

Flood Risk Assessment (FRA) template

Please enter text in the boxes provided.

1 Site description

1.1 Site address

21 WICKHAM ROAD, LOWER EARLEY READING RG6 3TE

1.2 Vulnerability classification

More Vulnerable - Occupied year-round

1.3 Flood zone incompatibility

Zone 2

1.4 Lifetime of development

40–70 years

1.5 Local Plan policies and SFRA recommendations

Under CC09, for developments in Flood Zones 2 or 3, proposals must evaluate the flood-risk vulnerability of the development, and apply the “sequential test” (i.e., direct development first towards lowest-risk areas).

2 Assess flood risk

2.1 Existing site

21 WICKHAM ROAD, LOWER EARLEY READING RG6 3TE

2.2 Fluvial flood risk

2.2.1 Design flood event

Medium probability - 1 in 100 year 1% flood plan management, housing - Zone 2

2.2.2 Residual fluvial risk

We need to Apply the Sequential Test: prioritize development in **low-risk zones**. Use **zoning and land-use policies** to restrict sensitive development on floodplains.

2.3 Tidal flood risk

2.3.1 Design flood event

planning shows river and sea flooding - we need to Apply the Sequential Test: prefer lower-risk parts of the property.

2.3.2 Residual tidal risk

Normal - the flood risk in the Wokingham area is **very low**

2.4 Surface water flood risk

2.4.1 Design flood event

Low risk

2.4.2 Residual risk

Low Risk but We will Increase freeboard on levees and flood walls. **Redundant or secondary defences** downstream,

2.5 Sewer flood risk

To reduce risk, avoid flushing wrong items, report blockages to your water company

2.6 Groundwater flood risk

Low Risk but we will preventing water entry by raising floors/landscaping, installing drainage/pumps, sealing structures with waterproofing, and using flood-resistant materials, especially in basements, while also checking property-specific risk, managing surface water with permeable paving, and planning for potential water table rise

2.7 Reservoir flood risk

Low Risk

2.8 Canals and other artificial sources of flood risk

Low Risk

2.9 Coastal erosion risk implications on tidal flood risk

Low Risk

2.10 Interactions of various sources

Low risk

2.11 Design flood level according to all the sources identified

Low Risk

2.12 Exception Test

we will use all necessary Test

2.13 Summary of flood risks

Low Risk as per Government web site

3 Avoid flood risk

3.1 Evidence of the Sequential Test

Classify each potential site Flood zone using the relevant flood map for planning we need to the site is impacted by Fluvial risk, Tidal risk, surface water risk and groundwater or reservoir flooding

3.2 Sequential Approach

Set the finished floor level above predicted flood level

4 Control flood risk

4.1 Proposed site levels

Low Risk but Rise the Floor

4.2 Flood flow route

Low Risk but we will Identifying these routes allows for the design of "exceedance routes" within a site's drainage strategy, which are intentionally designed pathways to safely direct excess water away from properties towards highways or open spaces during extreme events.

4.3 Existing or proposed flood risk management infrastructure

Hard Engineering: Constructed physical measures to prevent flooding. include:

Sea walls and flood barriers (e.g., the Ipswich Barrier and Boston Barrier gate).

Embankments and flood walls (e.g., the Matlock Flood Wall).

Pumping stations and upgraded drainage systems (e.g., the Dirtiness Pumping Station improvement scheme).

Underground culverts and flood bypass channels (e.g., the Cannington flood defence scheme).

Soft Engineering: Uses natural processes and land management to reduce flood risk. include:

Restoring river bends and creating saltmarshes.

Nature-based solutions and wetland creation.

Tree management and planting.

5 Mitigate flood risk

5.1 Risk to people

Low Risk but to take measure to Assistance for vulnerable groups (elderly, disabled, children, Local volunteers or response teams

5.2 Risk to property/building

Low Risk but Elevated floor levels to 600mm and raised utilities. Safe pedestrian routes and bridge

5.3 Risk to essential services

Low risk Developing robust business continuity plans, identifying single points of failure, and testing response capabilities. and Following safety advice (e.g., gas leaks) and being prepared for disruptions.

5.4 Floodplain storage and conveyance compensation

Low Risk but - Cut > Fill: Excavate more volume than you fill to create storage.

Horizontal Slices: Propose to Create storage in 100-300mm slices, matching levels.

Free-Flowing: Ensure water fills and drains naturally (no culverts/pipes)

2. Hydraulic Modelling: Propose to Use advanced modelling (like 1D/2D) to show the water level/flow after development + compensation matches the original baseline, proving storage is replaced.

Free Drainage: We Must show the compensation area fills and drains by gravity, preventing blockage issues.

5.5 Surface water management

Low Risk but - Clear Gutters & Drains: Regularly remove leaves, silt, and debris from gutters, downspouts, and drain grates to ensure water flows freely.

Redirect Downspouts: Extend downspouts to discharge water at least 5-10 feet away from your foundation.

Grade Your Yard: Ensure the ground slopes away from your home to direct water outward.

Use Rain Barrels: Capture roof runoff for later use, reducing overall volume.

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Install Rain Gardens: Bowl-shaped gardens with deep-rooted plants that absorb and filter rainwater.

Use Permeable Surfaces: Replace concrete with permeable pavers, gravel, or porous asphalt for driveways and patios to allow water to soak in.

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6. Manage flood risk

6.1 Safe access and escape

Dry Escape, Hazard Rating Criteria, Evacuation Planning and Emergency Plans

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6.2 Evacuation plan

A list of useful numbers, including the Environment Agency's Floodline (0345 988 1188), emergency services (in immediate danger),

6.3 Residual flood risk

Designing buildings to be flood-resilient (minimising damage and speeding recovery if water enters) rather than flood-resistant (attempting to keep water out entirely, which can cause structural issues in deep flooding). This includes using water-resistant materials and raising electrical sockets.
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6.4 Betterment provision

Low Risk but Propose Sustainable Drainage system (SuDS): Implementing SuDS mimics natural drainage processes and helps manage surface water runoff, reducing peak flows and volumes, which lessens the overall flood risk
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7. Summary of measures

Sequential Test: This national planning policy approach ensures that areas with the lowest risk of flooding are developed first. Development in high-risk zones (Flood Zones 2 and 3) is avoided unless absolutely necessary and can pass an Exception Test.

Functional Floodplain Preservation: Land where water naturally flows or is stored during a flood event (Flood Zone 3b) is generally protected from development to ensure no net loss of flood storage capacity and no increase in flood risk elsewhere.

Sustainable Drainage Systems (SuDS): New developments are required to incorporate SuDS, which mimic natural drainage to manage surface water runoff on-site. Examples include permeable paving, green roofs, and retention ponds.

Raised Finished Floor Levels: New buildings often have their floor levels raised a minimum of 300mm to 600mm above the estimated flood level to protect the interior from flood water.

Infrastructure Improvements: This includes building or improving flood defenses like dams and levees, and the regular maintenance of existing drainage systems to ensure hydraulic performance.

Natural Flood Management: Utilizing land management changes, river restoration (e.g., re-introducing meanders), and surface water storage areas to slow down and store floodwater naturally.

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