

FLOOD RISK ASSESSMENT

1 Barker Lane, Mellor, Blackburn, BB2 7ED

Demolition of two detached garages and erection of a new single-storey side extension and new single-storey detached garage, including local regrading of existing ground levels.

Applicant	Mr N. Akram
Site	1 Barker Lane, Mellor, Blackburn, BB2 7ED
Development	Householder extension and replacement detached garage
Assessment status	Planning Application – Site-Specific Flood Risk Assessment
Date	September 2026

This assessment has been prepared using the information available for the proposed planning application and the Environment Agency flood-risk guidance and mapping information identified in this report. It should be read alongside the submitted planning drawings and any detailed drainage information.

1. Introduction

This Flood Risk Assessment (FRA) has been prepared in support of a householder planning application at 1 Barker Lane, Mellor, Blackburn, BB2 7ED. The purpose of the assessment is to consider the existing and proposed flood risk affecting the site, identify the principal sources of flooding, and demonstrate that the proposed development can be undertaken without increasing flood risk to the property, neighbouring land or third parties.

The site is located within Flood Zone 1 in respect of flooding from rivers and the sea. A watercourse/brook runs along the southern boundary of the property. The Environment Agency's Risk of Flooding from Surface Water information indicates a limited area of mapped surface-water risk extending into the southern part of the site at the more extreme rainfall probabilities.

The Environment Agency confirms that the surface-water mapping represents modelled areas where surface water may occur and provides indicative extents and depth bands. It is not, by itself, sufficiently detailed to determine whether an individual building will flood. Site levels and the relationship between the development and the modelled flood level are therefore important considerations. [\[cite\turn0search0\turn0search9\]](#)

2. Proposed Development

The application proposes:

- Demolition of two existing detached garages.
- Construction of a new single-storey side extension to the existing dwelling.
- Construction of a new single-storey detached garage.
- Local regrading of existing ground levels associated with the proposed works.

The proposal is a householder development within the curtilage of an existing dwelling. No additional dwelling or habitable residential unit is proposed. The new detached garage is ancillary to the dwelling and is not proposed to provide habitable accommodation.

3. Site and Surrounding Context

The site comprises the existing residential property and its associated domestic curtilage. The land is sloping, with the principal dwelling positioned at a materially higher level than the lower part of the site. A brook runs along the southern site boundary.

The applicant has established from the Environment Agency's Flood Map for Planning that the site is within Flood Zone 1. The principal dwelling's finished ground/floor level is approximately 1.2 metres above the highest level identified from the 1 in 1000 surface-water assessment referred to in the applicant's site information. The proposed garage is located at a lower level and may marginally intersect the mapped extreme surface-water extent.

This assessment does not assume that the mapped surface-water extent represents a predicted flood level at the building. The relationship between the mapped depth band and the actual site levels is considered below.

4. Flood Risk Policy and Guidance

The Environment Agency's current guidance requires flood risk from all relevant sources to be considered. Flood Zone 1 is defined as land with less than a 0.1% annual probability of flooding from rivers or the sea. However, a site-specific FRA can still be required within Flood Zone 1 where the Flood Map for Planning identifies a risk from surface water.

For the purposes of the local planning framework, the site falls within the administrative area of Ribble Valley Borough Council. The adopted Ribble Valley Core Strategy identifies Policy DME6 (Water Management) as the relevant local water-management policy, alongside Policy DMG1 (General Considerations). Ribble Valley Borough Council's current validation guidance also identifies flood-risk information as a consideration for householder applications where relevant. Lancashire County Council is the Lead Local Flood Authority for the area and should therefore be regarded as the relevant LLFA for surface-water drainage matters.

Local policy and validation references: Ribble Valley Borough Council Core Strategy (2014), including Policy DME6 and Policy DMG1; Ribble Valley Borough Council Validation Checklist (May 2025, updated December 2025).

The Environment Agency's standing advice recognises householder extensions as minor development and notes that a sequential test is generally not required for householder development. Where a Flood Zone 1 site is at risk from surface water, the assessment should nevertheless demonstrate that the development will be safe for its lifetime without increasing flood risk elsewhere.

Ribble Valley Borough Council is the Local Planning Authority, with Lancashire County Council acting as Lead Local Flood Authority. The Council's planning framework includes requirements to ensure that development does not create an unacceptable risk of flooding, and its adopted Local Plan documents include specific drainage and flood-risk considerations.

5. Flood Risk from Rivers and the Sea

The site is within Flood Zone 1. On the information available for this assessment, the proposed buildings are therefore not identified as being at significant risk from flooding from rivers or the sea.

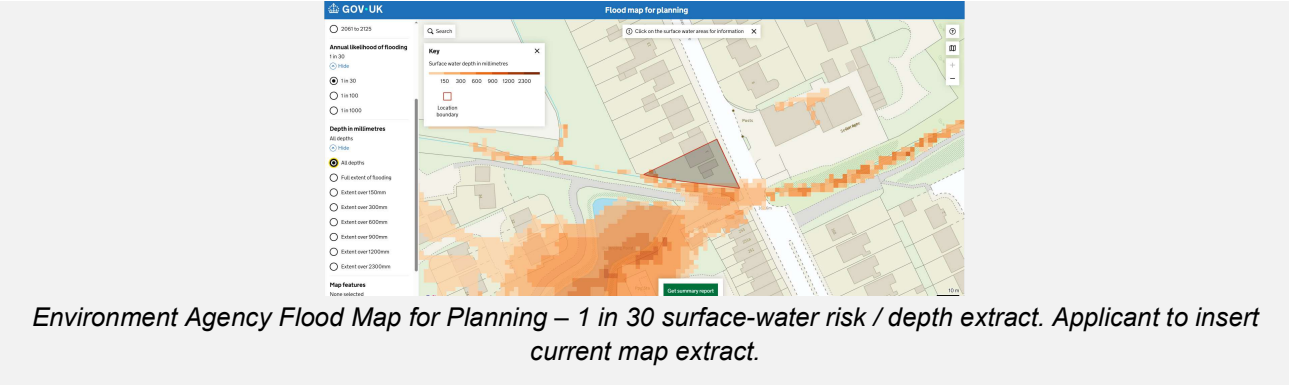
The brook along the southern boundary is nevertheless an important local drainage feature. The proposal should not obstruct, culvert, divert or otherwise alter the watercourse, and the proposed regrading should not direct additional runoff towards neighbouring land or into the brook in an uncontrolled manner.

6. Surface Water Flood Risk

The Environment Agency's current surface-water mapping assesses flooding for 1 in 30, 1 in 100 and 1 in 1000 annual probability events and provides indicative depth bands. The mapping distinguishes the following depth bands, including up to 150 mm and 150–300 mm.

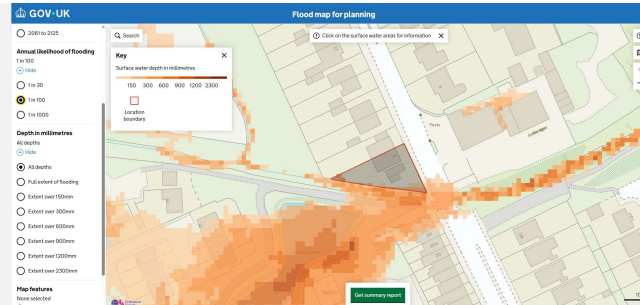
6.1 1 in 30 Annual Probability Event

The applicant's review of the Flood Map for Planning identifies the 1 in 30 surface-water risk as very low. The mapped extent only marginally crosses the southern boundary, by no more than approximately 0.5 metres. The associated mapped depth is less than 150 mm.



6.2 1 in 100 Annual Probability Event

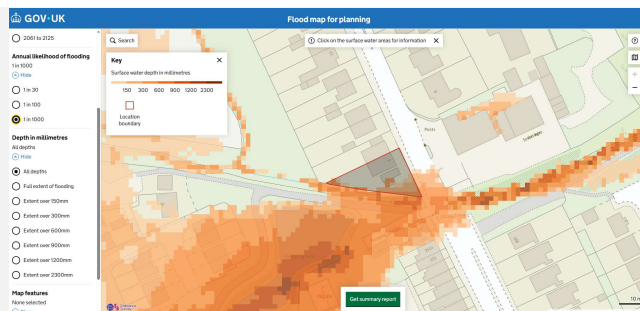
The applicant's review identifies the 1 in 100 surface-water risk as very low. The mapped extent only marginally enters the south-eastern corner of the site, by no more than approximately 1.5 metres. The mapped depth band is greater than 150 mm but less than 300 mm.



Environment Agency Flood Map for Planning – 1 in 100 surface-water risk / depth extract. Applicant to insert current map extract.

6.3 1 in 1000 Annual Probability Event

The 1 in 1000 surface-water scenario produces a greater mapped extent than the two more frequent events, but the overall probability classification remains low. The mapped extent enters the south-eastern corner of the site by no more than approximately 8 metres. The mapped depth band is greater than 150 mm but less than 300 mm.



Environment Agency Flood Map for Planning – 1 in 1000 surface-water risk / depth extract. Applicant to insert current map extract.

7. Site Levels and Flood Resilience

The most important site-specific factor is the difference in level between the existing dwelling and the modelled surface-water risk. The existing dwelling is approximately 1.2 metres above the highest level identified from the 1 in 1000 surface-water assessment. This provides a substantial vertical separation between the principal habitable accommodation and the mapped extreme surface-water risk.

On the information presently available, no additional flood-defence construction is considered necessary to the dwelling solely because of the mapped surface-water risk. The principal design objective should instead be to retain the existing level advantage, avoid directing surface water towards the dwelling, and ensure that the proposed extension does not reduce the existing flood resilience of the property.

The Environment Agency advises that surface-water design flood levels should be considered by comparing mapped flood-depth information with actual land levels, and that finished floor levels should be raised above estimated flood levels where necessary.

The final setting-out of levels should be checked against a suitable topographical survey or the levels shown on the approved drawings. Where absolute levels are available, these should preferably be stated relative to Ordnance Datum so that the relationship between the development and the flood level is unambiguous.

8. Proposed Detached Garage

The proposed detached garage is at a lower level than the principal dwelling and may be within, or immediately adjacent to, the extreme 1 in 1000 surface-water mapped extent. The garage is ancillary domestic accommodation and is not intended to provide habitable residential accommodation.

The fact that the building is a garage does not mean that it can simply be disregarded for flood-risk purposes. However, the consequences of shallow, occasional surface-water flooding are materially different where the building contains no sleeping accommodation or other vulnerable residential use. The appropriate approach is therefore to avoid locating vulnerable equipment at low level and to incorporate proportionate flood-resilient construction.

The following measures are recommended for the garage:

- Keep the garage floor level as high as reasonably practicable and, where practicable, at or above the highest estimated surface-water level identified for the site.
- Where the garage floor must remain below the estimated extreme flood level, do not provide habitable accommodation or sleeping accommodation within the garage.
- Locate electrical sockets, switches, consumer equipment, control equipment and other vulnerable electrical installations at least 1,200 mm above the garage finished floor level, or higher where required by the detailed design.
- Where insulation is installed in areas that could be exposed to floodwater, use closed-cell, low-water-absorption insulation such as XPS or another appropriately flood-resilient product.
- Use flood-resilient finishes and materials at low level, avoiding materials that readily absorb and retain water where practicable.
- Ensure the construction does not create a barrier that redirects floodwater towards the dwelling or neighbouring property.
- Provide a clear means of cleaning and drying the garage following any water ingress.

These measures are considered proportionate to the nature and scale of the proposed garage. The 1,200 mm electrical installation level is a sensible resilience measure rather than a substitute for appropriate finished floor level design.

9. Ground Regrading

The proposed works include some regrading of existing ground levels. Because the site is adjacent to a brook and there is a modelled surface-water flow path along the southern part of the site, regrading must be undertaken carefully.

- Regrading should not raise land in a manner that displaces floodwater towards neighbouring properties.
- Regrading should not obstruct the natural route of surface-water runoff towards the existing drainage system or watercourse.
- No filling, bunding, retaining structure or other feature should be introduced which would materially reduce existing flood storage or flow conveyance without appropriate assessment.
- Existing overland flow routes should be retained or safely redirected within the site.
- Any new impermeable areas should be drained to an appropriate drainage system and should not discharge uncontrolled onto neighbouring land or directly into the brook.
- The final proposed and existing levels should be clearly shown on the construction/planning drawings where practicable.

This approach is consistent with the Environment Agency's advice that development should divert surface water away from buildings while safely managing it within the site, and should avoid increasing flood risk elsewhere.

10. Surface Water Drainage and SuDS

The development should not result in an uncontrolled increase in surface-water runoff. The existing drainage arrangement should be retained where suitable, with the new extension and garage connected to an appropriate surface-water drainage system.

Sustainable drainage principles should be considered in detailed drainage design, with the hierarchy of disposal options applied in accordance with local requirements and site conditions. Any infiltration proposal should be supported by appropriate ground investigation/percolation evidence. Where infiltration is not suitable, discharge should be restricted appropriately and agreed with the relevant drainage authority/utility provider, including Lancashire County Council in its role as Lead Local Flood Authority where applicable.

Particular care is required because of the adjacent brook. No new direct discharge to the watercourse should be made without confirming that the discharge is lawful, technically appropriate and has the necessary consent. Ribble Valley planning decisions demonstrate the Council's expectation that surface-water drainage and, where appropriate, management and maintenance arrangements are properly addressed.

11. Other Sources of Flooding

Flood source	Risk identified	Assessment / mitigation
Rivers / sea	Low – site within Flood Zone 1.	No significant river/sea flood risk identified. Maintain existing level advantage.
Surface water	Low overall; limited mapped extent at southern/south-eastern boundary in extreme events.	Retain floor-level separation; resilient garage measures; careful regrading and drainage.
Groundwater	No specific risk identified from information provided.	No evidence currently identified; construction should respond to site conditions if groundwater is encountered.
Sewers	No specific risk identified from information provided.	Connect to existing drainage only where capacity and connection are suitable.
Reservoirs	No specific risk identified from information provided.	No mitigation identified as necessary on information presently available.
Watercourse	Brook along southern boundary.	Do not obstruct, divert or adversely affect flow; confirm Main River/ordinary watercourse status before works near the bank.

12. Climate Change and Lifetime Safety

The Environment Agency's current guidance requires climate change to be considered when assessing future flood risk. For surface water, the design approach should ensure that the development remains safe and does not increase flood risk elsewhere.

The existing dwelling already has a substantial level difference above the mapped extreme surface-water risk. The proposed extension should maintain the dwelling's existing finished floor level and should not introduce a lower-level opening that could provide a route for floodwater into habitable accommodation.

For the garage, the recommended resilience measures provide additional protection should shallow surface-water flooding occur. The garage should remain ancillary and non-habitable.

13. Construction-Phase Flood Risk

Construction should be planned so that temporary works, stored materials, spoil heaps and temporary access arrangements do not obstruct the brook or existing surface-water flow paths. Excavated material should not be placed where it could be mobilised by floodwater or reduce flood conveyance.

Where works are proposed close to the brook, the contractor should confirm any necessary Environment Agency or Lead Local Flood Authority consent before commencement. Current Environment Agency guidance identifies regulated activities close to Main Rivers and separate consent arrangements for ordinary watercourses.

14. Sequential Test and Exception Test

The proposal is a householder development involving an extension to an existing dwelling and an ancillary detached garage. Environment Agency standing advice identifies householder development as exempt from the Sequential Test. The assessment is therefore concerned with demonstrating that the proposed works can be made safe and will not increase flood risk elsewhere.

On the information available, the proposed development retains the principal dwelling in Flood Zone 1, retains its substantial level separation above the mapped surface-water risk, and can incorporate proportionate resilience measures to the lower garage. The proposal therefore has an appropriate basis for demonstrating flood safety, subject to the final drainage and level details.

15. Conclusions

The site at 1 Barker Lane, Mellor, is located within Flood Zone 1. The presence of the brook along the southern boundary and the limited extent of mapped surface-water risk mean that flood risk has nevertheless been appropriately considered within this assessment.

The Environment Agency surface-water mapping indicates very low/low risk affecting only a limited part of the southern and south-eastern site, with the greatest mapped extent occurring during the 1 in 1000 annual probability event. The mapped depths within the affected area are within the 150–300 mm band for the 1 in 100 and 1 in 1000 events, based on the applicant's review of the current mapping.

The principal dwelling is approximately 1.2 metres above the highest level identified from the 1 in 1000 surface-water assessment. This provides a significant level margin and means that the proposed extension can retain a high degree of separation from the mapped flood risk, provided the existing floor level is maintained and drainage/regrading are appropriately controlled.

The detached garage is at a lower level and may be within the extreme mapped surface-water extent. As it is ancillary and non-habitable, proportionate flood-resilience measures are appropriate. These include keeping the garage floor as high as practicable, locating vulnerable electrical installations at least 1,200 mm above finished floor level, using flood-resilient/closed-cell insulation where appropriate, and using flood-resilient finishes at low level.

The proposed regrading should not impede the brook or existing overland flow routes, and should not increase flood risk elsewhere. Detailed surface-water drainage should be designed to prevent uncontrolled runoff and

should comply with the requirements of Ribble Valley Borough Council and any relevant statutory undertaker or drainage authority.

Subject to these measures, the proposed development can be designed and constructed so that it remains safe from the identified flood risks, does not materially increase flood risk elsewhere, and is consistent with the principles of current national flood-risk guidance.

16. Recommended Planning / Construction Conditions

- The proposed finished floor level of the dwelling extension should be no lower than the existing dwelling finished floor level.
- The proposed ground regrading should be carried out in accordance with the approved levels and should not obstruct or redirect floodwater towards neighbouring properties.
- The detached garage should remain ancillary to the dwelling and should not be used as habitable accommodation.
- Electrical installations within the garage should be positioned at least 1,200 mm above the finished garage floor level, with vulnerable equipment located higher where practicable.
- Flood-resilient materials should be used at low level within the garage, including closed-cell insulation where insulation is required in areas potentially exposed to floodwater.
- The surface-water drainage system should be designed so that the development does not increase flood risk elsewhere and should be agreed with the relevant authority where required.
- No works to the brook or its bank, and no obstruction, culverting or diversion of the watercourse, should be undertaken without confirming the relevant statutory consent requirements.
- Construction materials and excavated spoil should be stored so that they cannot obstruct the brook or existing surface-water flow routes.

17. Information Sources

- Environment Agency (2026), Flood risk assessment: Flood Zones 1, 2, 3 and 3b.
- Environment Agency (2026), Flood risk assessments: applying for planning permission.
- Environment Agency (2026), Preparing a flood risk assessment: standing advice.
- Environment Agency (2025), Risk of flooding from surface water – understanding and using the map.
- Environment Agency / DEFRA (2025), Flood risk activities: environmental permits.
- Ribble Valley Borough Council, Local Plan and Strategic Flood Risk Assessment evidence base.
- Environment Agency Flood Map for Planning – site-specific map extracts to be inserted by the applicant.

Important note: This assessment is based on the information supplied by the applicant and publicly available Environment Agency / local planning guidance. The Environment Agency advises that flood mapping is indicative and is not sufficient on its own to determine whether an individual property will flood. Where exact flood levels or finished floor levels are critical, a topographical survey and/or appropriately qualified drainage/flood-risk advice should be obtained. [□cite□turn0search0□turn0search4□](#)

- Lancashire County Council – Lead Local Flood Authority for Ribble Valley, in relation to local surface-water drainage and flood-risk consultation.