



## Improving the flood resistance of your home

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### Advice sheet 2: How does floodwater enter a house above ground?

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Floodwater will enter a house through any opening in the wall, e.g. through an airbrick or gaps around service pipes. Less obviously, perhaps, floodwater can also enter through the actual brickwork and through windows and doors even if they are shut. This sheet provides more information on how floodwater can get into a house through walls and around doors, windows and services.

#### What you need to do

If you have determined that your property is at risk from flooding (see Advice sheet 1) you will need to assess how the floodwater may enter the building. Floodwater may enter from either above ground (Advice sheet 2) or below ground (Advice sheet 3). To improve the flood resistance of your property from floodwater above ground you need to:

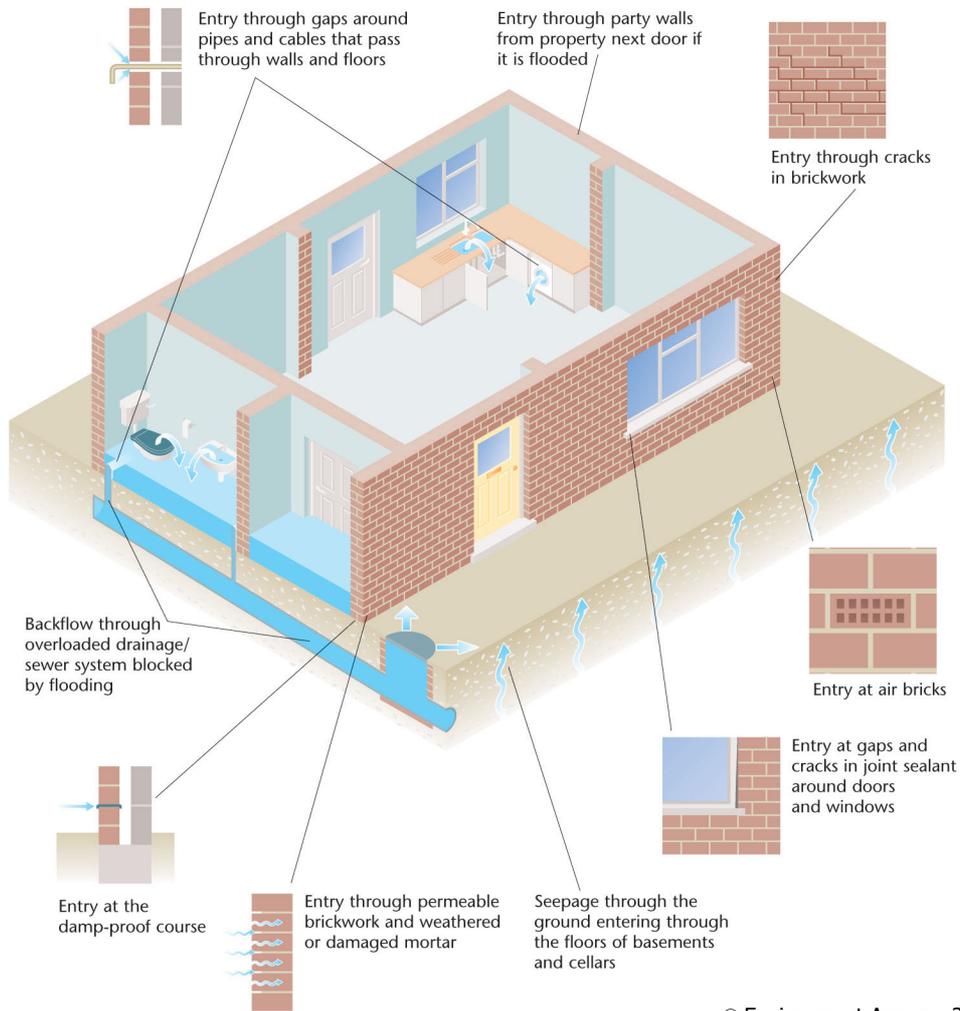
- Carry out a visual inspection of your property to identify where water could get in.
- Carry out maintenance and repairs that improve flood resilience (see Advice sheets 4, 5 and 7).

#### Routes for water ingress above ground

The following are potential routes for floodwater ingress above ground:

- Through gaps around pipes and cables that pass through walls.
- Through party walls from property next-door if it is flooded.
- Through cracks in brickwork.
- At airbricks.
- At gaps and cracks in joint sealant around doors and windows.
- Through permeable brickwork, blocks, stone and mortar.
- Through weathered and damaged mortar.
- At the damp-proof course.

The following diagram illustrates potential routes for floodwater ingress.



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### How to inspect your property

The following table provides a checklist for surveying your property for potential floodwater routes into the building. It also directs you to the relevant Advice sheet for further details on how to assess that aspect of the property and how to improve its flood resistance.

Aspect of building to inspect	Look for	Further information
Doors and windows (including patio doors)	<ul style="list-style-type: none"> <li>• Gaps and cracks around the frame when the door/window is closed.</li> <li>• Gaps in joint between the frame and wall.</li> <li>• Incorrectly applied sealant.</li> <li>• Un-bonded sealant.</li> </ul>	Advice sheet 5
Service into building	Gaps around: <ul style="list-style-type: none"> <li>• Gas pipes</li> <li>• Water pipes</li> </ul>	Advice sheet 7

	<ul style="list-style-type: none"> <li>• Drainage pipes</li> <li>• Sewage pipes</li> <li>• Oil pipes</li> <li>• Electricity cables</li> <li>• Telephone/communication cables</li> <li>• Television cables</li> <li>• Central heating system vents</li> <li>• Washing machine vents</li> <li>• Tumble dryer vents</li> </ul>	
Walls	<ul style="list-style-type: none"> <li>• Type of wall</li> <li>• Permeability of brickwork, stone and mortar.</li> <li>• Cracks in brickwork</li> <li>• Missing or deteriorated mortar jointing.</li> <li>• Broken, dry and dusty vertical joints.</li> </ul>	Advice sheet 4
Airbricks, flues and vents	<ul style="list-style-type: none"> <li>• Are they below the maximum flood depth level?</li> </ul>	Advice sheet 7
Party wall	<ul style="list-style-type: none"> <li>• What flood protection measures does your neighbour have</li> </ul>	Advice sheet 4

#### **Further assistance with inspecting your property:**

If you are not confident in carrying out an assessment of your property yourself a specialist can carry out a survey of your property and advise on the state of repair of your property and possible entry routes for floodwater.

For advice on suitable specialists contact:

- The Flood Protection Association on [www.floodprotectionassociation.org](http://www.floodprotectionassociation.org) or 01773 881067
- The Royal Institution of Chartered Surveyors on [www.rics.org.uk/index.html](http://www.rics.org.uk/index.html) or 0870 333 1600.
- The Institution of Structural Engineers on [www.istructe.org.uk](http://www.istructe.org.uk) or 020 7235 4535.
- The Royal Institute of British Architects on [www.riba.org](http://www.riba.org) or 0906 302 0400.

If you live in an area where there has been flooding in the recent past, local surveyors, builders and architects may have experience of flooding issues and may be able to assist with the property inspection. Before employing a professional for this purpose you should check on their experience and seek references. See Yellow Pages for contact details [www.eyp.co.uk](http://www.eyp.co.uk)