Preliminary Surface Water Drainage & Flood Risk Assessment Outline.

1. Introduction & Site Context

Site: 14 Lancaster Drive, Clitheroe, Lancashire, BB7 2PD.

Scope: Assess surface water flood risk; propose sustainable drainage (SuDS) measures; review flood risk from all potential sources. Eliminate risk to other properties through sustainable design.

2. Flood Risk Assessment

2.1 Existing Flood Risk

The property falls within the River Ribble at Low Moor, Clitheroe flood warning area. However, no active flood warnings are currently in force, and no flood warnings have been issued in the past five years Check for Floodingfloodassist.co.uk.

A property with the postcode BB7 2PD, including the subject property/development is less than 1 hectare in size and is also situated in Flood Zone 1. Flood Zone 1 is a low-risk area with less than a 1 in 1,000 annual probability of river and sea flooding.

This means the chances of flooding are less than 0.1% per year.

In addition to the above, No critical drainage problems have been identified or notified by the Environment Agency at present.

2.2 Other Potential Sources of Flooding

Surface water/run off

Groundwater emergence

Ordinary watercourses (e.g. ditches, brooks) under local authority jurisdiction Lancashire.gov.uk.

2.3 Climate Adaptation & Planning Policy

Under current guidance, especially post-10 May 2022, climate change allowances must be incorporated—specifically the upper-end allowances for peak rainfall for development lifespans (e.g. 100 years for residential) Lancashire.gov.uk.

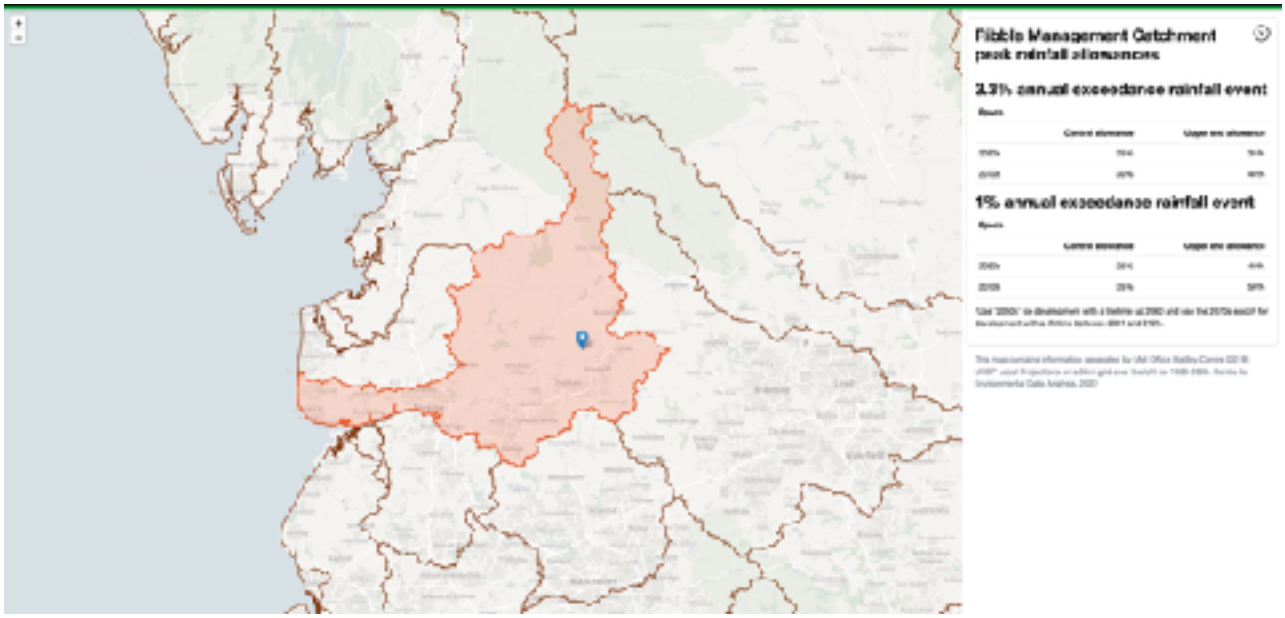
The assessment must demonstrate that the development does not increase flood risk elsewhere and remains safe from surface water flooding, even under high rainfall events Lancashire.gov.uk.

2.4 Professional Standards

A compliant FRA should follow best practice as outlined in the **National Planning Policy Framework (NPPF)**and guidance for FRAs, covering **flooding from all sources**, mitigation, and the potential need for **sequential testing.**

3. Surface Water Drainage Strategy (SuDS)

3.1 Baseline & System Design



Use the peak rainfall allowances map as shown above, to determine the correct climate change allowance for the property's catchment.

3.2 SuDS Measures to Consider

Permeable paving and infiltration trenches to manage runoff on-site.

Attenuation storage such as a rain garden, soak away, or underground tanks sized for critical rainfall events, including future climate allowance.

Controlled discharge to existing drainage infrastructure or watercourse at greenfield runoff rates.

3.3 Operation & Maintenance

A robust Operation & Maintenance Plan, including verification and reporting (e.g., inlets, outlets, control structures)

4. Summary of Key Actions

Step	Description
Site Context & Risk Identification	Check local authority data, EA flood maps, and GOV.UK flood risk tools.
Apply Climate Allowances	Use upper-end rainfall allowances for 1% and 3.3% AEP and apply 10% urban creep allowance if applicable.
SuDS Design	Include source control, attenuation, and controlled release if applicable
Mitigation & Safety	Ensure no increased flood risk downstream or to neighbouring properties
Documentation & Compliance	Prepare FRA with maps, models, & diagrams; include Operation & Maintenance Plan.

5. Recommendations

1. **Lease with the Local authority** to determine if a comprehensive FRA is required due to the criteria of the subject property.
2. **Contact the Lancashire LLFA** to determine local expectations, design standards, and whether pre-application advice is available.
3. **Compile supporting documents** including site map, topographic data, drainage analysis, climate allowance calculations, and maintenance schedule.

6. Closing Notes

While the current flood risk appears **low**, compliance with policy and climate resilience standards remains essential.

Due to the design and nature of the site and the likelihood of existing drainage inventory being used, no additional recommendations are proposed at this time however, as part of a future comprehensive engineering strategy, this will be reviewed as the design evolves.

Completing a comprehensive or detailed drainage strategy at this point, may be fruitless without a Planning Approval and fixed design in place.

Based on a review of the proposed design and the existing conditions of the subject property, it is anticipated that no additional drainage infrastructure will be required. This assessment is due to the replacement of existing hardstanding areas with new structures or the demolition and reconstruction of current structures, resulting in minimal net change to the impermeable surface area and, consequently, a negligible impact on surface water runoff.