

Building resilience to the impact of flooding



Runoff barrier in Great Bedwyn stopping flooding of home and allotments. Photo J Hitchman

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This leaflet is designed for communities and individuals as information sources to help them to explore how to reduce flood risks and the impacts of flooding. It does not constitute advice in any form, whether financial or otherwise.

1. Introduction

Flooding is becoming a regular feature of heavy rainfall and is likely to become increasingly common for some people. It is frustrating and damaging, sometimes leading to damp homes, which in turn can result in health issues. Flooding is often a life-changing event affecting peoples' outlook on life, finances, long term mental health, education and wellbeing.

The latest flood risk maps published in 2025 show that the risks of future flooding from surface water and rivers are likely to increase. Further information can be found at *Flood Map for Planning* <https://flood-map-for-planning.service.gov.uk/> and *Check Your Long Term Flood Risk* <https://www.gov.uk/check-long-term-flood-risk> showing the current assessment and the understanding of how these may change in the future. Very slightly different information, plus ground water flood risk and a lot of other useful information can be found at the Wiltshire Council site. [Click here](#)

2. Responsibilities and Powers

Flooding legislation is complex and interacts with a variety of other legislation. Ultimately, the owner of a property is responsible for protecting their assets but must not do so in a way that increases flood risk for other properties. Different organisations and stakeholders have various statutory powers and responsibilities for managing water, as summarised (see table below). People tend to assume that statutory organisations responsibilities for protecting individual properties are much greater than in practice. However, most people working in flood risk management are highly committed to helping people but have limited resources.

Stakeholder	Roles and Responsibilities
Environment Agency	The Environment Agency has strategic overview in management of all sources of flooding. It is responsible for managing the risk of flooding from main rivers, reservoirs, estuaries, and the sea. It issues flood warnings in partnership with the Met Office and it provides information on areas at risk of river coastal, surface water, and reservoir flooding through its 'check your long term flood risk' service, and on river and coastal flooding through its 'flood map for planning' service.
Lead Local Authorities	Lead Local Flood Authorities (LLFAs) are Unitary Authorities, County Councils, London Borough Councils, and Metropolitan Borough Councils that are responsible for coordinating flood risk management in their area. They are responsible for managing the risk of flooding from surface water, groundwater and ordinary watercourses. They should also maintain a register of flood risk assets and surface water risk areas and have plans in place to respond to emergencies.
Local Planning Authorities	Local Planning Authorities (LPAs) are usually borough, district or unitary authorities. They are responsible for developing local plans and setting out how areas will develop in the future. They grant planning applications for new development in accordance with national planning policy. National Park authorities and the Broads Authority are also planning authorities.
Internal Drainage Boards	Internal Drainage Boards are independent public bodies, responsible for water level management in low lying areas (approximately 10% of England).
Water and Sewerage Companies	Water and sewerage companies are responsible for managing the risk of flooding from water supply pipes and foul/combined sewer systems that provide drainage from buildings.
Highway Authorities	Highway authorities are responsible for managing highway drainage and roadside ditches, and ensuring that new road infrastructure projects do not increase flood risk.
Riparian Owners	Owners of land or property next to a river, stream, or ditch are responsible for maintaining these waterways.
Property Owners	Owners are responsible for their own property and the drainage and pipework within the ownership boundary.

[Your watercourse: rights and roles](#) offers an introduction to some of these issues.

3. Reducing the risk of flooding

Eliminating flood risk is not possible. There may always be a larger rainfall event, a higher river level or a failure in some small, but vitally important piece of equipment. Better protection is

therefore about managing and reducing the risks and the impacts of flooding, otherwise known as *living with water*. Managing flood risk is likely to involve combining several approaches. There is almost never a silver bullet and even then, maintenance and replacement are important considerations.

Working together as neighbours and across communities rather than on your own has many benefits, ranging from being able to get a better collective understanding of the risks and solutions to being able to work together to solve problems and apply for funding. The National Flood Forum has lots of experience and advice on setting up and running flood action groups, both online and if you contact them info@floodforum.org.uk Tel: 01299 403 055 <https://nationalfloodforum.org.uk>

4. Flood risk warnings

- Sign up to flood alerts and warnings <https://www.gov.uk/sign-up-for-flood-warnings> or contact Floodline on Telephone: 0345 988 1188 Textphone: 0345 602 6340
- Pewsey Parish Council has put together some links to resources:
 - [DASHBOARD](#) showing trends in river levels, groundwater, rainfall as well as current alerts and warnings, [RAINFALL](#), [INCOMING RADAR](#), [GROUNDWATER](#), [PREPAREDNESS](#), [RIVERBANK](#) and [FLOOD WARNING](#) This could be done for any area. The dashboard data is supplied by Pang Valley Flood Forum <https://www.floodalleviation.uk/>
- Look at flood risk maps – See links in the introduction

5. Property insurance



Good residential (or commercial) property insurance that includes flood risk cover is the single most significant thing that people can do to reduce the risk of the **impact** of flooding on their lives because even after installing the full range of physical measures possible, some risk of flooding remains, (especially surface water flooding). Having good property insurance can save you many thousands of pounds. The average insurance claim for a flood in 2025 was around £55,000, inc VAT. Note that there is a government backed scheme called Flood Re to ensure that every home, even in a flood risk area, can get insurance.

Things to consider when seeking a policy:

- PLEASE read the schedule and the policy in full – does it cover what you need?
- To what extent does it cover flooding AND storm damage? Check the wording as policies are becoming ever more restrictive to stop people claiming for maintenance
- What other accommodation is provided if your property is flooded and for how long?
- What is the excess on each element of the policy?



Where to go to get insurance

Comparison websites, insurance companies and brokers online and by phone, high street insurance brokers and some Social Housing providers. Comparison websites work for many people but note that the cheapest may be cheap for a reason. Sometimes, comparison websites turn people down consistently. If so, go direct to providers and get a minimum of three quotes. Specialist insurance brokers can be really helpful in difficult situations.

Sources of support:

- **Directory of Insurance companies** - Find an insurer <https://www.floodre.co.uk/find-an-insurer/> Links to insurance companies that participate in Flood Re
- **Directory of insurance brokers**, including a list of those that specialise in flood risk as part of residential and commercial insurance. British Insurance Broker Association – Find a broker - <https://www.biba.org.uk/find-insurance/> Tel 0370 950 1790
- General support on flooding and flood risk issues, including information about insurance. National Flood Forum info@floodforum.org.uk Tel: 01299 403 055 <https://nationalfloodforum.org.uk>

6. What do I do if my home floods?

Having a plan of what to do if it does flood can really help reduce the damage and keep you safe. There are many checklists and templates around to help, and it is a question of choosing one that suits you. See links below under Practical Advice. Working together as a group can also really help make sure that people are kept safe and supported. There are lots of links to resources below. Wiltshire Council, through their drainage team, has been encouraging parish councils to put plans for their areas in place



7. Property Flood Resilience (PFR)

PFR is the technique of protecting your property from flood water and/or reducing the impact of flood water that does get into the building. It has become hugely popular with government and the insurance industry as an approach to reducing flood risk. Whilst it is a relatively young approach it is developing rapidly. It comprises:

Surveys: A full flood risk survey is the standard requirement for a full Property Flood Resilience Scheme – the term for measures to protect individual properties. Due to a lack of suitably qualified and experienced Property Flood Resilience surveyors (more are being trained) they are difficult to find for a single property and surveys cost around £1000. A list of accredited surveyors can be found at

https://befloodready.ciwem.org/specialist_register_for_pfr_professionals/. This is evolving though at present none of the accredited surveyors offer surveys of individual properties. Costs can be reduced very significantly if a group of properties can be surveyed in one go. There are companies offering individual property surveys, but no surveyors are as yet accredited.

“Resistance” - Stopping water from getting into a property Fully retrofitting a property to reduce the risk of water getting in can cost upwards of £8,000 (the current average seems to be around £13,000) with flood doors, automatic air bricks, etc., however, there is plenty that can be done relatively cheaply.

1. Secure the fabric of the building – pointing brickwork with a breathable and hygroscopic mortar can stop the building acting like a tea bag. Porous brickwork can be sealed with a proprietary cream – remember to go below ground level if you can
2. Direct water flows away from the building – maintenance of gutters and drainpipes so that they work properly and shed water away from the building and if possible into drains
3. Seal holes in the wall, such as where utilities (water pipe, oil pipe, phone and television cables and waste-water pipes) enter the building above and below ground so that water cannot get into the building. Remember, that if you get a new service such as Sky TV you will need to seal the entry point
4. Stock up on cheap materials that can be used to temporarily seal entrances – air bricks, doorways, etc. – aluminium and gaffer tape, alternative sandbags, but not traditional sandbags unless you really know how to use them properly
5. Learn how to block water coming up through drains, toilets, downstairs showers, baths and sinks with household items – see links below
6. Water coming up through the floor can be kept in check if the volume is not too great through use of a puddle pump, but make sure that the electric supply will not be cut off by flood water and that the pump is sufficiently large to cope with the anticipated volume of water
7. Protect your valuables. Lift as much as you can out of the way. Use buckets, wellington boots and tarpaulins to protect furniture. Flood Mary’s website has some good advice.

A more comprehensive approach is likely to involve flood doors and barriers, automatic and manual air brick covers, one-way valves on drainage systems and waste pipes as well as puddle pumps to remove water that does get into the building.

Maintenance is important. Doors drop, seals wear (especially from pushchairs and wheelchairs), airbricks get clogged, locks fail to engage completely. Any of these can lead to the system failing. Regular inspection and maintenance is an important aspect of PFR that often gets forgotten. Similarly, ensuring that new holes in walls are adequately sealed, and pointing is maintained are important.

“Recoverability” - Reducing the damage of water that does get in

If water does get in to your property you want to be able to recover as quickly as possible and with the minimum of fuss, preferably without having to make an insurance claim. There are

lots of things that can be done to achieve this, from raising electricity circuits to having tiled floors, kitchens that can be cleaned rather than replaced and building materials and techniques that can survive a flood rather than succumb to it. See the links below, particularly Flood Mary, BeFloodReady and the Flood Hub.

8. Where to get products and installers

There are lots of providers of property protection measures and these are changing all the time. Increasingly products will be tested to BS 851188 and new types of standard are on the way. Some products are tested to the Kitemark standard BS1188, but measures such as toilet bungs, one-way valves and air brick covers often haven't been tested or there is no appropriate standard, yet. Remember, however good the product, the main cause of failure is poor installation, for example, water often gets in through door frames and under door sills, rather than the door itself, so door barriers need to go around the outside of door frame and under door sills. It is important that you know how to erect or install these products at night, in the dark, in the rain. Practice makes perfect.

Blue Pages <https://bluepages.org.uk/> is a directory of products paid for by advertisers but does not make recommendations. There is some advice as well on selecting products.

Making your Home Flood Ready – A directory of flood products -

<https://floodmary.com/attention-introducing-the-new-property-flood-resilience-pfr-directory/>
Lots of really good ideas, resources and links to suppliers and installers.

Flood Kit <https://floodkit.co.uk/> – DIY, relatively low cost, easy to fit products to reduce water getting into a building offers one approach to reducing risks.

Builders' merchants are increasingly supplying property protection products.

9. Drainage



Traditionally, ditch and drainage work was a winter agricultural job that ensured that water was managed to enable farming to take place. It relied on labour costs being low relative to capital costs. Labour costs are now relatively high and farms are much bigger, so much of it does not take place. This includes field drain maintenance and management, cleaning ditches and drains, managing drainage channels and grips (shallow channels cut into moorland). A good hard look at land drainage, what is needed and could be done is worthwhile, particularly if the whole of a catchment is considered. This often requires coordination across several land managers.

Street drainage is the responsibility of the Highway Authority, in this case the Drainage Team at Wiltshire Council can be contacted through the [MyWilts app](#). It is worth mapping all the street drains and roadside ditches and regularly checking them to see if they are working properly. If drains are cleared and still don't work properly the connectors between them may have collapsed or there is a problem downstream.

The water company is responsible for sewers from the point where the household sewer connects to other sewers. Blockages can lead to flooding, but sometimes they have responsibilities for what appears to be poor drainage.

A particular problem in Pewsey Vale is groundwater getting into drainage and sewerage pipes, due to the underlying geology being Upper Greensand, fed by groundwater from the chalk to the north. Wessex Water has a programme of lining and replacing pipes in key areas, but this is extremely challenging and costly.

10. SuDS – Sustainable Urban Drainage Systems (includes Rain Gardens)

SuDS are the suite of techniques that can be used to slow down and contain water in and around developed areas. For example, many modern estates have large “ponds” that take all the water coming off the development before it slowly sinks into the ground and/or joins the drainage system. But there are many different tools available, both engineered and “natural”, some are suitable for household scale and others for bigger developments.

At a household level, the concept is that each tool on its own will make only a small contribution, but lots together can make a difference alongside other measures. Roofs shed a lot of water, fast. Keeping it out of the drainage system during high rainfall events can reduce the risk of flooding for others. For a household, leaky water butts and raised beds, attenuation ponds, soakaways and swales can be useful.

Things to think about and some information sources:

1. Like all the other measures, SuDS is not a solution for everything
2. Flood prevention measures have to be well designed and maintained. Some research suggests that the benefits are very variable and depend upon site-specific detail.
3. A water butt is of no value in reducing water flow if it is full at the beginning of a storm.
4. Many of the measures rely on water being able to soak into the ground. If the soil water level is already very high, some of these measures may not work.

CIRIA - The SuDS Manual (C753F)

<https://www.ciria.org/ItemDetail?iProductCode=C753F&Category=FREEPUBS&WebsiteKey=3f18c87a-d62b-4eca-8ef4-9b09309c1c91>

Unpave the Way is a useful guide to things that individuals can do:

<https://thefloodhub.co.uk/unpave-the-way/>

11. Natural Flood Management

Natural flood risk management is currently fashionable, the basic concept being that water can be managed across a landscape to improve biodiversity and reduce flood risk. It does this by slowing the flow of water in specific farm and woodland places. It can also be combined with speeding the flow of water in urban rivers to reduce and better manage flood risk.

Natural flood risk management needs to be designed and managed carefully to deliver flood risk benefits. Failure to do this can lead to increased flood risk, such as when water flows from two different streams peak together where they join. Typically, hydrologic modelling will be needed to ensure that the maximum benefits are achieved. Thought also needs to be given at

the outset to maintenance and replacement timescales. Management agreements with landowners may also be needed.

Sources of advice - Rivers Trust, Wetlands Trust, Wiltshire Wildlife Trust, farming groups

CIRIA - The Natural Flood Management Manual (NFM C802)

NFM Manual is available as a [free download](#). The four NFM measures (Chapter 1) are also available to download as separate A3 PDFs. a printed hard copy of the NFM Manual (C802) can also be purchased.

<https://www.ciria.org/ItemDetail?iProductCode=C802&Category=BOOK&WebsiteKey=3f18c87a-d62b-4eca-8ef4-9b09309c1c91>

12. Sources of practical advice

- ▶ National Flood Forum <https://nationalfloodforum.org.uk/> is the national charity supporting people at flood risk and who have flooded. There are lots of resources available on living with water
- ▶ Flood Hub <https://thefloodhub.co.uk/> Masses of really good information about how to deal with flood risk, including a property flood resilience toolkit <https://thefloodhub.co.uk/property-flood-resilience-toolkit/> and low cost resilient measures <https://thefloodhub.co.uk/wp-content/uploads/2020/01/FT-Q-R34-Low-Cost-Property-Flood-Resilience.pdf>
- ▶ Flood Mary <https://floodmary.com/> to see what a flood ready house looks like, plus lots of useful advice on preparing for, coping with and dealing with the aftermath of a flood. There are lots of practical ideas at https://floodmary.com/wp-content/uploads/2024/05/Resillience-Emag2022_digital_v4.pdf
- ▶ BeFloodReady <https://www.befloodready.uk/> A national website for property flood measures. Lots of resources.
- ▶ CIRIA Code of practice for property flood resilience (C790F) <https://www.ciria.org/ItemDetail?iProductCode=C790F&Category=FREEPUBS&WebsiteKey=3f18c87a-d62b-4eca-8ef4-9b09309c1c91>

This guide is FREE - sign in to download a copy. Four key outputs have been developed:

- CIRIA C790A Code of practice for property flood resilience. Edition 2.
- CIRIA C790B Guidance on the code of practice for property flood resilience.
- CIRIA C790C Making your property more flood resilient - What households and businesses need to know.
- CIRIA C790D Guidance for local authority planners.

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