Flood Risk Assessment

Proposal: Ground Floor Extension

Address of the property: 13 Berwick Avenue, Hayes, UB4 0NF

1. Introduction
This report evaluates the flood risk associated with the proposed single-storey ground floor extension at 13 Berwick Avenue, Hayes, UB4 0NF. The assessment aligns with the requirements set forth by the London Borough of Hillingdon and national guidelines for minor developments.

2. Site Location and Description
The property is located at 13 Berwick Avenue, Hayes, UB4 0NF, within the jurisdiction of the London Borough of Hillingdon. The proposed development involves extending the existing ground floor by an additional 2.5 meters to the rear of the property, adding to the already existing 3.5-meter extension. This results in a total ground floor extension of 6 meters. The approach has been chosen to ensure economic and environmental benefits by minimizing demolition and reconstruction.

3. Flood Zone Classification
According to the Environment Agency's Flood Map for Planning, the site is situated in Flood Zone 1, indicating a low probability of flooding from rivers and the sea. Flood Zone 1 is defined as land having a less than 1 in 1,000 annual probability of river or sea flooding.

4. Surface Water Flood Risk
Despite the low risk from fluvial sources, it is essential to consider surface water flooding. The London Borough of Hillingdon's Strategic Flood Risk Assessment (SFRA) and Surface Water Management Plan highlight areas susceptible to surface water flooding. A review of available data indicates that 13 Berwick Avenue is not within a Critical Drainage Area, and there is no significant history of surface water flooding at this location.

5. Sustainable Drainage Systems (SuDS) Considerations
In line with Hillingdon Council's guidance on sustainable drainage, minor developments like house extensions should incorporate SuDS to manage surface water runoff effectively. The following measures will be considered:

- **Permeable Paving:** Utilize permeable materials for any new hard-standing areas to facilitate infiltration and reduce runoff.
- **Rainwater Harvesting:** Install water butts to collect rainwater from roof surfaces for reuse in garden irrigation, thereby reducing surface water discharge.
- **Soakaways:** Subject to percolation tests confirming suitable ground conditions, construct soakaways to manage roof runoff on-site.

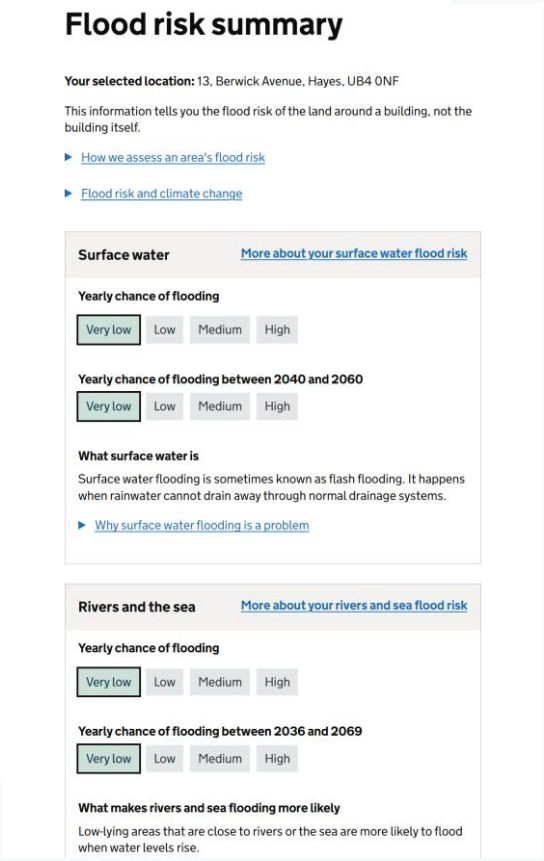
6. Drainage Strategy

The proposed extension will increase the impermeable area of the site, potentially affecting surface water runoff. To mitigate this:

- **Existing Drainage Assessment:** Evaluate the current drainage system to ensure it can accommodate additional runoff without increasing flood risk.
- **Connection to Soakaways:** Where feasible, connect new roof drainage to existing or new soakaways, ensuring compliance with Building Regulations Approved Document H.
- **Maintenance Plan:** Develop a maintenance schedule for all SuDS features to ensure long-term functionality.

7. Conclusion

The proposed additional 2.5-meter extension at 13 Berwick Avenue, Hayes, UB4 0NF, is located in an area with a low probability of flooding from rivers and the sea (Flood Zone 1). While the risk of surface water flooding is minimal, implementing appropriate SuDS measures will manage any increase in runoff resulting from the development. By incorporating permeable paving, rainwater harvesting, and soakaways where appropriate, the development will align with local and national policies on flood risk management and sustainable drainage. The extension has been designed to be economical and environmentally friendly, minimizing unnecessary demolition and reconstruction while enhancing the property's usability.



Flood risk summary

Your selected location: 13, Berwick Avenue, Hayes, UB4 0NF

This information tells you the flood risk of the land around a building, not the building itself.

▸ How we assess an area's flood risk

▸ Flood risk and climate change

Surface water — More about your surface water flood risk

Yearly chance of flooding

Very low | Low | Medium | High

Yearly chance of flooding between 2040 and 2060

Very low | Low | Medium | High

What surface water is

Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.

▸ Why surface water flooding is a problem

Rivers and the sea — More about your rivers and sea flood risk

Yearly chance of flooding

Very low | Low | Medium | High

Yearly chance of flooding between 2036 and 2069

Very low | Low | Medium | High

What makes rivers and sea flooding more likely

Low-lying areas that are close to rivers or the sea are more likely to flood when water levels rise.