# Flood Risk Assessment (FRA)

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**Proposal:**

Conversion of loft space above existing commercial unit to form 1 no. residential unit (C3 use class) at third-floor level.

**Prepared in accordance with:**

NPPF (2023), Planning Practice Guidance (PPG), and Environment Agency Standing Advice.

## 1. Introduction

This FRA has been prepared in support of a planning application for the conversion of the existing loft space of a three-storey commercial property to provide a single new residential unit.

The FRA is required because the site lies within a designated **Flood Zone (2/3)** as defined by the Environment Agency (EA). Residential use is classed as **"more vulnerable"** development under the NPPF.

This assessment demonstrates that the proposed development:

- Is located well above predicted flood levels.
- Does not increase flood risk elsewhere.
- Provides safe refuge for residents and appropriate emergency planning measures.

## 2. Site Location and Existing Context

- **Address:** 45 High Street, Bognor Regis.
- **Current Use:** Ground Floor is currently used as commercial space. The first first and second floor levels have recently received permission to be converted into 4No. Residential units BR/343/19/A. The second floor level/loft space is currently vacant.
- **Proposal:** Conversion of loft space to form a single residential flat.
- **Topography:** Ground levels on the High Street are around **3.5–4.0m AOD** (to be verified).
- **Proposed Finished Floor Level (FFL):** Third-floor residential accommodation, approx. **9–10m AOD** (estimated).
- **Flood Risk Source:** Primarily tidal (English Channel).

## 3. Flood Zone Classification

Environment Agency mapping confirms:

- The site lies within **Flood Zone [2/3 – confirm via EA online maps]**, which represents medium to high probability of tidal flooding in the absence of defences.
- The area benefits from **coastal flood defences**. Residual risk remains in the event of overtopping or breach.

- The site is also located within an **EA Flood Alert Area**.

# 4. Sources of Flood Risk

## 4.1 Tidal/Coastal Flooding

- Bognor Regis is protected by sea defences which significantly reduce tidal flood risk.
- EA modelling shows residual flood depths may occur at ground level during an extreme (1 in 200-year) event with climate change allowance.
- The proposed residential unit will be located several metres above these levels.

## 4.2 Surface Water Flooding

- EA Surface Water Map shows potential ponding in the carriageway of High Street during heavy rainfall.
- Any such events would be limited to street level and have no effect on the proposed third-floor dwelling.

## 4.3 Groundwater Flooding

- Low likelihood due to elevation and urban setting.

## 4.4 Sewer Flooding

- Localised sewer surcharge possible at ground floor, but the proposed use is unaffected.

# 5. Flood Risk Vulnerability and NPPF Tests

- **Residential use (C3)** is classed as **"More Vulnerable."**
- Under NPPF guidance, "more vulnerable" development is appropriate in **Flood Zones 2 and 3a**, provided the Exception Test is satisfied.

### Sequential Test:

- The proposal is a conversion of an existing building within a defined town centre. Relocation to a site at lower flood risk is not reasonable or practicable. The Sequential Test is considered met.

### Exception Test:

- **Part 1 – Wider Sustainability Benefits:**
    - The development delivers much-needed housing within a sustainable town centre location, reducing reliance on travel and supporting local vitality.
- **Part 2 – Safe for its Lifetime:**
    - The residential accommodation is located entirely above ground level at third-floor level.
    - Flood risk to occupants is negligible even in extreme events.
    - Emergency planning measures will ensure safe refuge and evacuation procedures.

# 6. Mitigation & Resilience Measures

Although the habitable accommodation is located well above predicted flood levels, the following measures are proposed in line with EA and NPPF guidance:

- **Safe refuge:** The third-floor level provides a dry refuge point well above flood depths.
- **Flood warning registration:** Occupants will register with **Floodline Warnings Direct** and receive flood alerts.
- **Flood Emergency Plan:** To be secured by planning condition to guide occupants on evacuation procedures.
- **Resilient construction at ground floor:** Where practicable, flood-resilient materials will be specified for commercial units and common areas (e.g., water-resistant plaster, raised sockets, tiled flooring).
- **No increase in flood risk elsewhere:** The development involves conversion of existing space, with no changes to building footprint or impermeable surfaces.

# 7. Emergency Planning

- Occupants will be made aware of flood risk and emergency procedures.
- **Safe refuge** is available on the third floor.
- Evacuation, if required, will be coordinated via High Street which is connected to higher ground routes.
- A formal **Flood Warning and Evacuation Plan (FWEP)** will be prepared and submitted to the LPA.

# 8. Residual Risk

- Residual risk from defence breach/overtopping remains, but the proposed residential accommodation will remain dry and safe.
- Risks are limited to ground-level access, not the habitable areas.
- Given the nature of the conversion, **flood risk vulnerability is not increased** compared to existing use.

# 9. Conclusions and Planning Rationale

- The site is located in Flood Zone [2/3], but the proposed dwelling is **entirely above ground floor level**, several metres above expected flood depths.
- The Sequential and Exception Tests are met.
- The proposal will:
    - Deliver housing in a sustainable town centre location.
    - Avoid introducing vulnerable habitable accommodation at ground floor level.

    - Incorporate appropriate emergency planning and resilience measures.

- The development will **not increase flood risk elsewhere** as the footprint, drainage, and impermeable area remain unchanged.

- On this basis, the proposal is considered **acceptable in flood risk terms**, compliant with the NPPF and EA guidance.