FLOOD RISK ASSESSMENT

Installation of 2no biomass boilers (works already started/completed) in existing agricultural building and cladding of existing steel frame (some works already started/completed)

Lewis Farm, Fishmere End Road, Wigtoft,

Boston, Lincolnshire, PE20 2PW

CONTENTS

DOCUMENT HISTORY

1	Planning Application	24.03.2022

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1 INTRODUCTION

1.1 This Flood Risk Assessment (FRA) accompanies a planning application for the installation of 2 no. biomass boilers and the cladding of an existing steel frame at Lewis Farm, Wigtoft.

1.2 The objective of this FRA is to identify, appraise, manage, and reduce the flood risk to life and property at the proposed site and has been produced in accordance with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance.

2 THE SITE & SURROUNDINGS

2.1 The application site is located on the southern side of Fishmere End Road (at Grid reference TF 26911 36761) which is to the northeast of Wigtoft (Figure 1).

2.2 Lewis Farm has a mixed use comprising of agriculture and arboriculture. It includes several buildings, some of which are associated with Greenscape Tree Safe Ltd, and a small number of dwellings. The application site is located toward the southern end of the property (Figure 2).

Figure 1: Aerial photograph showing the location of the site.

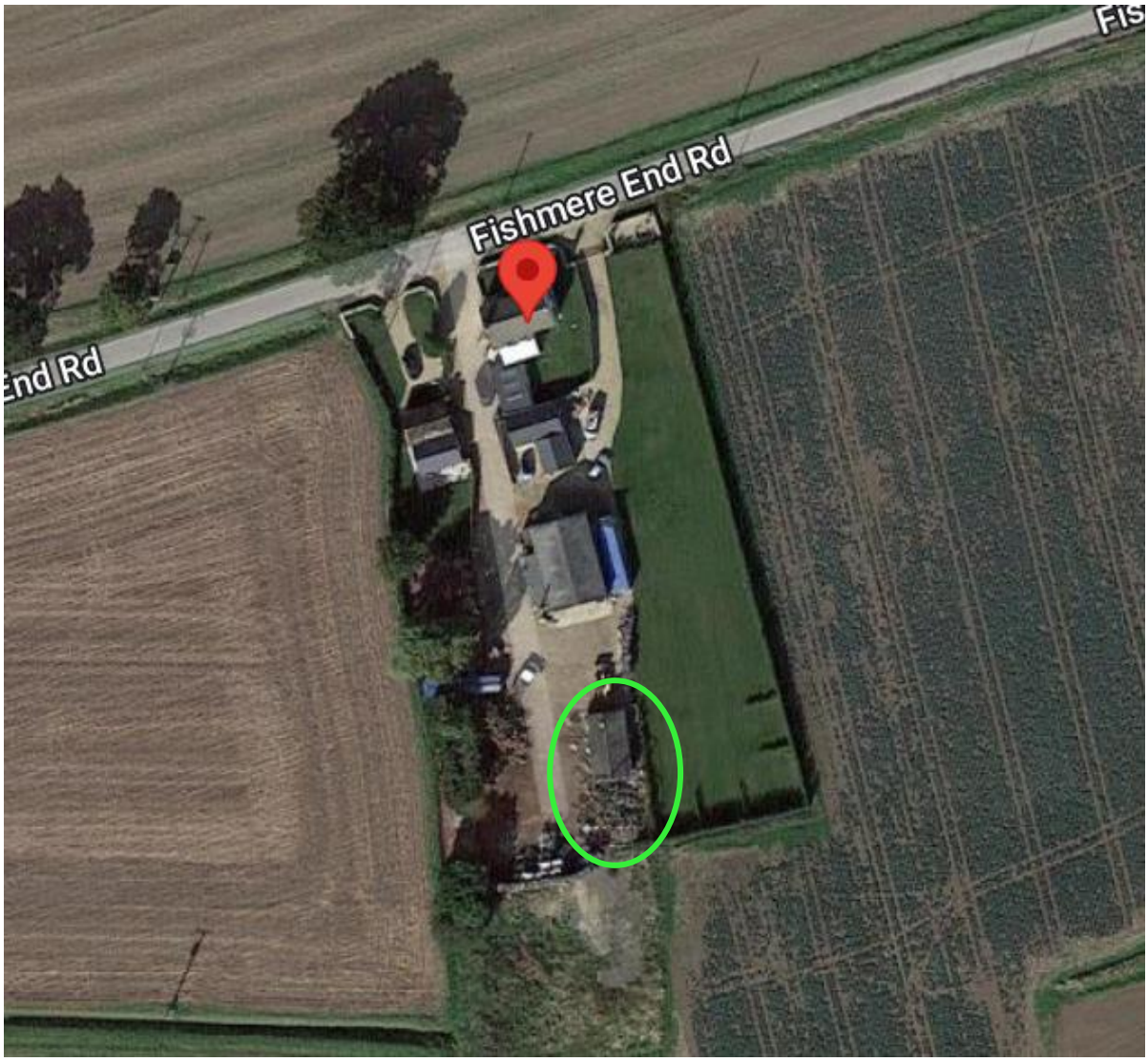

Figure 2: Aerial photograph showing the site in more detail.

3 THE PROPOSAL

3.1 The planning application seeks retrospective permission for the installation of 2 no. biomass boilers within an existing agricultural building and permission for the cladding of an existing steel frame.

4 FLOOD RISK PLANNING POLICY

4.1 The NPPF sets out the Governments national policies on different aspects of land use planning and in relation to flood risk. The NPPF is also supported by web-based Planning Practice Guidance (PPG)

4.2 The PPG uses Flood Zones to characterise flood risk, and these refer to the probability of river and sea flooding, ignoring the presence of defences. They are shown on the Environment Agency's Flood Map for Planning and are indicated in Table 1 of the PPG.

4.3 As can be seen in Figure 3, the application site is located within Flood Zone 3a. Figure 4 shows that whilst the site is in Zone 3, the presence of defences reduces the level of risk to 'low'. Low risk means that each year this area has a chance of flooding of between 0.1% and 1%. This takes into account the effect of any flood defences in the area. These defences reduce but do not completely stop the chance of flooding as they can be overtopped or fail.

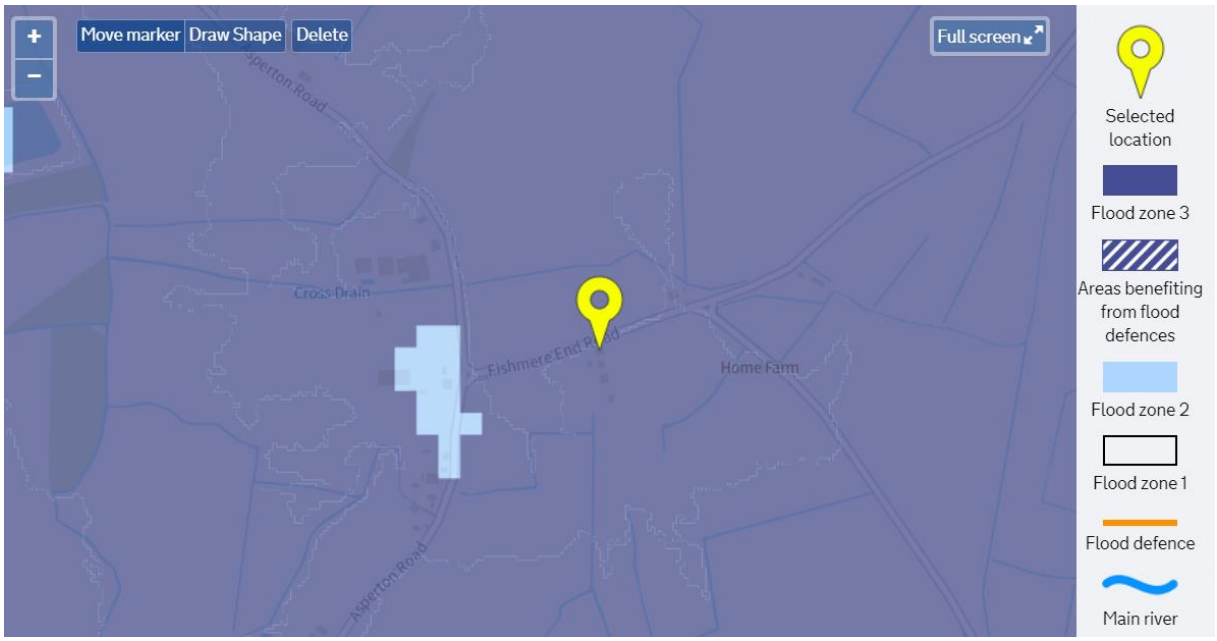

Figure 3: Extract from the Flood Map for Planning with the site highlighted.

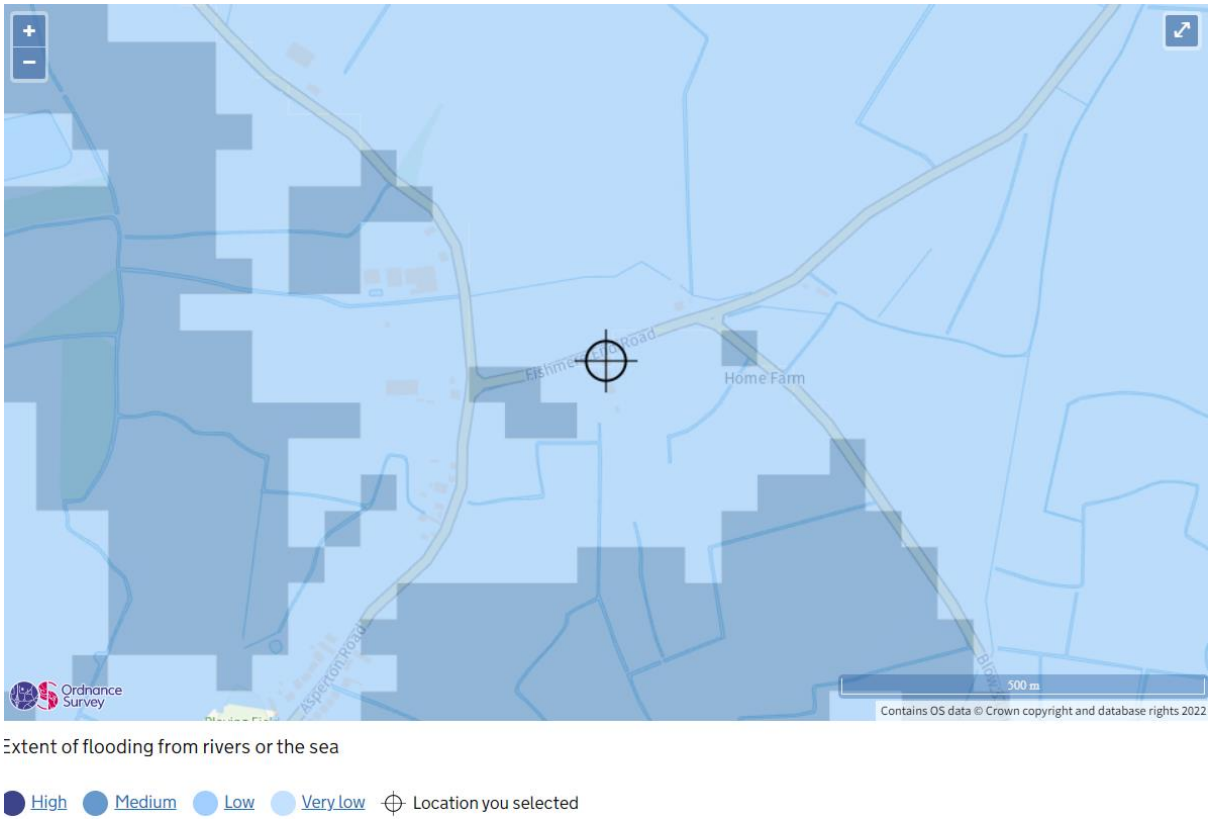

Figure 4: Extract from the Flood Map for Planning with the site highlighted.

4.4 The NPPF requires the application of a Sequential Test to steer new development to areas with the lowest probability of flooding. The Flood Zones provide the basis for applying the test. In this instance it is considered unnecessary to search for alternative sites as the proposals relate to the existing business.

4.5 Table 2 of the PPG shows that the proposed use falls within the 'less vulnerable' category. Table 3 of the PPG confirms that the proposal is appropriate within Flood Zone 3 and not subject to the Exception Test.

5 HISTORIC FLOODING

5.1 It is understood that the site has not been affected by flooding in the past.

6 FLOOD RISK SOURCES

6.1 The following sources of flood risk have been identified. Where mitigation is required to reduce the risk from flooding this is discussed in Section 7.

FLUVIAL (MAIN RIVERS & ORDINARY WATER COURSES)

6.2 The nearest EA main river to the site is the River Welland, which is 7.5km to the south east. Due to the distance and the intervening development, roads, and ordinary watercourses this is not considered to be a viable source of flood risk to the site.

6.3 The Risegate Eau is 5km to the south and the South Forty Foot Drain is located approximately 6.9km to the north. The South Forty Foot Drain is maintained by the Environment Agency and the levels are controlled by the Black Sluice Pumping Station at Boston. Overall, it is considered that the risk from maintained watercourses is low.

TIDAL

6.4 The site is almost 9km to the west of the Fosdyke Wash and almost 10km from The Wash and the flood risk to the site is reduced by the raised defences. Tidal defences in the area consist of earth embankments which are supplemented by saltmarsh. These defences are said to be in fair condition and reduce the risk of flooding (at the defence) to a 0.67% (1 in 150) chance of occurring in any year. Whilst the EA inspect these defences routinely to ensure potential defects are identified, there is still a risk that the defences could be overtopped or breached.

6.5 The effects of overtopping or a breach of tidal defences are shown in the hazard maps produced by the EA. The site is not affected by overtopping of the defences for the present day (2006) and climate change (2115) scenarios and therefore these maps are not provided. Similarity, maps for a present-day breach have also not been provided.

6.6 The range of depths on and adjacent to the site because of a 0.5% breach of the tidal defences is shown in Figure 5 (below). This map shows that the site is not affected by flooding during a 0.5% (1 in 200 year) breach in the future (2115).

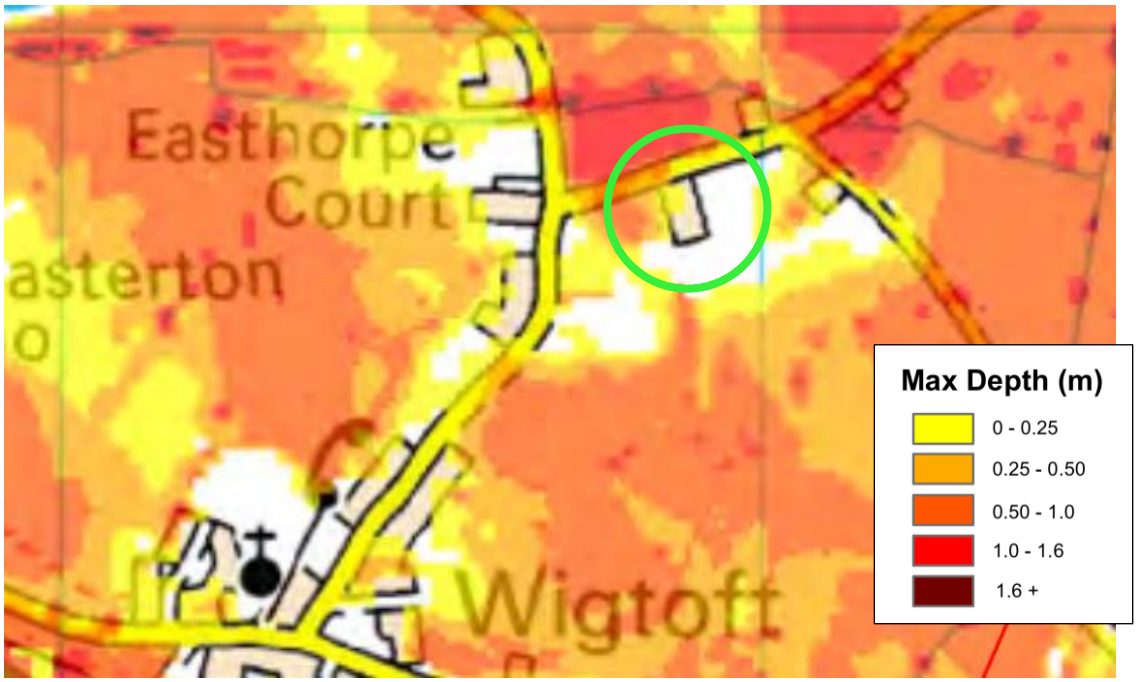

Figure 5: Hazard map for a 0.5% 2115 breach in the tidal defences (application site highlighted).

SURFACE WATER

6.7 The Flood Map for Planning shows that the site is at 'very low' risk of surface water flooding (Figure 6). 'Very low' risk means that each year this area has a chance of flooding of less than 0.1%.

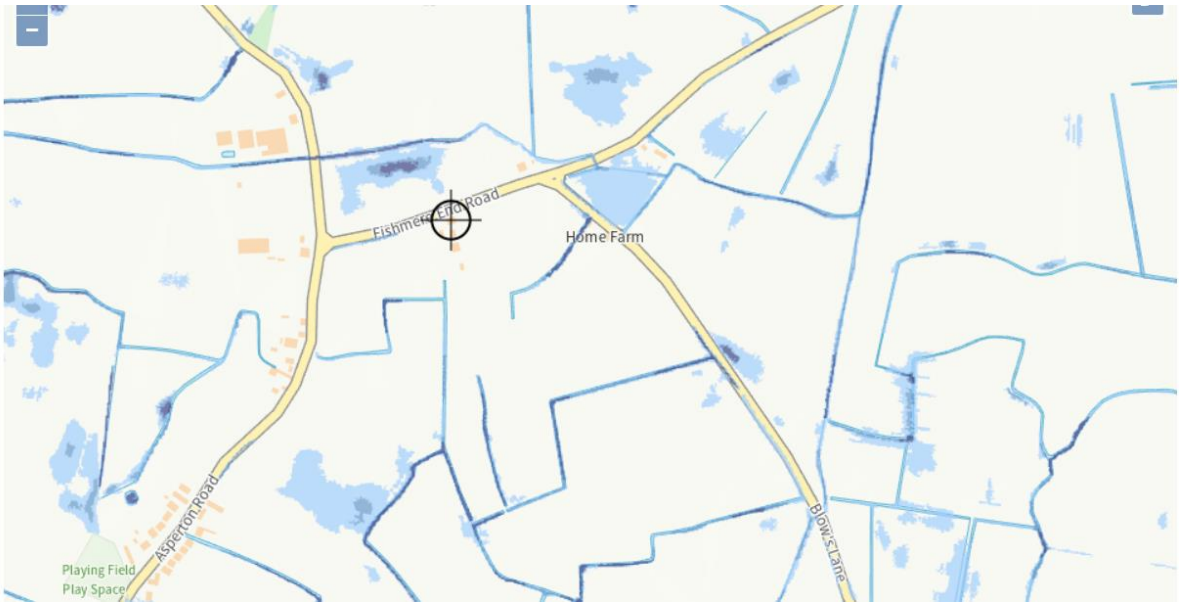

Figure 6: Flood Map for Planning showing risk from Surface Water (application site highlighted).

OTHERS

6.8 There are no Anglian Water foul or surface water sewers in or adjacent to the site.

6.9 The Flood Map for Planning shows that the site is not at risk of reservoir flooding.

7 MITIGATION

7.1 It is recommended that the site is registered with the Environment Agency flood warning service; further details are available at https://www.gov.uk/sign-up-for-flood-warnings.

8 CONCLUSIONS

8.1 This FRA is compliant with the requirements set out in the NPPF and the associated Planning Practice Guidance. This report demonstrates that subject to the flood mitigation measures being implemented there will be no risk to life or property as part of this development. The proposal should also not increase the risk of flooding elsewhere.