

Flood Risk Assessment Including Sequential Assessment

Client: Mr P Woodcock

Proposal: Two Holiday Let Cabins

Site: Bence Farm Court

Date: March 2021 [Amendments November 2022](#)

INTRODUCTION

The application is a full planning application for the erection of two buildings for the purposes of holiday lets on land at Bence Farm Court.

This Flood Risk Assessment should be considered alongside the accompanying Design and Access Statement, Planning Statement Letter and Plans.

The application is being resubmitted to address the reasons for refusal issued in the Decision Notice of March 2022. Reason 3 stated:

“The applicant has not applied the sequential approach to locating development as required by Local Plan Policy CC3 and paragraph 162 of the National Planning Policy Framework.”

This amended report includes a sequential test as required by planning policy.

DEVELOPMENT SITE

The proposed development site is located in the north eastern corner of the Bence Farm complex of buildings which comprises the original farmhouse, eight further dwellings / cottages plus two new build garage blocks. The Bence Farm complex is enclosed by a wall adjacent to Barnsley Road on the western elevation and then mature trees and scrubby vegetation around the remainder of the site.

The application site is predominantly existing mown grass and scrubby vegetation and is used for incidental leisure purposes associated with 4 Bence Farm Court.

The development site lies within Flood Zone 2 and therefore a Flood Risk Assessment is required, which includes a sequential test.

DEVELOPMENT PROPOSALS

The development proposals are for two, slightly elevated, small “cabins” which sit within their landscape and which are designed to have minimal environmental impact and no impact on residential amenity. Details of these buildings are shown on the Layout Plans and Elevations.

The proposed development is small holiday lets and is therefore classified as “More Vulnerable”. The lifetime of the proposed development is assumed to be 100 years. It is located in Flood Zone 2 and consequently, there is a requirement for a Sequential Test.

SITE SPECIFIC FLOOD HAZARDS

The proposed development site lies within Flood Zone 2 with the main risk of flooding coming from fluvial flooding from the River Dearne. Flood risk mapping also suggests that the site is at potential risk from surface water flooding. These risks are evaluated in greater detail below.

FLUVIAL FLOODING

The development site is situated on the western side of the floodplain of the River Dearne about 120m distant from the main river. A small drain runs from north to south to the east of the development site discharging to the Dearne. The flood risk maps show that the area to the east of

the site is subject to flooding from the Dearne and this is substantiated by anecdotal evidence provided by the applicant who is also a resident of the Bence Farm Court. During times of prolonged intense rainfall, the Dearne floods and the flood plain storage is mobilised as shown indicatively on the flood risk mapping provided on the Government website: flood-warning-information.service.gov.uk which is reproduced below as Figure 1.

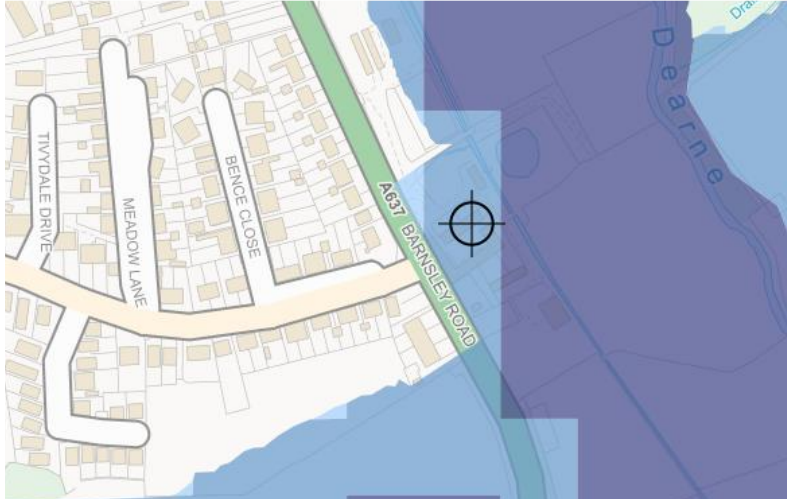


FIGURE 1: Extent of Fluvial Flooding, extracted from flood-warning-information.service.gov.uk

The Bence Farm complex has been occupied (as a residential development) for approximately 20 years and during this period the residents have witnessed flooding on several occasions, most notably in June 2007 and 2011 when some internal flooding occurred to the most low-lying premises. Residents have been able to give reliable maximum flood levels of 57.30m AOD from these historical events and these have been used to assess flood risk. As the flooding is the result of mobilisation of flood plain storage, the flow velocity local to the development site will be very low and not represent any additional risk over and above that due to the depth of flooding.

The development site is situated about 1km downstream of the Environment Agency Monitoring station on the R Dearne at Darton (ID 8240). Based on the Environment Agency's data, the highest ever recorded flood level of 58.78m AOD (site datum 55.91 plus 2.87m max depth). The Met Office has stated that the June 2007 rainfall was 400% of average and that the storm events had an estimated return period of about 1:200 years. Hence, it would seem reasonable to accept these values, with a small increase for climate change for the purposes of this risk assessment. If an allowance of 200mm is assigned to climate change then a reasonable estimate of the maximum (1:200 year RP) flood level adjacent to the site would be 57.50m AOD (57.30m being the local 2007 max. level).

The development proposals do not involve any alteration of ground levels below the 57.50m contour and the finished floor level of the buildings is 58.70m AOD which is 1.2 metres above the maximum flood level. The risk of internal flooding, flood damage or risk to personal safety of those using the development site is insignificant.

SURFACE WATER FLOODING

If the development site's location is entered into the Government website: flood-warning-information.service.gov.uk this suggests the site is High Risk for surface water flooding. If the mapping of the surface water flood routing is examined, reproduced below as Figure 2 below, then it can be seen that there are two predicted paths of surface water flood routing running west to east

within 100m of the development site. The most northerly flood route runs from the northern tip of the Meadow Lane cul-de-sac, through residential gardens, across Barnsley Road and discharges into the unnamed drain. This predicted flood route is distant from the development site and does not represent a significant risk. The more southerly predicted flood route follows Bence Lane to the junction with Barnsley Road before flowing to the south side of the existing Bence Farm Complex. Given the elevations and falls of Barnsley Road and the local topography of the development site, neither of these predicted flood paths represent a risk to the development site.

The resident / applicant has not observed any significant surface water flooding of the development site or the existing Bence Farm complex during the past 20 years of his residence there.



FIGURE 2: Extent of Surface Water Flooding, extracted from flood-warning-information.service.gov.uk

GROUNDWATER FLOODING

There is no evidence to suggest that the site is at any risk of groundwater flooding.

SEQUENTIAL TEST

The sequential approach seeks to locate certain types of “more vulnerable” developments (such as housing and, by implication, holiday accommodation) towards the areas at the lowest risk of flooding (ie flood zone 1). Development is only permissible in areas at risk of flooding in exceptional circumstances where it can be demonstrated that there are no reasonably available sites in areas of lowest flood risk and the benefits of that development outweigh the risk from flooding.

The proposed holiday let use is located on land owned by the applicant. The proposal is on land that is known not to flood. In terms of the Bence Farm “landholding” (as defined by the “Blue Line” ownership plan submitted as part of the application) it is considered that the application site is the most sequentially preferable.

Additionally, a wider area of search has been considered. A reasonable area of search for the sequential test is considered to be the Darton area within Urban Barnsley. The Darton Plan in the SHELAA 2016 Update Appendix 1 is used for this assessment, along with the 2019 Local Plan Housing Allocations Proposals Map (showing allocations in Darton). Housing sites have been considered as the nearest similar use to the proposed holiday lets.

Within this area of search the following search criteria have been applied:

- Small housing sites below 1ha (which is larger than the application site) and within Flood Zone 1, which are allocated or have extant planning consent and are reasonably available.
- Land currently for sale.

The SHELAA provides a list of potentially available and deliverable housing sites within the Darton area. The Local Plan has “taken forward” a number of these sites as allocations. All of the allocations are large sites, greater than the 1ha threshold (HS1, HS2, HS6, HS11). These have been discounted.

Other local sites are listed within the SHELAA. They remain unallocated and include:

497 – Station Road, Darton (0.9ha) – This site is not available.

513/885 – Bence Lane, Darton (1.1ha) – This site is not available.

The above sites are not considered to be available as they are not being actively marketed through property agents.

There are also a number of extant planning consents for residential development within the Darton area. A search has been undertaken considering applications approved in the past three years. Two applications are:

2019/1523 – 42 Station Road, Darton, S75 5AA – 9 dwellings. The consent has been implemented and the houses are for sale.

2021/1571 – Barnsley Road, Darton, S75 5NU – 3 dwellings. The site is not available to the applicant and is for residential use.

A number of small-scale local sites have been granted planning permission for residential use. They have been implemented and have now been sold. These include:

- 2 bungalows at 116 Churchfield Lane, Darton
- Soughley House, Bence Lane, Darton
- Cart Barn at Oaks Farm, Oak Wood Drive, Darton

In addition, a search for land for sale in the local area has revealed the availability of plots for sale at Town Farm, Churchfield Lane in Kexborough. The land has consent for residential development (22 units). This is not suitable for the small scale development proposed in this application.

It can be concluded from the evaluation of a number of local sites that there are no reasonably available sites that could accommodate the proposed small scale holiday let development within Flood Zone 1. The application site is available for development and planning permission should not be reasonably withheld on the basis of flood risk.

The planning application demonstrates that the site can be designed to be safe from flooding itself and also in a manner which does not increase flood risk elsewhere.

FLOOD RISK MANAGEMENT

The access to the property is from the existing access driveway serving the site (off Barnsley Road). Off-street parking is provided in a bespoke parking area for two cars. This is a permeable surface. A footpath across the grass will link to the cabins.

The primary flood risk is due to the site's eastern boundary being adjacent to the River Dearne's flood plain. Flooding here occurs on an estimated frequency of once every 2 years and an estimate of the 1:200 year return period maximum flood level is 57.50m AOD.

Ground levels within the bounds of the development site are generally at least 1.0 metre above the maximum flood level and hence the development should not be adversely affected by fluvial flooding. The boundary of the development site backing on to the flood plain will be fenced off and secured to prevent any egress from the site into the area at flood risk eliminating any risk to safety of users of the site.

No changes to ground levels are proposed within the flood plain. There will, therefore, be no detriment to existing hydraulic storage in the flood plain.

The surface water drainage from the development is designed on the basis of SuDS, using permeable surfacing and green roofs. Hence, there will be no material change to the existing run-off into the Dearne catchment.

CONCLUSIONS

The development site for 2 small holiday lets lies within Flood Zone 2 and the primary flood risk to this site is fluvial flooding from the River Dearne which runs approximately 120m to the east of the site.

The maximum flood levels from the River Dearne in this locality are estimated as 57.50m AOD based on actual flood levels identified by the applicant, a resident of Bence farm during the flooding of 2007 with an allowance of +0.2m for climate change over the life of the development.

The development proposals are over 1.0m above the maximum (1:200 RP) flood level. Hence, the development is at low (insignificant) risk of flooding. The proposals also include for permeable surfaces (SuDS) and no increase in surface run-off into the Dearne is anticipated.

[The Sequential Assessment concludes that there are no reasonable alternative sites within the locality and of the scale and type within Flood Zone 1.](#)