

Flood Risk Assessment

Applicant: Martin Hartley

Site Address: Address: Starling Bank, Frizington To Copeland Boundary Via Rowrah, Lamplugh, CA14 4SF

Planning Permission Reference: PP-14744319

Date: 22/04/2026

Introduction

This Flood Risk Assessment (FRA) has been prepared in support of a householder planning application for minor works within the garden of the property. The proposal involves raising a portion of the existing sloped garden to match the height of the driveway, supported by a permeable gabion retaining wall. The raised area will cover approximately 28 m² and will be constructed using permeable materials.

A portion of the wider property boundary lies within Flood Zones 2, as identified by the Flood Map; whilst the proposed works themselves are located outside the functional floodplain and are not within the area identified as Flood Zone 3b.

This assessment considers the potential flood risks to the site, the impact of the proposed development on flood risk elsewhere, and the suitability of the proposed works.

Site Description

The property consists of a residential dwelling with a narrow driveway and a large garden area to the side of the property that slopes downwards away from the driveway. The garden has good natural drainage and doesn't become waterlogged during rainfall.

Approximately 40 metres away from the proposed works, is a small beck running through the garden. This watercourse is the source of the mapped Flood Zone 2 and 3 extents affecting the wider property.

The proposed development area is located 6.5 metres from the nearest neighbouring property boundary and is situated on higher ground relative to the beck.

Proposed Development

The works include:

- Raising approximately 28 m² of garden to match the existing driveway level.
- Maximum increase in ground level: 1.5 m at the lowest point.
- Construction of a gabion retaining wall using galvanised steel baskets filled with permeable stone.
- Infill behind the wall using compacted granular material.
- No buildings, impermeable structures, or enclosed spaces are proposed.

The purpose of the works is to improve access, egress, and parking by creating a level area adjacent to the driveway.

Flood Risk Assessment

Flood Zone Classification

According to the Flood Map for Planning:

- Parts of the wider property fall within Flood Zones 2 and 3 due to proximity to the beck.
- The proposed development area itself is located on higher ground and is not within Flood Zone 3b (functional floodplain).
- The works are classified as minor development.

Minor development in Flood Zones 2 and 3 is generally acceptable where it does not increase flood risk elsewhere and does not involve new buildings or vulnerable uses.

Sources of Flood Risk

- **River Flooding** - The beck located 40 m downslope is the primary source of flood risk. Flooding from this watercourse may affect lower parts of the garden, but the proposed works are located on significantly higher ground and a significant distance from the beck.
- **Surface Water Flooding** - The site has good natural drainage and does not experience surface water accumulation. The proposed works use permeable materials and will not increase runoff.
- **Groundwater Flooding** - There is no evidence of groundwater flooding has been observed. The site is not in a known groundwater risk area.
- **Sewer Flooding** – There is no known history of sewer flooding at the property.

Impact of the Proposed Development on Flood Risk

Impact on Flood Risk to the Property

The proposed raised area is located well above the level of the beck and outside the mapped flood extents. The works do not introduce any habitable space or enclosed structures. Flood risk to the property remains unchanged.

Impact on Flood Risk Elsewhere

The development will not increase flood risk elsewhere because:

- All materials used (gabion baskets, stone fill, granular infill) are fully permeable.
- No impermeable surfaces are being created.
- The volume of floodplain storage is not reduced, as the works are outside the functional floodplain.
- Surface water runoff characteristics remain unchanged.

Drainage Considerations

The gabion wall and granular infill allow natural infiltration and do not impede overland flow routes. The existing drainage pattern of the garden will be maintained.

Mitigation Measures

Although the proposal does not increase flood risk, the following good-practice measures will be adopted:

- Use of permeable materials throughout the construction.
- Ensuring the gabion wall includes natural drainage pathways.
- Avoiding any redirection of surface water toward neighbouring properties.

Flood Risk Assessment

- Maintaining existing overland flow routes across the garden.

Conclusion

This Flood Risk Assessment demonstrates that:

- The proposed works are located outside the functional floodplain.
- The development does not increase flood risk to the property or elsewhere.
- All materials and construction methods are permeable and maintain natural drainage.