ensure routine husbandry tasks can be carried out with full consideration of the Codes of Animal Welfare: Sheep.

The site is located approximately 2 miles north of Bolton-by- Bowland, west of Hellifield Road. Access is gained via a 760 metre tarmac track and a 140 metre stone track. Lords Farm farmhouse is occupied by the applicant on a separate tenancy to the farm land.

The proposed building will be constructed in a level grassland parcel west of the farmhouse and barn.

The access tracks have open ditches running adjacent to the to the north and east sides of the tracks.

1.2 Flood Risk

EA flood risk maps show the site falls in Flood Zone 1 as shown at Annex A.

Annex B shows the flood risk summary for Lords Farm as very low.

Annex C shows the flood risk extent and depths for surface water flooding

Table 1 below defines land within Zone 1 as having a low probability of River and Sea flooding.

Table 1: Flood Zones

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 0.1% annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map for Planning – all land outside Zones 2, 3a and 3b)
Zone 2 Medium Probability	Land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding. (Land shown in light blue on the Flood Map)
Zone 3a High Probability	Land having a 1% or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: • land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or • land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

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Vulnerability

The proposal is for an agricultural building within Flood Zone 1. The intended use is for agriculture. NPPF Annex 3 indicates that the intended use falls into the '**Less Vulnerable'** classification and development is appropriate.

NPPF Annex 3 Flood Risk Vulnerability Classification

Less vulnerable

- Police, ambulance and fire stations which are not required to be operational during flooding.
- Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution; non-residential institutions not included in the 'more vulnerable' class; and assembly and leisure.
- Land and buildings used for agriculture and forestry.
- Waste treatment (except landfill* and hazardous waste facilities).
- Minerals working and processing (except for sand and gravel working).
- Water treatment works which do not need to remain operational during times of flood.
- Sewage treatment works, if adequate measures to control pollution and manage sewage during flooding events are in place.
- Car parks.

Flood Risk Vulnerability classification (see Table D2)		Essential Infrastructure	Water compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone (see Table D.1)	Zone 1	✔	✔	✔	✔	✔
	Zone 2	✔	✔	Exception Test required	✔	✔
	Zone 3a	Exception Test required	✔	✗	Exception Test required	✔
	Zone 3b 'Functional Flood plain'	Exception Test required	✔	✗	✗	✗

Key: ✓ Development is appropriate ✗ Development should not be permitted.

1.3 Proposed Development

The proposed development involves the construction of a steel frame building for sheep housing and a sheep handling area.

Access to the building is via a stone track off the existing stone access track to the farmhouse.

2.0 Flood Defence Assessment

The site is not protected by fluvial defences.

3.0 Historical Flooding.

Lords Farm has no history of flooding. The applicant's family have lived in the area for over 60 years and have close relations with a previous tenant's son who lived in at the farm in the 1950s. No flooding of the land or access track has ever been known.

4.0 Sequential Test

*The NPPG states that when applying the sequential test a pragmatic approach to the availability of alternatives sites should be taken. It gives an example of a planning application for an extension to an existing business premises and suggests that it **might** be **impractical to** suggest that there are more suitable alternative locations for that development elsewhere.*

Statement of operational circumstances

The proposed use is for agriculture. The risk of flooding from rivers and seas is low.

An alternative site is impractical.

5.0 Surface Water Flooding

Risk of Flooding from Surface Water (RoFSW) map is an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead. It includes information about flooding extents and depths. It is produced using national scale modelling and enhanced with compatible, locally produced modelling from lead local flood authorities (LLFAs).

RoFSW is a probabilistic product, meaning that it shows the overall risk, rather than the risk associated with a specific event or scenario. In externally published versions of this dataset, risk is displayed as one of three likelihood bandings: High - greater than or equal to 3.3% chance in any given year (1 in 30) Medium - less than 3.3% (1 in 30) but greater than or equal to 1% (1 in 100) chance in any given year Low - less than 1% (1 in 100) chance in any given year

Annex C shows surface water flood risk extent and depths. The maps show that no flooding over 20cm (8 in) is predicted on the proposed site of the building or access road.

Similarly the maps show the same for the period 2040 – 2060.

6.0 Flood Precaution and Mitigation.

There is a low probability of flooding at the site. Surface water maps show there is no predicted flooding at the site or on the access track above 20cm.

The applicant currently lives at Lords Farm and has been housing sheep at Closes Hall Farm over 1 mile away. This involves multiple journeys to check on animals. Housing the sheep at Lords Farm will obviate the need to travel away from the farm when the risk of flooding may be high.

The applicants will be signed up for flood warnings.

7.0 Impact on Surrounding Properties

The closest dwelling to Lords farm is 750 metres. A surface water drainage scheme will be implemented if the building is approved. No flood storage is lost.

8.0 Conclusions

The site is located within Flood Risk Zone 1 with a low probability of flooding. The intended use is classed as less vulnerable.

Surface water maps show that flooding is unlikely to occur over 20cm at any point on the access track.

The proposed development will not cause flooding elsewhere.