

November 2024

# Flood Smart Living



In partnership with the Environment Agency and Norfolk County Council

Flood resilience support for Suffolk residents, landowners & communities



**Environment**  
Agency



**Norfolk**  
County Council

Flood Smart Living

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Mill Green attenuation feature in Debenham, Suffolk

Flood Smart Living

# Flood risk in Suffolk



Suffolk has been subject to significant flood events in recent years with the impacts felt by individuals, communities and businesses. It is important that we are prepared to deal with a flood event when it happens and ensure we are resilient to flood risk.

Whether you're a homeowner, business owner, landowner or part of a community that is at risk of flooding, there are lots of ways to help reduce the impacts of flooding and protect your property and land. There is no one simple solution to managing flood risk and it is therefore important that mitigation measures are considered in your catchment, your community and your home.



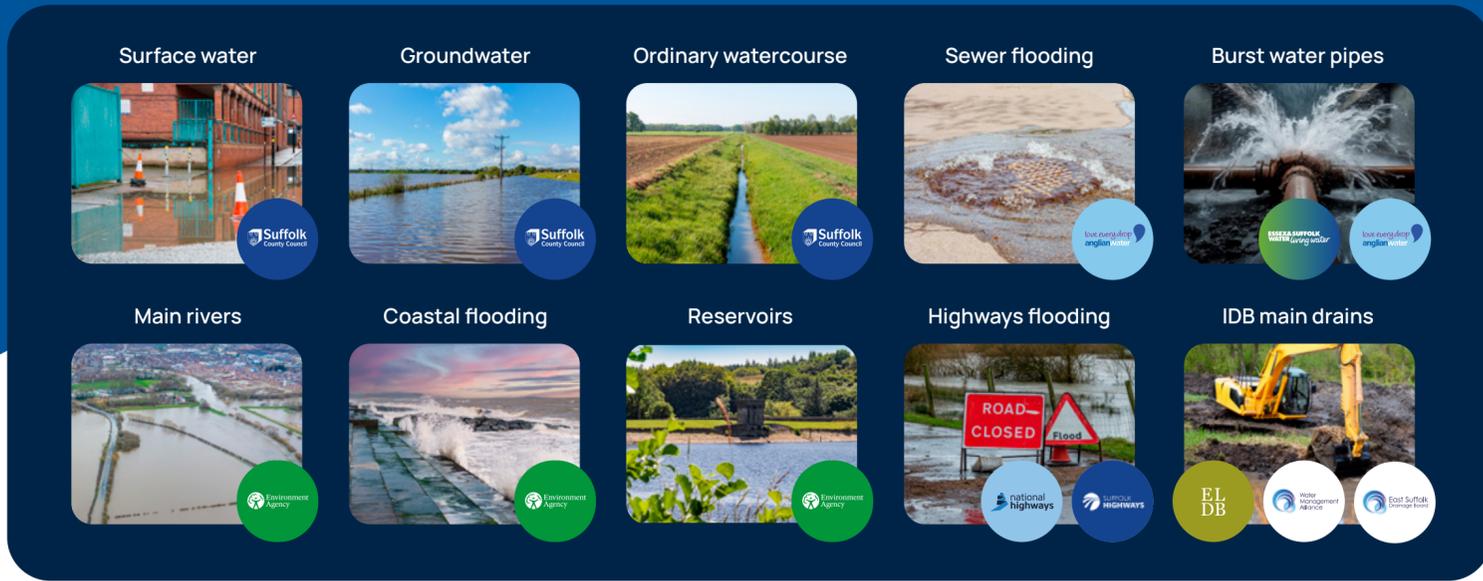
The following guide is designed to show you what options could be implemented to reduce flood risk and increase the resilience of your home and community to flooding. It includes 3 categories; **Your catchment, your community and your home**, a range of examples for each and some useful guidance and advice to enable you to take the next step in becoming resilient to flooding.

The nature of flood risk in Suffolk is extremely varied and spread across the county. The main sources of flood risk in Suffolk are from;

- Surface water (pluvial)
- Main river / ordinary watercourse (fluvial)
- Coastal flooding
- Groundwater
- Sewers

Suffolk County Council is a Lead Local Flood Authority as defined in the **Flood and Water Management Act 2010**. We work closely with organisations under the **Suffolk Flood Risk Management Partnership (SFRMP)** to co-ordinate the management of flood risk. Suffolk County Council, alongside **Borough and District councils, the Environment Agency, Anglian Water, Suffolk Joint Emergency Planning Unit and other flood management agencies** work closely together to make residents aware of flood risk, and co-ordinate investigations and measures to mitigate flooding.

**The organisations who deal with flooding can be seen in the diagram - top right.**



Suffolk County Council is a member of the **Suffolk Joint Emergency Planning Unit (JEPU)**. The JEPU is a shared service for all Suffolk local authorities (County, District and Borough) to prepare for emergencies including major flooding events. It acts as a focal point for local authorities when dealing with the Emergency Services and other agencies during a major incident as part of the **Suffolk Resilience Forum**.

### Useful links

- Suffolk Prepared | Prepare yourself for emergencies →
- Suffolk County Council | Emergency planning →
- Suffolk Greenest County | SFRMP →
- National Flood Forum | During a flood →

### Urgent Advice

**In situations where a property is flooded or under threat of flood:**

- Isolate all electrics (if it is safe to do so)
- Contact any elderly or vulnerable neighbours or relatives and ensure they are safe and know what to do if their properties become flooded
- Consider moving possessions and important documents upstairs if possible

- Avoid contact with flood water as much as possible to reduce risk of drowning and infection
- Secure your property and make your way to a place of safety
- Don't drive through flood water, and try to avoid unnecessary journeys as local roads may be flooded
- Listen to local radio stations for further information and guidance, or call **Floodline on 0345 988 1188** or the **Environment Agency Incident Hotline on 0800 80 70 60** if you need any information

**If there is concern of danger to life, call 999 immediately**

# Flood Smart Living

Leaky debris dams

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# Your catchment

The natural land surrounding your community where water will flow from higher to lower land through watercourses, rivers and overland. Mitigation measures to 'slow the flow' of flood water could increase resilience downstream.

## 🔹 Your catchment

# Leaky debris dams

Leaky debris dams are a natural flood management technique that slows the flow of water during heavy rainfall events. They involve a network of in-channel barriers, installed on a local scale to control channel flows.

There are two common types:

- **Large Woody Dams**

Created by laying large tree trunks horizontally across the channel to rest safely on both banks, wedged in position. Smaller timbers can be wedged in place between the larger ones.

- **Leaky Dams**

Constructed by securing a support across the channel and securing slats, either horizontally or vertically, to form a discontinuous barrier.

### Why do we use them?

The features have proven successful at 'slowing the flow' of water and reducing the impacts of flooding during a storm event. They

are designed to slowly leak, draining the trapped water once the flood period has passed. In-channel barriers could reduce flood peaks by up to 20%.

They are typically installed within channels to temporarily hold water back, but can be designed so that flood water spills onto adjacent floodplain for additional flood water storage.

### Where can they be installed?

- In-channel barriers are generally suited to **smaller watercourses and ditches throughout the catchment**, where holding water back is unlikely to create additional problems.
- In **steep woodland** in the upper catchment, and recommended **alongside runoff attenuation features**, such as understory planting.
- They can also be used **within fields on overland flow pathways**.

### Useful links

GOV.UK | RP32: Small leaky woody dams →

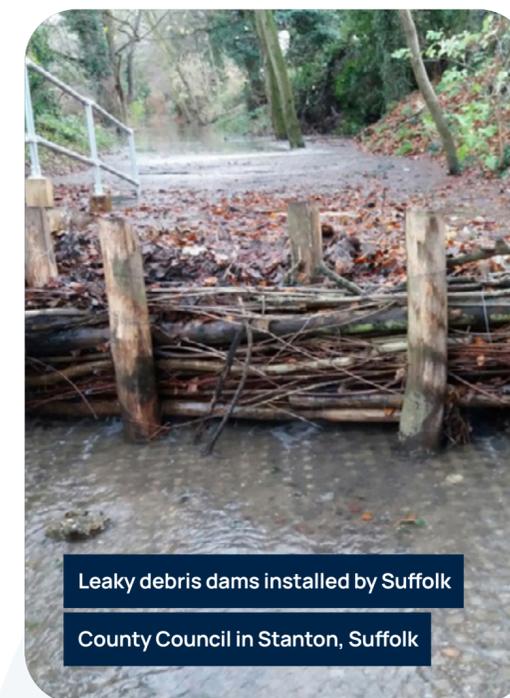
GOV.UK | RP33: Large leaky woody dams →

GOV.UK | Species recovery & management →



### ⚠️ Key points to consider

1. Dams can successfully reduce localised flooding
2. Sediment trapped behind each structure is nutrient rich and can be reused more than one time
3. The dams are set above normal stream level, so only flood flows are blocked and they don't interfere with normal flow conveyance
4. To ensure efficiency, many barriers are likely to be needed. Close liaison with organisations such as the Environment Agency and LLFAs is recommended
5. A permit may be required by the relevant Risk Management Authority ahead of installation
6. Periodic maintenance of dams is required



Leaky debris dams installed by Suffolk

County Council in Stanton, Suffolk

🔹 Your catchment

# Reconnecting watercourses

Restoring the connection between a watercourse and its floodplain provides a valuable contribution to flood management, allowing floodwater to spill naturally onto land to provide significant flood storage, reducing flood risk downstream.

Floodplain reconnection includes restoring meanders and removal, lowering or setting back of flood banks. These can provide flood risk benefits as well as ecological ones through creation of wetlands and better-connected habitat for breeding, and wet woodland.

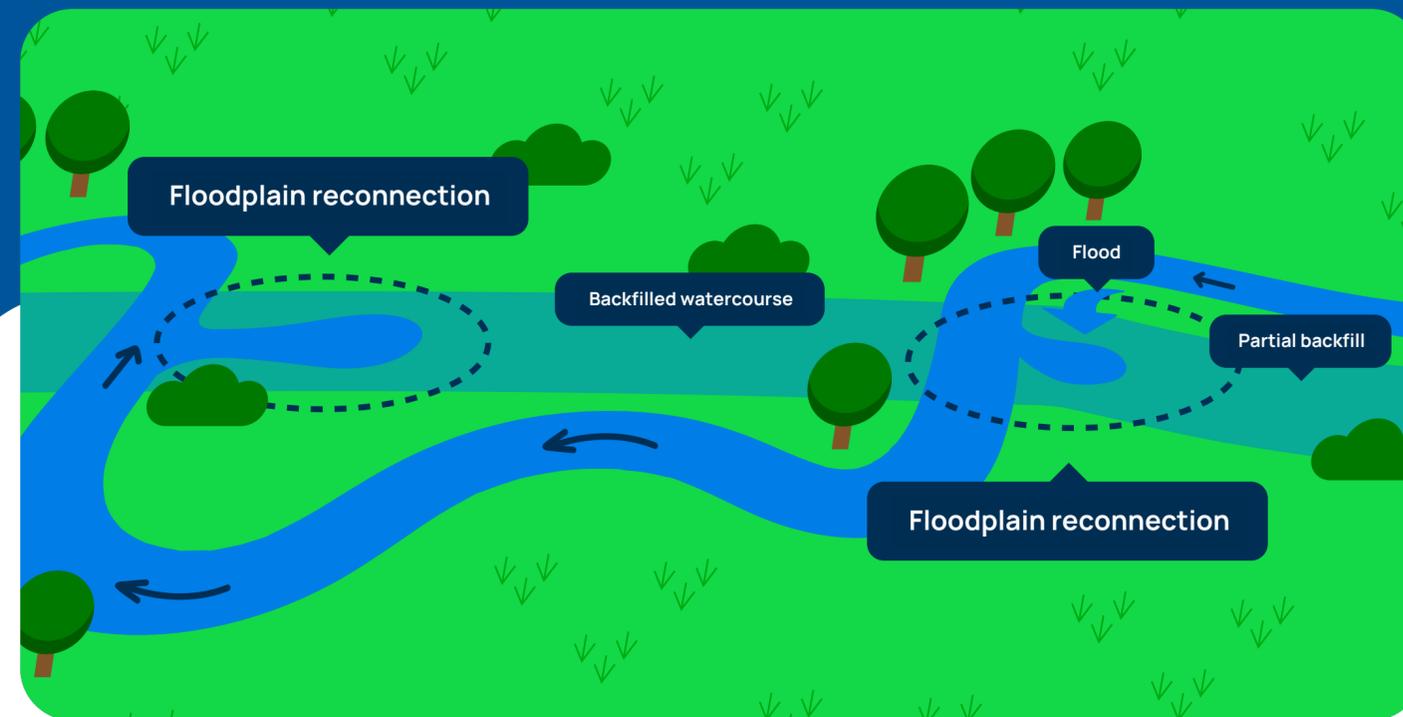
### Where should you reconnect watercourses?

- Restoring floodplain is **most effective where floodplains are wide and flat** and there is no risk to property or infrastructure, through reconnecting it.
- Areas **where the watercourse/stream/etc. has been disconnected** from the floodplain e.g. by an earth bank.
- Re-meandering can be **used in locations where the watercourse has been previously straightened**, particularly in the mid-lower reaches. Remnant meanders can often be identified using aerial photos.



### Useful links

- The River Restoration Centre | Guidance documents →
- GOV.UK | Country Stewardship grant finder →
- Environment Agency | NFM guidance →



### ⚠️ Key points to consider

1. Restoration always needs to be carefully planned by specialist water engineers and ecologists as it will influence the behaviour of the flow of floodwater over a wide area. It may need detailed modelling and design, and will require planning and other permissions and consents
2. Speak to your relevant RMA early on to understand what permits may be needed prior to starting works
3. Typically of higher cost but with greater benefits
4. Dimensions are entirely site dependant and will need detailed specialist advice
5. Typically very low to no maintenance regarding after installation
6. There are various financial incentives available, including Environmental Land Management (ELM), which can support landowners with flood management mitigation



## 🔹 Your catchment

# Field buffers & bunds

Surface water run off, typically from agricultural land, is a common theme associated with flooding within Suffolk. The gradient of slopes and saturation of the ground will affect how water travels through a catchment, and during storm events, water is often observed to be flowing off land and flooding downstream.

There are a range of techniques that can be implemented on agricultural land that can help to reduce the risk of flooding downstream.

**Buffer strips** refer to a strip of vegetation which is designed to increase the roughness of a land surface, slowing the flow of water run off. They help to trap sediment before it flows into a watercourse, stabilise channel banks and increase infiltration.

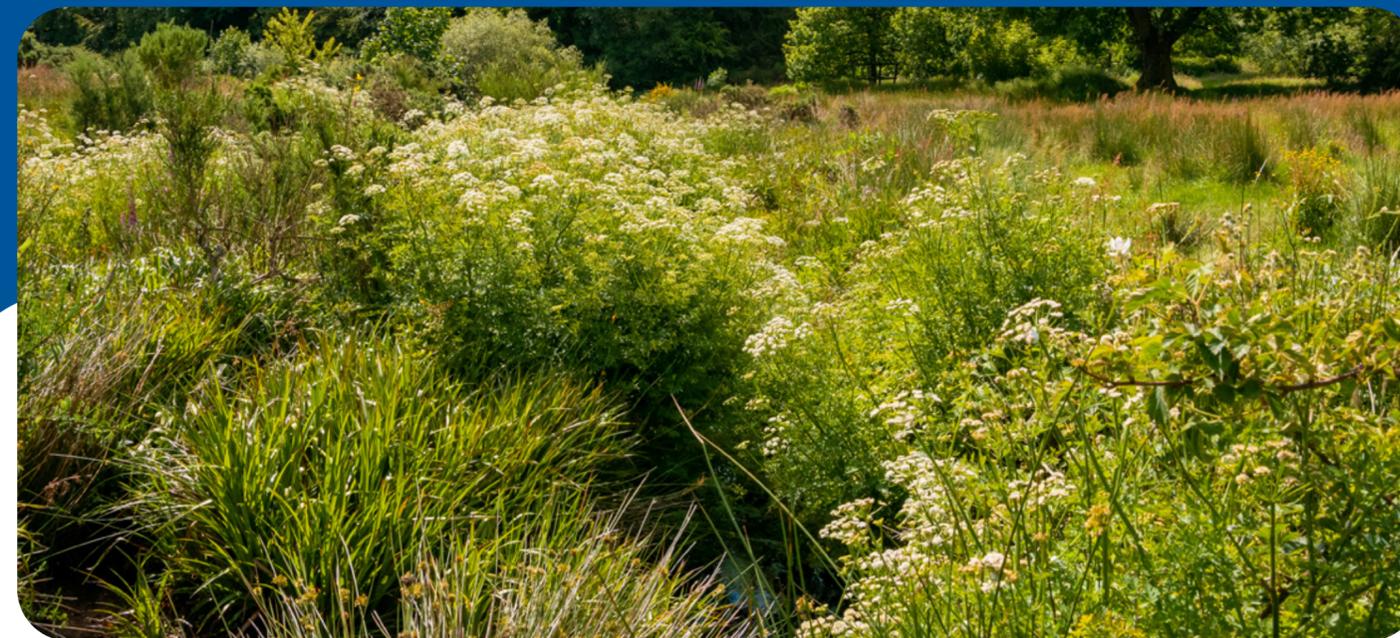
Buffer strips can provide a physical barrier, that restricts surface water and sediment travelling downstream, slowing the speed of water run off and therefore reducing the risk of flooding to property and infrastructure downstream. There are two key types:

- **Riparian buffer strips** are situated next to watercourses and ditches. They should be a minimum of 4m wide for maximum effect, and may require fencing to exclude livestock from the river banks.
- **In-field buffer strips** are found adjacent to field boundaries and across fields. They should be a 2m width and can be planted with native tree species to increase wildlife.
- **Field bunds** are created by excavating earth locally to create mounds, which act to halt a water runoff. They reduce siltation of watercourses, by allowing sediment to drop out of suspension as well as slowing the flow of water.
- **Earth bunds** work most efficiently when located across known runoff pathways which appear following heavy rainfall or when the soil is saturated. They should be created from compacted soil and should not exceed 1.3m.

### Useful links

GOV.UK | Countryside stewardship grants →

Environment Agency | NFM guidance →



### ⚠️ Key points to consider

#### Field buffers

- A 10m wide buffer strip can reduce sediment loss by 30% and prevent erosion of valuable top soil from fields into watercourses
- They reduce frequency of ditch management through decreased rates of siltation and can create wildlife corridors
- There are various financial incentives available, including Environmental Land Management (ELM), which contains a range of options for creating and managing buffer strips, grass margins and riparian management strips

#### Field bunds

- There are various financial incentives available, including Environmental Land Management (ELM), which contains a range of options for creating and managing buffer strips, grass margins and riparian management strips
- The size of field bunds will depend on runoff volumes to be intercepted; however, the greater the scale, the greater the removal efficiency

## 🔹 Your catchment

# Attenuation features

Attenuation features work by storing water, either temporarily or permanently. They may also allow sediment to settle before the water enters the watercourse. This provides a flood risk benefit by holding back water during rainfall events and reducing the flow for downstream communities at risk.

Successful design takes account of existing flow paths whilst working with natural topography and low spots. They provide vital flood storage capacity during rainfall events by 'slowing the flow' within a catchment.

Wetland habitat can also be included. They reduce soil loss and surface scour, filter diffuse pollutants and provide opportunity for nutrient reclamation.

### Where can they be installed?

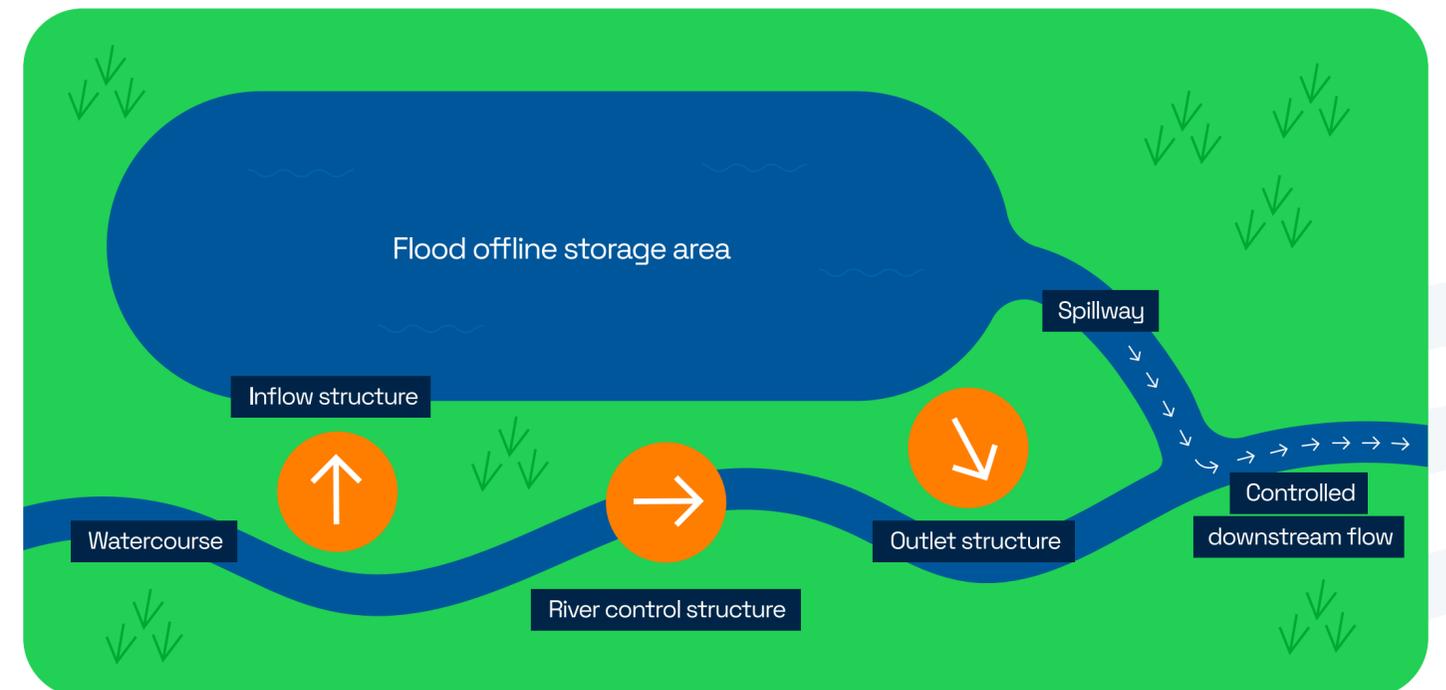
Attenuation features are typically located in areas prone to runoff during flood events, examples being corners of fields or adjacent to a watercourse. They are also effective in areas where sediment load is an issue.

### Key points to consider

- Designs can be **tailored to each location**, working with natural topography and land requirements.
- Features can be **small or large scale**, depending on the size of the catchment area and the local soil conditions.
- The reprofiling of land can be designed to be normally dry and remain productive or set to **encourage development of wetland areas**.
- Timescales will be dependant on land availability and permissions required prior to construction. **Engagement with relevant authorities is crucial**.
- The cost to install these features is usually medium to high but maintenance low. **There are various financial incentives available to support the delivery of these features**.

### Useful links

GOV.UK | Countryside stewardship grants →  
 Environmental Agency | NFM guidance →





# Your community

Flooding can impact a community in a number of different ways, through disruption to infrastructure but also the impact to its residents. It is well known that a community that is prepared for flooding can support residents and help to reduce the impacts when a flood occurs.



Your community

# Health & wellbeing



Being a victim of a flood event is traumatic and can cause a range of health problems.

There may be direct effects such as physical injury, or an increased risk of developing skin or gut infections through contact with contaminated flood water. Indirect impacts, such as mental health problems including stress and depression, can often be overlooked and continue for a longer period of time. In England, most of the health burden linked to flooding comes from effects on people's mental health and wellbeing.

### Why is it important?

Health and wellbeing is important through all stages of a flood event. The immediate aftermath of a flood event includes cleaning and drying of your home or property to check for any health risks as a result of the flood. **Floodwater can contain harmful pollutants or contaminants hazardous to humans and animals.** When cleaning up a home affected by floodwater, the use of rubber boots, protective overalls or a waterproof apron, and waterproof gloves are important to avoid exposure to floodwater.

The recovery phase can be prolonged. Many flood victims must temporarily leave their home whilst it's being restored.

Disruption to everyday life and routine can be stressful, living day to day, and future planning can feel impossible. It should also be noted that **many flood victims, when back in their homes, may continue to be anxious about flooding happening again**, further impacting health and wellbeing.

### Actions you can take

These reactions are a normal response to flooding. It is important to **ask yourself how you are feeling and to reach out to friends, family or neighbours if you are feeling stressed or overwhelmed.** There is no easy fix but there are actions that can help yourself, family and community. The **National Flood Forum** have created some useful steps to support flood victims with their health and wellbeing...

#### Useful links

- [GOV.UK | Flooding and health public advice](#) →
- [NHS England | Talking therapies for anxiety and depression](#) →
- [Age UK | Preparing for floods](#) →
- [British Red Cross | Prepare for floods](#) →
- [National Flood Forum | Coping with flooding](#) →



Follow a normal routine as much as possible



Eat healthy meals, be careful not to skip meals or overeat



Exercise and stay active, for your body and mind



Help neighbours or potentially vulnerable people in your community



Accept help from family, friends, co-workers or faith groups. Talk about your feelings!



Limit your time around the sights and sounds of what happened, if you can



Don't dwell on TV, radio or newspaper reports of the crisis



 Your community

# Community emergency plans

### Useful links

[Suffolk Prepared](#) | [Prepare your community](#) →

[GOV.UK](#) | [Emergency Plan kit](#) →



Community emergency planning is about people understanding local risks and knowing what resources they have available to help minimise the impact of an emergency on their community.

Emergencies can take many forms, from house fires through to flooding or widespread power outages. Experience shows those who are prepared cope better during an emergency.

Across Suffolk there are many community groups, towns, parishes and wards who have **produced a plan making their community better prepared to respond and recover from incidents that may happen in their area.**

County, district and borough councils all have **Emergency Planning Officers who together plan and prepare for emergencies in their areas** and can support communities to prepare their own emergency plans. A community emergency plan is unique to each community and should be tailored to the needs of your residents.

**Suffolk Prepared** offers a number of workshops and training sessions for anyone who is actively involved in Community Emergency Planning Groups. It's not just for key committee members but is open to all those who would like to help in the event of an incident occurring.

The **Suffolk Joint Emergency Planning Unit (JEPU)**, offers support for businesses affected by flooding too. They can provide help or connect you to resources and experts who offer specialist assistance. A Business Continuity Plan describes how your company will continue

to function during and after a disaster or crisis. Strong plans include provisions for a range of possible events that could impact your business' ability to function. Below are the six steps you should take to ensure an effective plan for your home or business:



 Your community

# Engagement & facilitation

Parish and town councils can play an important role in managing flood risk at the community level by preparing community flood plans and supporting volunteer groups, raising additional funding for local flood resilience and flood defence measures, and sharing and gathering information. Parish and Town Councils may support the following activities:

## Flood action groups

Creating a core group of local volunteers who act as a representative voice for their community. They work alongside agencies and authorities, all with the aim of improving resilience to local flooding. **Working in partnership with local authorities and organisations is the best way to start increasing the resilience of communities to flooding.**

## Riparian ownership

Helping to spread awareness of roles and responsibilities for the maintenance of watercourses. If residents can coordinate the maintenance of ditches, they will be more effective during storm events.

## Flood Smart Living

## Public consultations

Consultations allow you and the wider community to share local knowledge to support decision making, including for neighbourhood plans and development proposals that could affect flooding.

## Flood warnings & alerts

Encouraging individuals to sign up for flood warnings if your home or business is at risk of flooding. You can get warnings about flooding from rivers, the sea or groundwater. You cannot get flood warnings for surface water flooding, sometimes known as 'flash flooding'.

**For flooding from rivers and the sea, residents can sign up for free 24-hour flood warnings** and get practical advice on what to do before, during and after flooding.

## Liason roles

There are multiple stages to delivering a flood mitigation project and support from communities in the early stages can be invaluable. An example is the implementation of Natural Flood Management measures. By using information on local flood risk, whether this be S19 Flood Investigation report or predicted flood risk maps, you can begin discussions with landowners to identify possible locations and land which can support the concept of a scheme.



### Flood alert

**"Flooding is possible. Be prepared"**

- Be prepared to act on your flood plan
- Prepare a flood kit of essential items

### Useful links

GOV.UK  
Sign up for flood warnings →

National Flood Forum  
Flood actions groups →

GOV.UK  
Check long term flood risk →



### Flood warning

**"Flooding is expected. Immediate action required"**

- Protect yourself, your family and help others
- Move family, pets and valuables to a safe place
- Keep a flood kit ready
- Turn off gas, electricity and water supplies if safe to do so
- Put flood protection equipment in place



### Severe flood warning

**"Severe flooding is expected. Danger to life"**

- Stay in a safe place with a means of escape
- Be ready should you need to evacuate from your home
- Co-operate with the emergency services at the scene
- Call 999 if you are in immediate danger



 Your community

# Community self-help scheme

Suffolk Highways, in partnership with town and parish councils, has developed a scheme designed to empower communities to deliver minor maintenance work.

Suffolk County Council must prioritise its funding and focus on maintaining a safe network for all users. As a result, we are not able to carry out the extra work which town and parish councils would like in order to maintain and improve the aesthetic value of their areas. **The Community Self-Help scheme allows town and parish councils to do more in their communities**, by undertaking minor maintenance and helping increase the local resilience.

Those living within the community are the best placed to identify issues when they occur and depending on the intervention required, resolve them at a faster rate. For example, this could include clearing leaf debris from gully grates or deploying flood warning signs. The scheme provides communities with the training, safety equipment and tools to do so.

### Useful links

Suffolk County Council | Community Self-Help Scheme →

The range of works that town and parish councils will be able to undertake via Suffolk's Community Self-Help Scheme include:

- Grass cutting
- Tree pruning
- Weed clearance
- Siding out of footpaths
- Cleaning around gullies
- Sign cleaning
- Painting street furniture

### Want to get started?

There are four options available as part of the scheme:

1. Buying in services from a private contractor
2. Using your own trained employees
3. Using community volunteers
4. Buying in additional services from Suffolk Highways

If you're interested in the Community Self-Help scheme, firstly consider the types of work you'd like to carry out and which of the four options you think is most suitable.

**Please then submit the relevant application form to [communityselfhelp@suffolkhighways.org](mailto:communityselfhelp@suffolkhighways.org).**

We will work with you to ensure your application is signed off and plan your chosen maintenance activities appropriately.



### 🕒 Key points to consider

1. The scheme offers training for volunteers, the provision of Personal Protective Equipment (PPE) and equipment
2. The scheme can be tailored to the needs of your community
3. The scheme must be run through either a parish or town council. It cannot be offered to volunteer groups



# Your home

Flooding can have a devastating impact to homes and businesses. Preparation is key and there are a number of way you can increase your resilience to flooding at home.

 Your home

# Watercourse maintenance



If you own land or property next to, or crossed by a river, stream ditch, or any other kind of watercourse, you are a 'riparian landowner'. **Riparian ownership** is relevant in both rural and urban locations and includes both 'open' and 'piped' watercourses. Riparian ownership applies to both Main Rivers (principle watercourses in an area) or Ordinary Watercourses (all other watercourses).

## Your rights and responsibilities

As a riparian owner, you have rights and responsibilities, and it is essential to understand these to protect the environment, your interests and help manage flood risk. Water should flow onto or under your land in its natural quantity and quality and you have certain rights and responsibilities for maintaining the watercourses that carry it.

You should keep the banks clear of anything that could cause an obstruction and increase flood risk, either on your land or downstream if it is washed away. You are responsible for

maintaining the bed and banks of the watercourse and the trees and shrubs growing on the banks.

You must keep structures, such as pipes, culverts, trash screens, weirs and mill gates clear of debris.

**We encourage you to review the guidance for riparian ownership, provided by the LLFA and Environment Agency, prior to undertaking work.**

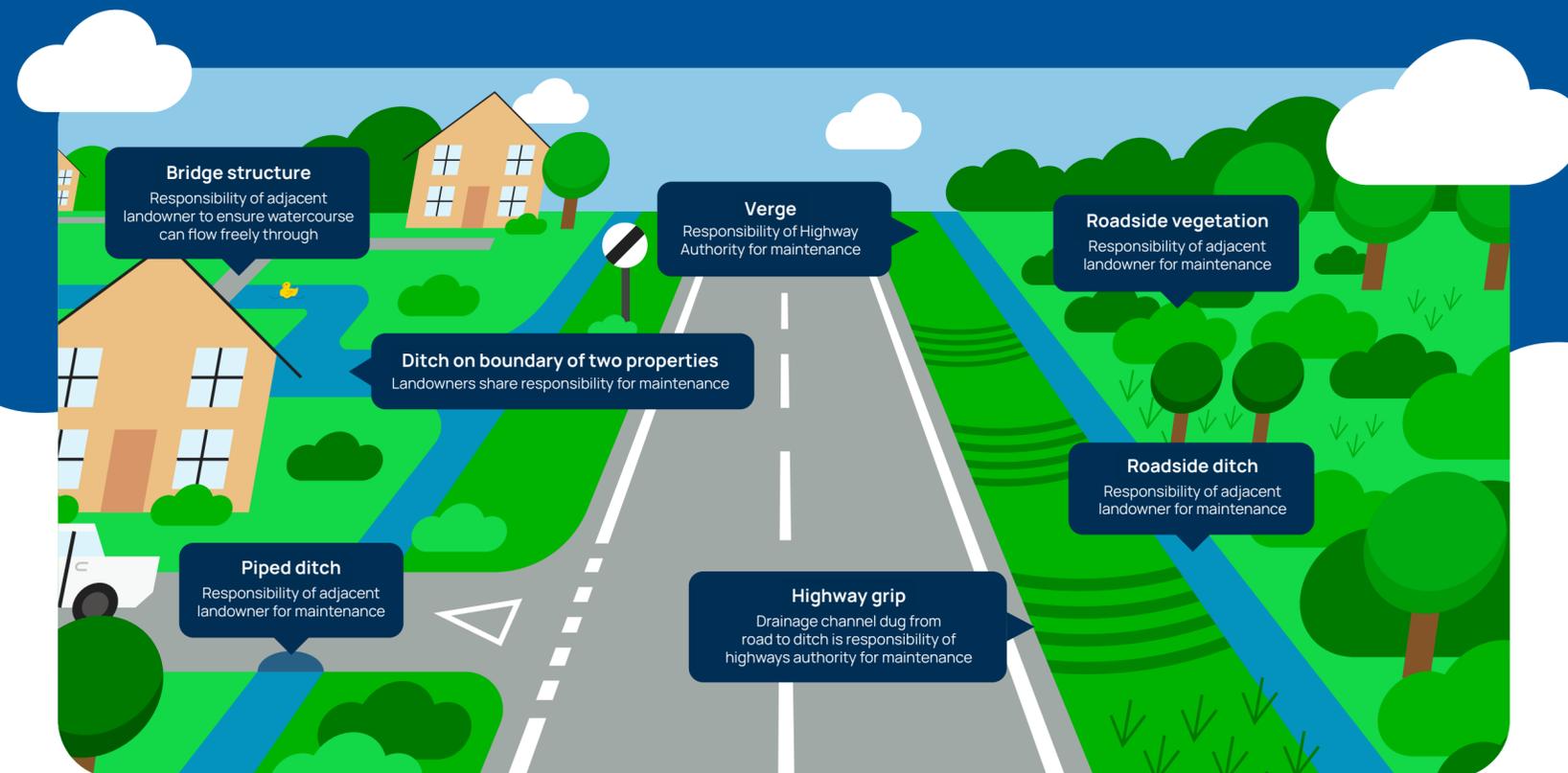
## Why is it important?

Maintaining watercourses is vital to ensure that they continue to operate as they were originally intended. They play an important role in the management of flood risk as well as environmental factors.

Over time it is inevitable that silt, vegetation, or other debris gets caught in watercourses and it is important to ensure that they are regularly cleared to prevent blockages. If these obstructions are not managed, they can lead to increased flood risks further downstream.



You **must** let water flow onto or under your land without any obstruction, pollution or diversion which affects the rights of others.



## Key points to consider

- You are likely to need **permits or exemptions in place if you're planning to undertake work: A - In the channel or within eight metres (26 feet) of a Main River. B - In the channel or within 16 metres (53 feet) of a tidal Main River. C - In a floodplain of a Main River.**
- Suffolk Highways most commonly own up to the 'brow of the ditch' and have the right to discharge surface water from the highway into said ditch. **The adjacent 'riparian owner' would be responsible for maintenance of the ditch.** Suffolk Highways are not responsible for maintaining land outside of their ownership.

- Annual maintenance is advised, and riparian landowners should **ensure relevant permissions and H&S measures are adhered to.**
- Under the Land Drainage Act (1991), any works that could potentially obstruct or alter the flow of a watercourse require Land Drainage Consent to ensure they do not negatively impact flood risk or drainage efficiency. **Failure to obtain the necessary consent can result in legal action** and the need for costly remedial work.

## Useful links

Suffolk County Council | [Guidance for riparian ownership](#) →  
GOV.UK | [Check if you need an environmental permit](#) →

 Your home

# Property Flood Resilience (PFR)

You can never entirely remove the risk of flooding to your property, but you can reduce the risk of water entering your home and its impacts.

Property Flood Resilience is an approach to flood management that involves installing a range of measures to help to minimise flood-related damage to your home, making recovery quicker and less costly. There are two key categories for PFR measures:

- **Resistance measures** can be fitted to the outside of a property, forming a physical barrier between the floodwater and the inside of the building. They aim to reduce water entering the property and can include flood boards and doors, air brick covers, non-return valves and pumps.
- **Resilience measures** can be used alongside the external resistance measures to adapt the internal property, aiming to limit the damage caused if water does enter a building to speed up recovery and reoccupation. Typical measures include waterproof plaster, solid/tiled flooring and raising electrical sockets.

## Why is it important to you?

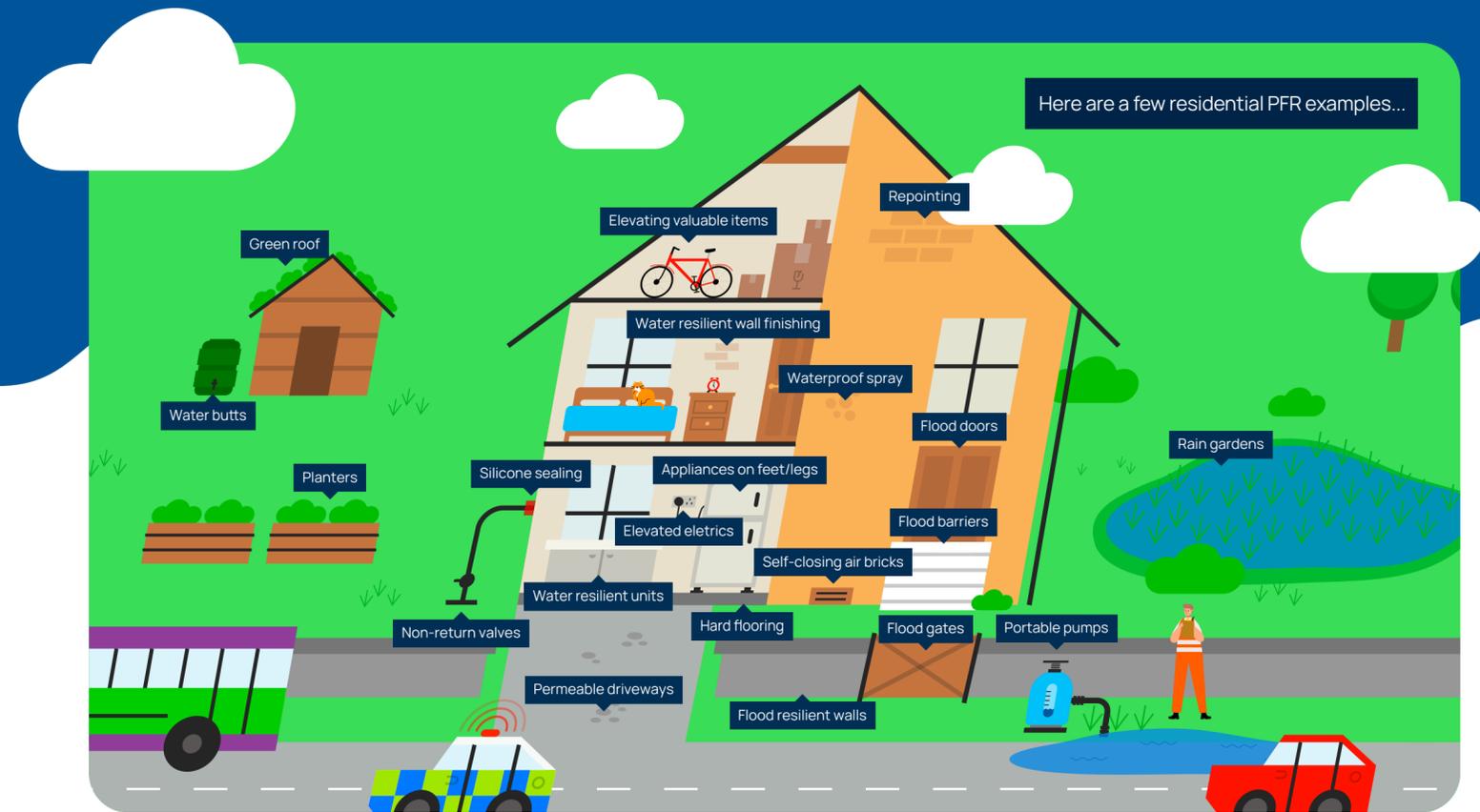
Any property owner that is at risk or has experience of flooding should consider PFR measures.

An independent flood risk survey is strongly advised before installing PFR measures. The surveyor will visit your property and assess the possible entry points for water, identifying options that are suitable for you, the property and the flood risk. After the work has been done, they can provide an independent post installation sign-off.

The **Property Protection Advisor** is a useful tool which helps property owners who are considering PFR. The tool generates a report for your individual property or community and will identify the indicative cost of measures and provide useful links to further information and advice.

### Useful links

- [Blue Pages | UK flood directory](#) →
- [Be Flood Ready | What is PFR?](#) →
- [Association of British Insurers | Accessing flood insurance](#) →
- [National Flood Forum | Property protection advisor](#) →



## ⚠️ Key points to consider

- Older properties, including both **listed and non-listed**, may require different approaches due to the structural integrity of the building and the requirement of planning permission. You should liaise with your surveyor and local conservation team to ensure appropriate measures are installed
- Always **seek professional advice from an independent flood risk surveyor** before purchasing products
- You should **liaise with your local authority (Lead Local Flood Authority)** as to whether there are any grant funded schemes available to support the PFR to your property
- There are a range of organisations looking to help those living at high flood risk access affordable insurance. **The National Flood Forum and the Association of British Insurers also provide useful guidance**

 Your home

# Individual emergency plans

An individual emergency plan, sometimes referred to as a **Household Flood Plan**, is a document, produced by the homeowner, which outlines what to do in an emergency to reduce the risk to themselves, their family, home and contents.

A Household Flood Plan is a useful tool to help you deal quickly and effectively with emergencies or a stressful situation within the home. Involve your whole family in writing the plan to help them prepare too.

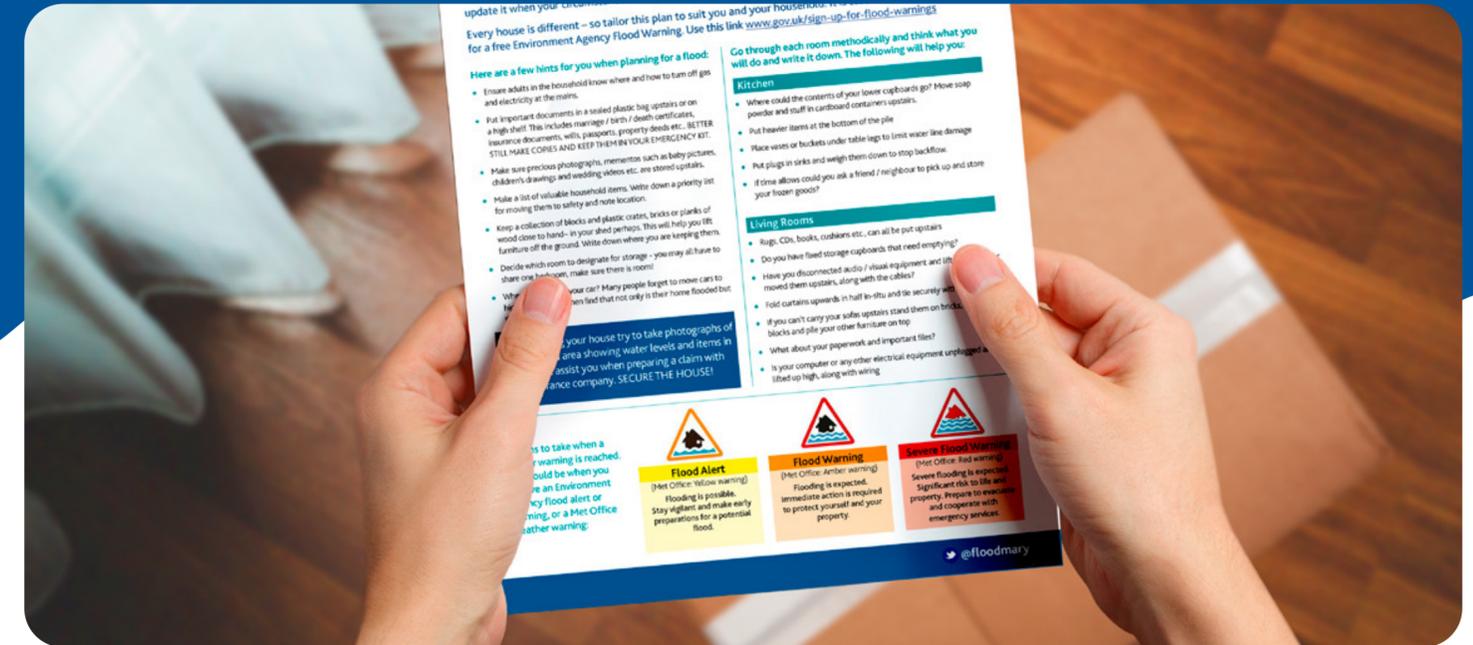
## Why are they important?

- Reduces damage to homes and businesses
- Reduces health and psychological impacts
- Reduces disruption
- Increases resilience
- Speeds up recovery times for people and property

## What should it include?

A successful plan will clearly list actions needed when a flood event occurs and can include actions such as:

- List of **key contact numbers** (eg. utilities, insurance, finance, council, medical, community flood wardens, neighbours, vets, pet accommodation and pump equipment suppliers)
- How to **turn off your gas, electricity and water supplies**
- What **property flood defences** you have, where they are, their installation instructions and any service/maintenance records
- Which **possessions you will move** and where (eg. valuables, pets, furniture and cars)
- Checklist of **actions immediately prior to a flood**
- List of **do's and don'ts** during a flood
- Checklist of **immediate actions after a flood**
- List of **essential items** in case of evacuation
- Where you would evacuate to and **what your safe, accessible exit routes are**

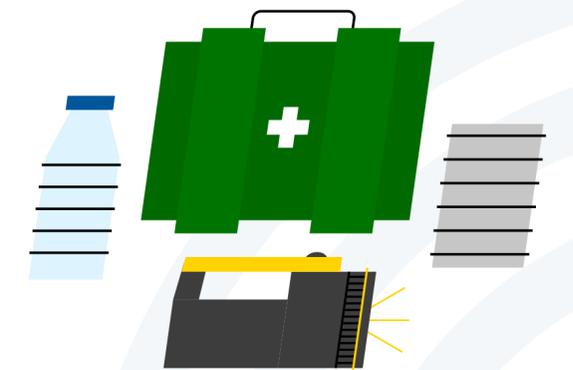


## ⚠️ Key points to consider

1. They are individual and should be tailored to the homeowner. This should be updated regularly should your situation or needs change
2. Registration for flood and weather warnings is critical to ensure you have time to implement your plan
3. Assembly of a flood kit of essential items is important alongside your plan. This could include mops, buckets, waterproof clothing, PPE, first aid kit, torch, radio and batteries, non-perishable foods and bottled water

## Useful links

- GOV.UK | Personal flood plan guidance →
- GOV.UK | Sign up for flood warnings →
- Flood Mary | Are you at risk of flooding? →
- Suffolk Prepared | Prepare yourself →



 Your home

# Small scale drainage (SuDS)

Small scale drainage, sometimes referred to as SuDS (Sustainable Drainage Systems) are an effective way of managing water.

Flooding is often observed when too much water is trying to enter a drainage system, causing flooding. SuDS are designed to manage water locally, to mimic natural drainage and encourage water to infiltrate and be stored, therefore reducing the pressure on drainage systems.

SuDS can be large and small scale and effective not only in developments, but individual properties. Managing how water behaves on your property, by absorbing, storing and slowing runoff, can help to reduced localised flooding. For example, storing rain water in a waterbutt, rather than directing it via a pipe underground, will reduce the chance of surcharging and flooding to property.

## Useful links

[London Wildlife Trust | Living with rainwater](#) →

[Green Roofs Organisation | Green roofs](#) →

[Slow the Flow | How to help in your house and garden](#) →



**Green roofs** are suitable for any building with adequate weight bearing capacity. They absorb rainwater, reduce runoff and increase biodiversity and insulation which can play a part in reducing your energy bills.



**Rain gardens & planters** at base of downpipes or adjacent to hard surfaces help reduce surface runoff and the amount going into drainage systems, whilst making an attractive area in your garden to help wildlife flourish.



**Replacing hard impervious surfaces** such as driveways, patios and paths with alternative materials like gravel, porous paving or lawn, reduces run off and prevents pools of water forming.



**Ponds** introduced in the land surrounding your property will increase temporary water storage capacity and provide an attractive biodiverse feature.



**Waterbutts** collect rainfall from roofs, adjacent to the property and any outbuildings - water can be used in the garden or appropriately filtered and stored for reuse within the home. They can lower flood risk, but can also help reduce your water bill.



## ⚠ Key points to consider

- SuDS can not only reduce flooding but also improve water quality, biodiversity and amenities, plus they're pleasant to look at too!
- Some measures may require additional permissions and we would advise liaising with your local planning authority before any work.

## Flood Smart Living

## Glossary

## Flood alert - Prepare

This is low level flooding. This means that the rivers will be high and possibly coming out of the banks on to riverside paths, low-lying fields and roads. At the coast this means that the tide will be high, with seawater coming onto promenades, and waves might be very choppy. This message is good for situational awareness to take care when you are out and about.

You may need to move livestock or vehicles from low lying areas.

## Flood warning - Act

This is higher level flooding. The water levels will be much higher and this is usually the level property flooding occurs. You would need to move valuables away from the source of flooding and be prepared to leave home if the conditions get worse.

## Groundwater

All water which is below the surface of the ground and in direct contact with the ground or subsoil.

## Internal Drainage Board

A local public authority established in areas of special drainage need in England and Wales. Each board has permissive powers to manage water levels within their respective drainage districts. They also undertake works to help reduce flood risk to people and property, whilst managing water levels to meet local demand.

## Local Planning Authority (LPA)

The public authority whose duty it is to carry out specific planning functions for a particular area. In Suffolk, these are our District and Borough councils.

## Main rivers

These are normally the principle or arterial watercourses in an area and are designated by **main river maps** held by the Department for Environment, Food and Rural Affairs and the Environment Agency. The term also includes any structures in the bed or bank for controlling or regulating the flow of these watercourses. The Environment Agency has permissive (not mandatory) powers to carry out maintenance and improvement works on main rivers.

## Natural Flood Management (NFM)

Using natural processes to reduce the risk of flooding. These processes protect, restore, and mimic the natural functions of catchments, floodplains and the coast to slow and store water.

## Ordinary watercourse

Watercourses which do not form part of a main river. This could be a river, stream, ditch, drain, cut, dyke, sluice, sewer (other than a public sewer) and passage through which water flows, so long as it does not form part of a main river.

## Property Flood Resilience (PFR)

A set of modifications to a building that reduce the risk of flooding and the damage it causes.

## Riparian owner

A Riparian Owner is somebody who has a watercourse running through, next to, or beneath their land. This might be a river, stream, ditch or buried watercourse.

## Risk Management Authorities (RMAs)

Organisations which have a responsibility to strategically manage some form of flood risk. Any given RMA may not have responsibility for all types of flood risk, and they may not have a responsibility to maintain an asset which is causing flooding.

## Surface water

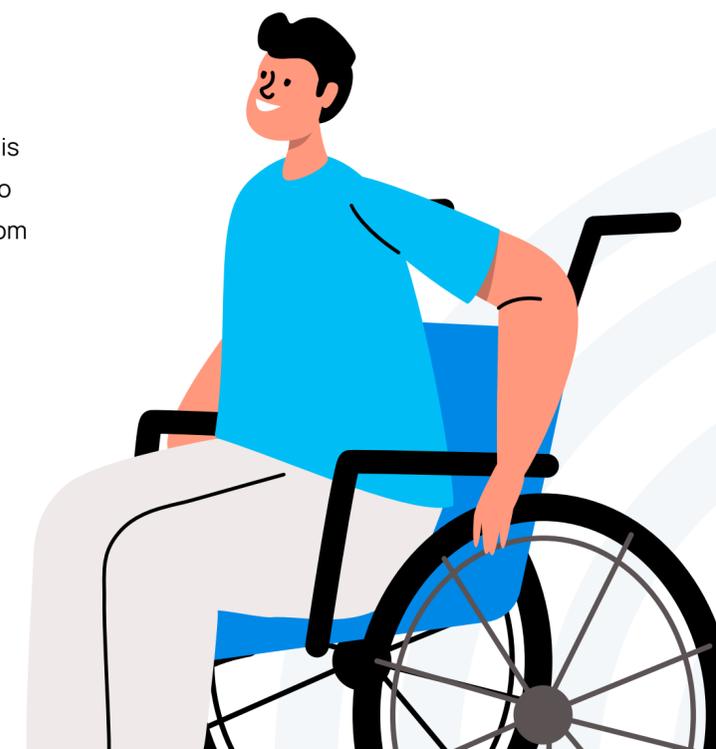
This is very high water levels that will be dangerous. It is likely you will be asked to evacuate your home either to a Rest Centre or to a friend or family that lives away from the flooding.

## S19 Flood Investigations

A detailed reported undertaken by the Lead Local Flood Authority following significant flood events. They highlight the probable causes of flooding and recommend ways to reduce future flood risk.

## Sustainable drainage systems (SuDS)

Water management features which are either designed into new developments or retrofitted into existing urban areas to manage rainfall at its source, reduce the speed at which water travels through an area and can help to reduce flood risk.



## Flood Smart Living

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