

Flood Risk Assessment

20 Southwood Road, Eastoke, Hayling Island, Hampshire, PO11 9QD

Located within Flood Zone 3

Site Overview

Address: 20 Southwood Road, Eastoke, Hayling Island, PO11 9QD

Planning Proposal: Single-storey rear extension to an existing residential property

National Grid Reference: SU 72335 99274

Flood Zone: Zone 3 (1% or greater annual probability of tidal or fluvial flooding)

Flood Source: Tidal (coastal), with possible surface water interaction

Local Planning Authority: Havant Borough Council

Lead Local Flood Authority (LLFA): Hampshire County Council

2. Flood Risk Context

2.1 Flood Zone Designation

The site lies within Flood Zone 3 as defined by the Environment Agency's Flood Map for Planning, indicating:

- High probability of tidal flooding
- Area protected by defences, but at residual risk from overtopping or breach

2.2 Historic Flooding

Southwood Road and surrounding Eastoke area experienced:

- Significant events in 1978, 1989, and 2013/14 during storm surges
- Storm Brian (2017) caused shingle and wave overtopping along seafront
- No direct reports of flooding to 20 Southwood Road, but neighbouring properties affected

2.3 Flood Defences

The property benefits from:

Seawall and shingle beach ridge managed by the Environment Agency and Havant BC

Beach nourishment as ongoing maintenance strategy

Residual risks exist due to:

- Defence overtopping during extreme tides
- Local drainage system blockage (tide locking)

3. Flood Level Data & Risk Modelling

Flood Event	Climate Change Allowance	Modelled Level (m AOD)
1 in 200 year tidal (present day)	None	~4.72 m AOD
1 in 200 year tidal (2100, with 85 cm SLR)	85 cm	~5.57 m AOD
Ground level at site	N/A	~4.20 m AOD

The existing ground level (4.20 m AOD) is below future extreme flood level (5.57 m AOD)

4. Proposed Development

Rear single-storey domestic extension 26m² with internal changes maintaining the existing 3 bedroom arrangement. Therefore no change in vulnerability class: “More Vulnerable” (residential) use retained.

External changes at roof level non-affecting to the occupants.

5. Flood Risk Mitigation Strategy

Mitigation Measure

In addition following SFRA advice the following measures are considered to be proportionate.

Air vents: special designs of air vent are available in the market to prevent water ingress in circumstances where the predicted flood depth is low (i.e. < 0.3m); e.g. periscopic air vent.

Fittings: The main principle is to use durable fittings that are not significantly affected by water and can be easily cleaned (e.g. use of plastic materials or stainless steel for kitchen units). The cost of these units may need to be balanced against the predicted frequency of flooding. Place fittings (e.g. electrical appliances, gas oven) on plinths as high as practicable above the floor so that they are out of reach of flood water.

Pipework: Closed cell insulation should be used for pipes which are below the predicted flood level. Drainage services: Non-return valves are recommended in the drainage system to prevent back-flow of diluted sewage in situations where there is an identified risk of the foul sewer surcharging. Maintenance of these valves is important to ensure their continued effectiveness.

Water, electricity and gas metres: should be located above predicted flood level.

Electrical services: electrical sockets should be installed above the flood level for ground floors to minimise damage to electrical services and allow speedy re-occupation. Electric ring mains should be installed at the first floor level with drops to ground floor sockets and switches.

Heating systems: boiler units and ancillary devices should be installed above predicted flood level and preferably on the first floor of two-storey properties.

Communications wiring: wiring for telephone, TV, Internet and other services should be protected by suitable insulation in the distribution ducts to prevent damage. Any proposed design solution for flood insulation on all potentially vulnerable wiring should be discussed with the relevant service providers.

6. Exception & Sequential Test

Sequential Test: May be satisfied as development is a minor extension within existing curtilage

Exception Test:

Wider sustainability benefits (e.g., upgrading housing stock)

Development will be safe for lifetime (with mitigation) and not increase flood risk elsewhere this report confirms both are met.

7. Conclusions

The site is at high risk of tidal flooding, but risk can be safely managed with robust mitigation

With resilient construction, and emergency planning and a detailed evacuation plan as follows,

The development: Complies with NPPF flood policy Satisfies Havant Borough Council and EA flood risk requirements.

Flood Warning and Evacuation Plan (FWEP)

1. Purpose of this Plan

This Flood Warning and Evacuation Plan (FWEP) supports a planning application for a single-storey rear extension. Its purpose is to ensure occupants can safely respond in the event of a flood and that the development remains safe for its lifetime.

2. Site Summary

Item	Detail
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Site Address	20 Southwood Road, Eastoke, PO11 9QD
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Flood Zone	Flood Zone 3 (High Risk – Tidal)
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Main Risk Source	Tidal flooding from the Solent/English Channel
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Existing Use	Residential dwelling
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Proposed Use	Residential rear extension (same class)
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Vulnerability	"More Vulnerable" (NPPF classification)
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3. Flood Risk Summary

Environment Agency Designation: Flood Zone 3 (1% annual probability or greater of tidal flooding)

Historic Incidents: Eastoke has been impacted during 1978, 1989, 2013/14, and Storm Brian (2017) by coastal flooding and wave overtopping.

Residual Risks: Despite sea defences, the site may be impacted by overtopping or breach events, especially under climate change projections.

Escape route: Southwood Road may become impassable in severe flood events; refuge and early evacuation are essential.

4. Flood Warning Service

Residents must register for the Environment Agency's Flood Warning Service:

<https://www.gov.uk/sign-up-for-flood-warnings>

or call Floodline: 0345 988 1188

EA Flood Alert Levels:

Alert Type	Action Required
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Flood Alert	Be prepared: monitor forecasts, prepare to act
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Flood Warning Immediate action: begin evacuation procedures

Severe Flood Warning Significant danger to life: evacuate if safe to do so

5. Evacuation Procedure

5.1 Trigger for Action

- EA issues a Flood Warning or Severe Flood Warning
- Visual or audible signs of flooding (e.g., sea overtopping, rising water on Southwood Road)

5.2 Initial Actions

- Move essential items and valuables to a high shelf or upstairs (if applicable)
- Shut off gas, electricity, and water at mains (if safe to do so)
- Place flood barriers (if installed) at doors and vents

5.3 Evacuation Route

Primary exit route: via Southwood Road toward Seafront Roundabout (Eastoke Corner), then inland via Rails Lane or Sea Front

5.4 Shelter Location

Type	Location	Notes
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|---|------------------|
| • Friends/Family As arranged – outside flood zone | Preferred option |
| • Council Shelter As directed by Havant Borough Council | |
| • Local emergency coordination may apply | |

6. Emergency Kit Checklist

- Mobile phone + charger
- EA floodline contact (0345 988 1188)
- Battery-powered torch & radio
- Warm clothing, blankets
- Copies of insurance documents
- First aid kit & medications
- Water & non-perishable food

7. Property Measures

Measure and proposed Actions to be Taken

- Flood-resistant materials Installed in new extension (walls, floors)
- Raised electrical sockets Minimum 450mm above FFL
- Non-return valves Installed on all drainage outlets
- Safe refuge provision (if needed) In loft space

8. Plan Management

Responsibility Action

Homeowner/Occupants Maintain awareness, monitor EA alerts

Emergency Contacts Nearest family/friend, Havant BC

Update Plan After significant changes or annually

Share Plan With all occupants of the property

9. Conclusion

This plan ensures occupants of 20 Southwood Road can:

- Receive timely flood warnings
- Act safely and effectively
- Minimise property damage
- Evacuate or take refuge with minimal risk