

MAY 2022

# FLOOD RISK ASSESSMENT

11 YARBURY WAY, WESTON-SUPER-MARE BS24 7EP

ON BEHALF OF: 36 DESIGN

Prepared by John Rooney  
MRTPI

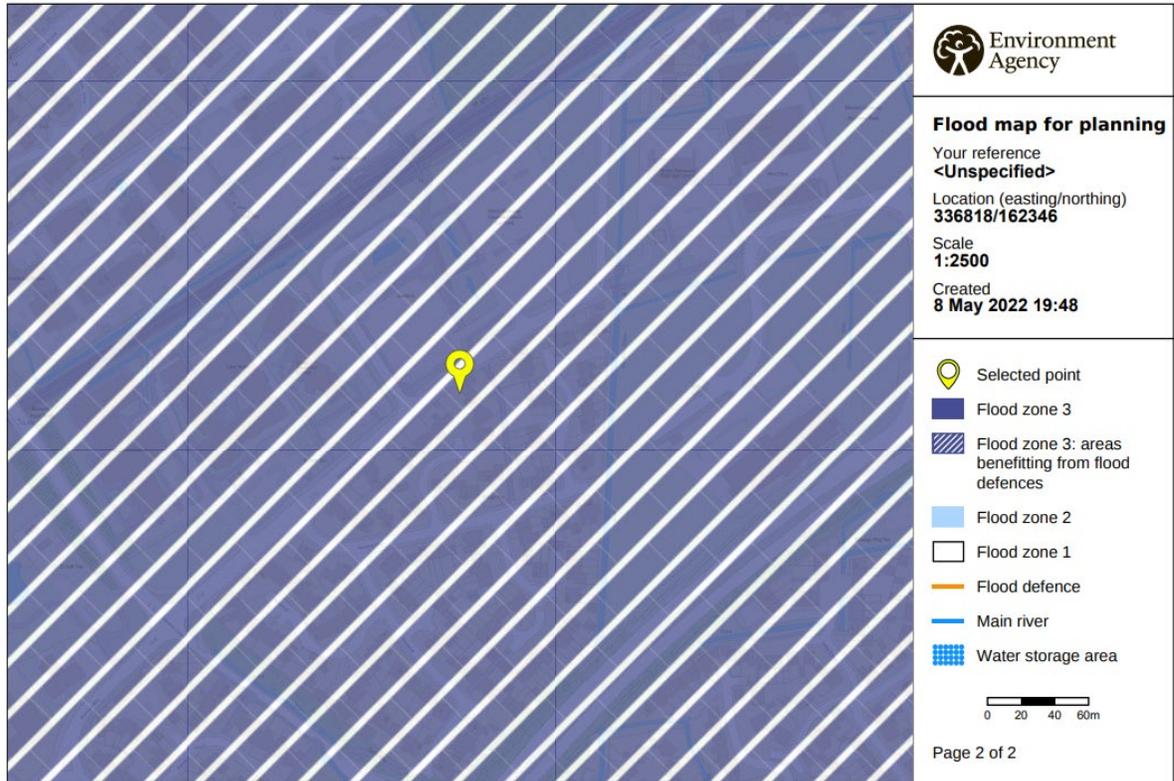
## 1. EXECUTIVE SUMMARY

- 1.1. This Flood Risk Assessment (FRA) accompanies a householder planning application submitted by 36 Design, for a part-single, part two-storey side extension.
- 1.2. The site is located in Flood Zone 3A and consequently the National Planning Policy Framework (NPPF, July 2021) requires a site-specific FRA for the proposed development site to assess the vulnerability of the site from all sources of flood risk and identify any necessary flood resilience measures to ensure the development is safe from flood risk for its lifetime.
- 1.3. In this case, the proposal is for the erection of a part-single, part two-storey side extension (to the rear and above an existing attached garage) to an existing residential dwelling. The use is classified as a more vulnerable use, whilst the development is classed as minor development (householder development within an existing curtilage including extensions).
- 1.4. The site lies 1.3km to the southwest of the River Banwell, and 6km east of the Bristol Channel. A network of rhyes (Cross Rhyne and Grumblepill Rhyne), commences 500 metres to the south, where the new Parklands Village is due to be built, whilst additional rhyes are located 300 metres to the east, with the Weston Gateway Business Park.
- 1.5. The site is broadly level at 5.0mAOD, with a slight climb southwest of the site, towards 5.9mAOD.
- 1.6. The extension would be wholly within Flood Zone 3 (defined as a greater than 1% probability of flooding from rivers in any year, greater than 0.5% for sea flooding), whilst the risk of the site flooding is deemed to be low (between 0.1 and 1%) due to the flood defences in situ.
- 1.7. The NPPG states that minor developments are unlikely to raise significant flood risk issues (Paragraph: 047 Reference ID: 7-047-20150415). The EA is not a statutory consultee for minor development in flood zone 3 and requires that the Standing Advice is followed.

## 2. THE SITE AND CONTEXT

- 2.1 The application site comprises a residential dwelling within the Weston-Super-Mare Settlement Boundary.
- 2.2 The topography of the site is level, at 5mOAD, with a slight rise in ground levels beyond the southwestern boundary, towards 5.9mAOD.
- 2.3 This Assessment seeks to support a planning application to erect a part-single, part two-storey side extension, to the rear and above an existing attached garage, and wholly within Flood Zone 3.
- 2.4 The closest water sources are the system of rhynes, 300 metres to the east and 500 metres to the south (those these are not classified as main rivers by the Environment Agency). The nearest main river is the River Banwell, 1.3km to the northeast, whilst the Bristol Channel lies 6km to the west. The site is shown to be wholly within Flood Zone 3 on the Environment Agency's indicative flood plain maps (see Figure 1). The site is therefore defined as having a greater than 1 in 100 year annual probability of river flooding.
- 2.5 The primary sources of flooding from the site are from the overtopping of the banks of the River Banwell through fluvial flooding. The linear defences along the River Banwell are primarily natural high banks. The Level 1 SFRA states that the 1968 flood caused the river to rise for six days, though the catchment and watercourses were considerably different at the time, and the flood event predated both the M5 motorway, and substantial development within the St Georges Area. Development in the catchment area has necessitated the pumping of surface water into the river, and as a result, a small number of storage facilities have been constructed to counteract the increased flood risk. The site is classed as being at a low risk (between 1 in 100 to 1 in a 1000 year annual probability) of fluvial flooding (see Figure 2).
- 2.6 EA data (Figure 3) shows that the site is at very low high risk of surface water flooding (less than 1 in 1000-year annual probability).
- 2.7 The historic maps in the SFRA show that there is no history of the site flooding.

# 47A Westbrook Road, Bristol BS4 5EE Flood Risk Assessment



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Figure 1: Extract from Environment Agency Flood Zone Map

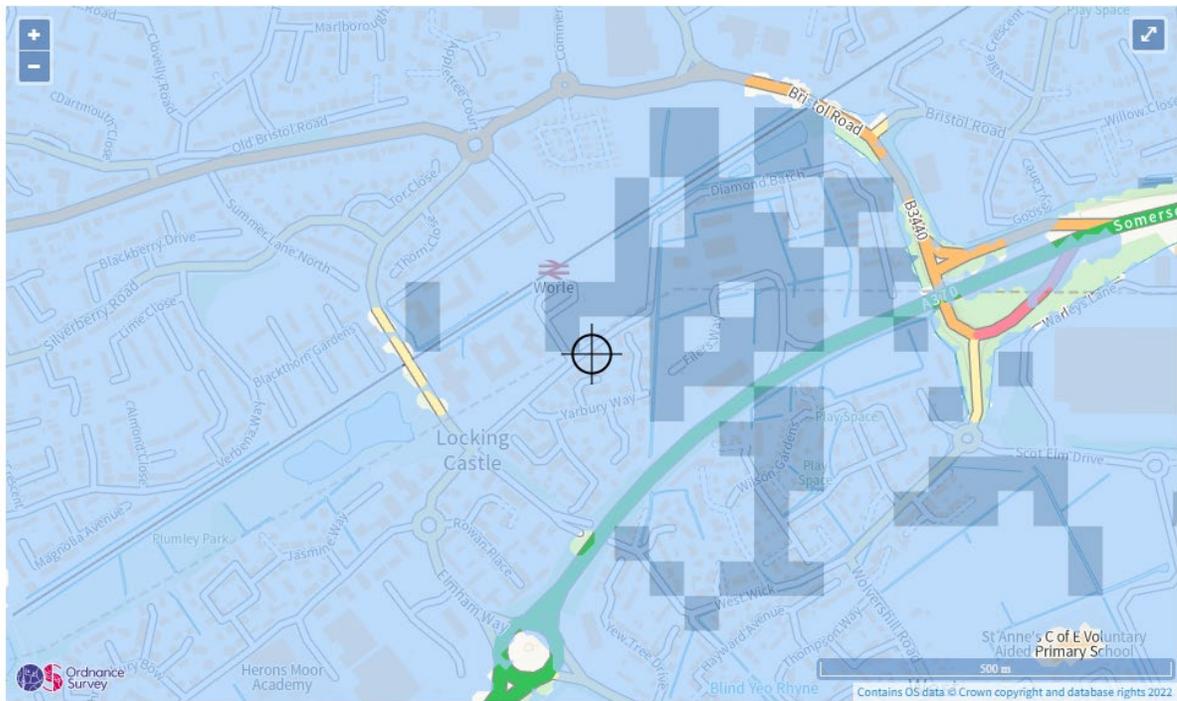


Figure 2: Extract from Environment Agency Flood Risk Map

## 47A Westbrook Road, Bristol BS4 5EE Flood Risk Assessment



Extent of flooding from surface water

Figure 3: Extract from Environment Agency Surface Water Flood Risk Map

### 3. FLOOD RESILIENT MEASURES

- 3.1 The EA Standing Advice for minor development states that floor levels must be either no lower than existing floor levels or 300 millimetres (mm) above the estimated floor levels.
- 3.2 The proposed elevations show that the ground floor extension will have the same floor level as the floor level to the existing house.
- 3.3 Measures to increase flood resilience include:
  - Water pipework insulation replaced with flood-resistant closed cell material
  - Electric sockets raised to 500mm above floor level
  - Plasterboard laid horizontally
  - Incoming telephone lines and internal control boxes should be raised to 500mm above floor level

- Engineering bricks to plinth course.

## 4. CONCLUSION

- 4.1 The site is within the High Probability Flood Zone. This Report identifies the dangers from flood risk, which is deemed to be relatively low.
- 4.2 This FRA demonstrates that the proposed development is sustainable in terms of flood risk.
- 4.3 The proposed extension is considered minor development in the NPPF and as such is suitable for the site which lies within Flood Zone 3
- 4.4 The EA Standing Advice has been followed with regards to floor levels and flood resilience measures identified.