

Flood Risk Assessment (FRA) template

Prepared for planning validation response - draft for review.

1 Site description

1.1 Site address

12 Westbrooke, Worthing, West Sussex, BN11 1RE.

Proposal: demolition of existing side and rear additions and construction of single-storey side and rear extensions, first-floor side extension, roof alterations including standing seam metal roof elements and rooflights, installation of solar panels, replacement windows and doors, and associated external works.

1.2 Vulnerability classification

Residential dwellinghouse. The existing and proposed use is residential and therefore treated as “more vulnerable” for flood risk vulnerability purposes. The proposal is for alterations and extensions to an existing dwelling and does not create a new dwelling or materially change the existing vulnerability of the site users. The dwelling includes existing residential sleeping accommodation.

1.3 Flood zone incompatibility

The Local Planning Authority validation letter confirms that the site is not within a Flood Risk Zone. The relevant validation issue is future surface water flood risk identified in the Adur and Worthing SFRA 2024, Appendix G. On that basis, the proposal is not considered incompatible with the flood zone classification. This FRA is provided as a proportionate response to the identified surface water risk.

1.4 Lifetime of development

The development is domestic residential development and is assumed to have a lifetime of at least 50 years.

1.5 Local Plan policies and SFRA recommendations

The assessment has had regard to the Adur and Worthing Strategic Flood Risk Assessment 2024 and the Environment Agency standing advice requested by the Local Planning Authority. The council has identified that the Environment Agency Flood Map for Planning does not take surface water flooding with climate change allowances into account, but that this is addressed in the Adur and Worthing SFRA 2024, Appendix G. The development is small-scale householder development and the response is therefore proportionate to the nature and scale of the works.

2 Assess flood risk

2.1 Existing site

The site comprises an existing semi-detached dwellinghouse with side and rear additions, hardstanding/garden areas and associated domestic curtilage. The proposal relates to alterations and extensions to the existing dwelling. No new dwelling, basement or separate vulnerable use is proposed. There is no information before the applicant indicating that the property has previously flooded. The validation request relates specifically to potential current/future surface water flood risk rather than fluvial or tidal flood risk.

2.2 Fluvial flood risk

2.2.1 Design flood event

Not applicable. The Local Planning Authority has not identified the site as being within a fluvial flood risk zone for the purposes of this validation request.

2.2.2 Residual fluvial risk

Not applicable. No residual fluvial flood risk has been identified for the purposes of this proportionate householder FRA.

2.3 Tidal flood risk

2.3.1 Design flood event

Not applicable. The Local Planning Authority has not identified the site as being within a tidal flood risk zone for the purposes of this validation request.

2.3.2 Residual tidal risk

Not applicable. No residual tidal flood risk has been identified for the purposes of this proportionate householder FRA.

2.4 Surface water flood risk

2.4.1 Design flood event

The Local Planning Authority has identified that the site is within a future surface water flood area and may be at risk from surface water flooding now or in the future when climate change is taken into account. The proposal is for extensions and alterations to an existing dwelling and will not introduce a new dwelling or a more vulnerable use.

Surface water risk will be addressed by retaining existing finished floor levels where possible, ensuring external levels fall away from the building where practicable, avoiding uncontrolled discharge towards neighbouring land or the public highway, and managing new roof water within the site via appropriate domestic surface water drainage/SuDS provision.

2.4.2 Residual risk

Residual risk is considered to arise from extreme rainfall events exceeding the capacity of local drainage systems or site drainage arrangements. The residual risk will be managed through finished floor level continuity with the existing dwelling, sensible external falls away from openings where practicable, raised electrical services where reasonably practicable in new works, and robust surface water drainage for new roof and hardstanding areas. The proposal is not expected to materially increase surface water flood risk elsewhere.

2.5 Sewer flood risk

No site-specific sewer flooding records have been identified as part of this proportionate validation response. The proposal is domestic in scale and is not expected to materially increase sewer flood risk. Surface water drainage from new impermeable areas will be managed appropriately within the site and will not be discharged in an uncontrolled manner.

2.6 Groundwater flood risk

No site-specific groundwater flood risk has been identified as part of this proportionate validation response. No basement or below-ground accommodation is proposed.

2.7 Reservoir flood risk

No reservoir flood risk has been identified as forming part of the Local Planning Authority validation request. Not applicable for the purposes of this proportionate FRA.

2.8 Canals and other artificial sources of flood risk

No canals or other artificial sources of flood risk have been identified as affecting the proposal. Not applicable.

2.9 Coastal erosion risk implications on tidal flood risk

No coastal erosion issue has been identified as forming part of the Local Planning Authority validation request. Not applicable for the purposes of this proportionate FRA.

2.10 Interactions of various sources

No specific interaction between different flood sources has been identified. The relevant risk for this validation response is surface water flooding, including future risk associated with climate change.

2.11 Design flood level according to all the sources identified

No site-specific design flood level has been provided with the validation request. The assessment is based on the Local Planning Authority's identification of current/future surface water flood risk through the Adur and Worthing SFRA 2024, Appendix G. Finished floor levels are to remain generally consistent with the existing dwelling and external levels/drainage are to be managed to reduce surface water risk.

2.12 Exception Test

Not applicable. The proposal is for extensions and alterations to an existing dwelling and does not create a new dwelling or change the use to a more vulnerable use. The Local Planning Authority validation request is for proportionate FRA/standing advice in relation to surface water flood risk.

2.13 Summary of flood risks

Fluvial flooding: not identified as applicable.

Tidal flooding: not identified as applicable.

Surface water flooding: identified by the Local Planning Authority as a current/future risk when climate change allowances are considered. This is the principal source of flood risk addressed by this FRA.

Sewer flooding: no site-specific risk identified.

Groundwater flooding: no site-specific risk identified; no basement proposed.

Reservoirs/artificial sources/coastal erosion: not identified as applicable.

3 Avoid flood risk

3.1 Evidence of the Sequential Test

The proposal is householder development comprising alterations and extensions to an existing residential property. It does not create a new dwelling or introduce a new vulnerable use. The Sequential Test is therefore not considered applicable to this proportionate validation response.

3.2 Sequential Approach

The works relate to the existing dwelling and its immediate domestic curtilage. The extensions are necessarily related to the existing building. Within the constraints of the existing dwelling, the proposal will retain finished floor levels broadly in line with the existing property and will manage surface water through site drainage and external levels so as not to increase flood risk elsewhere.

4 Control flood risk

4.1 Proposed site levels

Finished floor levels are to be retained broadly in line with the existing dwelling unless otherwise noted on the drawings. No substantial land raising or lowering is proposed. External levels should be detailed to fall away from new openings where practicable and to avoid directing surface water towards adjoining properties or the highway.

4.2 Flood flow route

No defined fluvial or tidal flood flow route has been identified. Surface water flow routes associated with intense rainfall will be controlled through external falls and drainage design. The proposal will avoid creating new barriers or channels that would direct surface water onto neighbouring property or the public highway.

4.3 Existing or proposed flood risk management infrastructure

The development does not rely on existing flood defence infrastructure. Proposed domestic drainage and SuDS/soakaway provision for new roof and hardstanding areas will be incorporated as part of the detailed design and Building Regulations process.

5 Mitigate flood risk

5.1 Risk to people

The proposal does not increase the number of dwellings or introduce a more vulnerable use. Occupants will continue to have normal access and egress through the existing dwelling and external doors. In an extreme surface water event, occupants can remain within the dwelling or leave via available external routes when safe to do so.

5.2 Risk to property/building

The principal residual risk is surface water accumulation during extreme rainfall. Mitigation will include retaining/aligning finished floor levels with the existing dwelling, detailing external falls away from openings where practicable, and incorporating appropriate surface water drainage for new roof and hardstanding areas. New construction materials should be suitable for domestic use and capable of drying/reinstatement following any minor surface water ingress.

5.3 Risk to essential services

New electrical sockets and services within the extension areas should be positioned at a sensible height above finished floor level where reasonably practicable, and in any event in accordance with Building Regulations and good practice. The proposal does not provide essential public services for others.

5.4 Floodplain storage and conveyance compensation

Not applicable. The Local Planning Authority validation request does not identify fluvial or tidal floodplain storage impacts. The proposal is domestic in scale and is not expected to cause a material loss of surface water storage or increase flood risk elsewhere.

5.5 Surface water management

Surface water from new roof areas and any new impermeable hardstanding should be managed within the site using appropriate domestic drainage and SuDS/soakaway provision where feasible, subject to ground conditions and detailed design. Drainage should be designed so that surface water is not discharged in an uncontrolled manner onto adjoining land or the public highway. Existing drainage routes should not be obstructed by the proposed works.

6. Manage flood risk

6.1 Safe access and escape

Access and escape will remain via the existing dwelling entrances and the domestic curtilage to the site boundary. No new dwelling or intensification of vulnerable use is proposed. In the event of extreme surface water flooding, occupants should avoid entering floodwater and should follow local flood warning and emergency advice.

6.2 Evacuation plan

A formal evacuation plan is not considered necessary for this small-scale householder development. Occupants should monitor weather warnings during extreme rainfall events, avoid entering floodwater, and use existing site entrances/exits when safe. The proposal does not introduce a new population at risk.

6.3 Residual flood risk

Residual surface water risk remains possible during extreme rainfall events that exceed the capacity of local drainage systems. This residual risk will be managed through the proposed drainage approach, external level detailing, retention of existing finished floor levels, and sensible positioning of new services.

6.4 Betterment provision

Betterment will be provided by ensuring new roof areas and impermeable surfaces are positively managed through appropriate domestic surface water drainage/SuDS provision rather than uncontrolled runoff. Where feasible, the detailed drainage design should seek to reduce runoff from the developed areas compared with an uncontrolled arrangement.

7. Summary of measures

The proposed development is a small-scale householder scheme at an existing dwelling. The site has been identified by the Local Planning Authority as being within an area of current/future surface water flood risk when climate change is considered.

Avoid: no new dwelling or more vulnerable use is introduced; no basement is proposed.

Control: finished floor levels are retained broadly in line with the existing dwelling and external levels are to be detailed to avoid directing water towards openings, neighbouring land or the highway.

Mitigate: new services should be positioned sensibly and new construction detailed with normal domestic resilience in mind.

Manage: new roof and impermeable areas will be served by appropriate domestic drainage/SuDS/soakaway provision where feasible, with no uncontrolled discharge off-site.

The proposal is not expected to increase flood risk to people, property or land elsewhere.