

1.0 INTRODUCTION

The NPPF sets out the Government's national policies on different aspects of land use planning in England in relation to flood risk. The technical guidance in the Planning Practice Guidance (PPG) sets out the vulnerability to flooding of different land uses. It encourages development to be located in areas of lower flood risk where possible, and stresses the importance of preventing increases in flood risk off site to the wider catchment area.

The technical guidance also states that alternative sources of flooding, other than fluvial (river flooding), should also be considered when preparing a Flood Risk Assessment.

2.0 DATA SOURCES

- 2.1 Environment Agency
- 2.2 North Somerset Council SFRA
- 2.3 Local knowledge

3.0 PROPOSED DEVELOPMENT

3.1 Principle

Extension & Additional Storey to open market permission 21/P/1800/FUL

3.2 Vulnerability Classification

The proposed development is classified as 'more vulnerable' development according to Table 2 of the PPG (Paragraph: 066 Reference ID: 7-066-20140306).

3.3 Local Development Documentation

The LPA must, when determining the application, have regard to the NPPF as if the application were a planning application and there is no requirement to have regard to the development plan, so section 38(6) of the Planning and Compulsory Purchase Act 2004 does not apply as such.

4.0 FLOOD HAZARD DEFINITION

4.1 Sources of flooding

According to the SFRA the site is located in tidal flood zone 3a and fluvial flood zone 2 and is at greatest risk from tidal flooding. There is no historical evidence of flooding at the site.

4.2 Existing water drainage provisions

Currently rain water drains directly into strata and drains to a network of rhynes around the site. The proposed development will not alter this arrangement.

4.3 Flood Zone Classification

The site is located in flood zone 3: areas benefitting from flood defenses.

4.4 Strategic Flood Risk Assessment

The site is located on the North Somerset Levels. Surface water flooding may occur in this low lying area when water collects during times of heavy rainfall. Ponding may also occur when the infiltration capacity of the underlying strata is exceeded. This has the potential to lead to adverse effects on buildings and infrastructure. Due to the lowlying ground that forms a large part of the North Somerset Levels, flood defences are maintained to provide protection to vulnerable areas. These defences are identified below:



Sea Defences:

- 14.6km in length, lowest point of 4.66mOD at Tutshill Sluice
- Standard of Protection varies between 1 in 5yr and 1 in 100yr. The majority of the known standards of defences have been designed for a 1 in 100yr event.
- Maintained by the EA

Natural Coastal Protection:

- 8.6km in length
- Standard of Protection unknown
- Maintained privately

Man-Made Coastal Protection:

- 0.6km in length, single location
- Offers little protection to the defence behind at Blakes Pool
- Standard of protection unknown
- Maintained privately

4.5 Probability of flood

This FRA considers extant flood risk and future flood risk and applies the principles of flood mitigation to ensure the safety of residents in a flood event. The FRA concludes that the proposed development would not increase flood risk elsewhere and that adequate mitigation measures can be implemented to ensure future safety of the development.

5.0 CLIMATE CHANGE

5.1 Flood risk to the site affected by climate change

It is difficult to accurately assess how climate change will affect the areas that are currently at risk of flooding. The extents of floodplains are directly linked to a combination of events and each combination of events will invariably result in a different flooding event.

Whilst climate change may have an impact on future flood risk affecting the site, current data implies that areas already at risk of flooding are not likely to experience that risk increasing significantly.

6.0 FLOOD RISK MITIGATION

6.1 Site Arrangements

With current warning arrangements, the occupants of the proposed dwellings will have sufficient time to self-evacuate, or the occupiers would be able to move up to the internal flood refuge area within the new dwelling depending on the available advice at the time. By this time, any remaining water will be all but stationary or in retreat and if a second surge tide is predicted the occupiers would be able to evacuate the property.

6.2 Internal Finished Floor Levels

The internal finished floor levels will be set 300mm above the existing ground levels to provide some resilience to flooding from all sources.

6.3 Refuge provision

The proposed dwelling house will have a first floor finished floor set at more than 2800mm from external ground levels, should this be required as part of the evacuation strategy in event of flood.

6.4 Impedance of Flood Flows and Development Drainage

There is already an existing building present, its conversion into dwellinghouses will not result in a loss in storage or increase in runoff rate when compared to the existing situation.

The site is not near to any known locations where the flow of flood water could be a source of extra risk.




7.0 FLOOD CONTINGENCY PLAN AND EVACUATION

7.1 Flood warnings and flood alert areas

Prior to first occupation of the dwellings occupiers will sign up to the Environment Agency Flood Warning Scheme (<https://www.gov.uk/sign-up-for-flood-warnings>) and frequently monitor official the national flood warning service:

<https://flood-warning-information.service.gov.uk/warnings - 0845 988 1188>.

The following action will be taken for each flood warning:

Warning	Message	Timing	Action
 FLOOD ALERT	Flooding is possible. Be prepared.	2 hours to 2 days in advance of flooding.	<ul style="list-style-type: none"> ▪ Be prepared for flooding. ▪ Prepare a flood kit.
 FLOOD WARNING	Flooding is expected. Immediate action required.	Half an hour to 1 day in advance of flooding.	<ul style="list-style-type: none"> ▪ Act now to protect your property. ▪ Block doors with flood boards or sandbags and cover airbricks and other ventilation holes. ▪ Move pets and valuables to a safe place. ▪ Keep a flood kit ready. ▪ Move any critical equipment and information to a safe location
 SEVERE FLOOD WARNING	Severe flooding.	When flooding poses a significant threat to life	<ul style="list-style-type: none"> ▪ Be ready should you need to evacuate from the property.

7.2 Safe access and egress

Access to the site is from Scot Elm Drive and on the occasions when flood waters would make it necessary to arrange safe evacuation of the residential accommodation then this route would also provide egress from the site.

Safe evacuation of the site would involve the occupiers of the dwelling registering with the Environment Agency flood warnings system and taking all other appropriate steps to stay aware of early flood warnings.

Evacuation of the site will be aided by the fact that future occupiers will be acquainted with flood warning systems and familiar with the route providing egress from the site.

7.3 Health and safety

All electric points will be installed at heights of at least one metre above ground floor level and flood control boards are proposed across entrances in order to resist flood waters entering the building and also to increase the time available for safe evacuation

8.0 SUMMARY

The site is in an area of increased flood risk but the proposal will not prejudice the existing position in relation to surface water and run-off drainage provision, thus it should not lead to an increase in flood risk on site or elsewhere. Flood risk can be adequately managed to ensure the safety of occupiers.