Flood Risk Assessment

19 South Street Worthing BN11 3AW

EA - FRA Guidance

*For minor development such as householder development and **non-residential extensions creating floor space of less than 250 square metres**, they may provide helpful FRA advice. However, there are some aspects which may not be relevant to,or necessary for, very small-scale development.*

The level of detail required in a FRA should be proportionate to the nature, scale and complexity of the development.

1 Site and development description

The proposal comprises the replacement of the existing shopfront at 19 South Street.

The works are anticipated to comprise:

- removal of the existing shopfront;
- installation of a replacement shopfront;
- replacement/new glazing and entrance door;
- making good of the existing building fabric.

The proposal does not involve:

- construction of a new building;
- an increase in the building footprint;
- raising or lowering of the wider site;
- creation of additional impermeable external areas;
- diversion or culverting of a watercourse;
- alteration to an existing flood defence; or
- a change to the existing commercial use.

The existing shop remains in commercial use and the proposal does not introduce a more vulnerable use.

1.1 Site address

19 South Street Worthing BN11 3AW

National Grid reference Easting 514908 / Northing 102521

1.2 Vulnerability classification

Less vulnerable.

Replacement shopfront to existing retail unit will be used during retail hours all year-round

1.3 Flood Zone incompatibility

Flood Zone 3

For a replacement shopfront, there is no proposed increase in the footprint of the building and therefore no loss of floodplain storage arising from the proposal.

The development will not obstruct flood flows outside the existing building envelope.

The works will not involve construction of new walls, embankments or other structures within a floodplain.

1.4 Lifetime of development

20 years

1.5 Local Plan policies and SFRA recommendations

N/A

2 Assess flood risk

2.1 Existing site

Site plan submitted as part of the application

2.2 Fluvial flood risk

No watercourse is proposed to be altered, culverted, diverted or obstructed as part of the development.

The proposal is limited to the existing building frontage.

2.2.1 Design flood event & 2.2.2 Residual fluvial risk

For a replacement shopfront, there is no proposed increase in the footprint of the building and therefore no loss of floodplain storage arising from the proposal.

2.3 Tidal flood risk & 2.3.1 Design flood event & 2.3.2 Residual tidal risk & 2.4.1 Design flood event

For a replacement shopfront, there is no proposed increase in the footprint of the building and therefore no loss of floodplain storage arising from the proposal.

The development will not obstruct flood flows outside the existing building envelope.

The works will not involve construction of new walls, embankments or other structures within a floodplain.

2.4.2 Residual risk

Residual risk may arise from:

- overtopping of flood defences;
- breach of flood defences;
- blockage or failure of drainage infrastructure;
- intense rainfall exceeding drainage capacity; or
- flooding exceeding the mapped design event.

The proposal does not introduce a structure that would increase these residual risks.

The existing building frontage will remain substantially in its current position and no new obstruction to flood flows is proposed.

Any existing flood-resistance measures should be maintained.

2.5 Sewer flood risk

The proposal does not involve any alteration to the foul or surface-water drainage systems.

No new sanitary accommodation or significant increase in water demand is proposed.

Accordingly, the development will not materially increase the risk of sewer surcharge or sewer flooding.

Existing drainage infrastructure serving the property will remain operational throughout the works.

2.6 Groundwater flood risk

Groundwater flooding is considered unlikely to be materially affected by the proposed works because the development does not involve excavation, basement construction or alteration of the ground profile.

The replacement shopfront will therefore have no significant effect on groundwater flow or groundwater flood risk.

Any existing damp-proofing and waterproofing associated with the building frontage will be retained or appropriately reinstated.

Surface-water flooding has been considered as a separate source of flood risk.

The existing site is an established commercial property within the built-up area of Worthing. The proposed works are confined to the existing shopfront and do not create additional external impermeable area.

Consequently, the proposal will not materially alter surface-water runoff from the site.

2.7 Reservoir flood risk

Reservoir flooding has been considered as a residual source of flood risk.

The development is an existing commercial premises and the replacement shopfront does not materially alter the consequences of a reservoir flood event.

2.8 Canals and other artificial sources of flood risk

For a replacement shopfront, there is no proposed increase in this flood risk arising from the proposal.

2.9 Coastal erosion risk implications on flood risk

N/A

2.10 Interactions of various sources

For a replacement shopfront, there is no proposed increase in flood risk arising from the proposal.

2.11 Estimated flood level in the design flood according to all the sources

For a replacement shopfront, there is no proposed increase in flood level arising from the proposal.

2.12 Exception Test

N/A

2.13 Summary of flood risks

The proposed development will not increase flood risk elsewhere because:

- there is no increase in building footprint;
- there is no loss of floodplain storage;
- there is no increase in external impermeable area;
- there is no alteration to a watercourse;
- there is no alteration to an existing flood defence;
- there is no significant change to surface-water runoff; and
- there is no proposed change in land levels.

The works are therefore not expected to result in an increase in flood risk to neighbouring properties or land.

3 Avoid flood risk

3.1 Evidence of the Sequential Test

The proposal concerns minor alterations to an existing commercial property rather than the development of a new site.

The works do not involve relocation of a development into an area of flood risk and do not increase the site's vulnerability.

The proposal therefore represents an appropriate form of alteration to the existing building.

4 Control flood risk

The proposal will provide no risk

4.1 Proposed site levels

Floor level at the shopfront is +4.62m (as existing)

4.2 Flood flow routes

The proposal will not affect flow routes

4.3 Existing or proposed flood risk management infrastructure

No change

5 Mitigate flood risk

No change

5.1 Risk to people

The proposal will have no risk to persons

5.2 Risk to property/building

The proposal will have no risk to the property or neighbours

5.3 Risk to essential services

The proposed development will not increase flood risk elsewhere because:

- there is no increase in building footprint;
- there is no loss of floodplain storage;
- there is no increase in external impermeable area;
- there is no alteration to a watercourse;
- there is no alteration to an existing flood defence;
- there is no significant change to surface-water runoff; and
- there is no proposed change in land levels.

The works are therefore not expected to result in an increase in flood risk to neighbouring properties or land.

5.4 Floodplain storage and conveyance compensation

N/A

5.5 Surface water management

The proposal does not increase the impermeable area of the site and does not involve construction of additional roofs, parking areas or hardstanding.

A new SuDS scheme is therefore not considered necessary solely as a consequence of the replacement shopfront.

Existing surface-water drainage arrangements will be retained.

6.1 Safe access and escape & 6.2 Evacuation plan

The development does not create a new building or materially increase the number of occupants.

Existing access to the premises from South Street will be retained.

The proposal does not introduce a new basement or other area from which occupants would be unable to escape.

Where flood risk is identified at the site frontage, occupants should follow the advice of the Environment Agency and emergency services during a flood warning.

The replacement shopfront should not obstruct the public footway or create a barrier to emergency access.

Floor plans submitted as part of the application

6.3 Residual flood risk

Residual risk may arise from:

- overtopping of flood defences;
- breach of flood defences;
- blockage or failure of drainage infrastructure;
- intense rainfall exceeding drainage capacity; or
- flooding exceeding the mapped design event.

The proposal does not introduce a structure that would increase these residual risks.

The existing building frontage will remain in its current position and no new obstruction to flood flows is proposed.

6.4 Betterment provision

The proposal does not introduce a structure that would increase these residual risks.

7. Summary of measures

This FRA has considered the potential sources of flood risk relevant to the proposed replacement shopfront at 19 South Street, Worthing.

The development is limited to replacement of the existing shopfront and does not involve:

- an increase in the building footprint;
- a change to the existing ground levels;
- additional impermeable area;
- alteration of a watercourse;
- alteration of a flood defence; or
- an increase in the vulnerability of the premises.

The proposal will retain the existing floor level and access arrangements.

The development will therefore be undertaken in accordance with the approved drawings, this FRA, the current Environment Agency flood-risk guidance and any requirements imposed by Adur & Worthing Councils.

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Date:
25th September 2026