House Extensions & Flood Risk

A Quick Guide for Property Owners in England

Introduction

This guide provides a clear framework for planning applicants and Local Planning Authorities (LPAs) in England in relation to **Flood Risk Assessments (FRAs)**. An FRA is required to demonstrate that a proposed development will be safe for its lifetime and will not increase flood risk elsewhere.

The 5-Step FRA Process

Step 1: Determine Site Risks

This guidance is based on compliance with **Environment Agency Standing Advice** and applies to certain vulnerable developments within **Flood Zones 2 and 3**, minor extensions (including householder developments and non-domestic proposals under 250 square metres), and sites located in **Flood Zone 1** where there are critical drainage issues or an increased risk of flooding, including from future climate change.

Step 2: Technical Site Data

The appointed consultant should record existing site conditions, including current ground levels, and provide a clear description of the proposed development. This information enables the identification of the site's **flood risk vulnerability classification** and confirms the nature of the development, which together determine the applicable planning and flood risk guidance. The assessment must establish the appropriate design flood level (1 in 100 annual probability for fluvial flooding or 1 in 200 for tidal flooding, including an allowance for climate change), justify the data sources used, and reference all levels to Ordnance Datum.

Step 3: Design Mitigation Measures

The applicant should propose finished floor levels set at least 600 mm above the design flood level or the highest adjacent ground level, whichever is higher. Where this is not feasible, such as for extensions to existing buildings, the assessment must identify appropriate **flood resistance and resilience measures**. These may include the use of water-resistant materials and the raising of electrical services to provide protection up to the 600 mm threshold. The proposals must demonstrate how surface water runoff will be appropriately managed, potentially through the incorporation of Sustainable Drainage Systems (SuDS), ensuring that the development does not increase flood risk on-site or elsewhere.

Step 4:Ensure Structural Integrity and Safety

Where the design proposes to prevent floodwater ingress to a depth greater than 600 mm, the applicant must seek advice from a suitably qualified structural engineer to confirm that the building can safely withstand hydrostatic water pressure. The assessment must also set out appropriate **emergency access** and egress arrangements, demonstrating the availability of a safe route from the site to an area of lower flood risk and confirming that **safe evacuation** can be achieved during an extreme flood event.

Step 5: Additional Permissions

Confirm that the site is not located within **Flood Zone 3b** (Functional Floodplain), where residential extensions are generally not permitted. In addition, establish whether separate Environment Agency permits are required for works within 20 metres of a main river.

Expert Advice

- **Timing:** Complete your FRA before finalizing architectural drawings to avoid expensive redesigns.
- **Compliance:** Ensure your assessment meets the National Planning Policy Framework (NPPF) standards.
- **Off-Site Risk:** Consider how your extension might displace water—you must ensure it doesn't increase flood risk for your neighbors.

This document is an informative guide based on official Standing Advice. Contact RIDA for a personalized technical assessment of your site.