

Flood Risk Assessment (FRA)

Completed Environment Agency FRA Template for Planning Application

Site: Wesleyan Chapel, Tarring Road, Worthing, West Sussex, BN11 4ET

1 Site description

1.1 Site address

Wesleyan Chapel, Tarring Road, Worthing, West Sussex, BN11 4ET.

National Grid Reference (NGR): TQ 13803 03135

1.2 Vulnerability classification

Less Vulnerable / Minor Non-Residential Development.

- **Proposed Development:** Erection of 2no. illuminated signs, 1.8m high security fencing incorporating security gates, freestanding hedging in planters, covered timber walkway, installation of an exterior light above entrance door, installation of a garden structure and a timber bin store.
- **Occupancy & Access:** Periodic / intermittent use associated with existing operations.
- **Sleeping Accommodation:** None.

1.3 Flood zone incompatibility

Not Incompatible. The site is located in Flood Zone 1 (low probability of fluvial/sea flooding). The development classification ("Less Vulnerable") is fully compatible with Flood Zone 1.

1.4 Lifetime of development

Estimated at 25–50 years for small-scale external timber structures, signage, and fencing.

1.5 Local Plan policies and SFRA recommendations

- **Adur & Worthing Strategic Flood Risk Assessment (SFRA 2024):** Aligns with SFRA Appendix G guidelines concerning future surface water flood risk and climate change allowances.
- **National Planning Policy Framework (NPPF):** Complies with surface water management and climate change resilience guidelines for minor development.

2 Assess flood risk

2.1 Existing site

The site consists of an existing former chapel building and associated curtilage. No watercourses or flood defence structures are located on or adjacent to the site. No building work or structural alterations form part of this application.

2.2 Fluvial flood risk

2.2.1 Design flood event

None. The site is located in Flood Zone 1 (outside main river flood risk areas and functional floodplain Flood Zone 3b).

2.2.2 Residual fluvial risk

Negligible.

2.3 Tidal flood risk

2.3.1 Design flood event

None. The site is inland and elevated beyond tidal flood extent maps.

2.3.2 Residual tidal risk

Negligible.

2.4 Surface water flood risk

2.4.1 Design flood event

- **3.3% AEP (1 in 30 year) & 1% AEP (1 in 100 year) events:** Ground levels remain unaltered. The EA Flood Map for Planning places the site in Flood Zone 1. However, as identified in Appendix G of the Adur & Worthing SFRA 2024, the site lies within an area susceptible to future surface water (pluvial) ponding when incorporating climate change allowances.
- **Flow Paths & Loss of Storage:** The proposed structures (freestanding planters, open timber walkway, timber bin store, fencing) do not obstruct surface water flow paths or reduce ground storage capacity.

2.4.2 Residual risk

Low to moderate localized overland flow / shallow surface water ponding during extreme exceedance events (0.1% AEP + climate change).

2.5 Sewer flood risk

Low. The application does not propose any additional foul or surface water drainage connections to public sewers.

2.6 Groundwater flood risk

Low. The minor nature of the works involves shallow posts and surface structures only.

2.7 Reservoir flood risk

Negligible. The site is not within a reservoir inundation hazard area.

2.8 Canals and other artificial sources of flood risk

None identified.

2.9 Coastal erosion risk implications on tidal flood risk

Not applicable. The site is inland and not within a Coastal Change Management Area (CCMA).

2.10 Interactions of various sources

The primary hazard is surface water accumulation during intense rainfall events under projected climate change allowances.

2.11 Design flood level according to all the sources identified

No site-specific flood level is established for fluvial/tidal sources. Surface water depth is localized and expected to be shallow ground-level runoff.

2.12 Exception Test

Not Required. The development is located in Flood Zone 1 and classified as minor non-residential development.

2.13 Summary of flood risks

Sources of Flooding That Apply	Estimated Flood Level in Design Flood	Estimated Flood Level in Residual Risk Event
Fluvial	N/A (Flood Zone 1)	Negligible
Tidal	N/A	Negligible
Surface Water (Pluvial)	Shallow overland flow / localized ponding (SFRA 2024 App. G)	Low / localized shallow surface water (0.1% AEP + CC)
Sewer	Low	Low
Groundwater	Negligible	Negligible
Reservoirs / Artificial	None	None

3 Avoid flood risk

3.1 Evidence of the Sequential Test

Exempt. Minor development / external works within the curtilage of an existing building in Flood Zone 1 are exempt from the Sequential Test under Paragraph 175 of the NPPF and PPG guidance.

3.2 Sequential Approach

All proposed minor external structures (planters, fencing, bin store, covered walkway) are positioned externally within the curtilage. No changes to building footprints, floor levels, or habitable accommodation occur.

4 Control flood risk

4.1 Proposed site levels

Unchanged. Existing ground levels across the site will be maintained entirely (no ground raising or lowering).

4.2 Flood flow route

Fencing, gates, and timber structures are permeable or elevated on posts/planters to allow unhindered surface water flow across the site.

4.3 Existing or proposed flood risk management infrastructure

None required or relied upon.

5 Mitigate flood risk

5.1 Risk to people

Negligible. No sleeping accommodation. External works will not restrict pedestrian movement or emergency access/egress.

5.2 Risk to property/building

Very Low. No internal building works or change of floor levels form part of this application. External structures (timber walkway, bin store, signage, planters) use flood-resilient external materials.

5.3 Risk to essential services

Negligible. Existing utilities remain unaffected. The new exterior light fitting will be elevated above ground level with flood-resilient, weather-sealed cabling.

5.4 Floodplain storage and conveyance compensation

Not required. The proposal does not involve loss of floodplain storage or constriction of flood pathways.

5.5 Surface water management

As existing. Covered walkway proposed to be installed with basic guttering discharging into nearest available existing gully/discharge facility serving current main building roof.

6 Manage flood risk

6.1 Safe access and escape

Safe access and egress routes are maintained via existing ground pathways leading to Tarring Road during heavy rainfall events.

6.2 Evacuation plan

Not formally required for minor non-residential external works, but site occupants can monitor Met Office heavy rainfall alerts.

6.3 Residual flood risk

Managed effectively through durable, water-resilient external materials and preservation of existing site drainage infiltration.

6.4 Betterment provision

The addition of freestanding planters introduces localized green infrastructure, enhancing surface water interception relative to existing hardstanding.

7 Summary of measures

- **Avoid:** No structural building works, no changes to ground levels, and no creation of ground-floor living accommodation.
- **Control:** Permeable fencing/gates and raised timber structures preserve natural surface water flow routes across the site without creating obstructions or loss of storage.
- **Mitigate:** External lighting and electrical connections are mounted high above ground level using flood-resilient fittings; water-resilient timber is used for external structures.
- **Manage Flood Risk:** Freestanding planters provide green infrastructure betterment for local rainfall interception, and safe access routes to Tarring Road remain unobstructed.