

FLOOD RISK ASSESSMENT FOR TC BREARS & SONS

IN CONNECTION WITH A PLANNING APPLICATION P/A2025/1176
FOR A DEVELOPMENT AT GREENFIELD FARM, CROWLE. DN17 4BN

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This flood risk assessment is in respect of the proposal to construct a pair of semi-detached dwellings at Greenfield Farm, following the approval to transfer a business from Fieldside, Crowle to Greenfield Farm. (PA/2021/1764), and two dwellings approved against PA/2023/96.

The proposal is for a pair of semi-detached houses for the accommodation for employees of the farming and forage business carried out from this site.

There is one other modern property in the immediate vicinity erected in connection with an equine business. There is no recent history of flooding in this area, and the flood risk is very low because of the drainage network which is in place in this location. The site is in an area showing as a flood plain which could be affected by fluvial flooding if there were no flood defences. The Environment Agency website indicates a Medium risk of flooding at 1% to 3% per annum. The website provides data regarding likely depth of water in the event of a flood incident of 20cm. **See maps at Annex 1**

The risk from surface water flooding is Low. **See map at Annex 1**

There are Ordnance Datum readings on Godnow Road either side of the site showing 3.7m AOD rising to 4.0m AOD indicating rising levels generally.

The proposed site for the permanent dwellings is classified 2/3A fluvial in the North Lincolnshire SFRA.

Environment Agency maps are submitted with the application. **See Annex 1**

There is a suggested potential flood risk from the River Trent which is some 7.0 kilometres east of the site. Currently flood protection is in place protecting the whole of Crowle from any flooding. There are no plans to reduce this level of protection. The Environment Agency operates a flood warning service for this area, and the applicant will be alerted by this.

The site lies within an area of Crowle which is drained through a series of gravity and pumped dykes, which are maintained by the Isle of Axholme Internal Drainage Board and local farmers/landowners. There is no history of flooding from these systems.

The planning application is for a pair of semi-detached farm workers houses in connection with the agriculture business of TC Brears & Sons. There is an essential need for a dwelling associated with the business, and the applicants believe that risks other than flooding requires a 24/7 presence at the farm.

Sources of potential flooding In the area of the application site.

The potential sources of flooding are: The River Trent, The North Soak Drain and the Stainforth to Keadby Canal. The internal drainage system is monitored and managed by the local IDB.

The proposed dwelling will be two storeys, built with finished floor levels at 4.4 metres AOD, have suspended concrete floors, and be constructed using water proof construction methods. See architect's drawings included with this application.

All services will be placed at a high level with electrical sockets placed above the highest projected flood level.

The site area is classified as Flood Zone 2/3A, and as such, a Sequential Test has been completed. The suggested location is 3.4 metres AOD, and the permanent building levels will be at a minimum 4.4 metres AOD in line with a recommendation from the Environment Agency. Also at the recommendation of the North Lincs LLFA team finished floor levels will be 4.4 m AOD, above the 4.1 metres AOD Critical Flood Level. See Drawing 651.04E attached.

It is accepted that there are records of historic flood events back to the 18th century, but this was long before much of the current area of Crowle was developed. Despite this, the nearest available Ordnance Survey measured points adjacent to the site and shows a level of 3.7 and 4.00 metres AOD.

There is no history of flooding from the local drainage system. The area drainage system was designed for, and is used as, a means to drain the surrounding land, and by a system of pumped drains, feed any surplus water eventually into the River Trent at Keadby, via the North Soak Drain which lead to the discharge point at Keadby.

The new dwellings will have floor levels finished at a minimum 4.4 metres AOD, as recently recommended.

Foul drainage

This will be a suitable scheme subject to prior submission to and approval from Severn Trent Water Authority.

Sequential test.

The NPPF requires Local Authorities to apply the sequential approach to all planning applications for developments within a designated flood plain area. The Sequential Test requires that alternative locations for the development be considered before granting permission for development in the location under consideration. The alternative sites should represent reduced risk of flooding. If none are available, then a site with a greater risk will be considered. In this case, the application is to erect a pair of semi-detached houses for occupation by farm employees., with specific reference to the agricultural unit on Godnow Road, Crowle. There are no other sites nearby with a lower flood risk, and none that would satisfy the needs of the agricultural business with which the application is inextricably linked. Therefore there are no other sites in the post code area that are sequentially better than the site detailed in this application. There are also no other dwellings currently available for sale or rent that would be appropriate for the business needs. The essential need for the dwellings was demonstrated and approved under PA/2023/2096 .

Exception Test

Para 157 of the NPPF requires that an exception test be applied to ensure that the “most vulnerable development” is located in areas of lowest flood risk” These are defined in the in the 2022 amended version of the Strategic Flood Risk Assessment North and North East Lincolnshire as follows:

From PPS 25 Table D.2 Flood Risk Vulnerability Classification [Revised version]

Essential Transport infrastructure which has to cross the area at risk

Essential utility infrastructure for operational reasons, including electricity generating power stations and grid and primary substations; and water treatment works that need to remain operational in times of flood. Telecommunications installations required to be operational during flooding. Wind Turbines, Police Stations, Ambulance Stations, Basement Dwellings, Residential mobile homes and caravans and Installations requiring hazardous subject content.

More vulnerable

- Hospitals.
- Residential institutions such as residential care homes, children’s homes, social services homes, prisons and hostels.
- Buildings used for: dwelling houses; student halls of residence; drinking establishments; nightclubs; and hotels.
- Non-residential uses for health services, nurseries and educational establishments.
- Landfill and sites used for waste management facilities for hazardous waste.
- Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.

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 and cafes; hot food takeaways; offices; general industry; storage and distribution; non-residential institutions not included in ‘more vulnerable’; 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 plants which do not need to remain operational during times of flood.
- Sewage treatment plants (if adequate measures to control pollution and manage sewage during flood events are in place).

A farmhouse sited in connection with this enterprise will be “Essential” to that business and the welfare of employees and security of expensive agricultural equipment, plus

lorries and trailers used for distribution of hay and straw. Large quantities of Hay and straw are stored in existing buildings at the farm.

Care has been taken to ensure that persons and domestic property are placed at levels above the likely flood levels. The site is also within 50 metres of land at and over 4.0m AOD, which would enable people and animals to be quickly driven to safety.

The suitable AOD levels have been supplied by the Environment Agency, and take reference from the 2022 Strategic Flood Risk Assessment North and North East Lincolnshire.

Other flood sources

It is considered that the measures proposed in this application will also cover any potential flood risk from the River Trent and surface water. Mitigation In recognition that the site location is within Flood Zone 2/3A (“medium probability”), the applicant proposes: Finished floor levels of 300 mm above 4.1 m AOD.

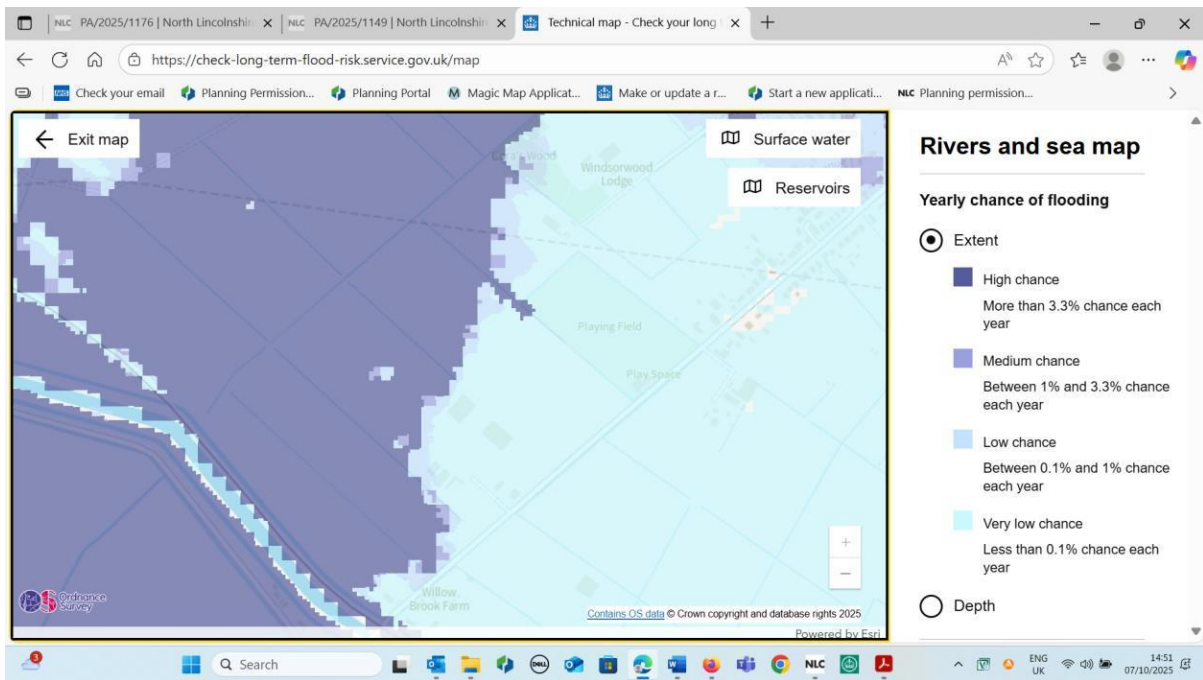
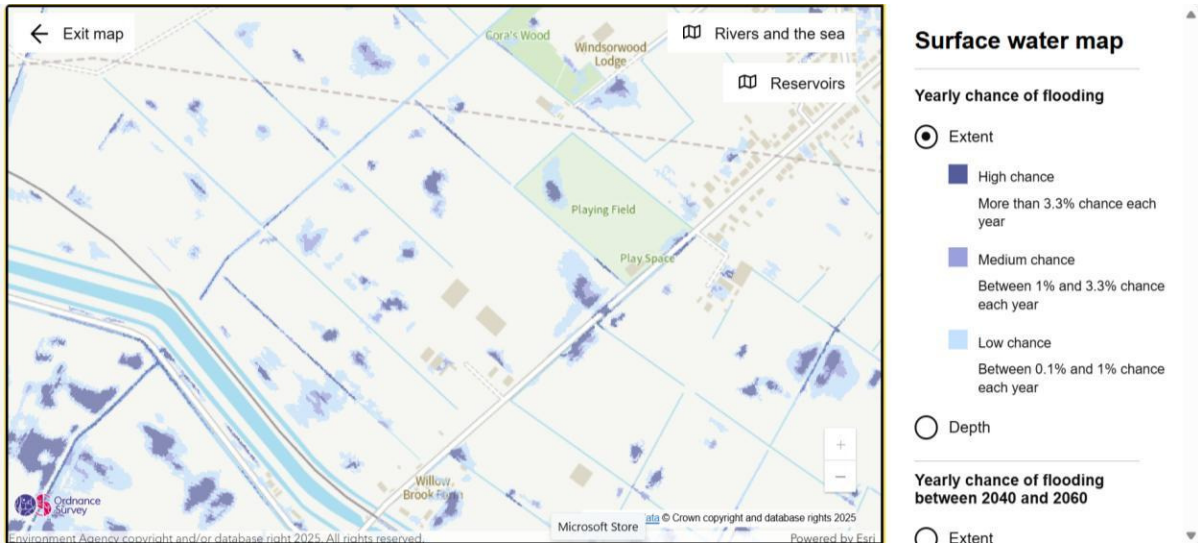
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The Environment Agency operates a flood warning service for this area, and the applicant will be alerted by this. The site lies within an area of Crowle which is drained through a series of gravity and pumped dykes, which are maintained by the Isle of Axholme Internal Drainage Board and local farmers/landowners. There is no history of flooding from these systems.

The Environment Agency indicates that possibility of flooding in this area from a river is a 3% chance, and from the sea is a 0.5% chance. This is categorized by the Environment Agency as MEDIUM.

The planning application is for a pair of semi-detached houses for occupancy by employees of the farming and forage business.

APPENDIX 1



APPENDIX 2

LETTER FROM EMD

See separate attachment sent by email.

APPENDIX 3

SAFE REFUGE, ACCESS AND EGRESS ROUTES

In the event of flooding alerts or actual ingress of water to the properties, the occupants will be able to seek refuge in the upper floor of the houses until the flood water subsides

In the event of warnings of more serious flooding expected, there are commercial vehicles and agricultural tractors based at the farm all with high clearance for occupants to drive to higher ground in Crowle.