

# **FLOOD RISK ASSESSMENT**

**Minor Extension to  
The New Royal Mail Public House,  
Main Road, Thorngumbald**

**Mr P Smith  
June 2021**



## DOCUMENT ISSUE RECORD

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The information in this report is based on statistical data and qualitative analysis which are for guidance purposes only. This study provides no guarantee against flooding or of the absolute accuracy of water levels, flows and associated probabilities.

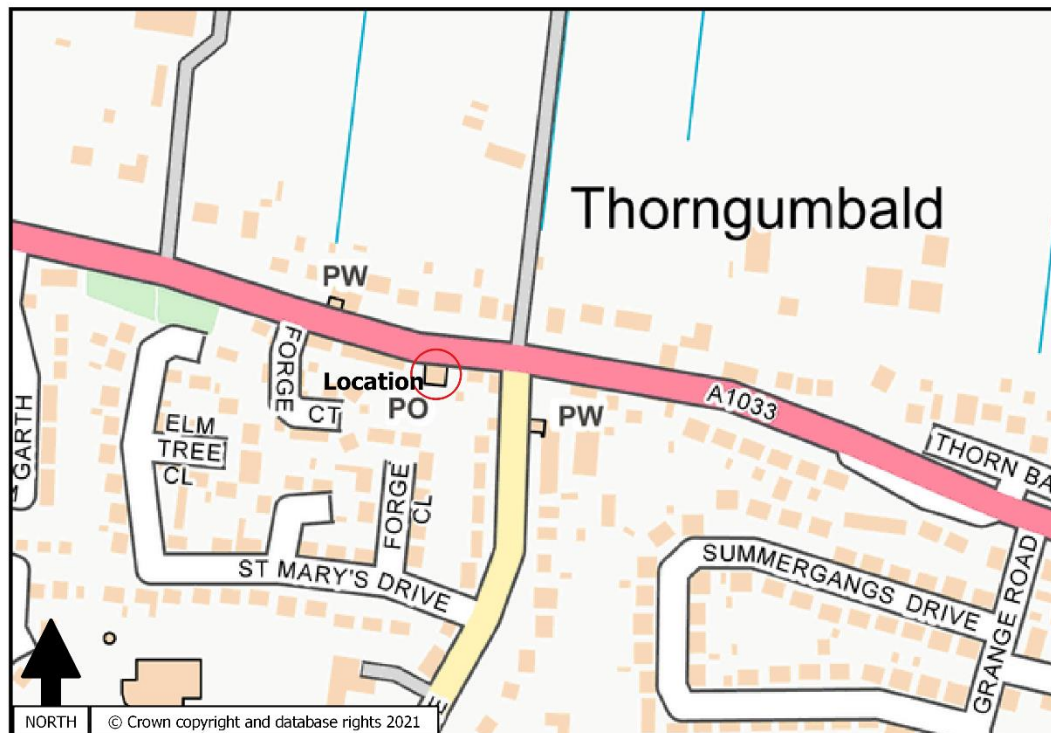
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## 1.0 INTRODUCTION

- 1.1 This Flood Risk Assessment, (FRA), is compliant with the requirements set out in the flood risk standing advice for minor extensions, (<250m<sup>2</sup>).
- 1.2 The FRA has been produced on behalf of Mr P Smith in respect of a planning application for a minor extension to the bar at The New Royal Mail Public House, Main Road, Thorngumbald.
- 1.3 It has been based on readily available information.

### Existing Building

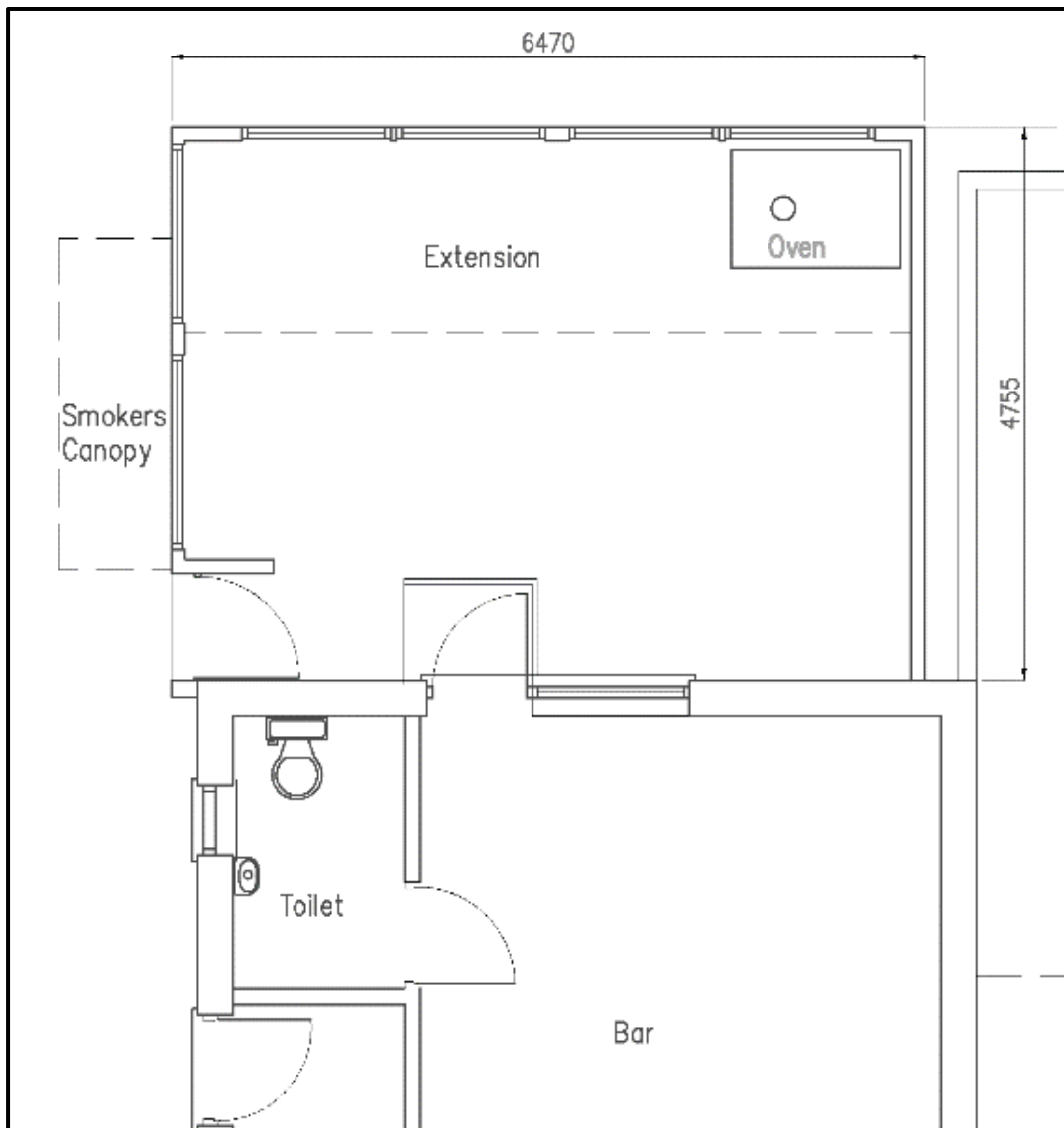
- 1.4 The public house is located at grid reference TA2070726489 as shown in **Figure 1.1** below.



**Figure 1.1 Site Location**

### Proposed Extension

- 1.5 The proposed extension is approximately 30.76m<sup>2</sup> and is shown on **Figure 1.2** below.



**Figure 1.2 Proposed Extension**

- 1.6 The online British Geological Survey maps indicates that the site is located on superficial deposits of Till over a bedrock of chalk.

## National Planning Policy Framework 2019

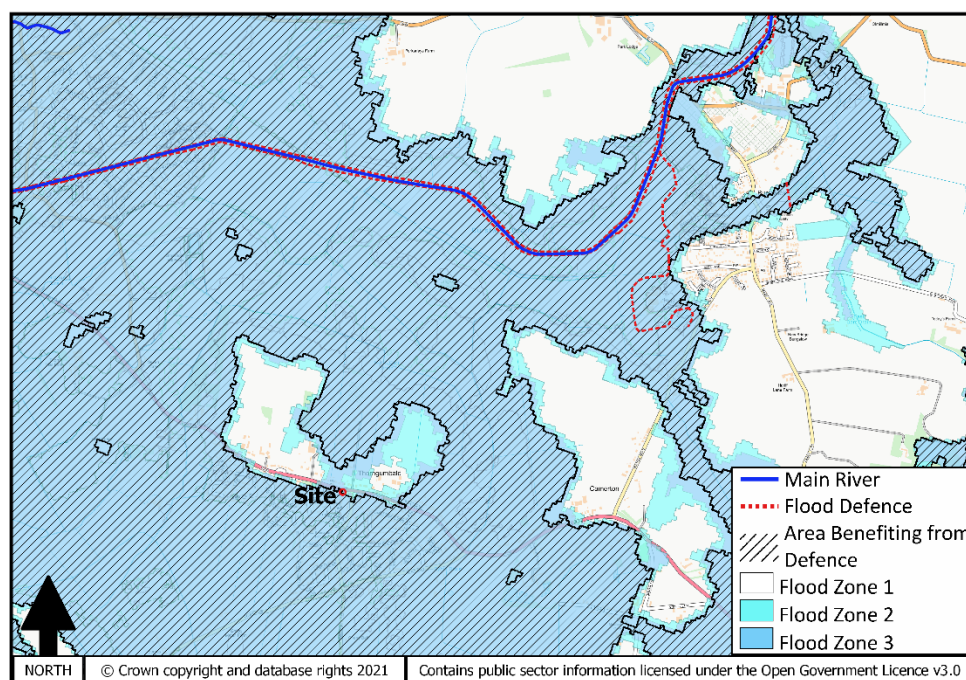
- 1.7 The National Planning Policy Framework 2019, (NPPF), sets out the Government’s national policies on different aspects of land use planning in England in relation to flood risk. A supporting web-based Planning Practice Guidance is also available along with flood risk standing advice for minor extensions.
- 1.8 The guidance uses four Flood Zones to characterise flood risk which refer to the probability of river and sea flooding, ignoring the presence of defences.

## Sequential Test

- 1.9 The NPPF requires the application of a Sequential Test to ensure that new development is in areas with the lowest probability of flooding and the Flood Zones provide the basis for applying the Test.

## Flood Zones

- 1.10 The Flood Zones are shown on **Figure 1.3** below which shows the site to be in Flood Zone 3.



**Figure 1.3 Flood Zones**

## Site Sequential Test

- 1.11 Paragraph 164 of the NPPF states that “Applications for some minor development and changes of use should not be subject to the Sequential or Exception Tests.”

## Exception Test

- 1.12 Whilst the development is considered appropriate a FRA is required to ensure the development will remain safe over its lifetime.

## 2.0 AVAILABLE INFORMATION

### Fluvial

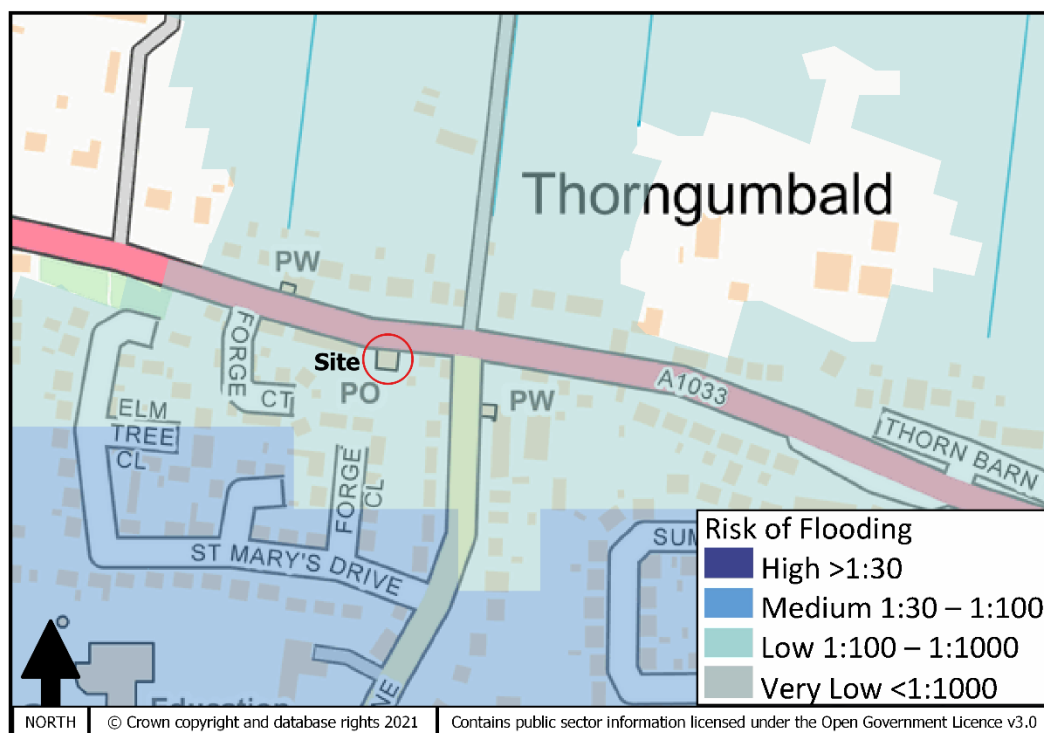
#### Main River

2.1 The nearest EA Main River to the site is approximately 1.50km to the north.

#### Actual Risk of Flooding

2.2 The EA have produced maps which show the flood risk from rivers or the sea. These maps take 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.

2.3 The risk of flooding map is shown below in **Figure 2.1** which shows the site to be at a low risk of flooding.



**Figure 2.1 Flood Risk Map**

#### Ordinary Watercourses

2.4 The site does not lie within any Internal Drainage Board District.

2.5 The risk of flooding from fluvial sources is low.

### Residual Risk

2.6 The site is protected from flooding from the Main River by defences, including a raised defence. However, if that defence was to be breached then flooding could occur.

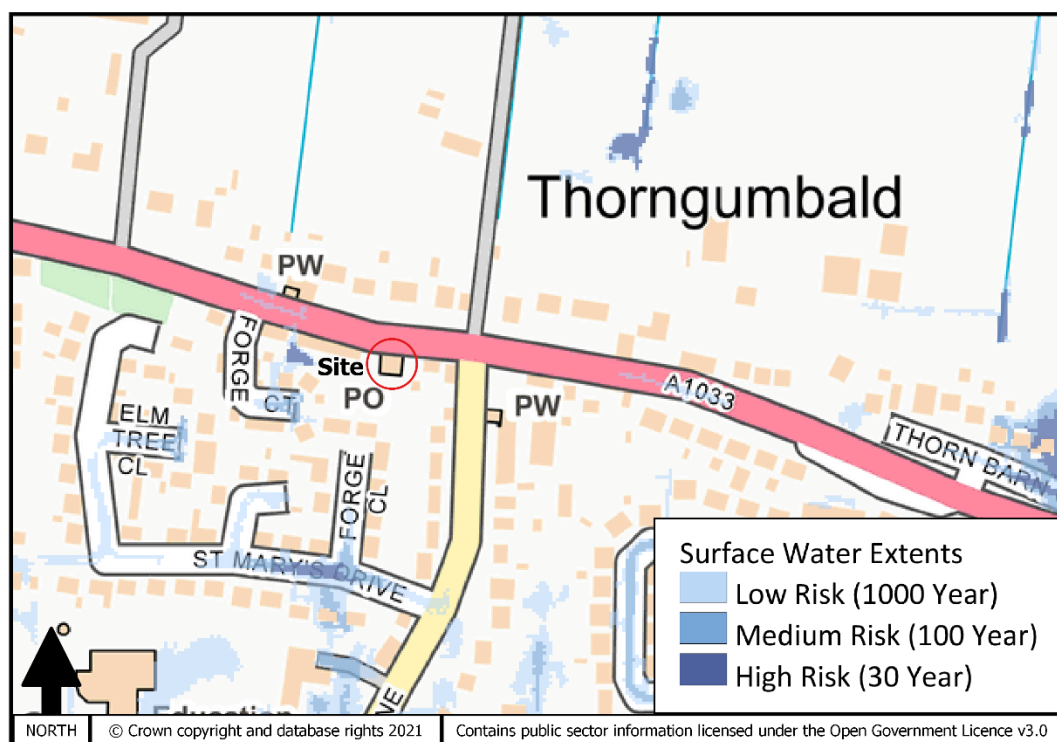
2.7 The residual risk of flooding from fluvial sources is low.

## Tidal

- 2.8 The site is over 4km from the east coast and therefore not at risk from tidal sources.

## Pluvial

- 2.9 The EA have produced maps showing flooding when rainwater lies or flows over the ground. The surface water flooding extents are shown below in **Figure 2.2**. Unlike the fluvial mapping, which is based on a detailed hydraulic model, this mapping is based purely on applying rainfall to a digital terrain model. As such this mapping serves to represent a worst-case scenario which may well overstate the actual probability of flooding in this area.
- 2.10 There is a caveat, as to the use of these maps and that they are not to be used to identify that an individual property will flood. Because of the way they have been produced and the fact that they are indicative these maps are not appropriate to act as the sole evidence for any specific planning or regulatory decision or assessment of risk in relation to flooding at any scale without further supporting studies or evidence.



**Figure 2.2 Surface Water Flooding Extents**

- 2.11 The site is not at risk of flooding from pluvial sources.

## Groundwater

- 2.12 The site is located on highly productive aquifer and there are no known instances of groundwater flooding in the area.
- 2.13 The risk of flooding from groundwater is low.



### **Sewers**

- 2.14 Public maintained sewers are unlikely to pose a significant flood risk as they are well maintained.
- 2.15 The risk of flooding from existing sewers is low.

### **Reservoirs**

- 2.16 The EA has prepared reservoir failure flood risk mapping to show the largest area that might be flooded if a reservoir were to fail and release the water it holds. The mapping displays a worst-case scenario and is only intended as a guide.
- 2.17 The site is not at risk of flooding from reservoirs.

### **Canals and Artificial Water Bodies**

- 2.18 The site is not at risk of flooding from canals.

## 3.0 MITIGATION

- 3.1 Section 2.0 has identified the sources of flooding which could potentially pose a risk to the site and the proposed development. This section of the FRA sets out the mitigation measures which are to be incorporated within the proposed development to address and reduce the risk of flooding to within acceptable levels.

### Site Layout

- 3.2 The proposed development is only at a low risk of flooding from fluvial, groundwater and existing sewers and is a minor extension.
- 3.3 The electrical installations in the extension will be 600mm above floor level.

## 4.0 CONCLUSIONS

- 4.1 This Simplified Flood Risk Assessment, (FRA), is for a minor extension and has been produced on behalf of Mr P Smith in respect of a planning application at The New Royal Mail Public House, Main Road, Thorngumbald.
- 4.2 It has been based on readily available information.
- 4.3 This report demonstrates that the proposed development is not at significant flood risk, and will not increase flood risk to others, subject to the recommended flood mitigation strategies being implemented.
- 4.4 The identified risks and mitigation measures are summarised below;

Flood Risk Source	Level of Risk Without Mitigation	Proposed Mitigation
Fluvial Groundwater Sewers	Low	Electrical installation 600mm above floor level.
Tidal Pluvial Reservoir Canal/Artificial	None	

**Table 4.1 Summary of Risk and Mitigation**

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