

Public Audit Committee
Wednesday 29 October 2025
28th Meeting, 2025 (Session 6)

Flooding in communities: moving towards flood resilience

Introduction

1. At its meeting today, the Public Audit Committee will take evidence from the Scottish Government, COSLA and SEPA on the Auditor General for Scotland (AGS) and the Accounts Commission's joint [Flooding in communities: moving towards flood resilience](#) report, which was published on 28 August 2025.
2. The Committee previously heard evidence from the AGS and the Accounts Commission at its [meeting on 17 September 2025](#).
3. The Committee sought a written response to the report from Scottish Water, this can be found at **Annexe A**. The Committee has also received a briefing note from The University of Manchester on a toolkit it has developed to map and analyse flood and extreme heat resilience across Scotland, England and Wales, this can be found at **Annexe B**.
4. A copy of the report can be found at **Annexe C**.
5. The Committee will decide any further action it wishes to take following the evidence session today.

Clerks to the Committee
October 2025

Annexe A: Written evidence from Scottish Water



13 October 2025

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Dear Convener

Thank you for asking Scottish Water to respond to the recommendations in *Flooding in communities: Moving towards flood resilience*, the joint report from the Auditor General and Accounts Commission.

Scottish Water supports the recommendations in the Audit Scotland report, and is ready to work with Scottish Government, local authorities, SEPA and COSLA to take these forward.

As you know, flooding is a complex issue with responsibilities shared between a number of different bodies. Scottish Water has statutory responsibility to operate the public foul and combined sewer systems and manage problems caused by sewers either flooding or being affected by chokes and collapses. This includes the drainage of rainwater into the combined sewer system.

In addition to these responsibilities, Scottish Water is classed as a Responsible Authority under the Flood Risk Management (Scotland) Act 2009, with a role to provide the understanding of risk of flooding from the sewer network and to work with partners to understand the interaction of river, surface water and sewer networks in catchments in Scotland.

The Scottish Government's National Flood Resilience Strategy, published in late 2024, has been helpful here, particularly the framing of flood resilience through the lens of climate adaptation. The shift in strategy to designing and supporting flood resilient places is also a positive change which can help to bring better, cheaper and lower carbon "upstream" solutions compared to trying to address matters at the end of the pipe. In this regard, Scottish Water is an active participant in the Flood Resilience Strategy Implementation Governance Group.

The approach set out in the National Flood Resilience Strategy aligns with our recently published [Long Term Strategy](#). This shows that without significant investment, and a change in approach to managing surface water, climate predictions suggest an increase of almost 60% in the number of homes and businesses at risk of sewer flooding in Scotland by 2050.

In the Long-Term Strategy we have set out objectives related to flooding, that include having no customers experience repeat sewer flooding in their homes by 2050 and accelerating our approach to place-based blue green infrastructure solutions to manage rainwater.

Managing rainfall differently in communities - for instance, utilising blue-green and nature-based solutions as well as creating space for water through natural systems - is key to ensuring cities are resilient to future rainfall.

It is important that communities and decision makers across Scotland think of our water catchments as connected systems from source to sea and for this to be reflected in how we plan, design and support flood resilient places as well as how we look at land management both in our urban and rural communities. The key challenge is working in partnership across multiple agencies, authorities, developers and communities as the Audit Scotland report notes.

There are some good examples of innovative solutions and partnership working that Scottish Water is engaged in delivering, we would want to see this list expand in future:

- St Mary's, Dundee: [St Mary's - Scottish Water](#) and [St Marys Drainage Strategy - Water Resilient Dundee](#)
- The Metropolitan Glasgow Strategic Drainage Partnership ([Metropolitan Glasgow Strategic Drainage Partnership \(MGSDP\) - MGSDP](#))
- Pilot projects in [Craigleith, Edinburgh](#) and [Prestwick](#) to reduce rain water entering into the wider sewer system by using rain gardens, trees and permeable paving.

I hope this letter is helpful in providing some detail on these areas of interest for the Committee. If you would like any more information, please let us know.

Yours sincerely

Alex Plant
Chief Executive
Scottish Water

June 2025

Climate Just – Policy Briefing

When we think about climate impacts, we often think about where floods might happen or temperatures peak; this information is only one sort of data needed to understand where the most significant harms may be felt. Effective adaptation is not a one-size-fits-all solution, but a complex set of responses which need to be tailored to specific - often local - needs. Climate Just, a free online mapping tool, developed by researchers at The University of Manchester, facilitates effective and informed local and targeted adaptation strategies, that focuses not just on where extreme weather events may happen, but which communities are most vulnerable.

Summary

- In recent years, 77% of neighbourhoods have typically experienced weather hot enough to lead to excess heat-related mortality. However, not all people are affected equally.
- The updated [Climate Just](#) mapping tool and its wider resources enable policymakers to investigate geographical distributions of social vulnerability indicators (i.e. age, ill health) alongside maps for flooding or hot weather.
- The creation of the **Socio-Spatial Vulnerability Index** (SSVI) for flooding and extreme heat allows policymakers to see not only where such events make take place, but which communities are most vulnerable and why.
- Policymakers can combine information from Climate Just with in-house data and local community insight, catalysing limited resource to develop **more effective, targeted and equitable adaptation** measures.
- Climate Just, available now, will form part of a wider online toolkit to be launched in early 2026 - the NERC [Digital Solutions Hub](#) - allowing comprehensive easy-access to over 40 petabytes of environmental, social, economic and health data.

Climate Just mapping tool

Climate Just, a free online resource and mapping tool, enables **policymakers, practitioners and council officials** to investigate and assess composite maps which show sensitivity, ability to prepare, ability to respond, ability to recover, and exposure of the population in specific areas.

Layered on top of these maps are indicators of the potential hazards themselves, such as the potential for flooding or extreme temperatures. Taken together, **maps of social vulnerability and hazard-exposure** give an idea of the distribution of climate disadvantage across parts of the UK at a **local neighbourhood level**.

“A socially-just response to climate change adaptation is a practical and efficient choice as well as an ethical one.”

Focussing resources on people and communities who face the greatest potential for harm makes sense. Not only will these **people and communities suffer less** in the event of a flood or heatwave, but there will be **fewer collective burdens on society** in the days, months and years which follow.

Policy recommendations

- **Policymakers should ensure that the finite resources available to them target the areas of greatest need** by making use of the data available on Climate Just to inform their strategic planning. This could include supporting investment decisions targeted at more socially vulnerable and climate disadvantaged communities, such as retrofitting of homes, so they are fit for future extremes. They should also consider partnership with other service providers and support the development of social infrastructure, like community groups and networks.
- **Policymakers should supplement datasets with local information and further research.** The combination of public and organisational engagement along with the data and tools available on Climate Just, should ensure that robust localised solutions are developed which allow for an effective response to future impacts of climate change.
- **All organisations involved in developing adaptations to address social vulnerability should engage with extended audiences.** The maps and data contained on Climate Just have already proved to be a very useful communication tool helping to bring people together and provide a foundation for fruitful discussion. Wider engagement fosters a better appreciation of the range of ways that climate change can impact different people in different circumstances and helps to start the conversation with those affected so that actions can be shared and gaps identified that agencies may need to fill.

Key academics

Professor Sarah Lindley

Professor of Geography at The University of Manchester; Co-Investigator to the NERC Digital Solutions Programme, based at The University of Manchester.

Contact

Emily Slack | Engagement Coordinator |

Flooding in communities

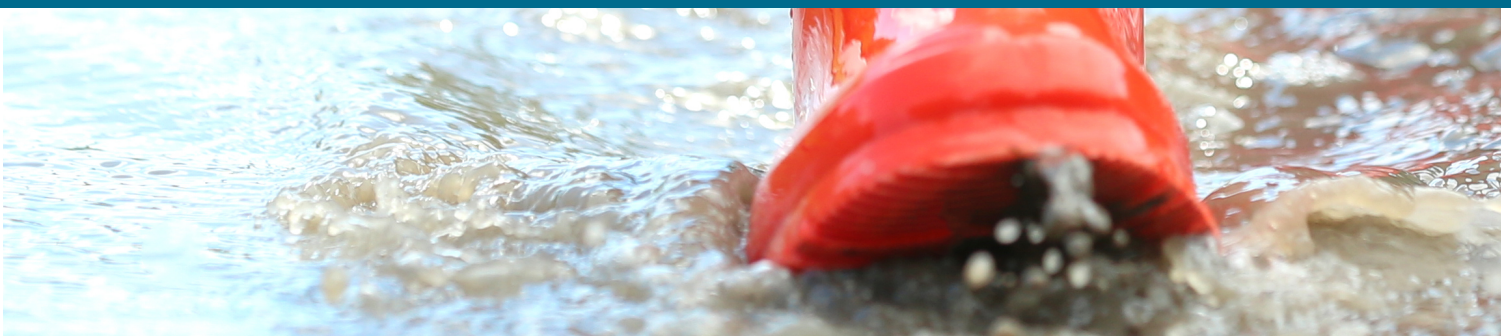
Moving towards flood resilience



ACCOUNTS COMMISSION 

AUDITOR GENERAL 

Prepared by Audit Scotland
August 2025



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Accessibility

You can find out more and read this report using assistive technology on our website www.audit.scot/accessibility.

Audit team

The core audit team consisted of: Rebecca Seidel, Fiona Brannigan, Ciarán Morrison, Christopher Holgate and James Troy under the direction of Cornelius Chikwama.

Key messages

- 1** Flooding in communities is a significant climate change risk for Scotland. There are good examples of public bodies and councils working well with each other and with communities to tackle flooding. However, they face gaps in resources, skills and capacity. There is much more to do to ensure that data is up to date, consistent and available to those who need it and to ensure meaningful engagement with communities. There is improving, but still limited, alignment across some policy areas that should contribute to better flood resilience. Opportunities to get the most out of money spent have been missed.
- 2** The funding mechanism for major flood schemes is not fit for purpose when considering the scale of resources needed. It does not provide sufficient safeguards to manage cost increases. Flood schemes are taking longer to complete than anticipated. Expected costs between 2015 and 2025 have increased from around £350 million to over £1 billion. This is for fewer schemes than originally approved and therefore fewer properties protected. Future funding for flood schemes is highly uncertain. Budgets set annually can make it difficult for public bodies and councils to plan adequately and take the most cost-effective approaches.
- 3** In December 2024, the Scottish Government published the National Flood Resilience Strategy. This is a positive step forward in providing the strategic leadership that is needed. However, while some progress is being made there is still a gap in the leadership needed for delivery. The actions in the strategy are vague without firm commitments to act or timescales. It is not

clear how it will address barriers to effective collaboration. There is no timeline for developing the implementation plan for the strategy, which creates a high risk that the action needed will not happen at the scale and speed required.

- 4 Recent changes in the national approach to deal with flooding, as set out in the new National Flood Resilience Strategy, place much greater emphasis on the role of people and communities. However, more needs to be done to raise awareness of flooding risks and the actions that can be taken to better prepare communities. There is also a risk that inequalities will increase unless more targeted action is taken. The National Flood Resilience Strategy lacks detail on how it will address challenges affecting communities.
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Recommendations

The Scottish Government, councils, SEPA and Scottish Water should:

- **Within six months**, work together to understand and prioritise addressing critical gaps in roles and responsibilities. This should include bringing greater clarity to existing arrangements for flood risk management.
- **Within 12 months**, actions should be agreed with clear timescales and responsibilities.

The Scottish Government, councils, SEPA and Scottish Water should:

- **Within six months**, work together to understand and prioritise addressing critical gaps in information and data. This should include consideration of data standardisation (where relevant) and ease of access and understanding, particularly for community groups.
- **Within 12 months**, actions should be agreed with clear timescales and responsibilities.

Within six months, the Scottish Government and COSLA should:

- Agree an approach for funding the remaining eligible major flood schemes in Cycle 1. This should include:
 - confirmation of the level of funding that will be available to complete the eligible schemes, or publication of a timeline setting out when this will be confirmed
 - clear arrangements for documenting decision-making
 - mechanisms for managing the risk of cost increases or delays to these flood schemes.
- Agree and publish a timeline for when and how funding will be allocated to individual major flood schemes in Cycle 2. This should include specific timescales for confirming:

- what criteria will be used to assess value for money, taking account of inequalities and co-benefits
- governance arrangements, including clearly documented decision-making processes and effective mechanisms for managing the risk of future cost increases or delays.

Within 12 months, the Scottish Government should:

- Collaborate with responsible authorities, communities and other partners to put in place implementation arrangements for delivery of the National Flood Resilience Strategy. This should include:
 - publishing an implementation plan with clear actions, targets, indicators and timescales. It should also set out how often the strategy and implementation plan will be reviewed and refreshed
 - clarifying roles and responsibilities for the delivery of each action within the implementation plan
 - identifying how flood resilience action will be resourced and funded
 - establishing arrangements for monitoring progress against targets and indicators
 - embedding clear governance arrangements for implementation within the Scottish Government and for oversight of performance in delivering the National Flood Resilience Strategy.

Within 12 months, the Scottish Government, councils, SEPA and Scottish Water should:

- Work together and with communities to develop specific actions for community engagement as part of the National Flood Resilience Strategy implementation plan. The actions should:
 - align with the principles of the National Standards for Community Engagement, drawing on innovation and best practice within the sector
 - set out clear roles and responsibilities with targets and indicators, which include specific approaches for addressing inequalities and inclusivity.

Within 18 months, councils and the Scottish Government should:

- Review arrangements for flood-related services across different departments to ensure effective and efficient delivery of these services, with long-term strategic plans for addressing flood risk where relevant. The outcome of these reviews should be recorded centrally and best practice shared. In particular:
 - councils should consider how best to address skills gaps and how to ensure effective and efficient approaches are adopted, for example through shared services
 - the Scottish Government should consider how to ensure a coordinated approach across its departments.

Introduction

Background

- 1.** The Scottish Government and the Convention of Scottish Local Authorities (COSLA) recognise climate change as one of the biggest threats to communities across Scotland. The Scottish Government acknowledges that, no matter what progress is made in terms of reducing emissions globally, some changes to the climate in Scotland are already taking place. This will mean changes to Scotland's weather patterns with significant impacts on society, the economy and the environment. One of the highest risks for Scotland is increased incidents of flooding and its impact on communities.
- 2.** To manage these impacts, it is important that Scotland adapts to climate change. This is a challenge for governments around the world. It means being better prepared for extreme weather events, for example, and recovering more quickly. All of this needs to happen in the context of very challenging financial circumstances for councils and other public sector bodies across Scotland.
- 3.** The Scottish Government is required by climate change legislation to produce an adaptation plan for Scotland every five years. Climate change legislation also embeds the principle of a just transition. This means that the action taken to respond to climate change should be fair and create a better future for everyone.
- 4.** Most recently the Scottish Government published the third Scottish National Adaptation Plan (SNAP 3), covering the period 2024 to 2029.¹ SNAP 3 sets out the actions that will be taken to achieve five broad national outcomes. One of the outcomes focuses on flooding in communities as well as coastal change and other extreme events across Scotland.
- 5.** To support this outcome, the Scottish Government published the National Flood Resilience Strategy in December 2024. The strategy builds on the Flood Risk Management (Scotland) Act 2009 and sets out a vision for flood resilience in Scotland with three outcomes: people, places and processes ([Exhibit 1, page 9](#)). Building resilience requires multiple sectors to work together and with communities.

Exhibit 1.

Vision and outcomes in the National Flood Resilience Strategy

The Scottish Government's vision and outcomes for a flood resilient Scotland through to 2045 and beyond.



Source: National Flood Resilience Strategy, Scottish Government, December 2024

About this audit

6. The overall aim of the audit is to examine how well the Scottish Government, councils, central government bodies and their partners are working together and with local communities to address flooding in communities. The audit aims to answer three audit questions:

- What is the impact of flooding on communities and what strategies and plans are in place at a national and local level for building flood resilience in communities? ([Part 1](#))
- How well are public bodies collaborating with each other and with communities to avoid flooding wherever feasible and to support communities to prepare for, respond to and recover from flooding events? ([Parts 2–4](#))
- Looking ahead, how well placed and resourced are public bodies to work together and with communities to achieve long-term ambitions to build flood resilience in communities? ([Part 5](#))

7. Tackling flooding in communities is complex and action is required at multiple levels. The audit therefore includes consideration of four areas that are integral to building resilience to flooding:

- Land use and planning.
- Catchment area and coastal plans.
- Community level activity.
- Property level activity.

8. The audit does not examine civil contingency planning or emergency response, the impact of flooding on national infrastructure, such as the transport network and industrial sites, or water quality issues related to sewage entering watercourses because of flooding. It is focused on weather-related flooding and does not look at flooding that is mainly caused by blocked drains or other issues with the sewage system.

9. While the audit looks at governance arrangements around the identification and prioritisation of **major flood schemes** at a national level, and the funding model for these schemes, it does not examine individual flood schemes. It does not look at or assess action taken in response to individual flooding incidents.

10. The audit findings are based on a review of key documents, data analysis and interviews with officials in the Scottish Government, Scottish Environment Protection Agency (SEPA), Scottish Water and other relevant organisations and forums.

11. We adopted a case study approach to understand how activity to address flooding is working within councils and the communities they represent. The case study areas were Angus, Argyll and Bute, Dumfries and Galloway, Glasgow and Moray. These areas were selected to provide a balance of locations across Scotland, including a mix of urban and rural communities, different types of flooding, and different approaches to flood management.

12. Our recommendations aim to inform the further development of plans and actions related to the National Flood Resilience Strategy ([Part 5](#)). We will monitor the implementation and impact of our recommendations.

13. This audit is part of a wider programme of climate change audits undertaken by Audit Scotland on behalf of the Auditor General for Scotland and the Accounts Commission. [Our strategy for auditing climate change](#) and relevant audit reports can be found on the [climate change hub](#) on our website.



Major flood schemes are usually man-made structures that involve the introduction of physical defences such as concrete walls. These can be thought of as conventional flood schemes and often cost millions of pounds to build. More recently, natural flood management has started to become more common. This can involve things like introducing wetland areas to absorb excess water during heavy rainfall.

1. The impact of flooding on communities and strategies to manage it

Flooding is a significant challenge in Scotland and expected to increase because of climate change

14. Around 284,000 properties are at risk of flooding in Scotland. This is expected to rise to almost 400,000 by 2080.² Future levels of flooding in Scotland will depend upon how much action is taken globally to curb greenhouse gases and limit climate change.

15. There can be many different types of flooding in communities ([Exhibit 2, page 12](#)).

The scale and severity of flooding in communities can vary considerably

16. When flooding does occur, it can range from a relatively minor flooding incident (eg, temporary road flooding) to more extreme events. In these instances, large numbers of homes and businesses can be devastated, such as in Brechin, Angus, in October 2023 ([Case study 1, page 13](#)). It is likely that communities that have not yet experienced flooding will do so in the future, with a risk that some of them may be particularly unprepared for flood events.

Increased flooding will have both direct and indirect impacts on communities

17. When communities are flooded, the people within them can suffer a broad range of impacts ([Exhibit 3, page 14](#)). The total cost of damage to property in Scotland, both public and private, is around £260 million a year on average.³ This figure can be much higher in years when intense floods are experienced. When people experience flooding it can lead to long-term physical and mental health conditions linked to trauma. Short- and longer-term issues such as loss of sentimental items, having to leave homes and financial worries add to the mental health pressures.⁴

18. These impacts are not the same for everyone. Some groups of people are more vulnerable to the impact of flooding than others. This is known as **flood disadvantage**. Vulnerable groups include the elderly, young children and those with existing long-term health conditions. Some rural communities can experience greater impacts than those



Flood disadvantage

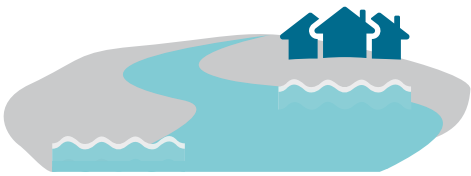
refers to the disproportionate impact of flooding on vulnerable populations and communities, particularly those who are already disadvantaged due to factors like low-income, long-term health conditions or age. Individuals often experience more than one of these vulnerabilities at the same time. For example, old age and ill health.

in large urban areas. It also includes those who are already facing economic hardship and have fewer resources to draw on. For example, some people may not be able to afford insurance for flooding.⁵ People in communities who face flood disadvantage can take longer to recover from their experience of flooding.

Exhibit 2.

The main types of flooding in communities

River flooding



The water in a river exceeds its capacity usually because of heavy rainfall or rapid run-off from surrounding areas.

Surface water flooding



Rainwater does not drain away through normal systems such as sewers or into the ground but lies or flows over ground.

Erosion enhanced flooding



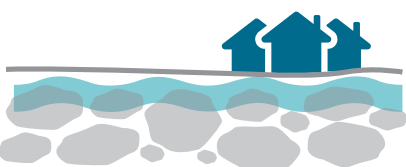
Coastal erosion damages, or removes, existing natural flood defences and increases the risk and impact of flooding in the area.

Coastal flooding



Occurs with high sea levels and in stormy conditions. It can also impact estuaries and river channels influenced by tidal flows.

Ground water flooding



Water rises from underlying rocks or springs. This is generally a contributing factor to flooding in Scotland rather than a main cause.

Case study 1.

Impact of Storm Babet on Brechin

In October 2023, Storm Babet caused the River South Esk to reach record heights and burst its banks. The flood has had a significant impact on the lives of residents in Angus, including on their health and wellbeing.

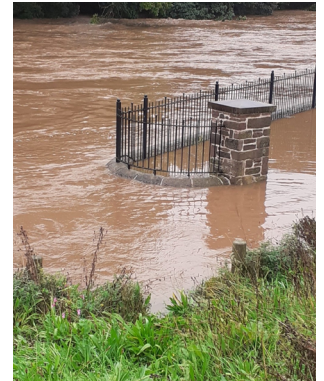
The Brechin flood protection scheme, which was completed in 2016 to provide a 1 in 200-year level of protection, was overcome during Storm Babet. This was due to exceptionally high levels of rainfall. In River Street, 138 residential properties suffered significant flood damage. This included 58 council-owned properties, 23 Registered Social Landlord properties, 14 private rented properties and 43 privately owned residences. Approximately 40 businesses were significantly damaged, and multiple static caravans in a local caravan park were irreparably damaged.

While many properties have since been repaired and residents have moved back in, many remain damaged and empty. This includes all 58 council-owned properties, whose tenants have been rehoused elsewhere. Local councillors have said that many residents in Brechin are anxious at the thought of moving back to River Street and those who still live there are feeling frightened and isolated.

Council officers are providing individual support to residents in relation to a wide range of emotional and practical challenges they are experiencing as a result of the flood. In addition, the council has distributed its own funds, and money from the Scottish Government, to assist businesses and residents affected. Angus Council has consulted with external partners, and is engaging with the community, to explore options for the longer-term recovery of River Street and the surrounding area.

Due to updates to climate change projections, the level of protection provided by Brechin's flood scheme has been reassessed and it has now been reduced to a 1 in 50-year level of protection. The council expects that this will need to be reduced even further in the future, as projections suggest increasing storm intensity.

Source: Angus Council

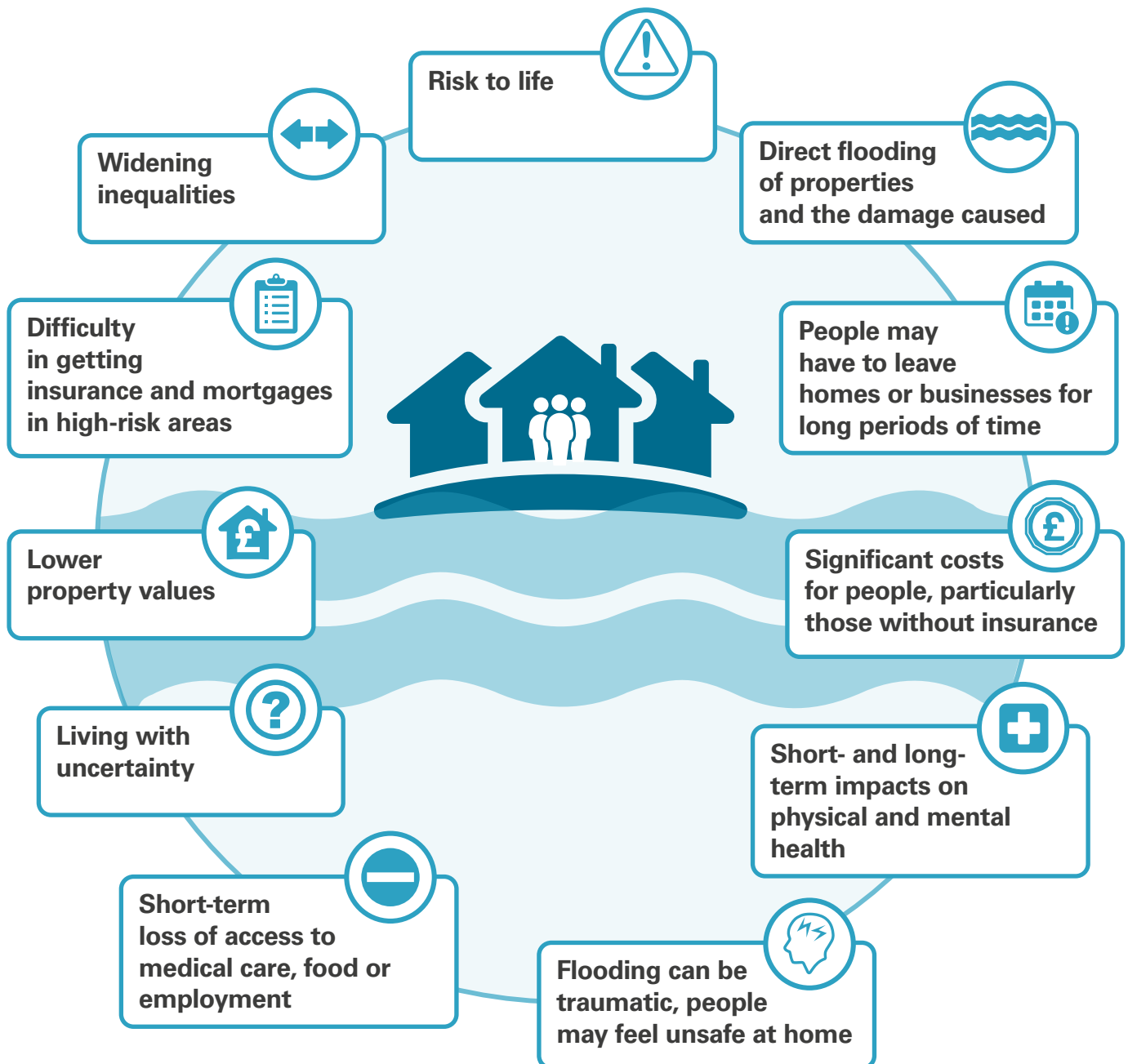


Flood defences breached, October 2023

Exhibit 3.

Impacts of flooding in communities

All these impacts can have a wider impact on physical and mental health and wellbeing and widen health inequalities.



Source: Audit Scotland with information from Public Health Scotland and Scottish Flood Forum

19. There can also be impacts on communities in one area because of the action taken to address flooding in another. For example, flood protection measures in one area could inadvertently cause an increased risk of flooding in another area by diverting the flow of water.⁶

The national approach to addressing flooding in Scotland focused on flood risk management between 2009 and 2024

20. In 2009, the Flood Risk Management (Scotland) Act introduced a more proactive approach to addressing flooding in Scotland. Flood risk management is based on the premise that the most effective way to manage flooding is to assess the level of future flood risk in **catchment areas**, then take action to reduce that risk to a more acceptable level. This includes, but is not limited to, constructing flood defences. The level of risk for an area is based on both the likelihood of flooding happening and the level of damage that would be caused.

21. Alongside this legislation, a number of strategies and national plans have been introduced since 2009 that contribute to tackling flooding ([Exhibit 4, page 16](#)).

22. The extent and severity of flooding in Scotland can be minimised or made worse by the actions taken within each of the areas of activity included in this audit ([paragraph 7](#)) guided by the strategies and plans set out in Exhibit 4. For example, if the land is used in a way that reduces the ability of soils near rivers or streams to absorb water, this can cause water to move more quickly and increases the risk of flooding further downstream.⁷ Planning policies at a national and local level also have a role in managing flood risk when considering new developments such as housing.

23. There could be better alignment between some of these strategies and plans ([paragraphs 39–42](#)).

The Scottish Government did not introduce a way to monitor progress in addressing flooding in communities

24. The Scottish government did not introduce specific, strategic arrangements at a national level, to assess the delivery and impact of the Flood Risk Management (Scotland) Act 2009 or its integration with other policy areas. For example, there are no objectives, indicators or measures to monitor progress towards the aims of the Act (although elements of the act do require updates at regular intervals). The implications of this are set out in ([Parts 2–4](#)) of the report. However, multiple strategies or plans in each of the policy areas covered in this report were in place.



A **catchment area** is the geographical area where water from rain, snowmelt or ice collects and flows into a river or lake.

Exhibit 4.

Key national and local strategies and plans for managing flooding for the areas of activities covered by this audit



Land use and planning

National level:

- National Planning Framework: flood management, promoting avoidance and reducing vulnerability of existing and future developments
- Scotland's Third Land Use Strategy 2021–26: includes flood protection issues throughout, particularly in relation to climate adaptation and sustainable land use
- Water-Resilient Places: surface water management and blue-green infrastructure; policy framework

Local level:

- Local Development Plans: consider flood risk in catchment areas
- Surface Water Management Plans: aim to reduce the risk of surface water flooding in the most sustainable way



Regional

Catchment area and coastal:

- SEPA's Flood Risk Management Plans for Scotland's 14 Local Plan Districts
- Local Flood Risk Management Plans (these relate to catchment areas):
 - District and Local Plans detail the actions required to manage flood risk in Scotland's Potential Vulnerable Areas (PVAs)
 - The plans' overall long-term aim is to reduce the impact of flooding across Scotland taking into consideration environmental, economic and social priorities and needs
- Coastal Change Adaptation Plans: CCAPs set adaptation pathways for actions so that councils can adapt to climate change induced coastal erosion and flooding



Community and property

National level:

- Property flood resilience action plan: sets out recommendations for the Scottish Government to take action to improve property level flood resilience
- Climate Ready Scotland: climate change adaptation programme 2019–24 aims for people to be resilient and adapt to Scotland's changing climate

The National Flood Resilience Strategy maintains key elements of the flood risk management approach but places much stronger emphasis on a broader range of resilience actions

25. In December 2024, the Scottish Government published the National Flood Resilience Strategy. This marks a change in the national approach. There is a move away from mainly focusing on flood risk management to placing a much greater priority on broader flood resilience. For example, this can be delivered by better land use and planning and building the capacity for communities to recover from flooding ([Exhibit 5, page 18](#)).

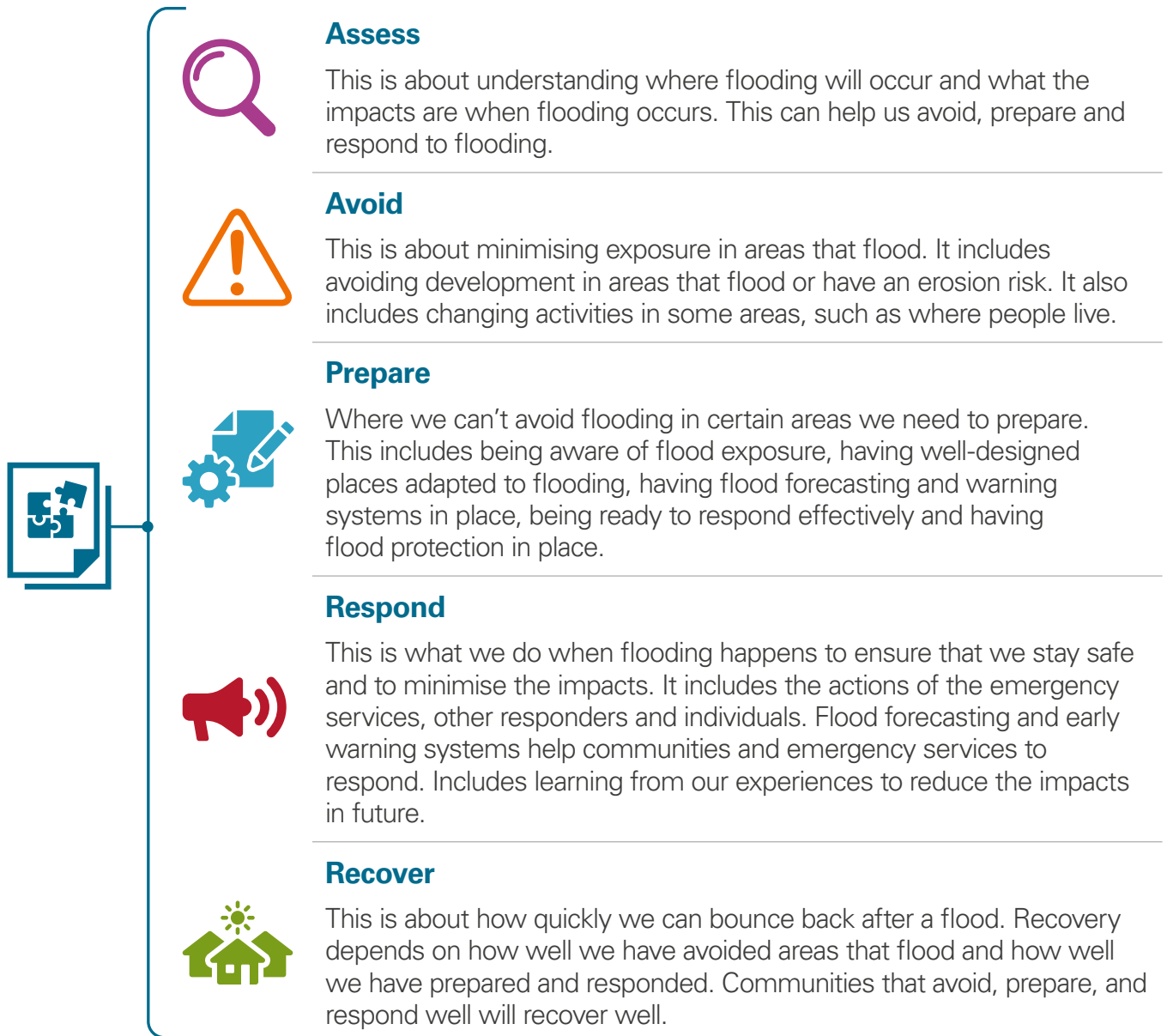
26. The aims set out in the National Flood Resilience Strategy (Exhibit 1) are likely to require much greater levels of collaboration between public sector bodies. There is also much greater emphasis on the role of people and communities. Funding and resources will need to be sufficient and well targeted. SNAP 3 notes that it costs less to protect communities from flooding than to deal with its impacts, based on analysis that for every pound spent on protecting communities from flooding, nine pounds are saved. Also, if done in the right way, action taken to address flooding can generate co-benefits such as enhancing biodiversity.⁸

27. This report considers how well public bodies and councils worked with each other and with communities on implementing the flood risk management approach ([Parts 2–4](#)). Based on these findings, the report then assesses how well placed public bodies and councils are to implement the National Flood Resilience Strategy ([Part 5](#)), which places much greater emphasis on broader resilience approaches.

Exhibit 5.

Key components of resilience set out in the National Flood Resilience Strategy

Key components of flood resilience



Source: National Flood Resilience Strategy, Scottish Government, December 2024

2. Public sector collaboration

The Flood Risk Management (Scotland) Act 2009 provided the strategic context for addressing flood risk between 2009 and 2024

28. The Flood Risk Management (Scotland) Act 2009 has a strong focus on process and sets out specific actions for some public bodies, which are identified as responsible authorities ([Exhibit 6, page 20](#)). Other public bodies may also be involved in activity to address flood risk, where relevant.

29. The Act places a strong emphasis on collaboration across the public sector. Effective collaboration relies on some fundamental elements. This includes:

- clear roles and responsibilities
- shared aims and objectives
- strong governance and accountability structures
- alignment between different strategies
- joint working within and between organisations.

30. While there are examples of good practice, on the whole these elements are not currently in place to the level needed. Fundamental issues need to be addressed to foster more effective collaboration to build stronger community resilience to flooding.

There are multiple barriers to effective collaboration

There are ambiguities, complexity and gaps in roles and responsibilities

31. Stakeholders told us that while flooding legislation sets some things out clearly, other areas are open to interpretation. For example, the Act places a responsibility on councils to clear waterways in certain circumstances, but stakeholders noted that different councils interpret these requirements in different ways. This means that action may be taken in one council area but not in another. Differences in the type and extent of action taken to resolve flooding issues could leave communities and property owners in some areas facing an increased risk of flooding.

Exhibit 6.

Key responsibilities of public bodies identified in the Flood Risk Management (Scotland) Act 2009

Public body	Responsibilities
Scottish Environment Protection Agency (SEPA)	• Provide warnings to the public and emergency responders when flooding is likely • Produce Scotland's Flood Risk Management Plans • Provide flood risk advice to planning authorities • Produce national flood risk assessments and identify areas that are potentially vulnerable to flooding (PVAs)
Lead local authorities (lead council)	• Produce Local Flood Risk Management Plans setting out how actions in SEPA plans will be implemented • Monitor progress and publish progress reports for Local Flood Risk Management Plans
Local authorities (council)	• Implement and maintain flood protection schemes • Inspect, clear and repair watercourses and gullies on public highways • Coordinate emergency response, work with other key responders to support local communities • Hold specific responsibilities in respect of council owned properties • As planning authorities, they are responsible for development planning and management including identifying where flood risk may be a key consideration
Scottish Water	• Assess the risk of flooding from public surface water and combined sewers resulting from higher than usual rainfall • Operate public foul, surface water and combined sewers and the public sewer network • Work with local authorities and SEPA to look for ways to reduce risks through its capital investment programme

Note: Some named National Park authorities are considered responsible authorities. While they have no designated responsibilities under the Flood Risk Management (Scotland) Act 2009, they work with SEPA to develop Flood Risk Management Plans and act as the planning authority for any development activity within the park.

Source: Audit Scotland

32. Not all critical responsibilities for managing flood risk are covered by legislation. For example, the Act does not set out who is responsible for the maintenance of **Sustainable Urban Drainage Systems** and for managing erosion enhanced flooding (Exhibit 2). This could mean important areas of activity may be missed.

33. The allocation of responsibilities for flood risk management across the public sector is complex and can be very difficult to navigate. This is especially the case for communities, individual property owners and tenants. People can be given different answers from different organisations, with no organisation taking responsibility to help resolve a flooding problem. Communication and signposting are not effective enough.

34. There is also a lack of clarity about the specific responsibilities of property owners, which are not set out in legislation. The basis for this responsibility is common law, which is drawn from legal precedent. The lack of clarity around this can increase anxiety and confusion for communities and individual property owners. There is not enough guidance on people's responsibilities when it comes to managing the risks of flooding.

35. There are several gaps in information and data that are impacting on the work of public bodies and councils and on their ability to collaborate. For example, there is currently no consistent, comprehensive national monitoring system in place to assess the condition of existing flood-protection schemes. This means that national information is not held centrally on whether flood schemes are performing effectively and if they provide the intended protection. In terms of coastal change, the Scottish Government has invested in live monitoring for some locations, but stakeholders have told us that this is currently limited. This means that council areas with Coastal Change Adaptation Plans, which rely on up-to-date information, may not have the data they need to support effective decision-making. Councils also have a responsibility to contribute to effective monitoring.

Pressure on financial resources and capacity in public bodies and councils is limiting activity on flooding

36. Mounting financial pressures and reduced resources are impacting on the level of services public bodies and councils can provide on flooding. This includes engaging with communities on flood resilience. Some councils, for example, are withdrawing from or have noticed a reduction in partnership working on flooding. Public bodies are prioritising key areas of activity, with some just focusing on a more limited view of what is required by legislation. For example, SEPA highlighted to us that, at times, they have needed to prioritise operational flood warning over some annual flood map upgrades, because of the imminent risk to life. This means councils and other stakeholders may be missing important information to support their decision-making.



Sustainable Urban Drainage Systems (SUDS) aim to mimic natural drainage by managing surface water in a more sustainable way. They focus on holding back water, allowing it to soak into the ground or evaporate, and treating runoff before it enters watercourses. SUDS are part of a broader green infrastructure strategy and are designed to reduce flooding, improve water quality, and enhance the urban environment.

37. Staff in councils do not always have all the technical skills needed to adopt the most effective approaches to flood management, such as the technical expertise to carry out hydrology surveys. This is made more challenging by difficulties in retaining skilled staff. Often councils are paying for external consultancy services, which can be expensive and do not necessarily help to build knowledge and expertise within the council. Not enough is being done to address this skills gap and knowledge drain or to build shared capacities across councils.

38. Teams within public bodies and councils are under increasing pressure. There is a high level of stress for staff working with communities affected by or at risk of flooding, which is likely to be a contributing factor to the loss of skilled staff. The Accounts Commission has recently published a [report on workforce challenges in councils](#) with recommendations for the action that should be taken

There is not a sufficiently joint approach to managing flooding within or between organisations

39. At a local and national level, there is a lack of joint action within and between organisations. For example, there can be a separation between engagement with communities on flood schemes and engagement on broader resilience issues that are part of council duties under the Civil Contingency legislation. There can also be a lack of long-term strategic planning. This can lead to disjointed delivery, which does not make the most of efficiencies by combining activities. It can also make it difficult for external partners to engage on relevant issues, such as land use approaches.

40. Land use and planning are vital policy areas for reducing flooding in communities and can be more cost-effective when adapting to climate change.⁹ Natural flood management is not always the right solution. However, nature-based schemes can work well as stand-alone projects, or as part of a wider flood risk management approach in combination with more conventional flood schemes. NatureScot highlights that flood protection by ecosystem creation and restoration can provide a more sustainable, cost-effective and ecologically sound alternative to conventional coastal engineering, for example. Making changes to the way land is used to minimise flooding, such as planting trees, can also have positive impacts on biodiversity and the wellbeing of local communities (particularly in the most deprived areas). In some instances, adopting nature-based solutions will likely require strong collaboration between councils and other public bodies to address flood risk at a catchment level. This might include, for example, action being taken in one council area for the benefit of communities in another area.

41. There have been notable improvements in the alignment between these policy areas recently. For example, the National Planning Framework 4 introduced new clauses strengthening the role of planning to address flooding. It also includes a presumption against development in areas prone to flooding. But there is more to do, such as developing

effective ways of measuring the impact of natural flood management approaches. Stakeholders have highlighted that there is a risk that more conventional flood schemes may be prioritised over nature-based solutions, because there are established methods to quantify the benefits for those. This could affect funding decisions for flood schemes ([paragraph 68](#)).

42. The Flood Risk Management (Scotland) Act itself is limited in its focus on land use. Although the Act takes a catchment area approach and strengthens the role of planning, there is minimal focus within it on the wider role land use plays in minimising flood risk.

There are examples of good practice and innovation in collaboration

43. Despite the barriers outlined above, we found a high level of commitment and energy among many public bodies and councils to address flooding issues. There are many examples of good practice and innovation that can be built on to help improve collaboration around shared aims ([Case study 2 \(page 24\)](#) and [case study supplement](#)). Partnerships consisting of multiple public bodies and councils, such as the Metropolitan Glasgow Sustainable Drainage Partnership, have a joint-working approach to addressing flood risk. This approach is beginning to be adopted more widely across Scotland.

44. There is huge potential within the public sector and communities to collaborate in a way that maximises benefits and drives forward progress. Addressing flooding can support delivery on multiple outcomes that are priorities for local areas, such as social and economic outcomes. Good practice examples we found through our audit work highlighted key lessons that could be implemented more widely:

- **Building relationships.** The importance of developing long-term, resourced partnerships around shared goals.
- **Maximising economies of scale.** The value of joint working and services being delivered centrally by those with high levels of skill and expertise, in partnership with councils and other public bodies.
- **Scaling up.** Identifying examples of excellence developed at a local level that could be replicated at a national level.

Case study 2. Eddleston Waters

A partnership initiative led by the Tweed Forum, alongside the Scottish Government, Scottish Environment Protection Agency and Scottish Borders Council, aims to use nature-based approaches to restore the Eddleston River and help to protect communities from flooding.



Other partners in the initiative include Dundee University, NatureScot, Forestry and Land Scotland, British Geological Survey, National Farmers Union (Scotland), Scottish Land and Estates, Forest Research and Tweed Foundation. The Tweed Forum works closely with landowners and the local community so that everyone can contribute ideas and follow the project's progress.

Working with over 20 farmers, the installation of many natural flood-management measures has led to significant delays to the arrival of flood peaks, alongside reduced peak level river flows of up to 30 per cent. A cost benefit analysis estimates that the net value to society of the project is over £5 million (present value), with £950,000 from flood damages avoided and £4.2 million from other benefits such as biodiversity and water quality. If measures were extended across the catchment, the Tweed Forum estimate the value could be over £17 million.

Source: Tweed Forum

3. Funding

The Scottish Government has committed significant levels of funding to tackle flooding but schemes have been delayed and the level of future funding is uncertain

45. The actions required by the Flood Risk Management Act form a series of overlapping planning and delivery cycles that should be repeated every six years. The first cycle ran from 2015 to 2021 (Cycle 1) and the second cycle began in 2021 (Cycle 2). A significant proportion of expenditure in these cycles is funding to build major flood schemes. However, there have been delays to the delivery of actions set out in these planning and delivery cycles ([paragraphs 53–65](#)).

46. The Scottish Government has committed over the years to several funding streams to support the actions in the Flood Risk Management Act and broader flooding activity, this includes:

- £42 million a year to be distributed to councils up to 2025/26. Of this, £36.4 million is allocated for major flood schemes and £8.6 million is allocated for other flood-related activity.
- An additional £150 million to be allocated to councils between 2021 and 2026 for major flood schemes and broader flood management activity (2020/21 Programme for Government).
- £12 million for the development of **Coastal Change Adaptation Plans** between 2022 and 2026 (2020/21 Programme for Government).
- Additional funding for flood-related activity is provided to central government bodies, including SEPA and Scottish Water.

47. Councils also contribute to the cost of building major flood schemes. The Scottish Government pays for 80 per cent of the costs and councils pay for the remaining 20 per cent of the costs. If costs increase after a specific point in the process, councils have to pay for those increases. Councils also have to pay for ongoing maintenance once the flood schemes have been built.

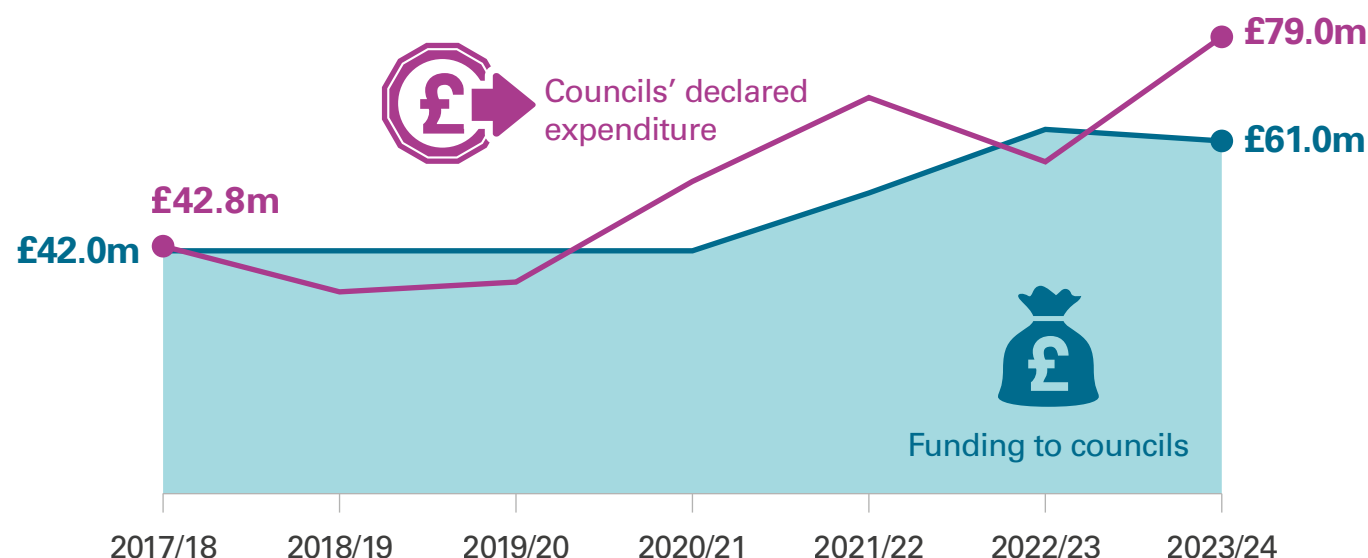
48. A breakdown of the allocation by year to councils for flooding through the General Capital Grant and declared council expenditure on flooding over the same period is shown in [Exhibit 7 \(page 26\)](#).



Coastal Change Adaptation Plans are strategies designed to manage the impact of climate change on coastal areas and communities.

Exhibit 7.

Annual funding allocations to councils for flooding and councils' declared expenditure on flooding



Source: Scottish Government and annual Scottish Local Government Finance Statistics

The process for allocating funding to councils for major flood schemes is not fit for purpose

49. In our view, funding models for capital investment in infrastructure projects should incorporate some fundamental principles, including:

- **Transparency** – fair and transparent funding criteria, including an assessment of value for money and a clear rationale for prioritising and progressing projects. This should consider co-benefits such as enhanced biodiversity and community wellbeing.
- **Accountability** – clear governance structures with agreed roles and responsibilities, to ensure effective scrutiny and challenge at all stages of the project.
- **Risk management** – assessing and quantifying risk and uncertainty at the earliest stage, such as potential delays or rises in costs, and introducing safeguards to manage them.
- **Monitoring progress** – regularly and systematically reporting on progress against time, cost and quality measures, and assessing the ongoing affordability of the project.

50. The model used to fund flood schemes in Cycle 1 fell well short of these expectations ([paragraphs 51–64](#)). Overall, there is a lack

of effective monitoring processes as well as a lack of transparency. There are insufficient safeguards to manage risk and uncertainty in flood schemes.

51. The Scottish Government has set out that there was no application process for funding for major flood schemes.¹⁰ Rather, funding was distributed according to the SEPA prioritisation of flood schemes set out in the Flood Risk Management Strategies published in December 2015. Schemes proposed in these strategies were prioritised according to their cost/benefit ratio and criteria related to the environmental and social impacts of flooding. This list was agreed by the National Prioritisation Advisory Group, which was chaired by the Scottish Government. In total, 40 schemes out of 42 were considered eligible for funding as long as they remained viable projects.

52. However, this process did not include sufficient safeguards to manage risks of schemes taking longer than anticipated and costs increasing. In particular, early spending commitments were made without a full understanding of the likely final costs. Long-term spending commitments can help to provide certainty and were intended to provide assurance to councils about their investment in flood schemes. However, while multi-year funding allocations of £42 million a year between 2015/16 and 2025/26 had been agreed, there was no clear understanding of whether this would be enough to cover the final cost of the schemes that were approved.

There have been significant increases in costs and the completion of flood schemes is taking longer than anticipated

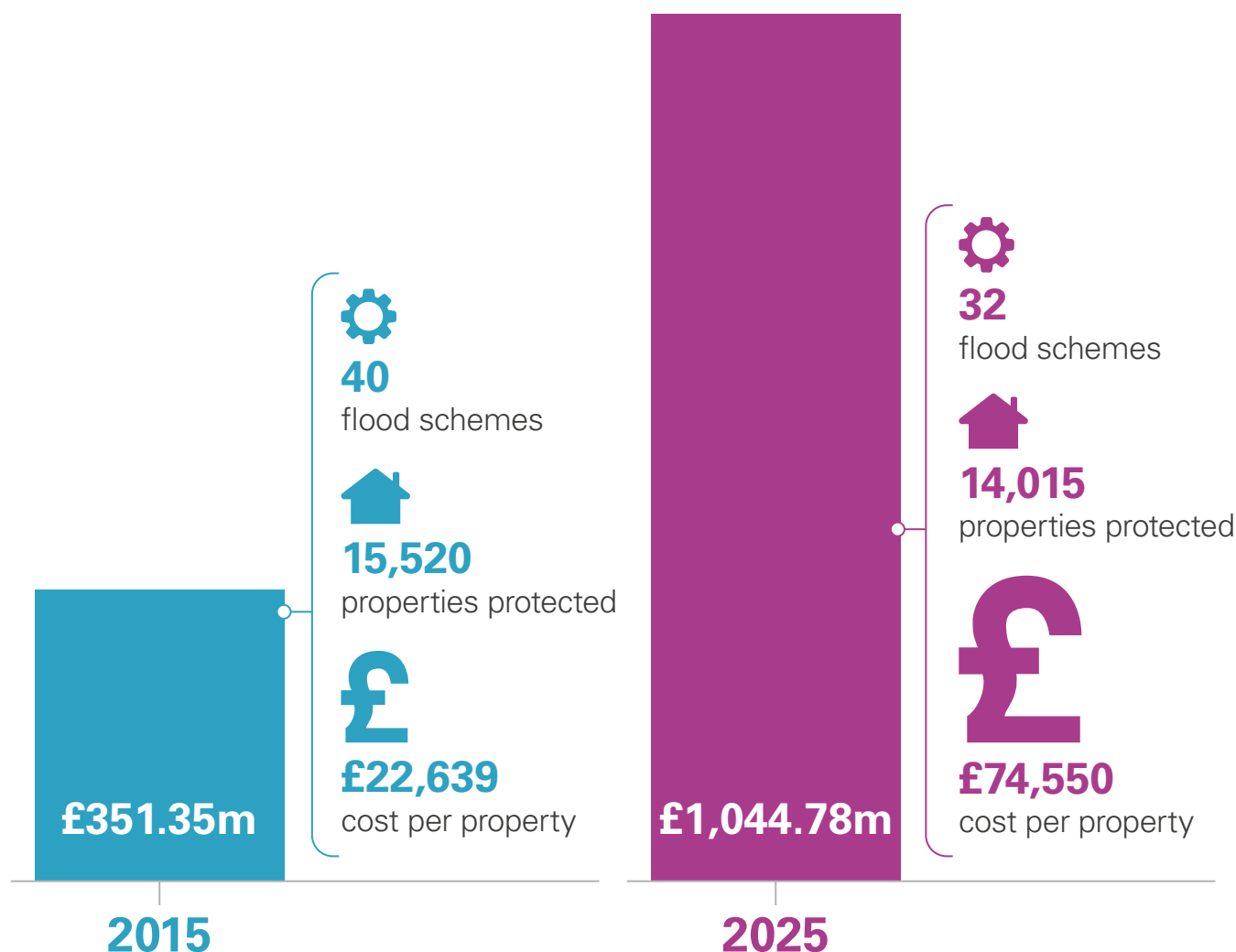
53. As of June 2025, the Scottish Government confirmed that 19 of the 40 eligible Cycle 1 schemes have been completed. Costs for many of the schemes have increased significantly ([Exhibit 8, page 28](#)). The expected final total cost to the Scottish Government has risen from an initial projection of around £350 million to over £1 billion. Much of this increase is for the proposed flood scheme at Grangemouth. There will also be additional costs for councils.

54. Stakeholders have indicated that the reasons for rising costs and projects taking longer than anticipated are mainly due to:

- high rates of inflation in the construction sector over recent years
- cost increases related to detailed design and redesign as projects are started and the unforeseen costs that arise when work begins on site
- processes related to community objections
- issues around utilising private land needed for flood scheme development
- the need for projects to be redesigned to take into account increased flood risk because of rapidly accelerating climate change.

Exhibit 8.

Increases in expected costs for major flood schemes in Cycle 1 and changes in the number of properties expected to be protected



Notes

1. The information in the exhibit includes the proposed flood scheme at Grangemouth, which is now being taken forward by a separate taskforce ([paragraph 55](#)).
2. The information about expected final costs is based on data from January 2025 and information on expected number of properties protected is based on data from May 2024.
3. Information on the number of properties protected is not available for eight of the 40 schemes and so we have calculated these figures based on average number of properties protected per million pounds spent.
4. The increase in costs per house does not take into account wider benefits from flood schemes, ([paragraph 59](#)).

Source: Scottish Government

55. Of the 40 schemes eligible for funding in Cycle 1, eight are no longer going ahead. Six of these are because the schemes did not meet a deadline set by the Scottish Government and COSLA to address the funding issues surrounding Cycle 1 schemes. Two further schemes are no longer going ahead either because they were no longer deemed necessary or because the council decided not to proceed. In addition, a proposed project at Grangemouth is now being considered as part of a separate taskforce. Ministers and COSLA leaders must now consider whether to commit additional funds to complete the remaining eligible schemes.

56. This uncertainty also throws into serious doubt whether finances will be available to fund schemes that are currently being considered as part of the delayed Cycle 2, as well as future cycles. In addition, no long-term funding commitments have yet been put in place for schemes which might be developed through Coastal Change Adaptation Plans, and so future funding for these may also be at risk.

57. The Scottish Government has said that further money for flooding will be in place, but the level of funding has not yet been confirmed. Clarity on the timescales for the funding will also be important, as annual budget allocations can create issues and barriers for public bodies in terms of long-term planning ([paragraph 71](#)).

The overall value for money has decreased

58. The huge increases in costs for the Cycle 1 schemes forced the Scottish Government and COSLA to make decisions about which schemes should still be progressed. This was done on the basis of how far along the projects were in the process, including any legally binding commitments, rather than on levels of need or expected impact. Several schemes are also no longer progressing for various other reasons ([paragraph 55](#)).

59. Since fewer schemes are progressing, the overall benefit in terms of number of properties protected has decreased (Exhibit 8). Based purely on the number of properties (and therefore likely numbers of people protected), this represents a significant reduction of value for money. The number of properties expected to be protected per million pounds spent has fallen from 44 at the beginning of Cycle 1 in 2015/16 to 13 in 2024. However other factors may also influence this value for money calculation, such as the economic value of properties being protected, the number of people in each dwelling and wider benefits of the scheme.

60. Significant time, resources and money have been spent by councils and the Scottish Government on abandoned schemes. A total of around £30 million of the Scottish Government's funding allocation to councils is now considered sunk costs. Equally, time, money and resources are currently being used by councils and other public bodies to develop schemes for Cycle 2. This may also be wasted if no further funding is

secured at a national level to progress them. The lack of certainty around future funding and how it will be allocated represents significant risks for councils, who have to meet at least 20 per cent of final flood scheme costs ([paragraph 47](#)). These risks include the risk of reputational damage between councils and communities who are expecting flood schemes to be delivered.

61. Where there is a funding shortfall at a national level, councils could prioritise flood schemes within their own capital programmes. However, as set out in the Accounts Commission briefing [Local government budgets 2024/25](#), councils face significant challenges in balancing their budgets. A larger proportion of councils' capital budgets are being met through council borrowing and a smaller proportion through Scottish Government funding. Increased reliance on borrowing places further pressure on councils' revenue budgets (which are used to pay for things like staff salaries to deliver services) over the longer term, as they are used to pay loan charges. Councils are already having to make hard decisions about how they deliver services and what services can continue.

62. Allocating funding for major construction projects always carries inherent risks. However, it is important that the public sector puts in place strong governance and risk management processes to manage this ([paragraph 49](#)).

63. The funding model used to allocate funding for Cycle 1 schemes is not transparent, does not have clear governance structures and lines of accountability, and does not have sufficient mechanisms in place to manage unexpected changes such as projects taking longer than anticipated or rises in inflation.

64. The Scottish Government and COSLA are currently developing new mechanisms for the allocation of funding for Cycle 2 schemes. This includes the introduction of 'gateways', which should create clear decision-making points to enable better monitoring and control of costs. However, these will only be relevant if further funding is secured.

There is a lack of transparency about expenditure on flooding more widely

65. There are significant gaps in data in relation to the annual allocation of money to councils for flooding by the Scottish Government:

- The Scottish Government does not publish annual allocations to individual councils for major flood schemes or general flooding activity. The funding is provided via the General Capital Grant, therefore the Scottish Government does not monitor how annual allocations are spent by councils.

- Councils provide high-level reports on expenditure through Local Finance Returns but this does not provide a detailed breakdown and no collective figures are published for flood expenditure.
- Stakeholders have highlighted that there is a risk that funds allocated for flooding within councils may have been redirected to other priorities. The complexity of the funding arrangements and the general lack of transparency may have contributed to this perception.

66. Beyond flood schemes, there has also been a lack of transparency in relation to the allocation of funding by the Scottish Government via councils following significant flooding events. This includes both the amounts allocated and the processes for deciding how the funds should be distributed. The Scottish Government has confirmed that ministers and COSLA have agreed a Flood Recovery Framework, which will set out the triggers for providing support and how funding will be distributed. The framework is due to be published shortly.

67. The absence of shared, long-term strategic objectives means opportunities have been missed to align spend effectively, share resources and promote co-benefits.

68. Councils put forward proposals in order to receive funding for Cycle 1 schemes in areas prioritised for protection by the National Flood Risk Assessment. The proposals had to include a value for money assessment. While the economic assessment used for flood schemes is consistent across the UK, stakeholders have highlighted that the criteria used as part of this assessment may have been too narrow in its scope. This may have had unintended consequences, such as prioritising more affluent areas with relatively higher property values. It may also have led to the prioritisation of more conventional flood schemes, rather than nature-based solutions, because it can be difficult to quantify the benefits of natural flood management ([paragraph 41](#)).

69. At a council level, there are multiple plans and strategies that have a direct impact on flooding. However, as set out in Part 2, there can be a lack of alignment between these to enable funding and finance to be spent strategically over the long term.

70. There are multiple funding streams that could potentially be used to address flooding, often with an opportunity to enhance value for money by maximising co-benefits and addressing inequalities. However, stakeholders have expressed concerns that the funding criteria for each one, the application process and reporting frameworks currently limit the extent to which they may be accessible or viable.

71. Stakeholders have raised concerns about the issues caused by short-term, annual funding allocations. This can limit opportunities for organisations to plan ahead and utilise resources in the most effective way possible to maximise benefits. In addition, due to pressures on

the public finances, many public bodies are facing difficult decisions regarding what projects they can prioritise. Instead, money and resources are being directed to deal with pressing short-term issues. At a national level, in 2024/25, the Scottish Government and COSLA agreed that £26 million of funding allocated for flooding should be diverted to fund the local government pay settlement. The Scottish Government has said that the £26 million has been re-allocated to flood schemes in the 2025/26 budget.

72. There is no single funding source for communities to support activity to build their resilience to flooding. Many community groups are keen to press ahead with projects but they can struggle to access resources. This puts unnecessary barriers in the way for communities and householders to take action.

4. Community engagement and addressing inequalities

The role of people and communities in tackling flooding has become increasingly important

73. The Flood Risk Management Act does not include roles and responsibilities for communities and individual property owners. However, there are requirements on responsible authorities to consult with communities on major flood schemes. Actions to promote and encourage communities and households to take action are included in the Local Flood Risk Management Plans for the 14 catchment areas (and are called self-help actions). Work around property level flood resilience measures is identified in the Property Flood Resilience Action Plan, published in 2019.¹¹

74. More broadly, the Scottish Government introduced policy initiatives during the flood risk management approach, which placed a greater emphasis on the role of communities and individuals in local decision-making. This also has implications for local decisions around flooding.

75. The Scottish Government's approach to community engagement aims to ensure meaningful participation (sometimes referred to as meaningful engagement). It is founded on two core principles:

- Communities and individuals have a right to be involved in decision-making that impacts them.
- Better decisions will be made when communities' and individuals' insights and understanding are taken into account.

76. The Scottish Government has published guidance for public bodies and councils for effective community engagement ([National Standards for Community Engagement](#)). Meaningful engagement with communities is strongly related to community empowerment and Audit Scotland published a set of principles for this ([Principles for community empowerment](#)).

77. Overall, there are major barriers to meaningful engagement for both public bodies and communities. This includes issues and barriers around consultations on major flood schemes as well as engagement around broader resilience activity.

Public bodies and councils face a number of challenges when engaging with communities

78. There has been some good progress in the development of climate change adaptation strategies and plans at a local level by councils. However, the UK Climate Change Committee found that less than half of these plans considered how to prepare residents for climate risks.¹² Where public bodies do make efforts to engage regarding long-term planning and resilience, this can be met with disinterest. There can be high levels of scepticism about the risk of future flooding, or a lack of interest if there have not been any recent flood events.

79. Engaging with communities on major flood schemes, on the other hand, can generate very high levels of interest. There can be strongly polarised views from different groups within communities for and against schemes. There can be scepticism from communities about the information that is presented in relation to the causes of, or solutions to, flooding. Stakeholders have told us that front-line staff in public bodies and councils can be subjected to abuse when people feel angry and frustrated.

80. Some stakeholders pointed to the timing of consultations as a factor in these difficulties. For example, consulting too early in the process can mean presenting a flood scheme before the design has been sufficiently developed. This means the public might not get a full understanding of the scheme's potential and can lead to more negative responses.

The level of support for households and communities to take action is inconsistent across different council areas

81. Communities and individual property owners in different council areas do not experience the same levels of engagement or support on flooding issues, particularly in relation to broader resilience. This can be inconsistent, for example some councils provide grants or subsidies for flood protection measures while others do not.

82. While different approaches are always expected for council-level activity, it means that people in some areas may be much more limited in the action they can take than in others.

Communities and individual property owners face difficulties regarding the extent to which they are empowered to act

83. The Scottish Government's approach to meaningful participation highlights that it is important for communities and individuals to have an equal voice alongside public authorities when issues that impact on them are considered. Several stakeholders we spoke to also raised this as an important issue. However, there are several barriers to this.

84. Communities and individual property owners lack access to independent sources of information, understanding and expertise. Stakeholders have told us that the cost of an independent options

appraisal is too expensive for many communities. This means communities can be reliant on the information that is presented to them by public bodies. This can create an imbalance in power as communities cannot access independent advice to understand what additional options may be available.

85. There is no appeals process for communities and individuals to challenge inaction by councils and other public bodies. This contrasts with the appeals process in place to object to flood schemes. This means that highly engaged communities who believe there is a need for more to be done to address flooding in their areas have no clear route to address these concerns beyond engagement with their local council.

86. Some stakeholders have told us of very engaged communities that are struggling to get approval from authorities to take direct action to protect their properties when flood warnings are issued, such as closing local roads. By contrast, in other areas these kinds of actions have been permitted.

87. There are limits to the effectiveness of the action that people can take at individual property or community level unless wider systemic issues such as land use and the supply chain are addressed. The Scottish Government and councils do not always have direct control of these issues, but they can create the catalysts for change. Examples of wider systemic issues raised by stakeholders are set out in [Exhibit 9](#).

Exhibit 9.

Systemic barriers to community resilience actions



Barriers raised by stakeholders

Planning and land use change	• Increased flood risks because of new developments • Increased flood risks because of changes in upstream land use • Increased flood risk because of neighbours adding hard surfaces to gardens
Supply chain	• A lack of available suppliers to install effective property flood resilience measures
Consumer protection	• A lack of information on flood risk when buying a property • A lack of standards to ensure quality of property level flood resilience measures and confidence for the consumer
Information	• A lack of access to hyper-local monitoring of waterways with hyper-local flood alerts because of limitations in available technology
Market failures	• A lack of ability to get a mortgage in high flood risk areas • A lack of access to adequate flood insurance for some

Public bodies and councils need to better understand communities' views about flood action in their local areas

88. The National Standards for Community Engagement include assessing the impact of community engagement as one of its seven pillars. However, our audit found little evidence of public bodies or councils formally checking with communities about their response to plans, flood schemes and the resilience services they receive. Although this is often carried out on a more informal basis through ongoing conversations in some areas, a more systematic approach may enable more lessons to be learned and approaches adapted more quickly.

89. This is particularly important as several stakeholders have highlighted that some communities can feel high levels of abandonment. This might be because of perceived inaction by councils or other public bodies, for example, or because of gaps in roles and responsibilities that leave flooding issues without a solution. The strength of these feelings, where they exist, is an indication that current levels of engagement, approaches and action are not effective.

Overall, there is a lack of attention to vulnerable groups and consideration of inequalities.

90. Both the Scottish Government's approach to meaningful participation and the National Standards for Community Engagement highlight the importance of overcoming the additional barriers to participation experienced by groups that are likely to be more vulnerable. Additionally, a core principle of the Scottish Government's approach to addressing climate change is achieving a just transition ([paragraph 3](#)).

91. While there have been some improvements, approaches to empowering and engaging with communities on flooding issues have not paid enough attention to the risks for increased inequalities. The UK Climate Change Committee reported that across Scotland only four council-level adaptation plans identified specific vulnerable groups in the community.¹³

92. The 'self-help' actions included in the Local Flood Risk Management Plans rely on communities being proactive. Communities and individual property owners who have more time and financial resources are more likely to be able to take more action and access resources than communities that face multiple existing inequalities.

93. In the main, councils are not proactively seeking out groups that may be particularly vulnerable or may be limited in their capacity to prioritise flooding. Money distributed by the Scottish Government and councils after flooding events does not take inequalities into account or the varying needs of individuals at different points during the recovery process.

There are examples of good practice and innovation in community engagement

94. As with public sector collaboration (Part 2), we found that there are a number of examples of good practice and innovation that can be built on to improve community engagement ([Case study 3 \(page 38\)](#) and [case study supplement](#)).

95. Key lessons identified through our audit work include:

- **Building relationships.** The importance of developing long-term relationships with communities and not just seeking to consult over specific issues. Using independent organisations to support this process can help to build trust.
- **Joint approach.** The value of joint working and services being delivered centrally by those with high levels of skill and expertise, in partnership with councils and other public sector bodies.
- **Empowering communities.** Once empowered with the right information, support and an equal voice, communities can take innovative action to help themselves.

Case study 3.

Queensland Gardens community park, Glasgow

In the Cardonald area of Glasgow, partners and the local community worked together to transform underused open space around two multi-storey housing blocks into a vibrant community park, which tackles local flooding issues and has created co-benefits.



The Southside Housing Association, working in partnership with Glasgow City Council as part of the Metropolitan Glasgow Strategic Drainage Partnership City Deal programme, ensured that drainage measures to remove surface water and to store flood water were incorporated into the park design. This has helped to create drainage capacity that allows for urban development along the River Clyde's lower catchment area and reduces the risk of flooding.

As well as being an important piece of drainage infrastructure, the park has improved many outcomes for local residents, especially vulnerable and disabled people. Having high-quality local greenspaces and play areas has helped tackle social isolation and improve community cohesion and wellbeing for people living in the area. This is especially important following the Covid pandemic, when many people living in multi-storey housing had a more difficult experience.

Source: Glasgow City Council and Southside Housing Association

5. Moving to the flood resilience approach

96. In December 2024, the Scottish Government published the National Flood Resilience Strategy, covering the period 2025 to 2045. This marks a clear shift to the flood resilience approach.

The strategy sets out a clear vision for flood resilience in Scotland

97. The need to shift towards a more resilience-based approach to flooding in Scotland was first proposed following work carried out on the Water Resilient Policy Framework in 2021. This aligns with a shift that is also happening at an international level. The Scottish Government has drawn on best practice examples from around the world to develop the strategy. It has not yet drawn on evidence or research to develop actions within the strategy, on the basis that this will be more relevant as work progresses.

98. The strategy is founded on wide consultation across the public sector and with communities. It sets out a clear long-term vision for resilience in Scotland. The vision is focused on three key outcomes (people, places and processes – Exhibit 1) and six priority areas for action ([Exhibit 10, page 40](#)). In this respect, it provides a single shared focus for councils, public bodies and communities to work towards. It marks a significant improvement in national leadership. The positive impacts of this are already beginning to develop, including initial activity within the Scottish Government to ensure joint delivery.

The strategy does not include some key elements to support effective delivery

99. A strategy should be supported by some important elements to help ensure that there is a shared understanding of how it will be delivered and what successful implementation will look like. [Exhibit 11 \(page 42\)](#) provides an assessment of the extent to which the National Flood Resilience Strategy includes these elements. The strategy makes a commitment to develop an implementation plan, although it does not include a timescale for this. It will be important for the implementation plan to address these missing elements.

Exhibit 10.

National Flood Resilience Strategy priority areas for action



Source: National Flood Resilience Strategy, Scottish Government, December 2024

The National Flood Resilience Strategy does not yet provide enough assurance that critical issues identified by stakeholders will be addressed

100. There are some actions in the strategy that potentially address issues raised by stakeholders in this audit. In particular:

- There is a commitment to establish a Flood Advisory Service, which is intended to provide a higher level of support and advice to councils and public bodies, as well as a governance framework for progressing major flood schemes.
- There is an intention to explore ways to draw in private sector funding to fill the funding gap.
- There is greater emphasis on the alignment of different policy areas that contribute to building flood resilience in communities, with ambitions for greater alignment with planning and land use policies.
- There is an intention to improve data quality and availability to support decision-making, including coastal monitoring.
- There is an intention to provide greater support to communities and individuals, including actions to increase their involvement in decision-making.

101. However, many of these actions are exploratory with no commitment to act. They also lack detail and timescales. This means there is not yet enough assurance that a number of critical areas identified by stakeholders will be addressed. This includes the need for:

- Clarity on the availability of funding to complete Cycle 1 and Cycle 2 flood schemes, and beyond, and funding for projects within coastal change adaptation plans.
- Clear, consistent processes for monitoring and reporting on the condition of flood schemes.
- Actions to address issues related to resources, skills and capacity within councils and public bodies.
- Guidance on responsibilities of property owners.
- Specific actions on addressing broader systemic impacts limiting community empowerment.

102. Since publishing the National Flood Resilience Strategy, the Scottish Government has started to progress activity relating to some of the issues outlined above. The following developments were at a very early stage at the point of finalising our report, but are a positive step forward in providing the strategic leadership that is needed:

- **Flood Resilience Strategy Implementation Governance Group:** the Scottish Government has established a group to oversee implementation of the National Flood Resilience Strategy. The group includes representatives from the Scottish Government, COSLA, SEPA, Public Health Scotland, Scottish Flood Forum, insurance organisations and other key public bodies and their partners.
- **Flood Advisory Service:** the Scottish Government is providing £150,000 revenue funding to SEPA to develop potential models for a Flood Advisory Service and to support early establishment of the service. This includes the development of principles to underpin governance arrangements and a gateway process for major flood schemes ([paragraph 64](#)). It is expected that this work will be completed by March 2026.
- **Foundational flood and coastal asset database:** the Scottish Government is providing an additional £600,000 of capital funding to SEPA in 2025/26 to support the development of a database of over 200 flood and coastal defence assets. The aim is to create a national set of standardised data on these assets, as a first step towards better understanding the condition of flood schemes and Scotland's baseline level of preparedness for flooding.
- **Coastal monitoring:** the Scottish Government is providing an additional £970,000 of capital funding to SEPA in 2025/26 to install technology that will collect data to help improve coastal flood forecasting and warning systems.

Exhibit 11.

Assessment of National Flood Resilience Strategy against key elements needed for effective delivery

Key elements	Assessment
 Targets and indicators	There are no specific targets underpinning the long-term vision set out in the strategy and there are no indicators to measure progress. Although indicators and targets for resilience can be difficult to identify and misplaced targets can have unintended consequences, there are international examples to draw on.
 Specific actions	The strategy lists 26 actions that the Scottish Government will do under six priority areas for action. Half of these actions are exploratory, with commitments to review, discuss and examine issues but no commitment to take action once this has been completed. A further quarter of the actions are vague with no clear indication of how the actions presented differ from the actions already in place.
 Timescales for implementation	The strategy covers the period until 2045, although many of the actions that the Scottish Government has committed to are in the short to medium term. The strategy does not include timelines, even at a high level, for implementation and does not set out how regularly the strategy will be reviewed and refreshed, to allow improvements and respond to changing circumstances.
 Roles and responsibilities	The strategy includes actions that only the Scottish Government will take, albeit with the aim of working with partners. While the responsibilities under the Flood Risk Management Act remain in place, it is not clear from the strategy how these will develop to deliver the broader resilience approach or which specific partners will be expected to contribute towards the activities in the strategy.
 Governance and accountability structures	The strategy does not set out the governance and accountability structures within the Scottish Government and across the public sector that will support effective collaboration and ensure delivery of the strategy.
 Resources	From the information included in the strategy, it is not clear how the transition to a resilience-based approach will be funded, although the 2025/26 budget does include £15 million for flood-related activity which the Scottish Government has said will support strategy implementation. The strategy notes the need to explore new funding models, including how both public and private finance can be used to create flood-resilient places.

Source: Audit Scotland

The scale of the action set out in the strategy does not yet match the scale or urgency of the risks and difficulties some communities face

103. The actions set out in the strategy are likely to require a significant increase in action by the public sector. Given the reduction in capacity for public bodies and councils to deliver on existing mandatory commitments, it is difficult to see how this can be achieved without fundamental changes that introduce shared services, stronger mechanisms to ensure alignment across policy areas and budgets, and mechanisms to maximise co-benefits.

104. There is a real opportunity through policy alignment to ensure that action to build climate and flood resilience can contribute to multiple outcomes and priorities in local areas, eg improving health, increasing economic growth and reducing poverty. There is not enough detail within the strategy to assess the level of ambition for the Flood Advisory Service to achieve this.

105. There is a significant shift in emphasis in the strategy towards the role of people and communities. Realising this ambition will require the true empowerment of people and communities and a focus on addressing inequalities. The strategy makes some moves in this direction, but much will depend upon how different councils interpret and implement the actions in the strategy at a local level. Ongoing dialogue with communities about the substance of the strategy and the development of the implementation plan will be critical. Timely review and monitoring processes will be important to ensure issues and barriers faced are identified and addressed as early in the process as possible.

106. As the frequency and intensity of floods increase, more extreme adaptation measures are likely to be necessary. In particular, whole communities may need to be moved where it is not possible or feasible to prevent or minimise the impact of flooding. The effect of these more extreme measures on communities and on vulnerable groups in Scotland is not clear, but it is likely to bring new challenges, such as the emotional stress of relocation. It could also potentially bring new opportunities, such as improved quality of housing for vulnerable groups or a greater sense of security due to moving away from an area experiencing repeated flood events.

107. More research to understand the implications and how the impacts can be minimised is essential. The inclusion of this sensitive topic in the strategy has been welcomed by stakeholders. However, more information is needed about where responsibility will rest for engaging with communities affected and what support will be in place.

108. The lack of clarity around funding issues means that high levels of uncertainty remain and resources could continue to be wasted at a local and national level, by expending resources to develop actions that may

never be implemented. It also suggests that a number of the problems that stalled progress within the flood risk management approach may be carried over into the resilience approach.

Stronger, collaborative leadership is needed to make more fundamental changes

109. To resolve these issues, bold collaborative leadership is needed. This is particularly important at a time when resources are stretched so tightly.

110. There is an ongoing programme of public sector reform and local government transformation to help address financial and other challenges. Recent reports by the Accounts Commission and Auditor General for Scotland stress the importance of identifying opportunities for:

- early investment that avoids bigger costs in the future (spend to save)
- ensuring the effective use of limited financial resources
- mechanisms for collaborative leadership with redesigned accountability structures ([Fiscal sustainability and reform in Scotland](#), [Public Sector reform in Scotland: how to turn rhetoric into reality](#) and [Transformation in councils](#)).

111. It will be important that these opportunities, and wider approaches for reform and transformation, are considered as the public sector takes action to build flood resilience in communities. It will also be important that work to address flooding is integrated into wider climate change adaptation work which also addresses issues such as the increasing risk of drought. The Scottish Government is currently developing guidance to support the public sector in their long-term planning for climate change, which includes guidance on taking a whole system approach.

Endnotes

- 1** [Scottish National Adaptation Plan 2024–2029](#), Scottish Government, September 2024.
- 2** [National Flood Resilience Strategy](#), Scottish Government, December 2024.
- 3** Ibid.
- 4** [Building public health resilience to fluvial flooding in Scotland policy brief](#), Centre of Expertise for Waters (CREW), April 2024.
- 5** [The just transition and climate change adaptation](#), Climate Change Committee, March 2022.
- 6** Ibid.
- 7** [Assessing the socio-economic impacts of soil degradation on Scotland’s water environment](#), Centre of Expertise for Waters (CREW), June 2024.
- 8** See endnote 2.
- 9** See endnote 1.
- 10** [Information released under Environmental Information \(Scotland\) Regulations 2004](#) on flood and coastal funding schemes, Scottish Government, April 2021.
- 11** [Living With Flooding: An action plan for delivering property flood resilience in Scotland](#), Scottish Government, November 2019.
- 12** [Adapting to climate change progress in Scotland](#), Climate Change Committee, November 2023.
- 13** Ibid.

Flooding in communities

Moving towards flood resilience



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