House of Commons

Environmental Audit Committee

Flood resilience in England

Fourth Report of Session 2024–26 HC 550

Environmental Audit Committee

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Summary

Flooding in England is a systemic and growing climate risk. River, coastal, surface water, and groundwater flooding are increasing in intensity and frequency under climate change, compounded by urbanisation and land-use change. Communities face repeated disruption, with long recovery times, emotional distress, damage to homes and businesses, and rising costs. Vulnerable households risk displacement and financial hardship, while repeated flooding produces profound social, economic, and health impacts, including anxiety, loss of livelihood, and disruption to education and essential services. High-risk properties create affordability and insurance challenges for their owners, leaving markets and mortgages exposed.

While the Government has committed new capital funding, a welcome step, the scale of investment remains insufficient relative to overall flood risk. The current system, though delivering important defences, is fragmented and reactive, leaving major gaps in long-term resilience that must be urgently addressed.

A strategic, integrated approach is needed. Investment should shift from reactive, property focused schemes to long-term, locally led solutions at the level of entire river catchments, designed to reduce flood risk across communities and strengthen overall resilience. Residents need a single, trusted reporting line during flooding, while resilience should be built into homes through improved new-build standards and support for retrofitting existing properties. Development in high-risk areas must be carefully managed, and nature-based measures, such as tree planting, wetland restoration, and sustainable drainage, should complement traditional defences to provide scalable, holistic protection.

Communities, local authorities, and voluntary groups are central to preparedness, response, and recovery. Their efforts require sustainable funding, training, and alignment with national and local strategies, such as the National Flood and Coastal Erosion Risk Management (FCERM) Strategy and local Flood Risk Management Plans. Volunteers and flood action groups should be formally recognised, resourced, and supported to ensure continuity, effectiveness, and equitable coverage across different types of communities.

Insurance and financial mechanisms underpin resilience. Flood Re, a joint industry and government reinsurance initiative, has stabilised the market while resilience is improved, but the UK is not on track to be fully risk reflective or flood resilient by the time it ends in 2039. Without urgent

action, gaps in protection, affordability, and coverage will persist. Schemes such as Build Back Better and Flood Performance Certificates can incentivise property resilience measures and support long-term market stability, but targeted government interventions are required to ensure access, and encourage proactive investment.

Achieving a flood resilient England requires a long-term vision recognising flooding's full impacts on people, communities, and the economy. Good practice involves coordinated water management at the catchment scale, investment in both structural and nature-based solutions, and sustainable, needs-based funding. Above all, there must be clear government ownership of flood resilience, with a single overarching body providing national leadership, accountability, and coordination across agencies. By adopting a strategic, adaptive, and joined up approach, the Government can protect lives, homes, and public investment and sustain resilience for decades to come.

1 The importance of flood resilience

1. Flooding is one of the UK's most significant climate related risks, affecting thousands of communities and expected to worsen as global temperatures rise.[1] It causes economic disruption, damage to homes and infrastructure, and long-term social and emotional impacts. The Environment Agency (EA) estimates that 6.3 million properties in England are at risk from rivers, the sea, or surface water, with these numbers set to rise under climate change scenarios.[2]

2. Climate change is increasing the frequency and severity of river, coastal, surface water, and groundwater flooding. Extreme rainfall, sea level rise, storm surges, and urbanisation, including development on floodplains and impermeable surfaces, are compounding these risks. The EA projects a 90% increase in properties at highest risk from river and coastal flooding, and a 200% increase in surface water flood risk, by the 2080s.[2]

3. Many households found themselves newly classified as being at flood risk this year, following the release of an updated Environment Agency map. Improvements in modelling, better data on surface water, urban drainage, and groundwater flows, and updated climate projections mean that around two-thirds of England is now considered "floodable" under certain conditions.[3] This does not imply that all these areas will flood regularly, but it highlights the expanded potential for flooding from extreme rainfall, sea level rise, and groundwater surges. Urbanisation, land use change, and development on floodplains have further increased risk in areas previously thought to be safe.[4]

1 Met Office, UK and Global extreme events – Heavy rainfall and floods, (Accessed 29 July 25)
2 Environment Agency, National assessment of flood and coastal erosion risk in England 2024, gov.uk, December 2024
3 Environment Agency, National assessment of flood and coastal erosion risk in England 2024, gov.uk, December 2024
4 Environment Agency, National assessment of flood and coastal erosion risk in England 2024, gov.uk, December 2024

4. The human consequences of flooding are severe. Repeated events cause anxiety, displacement, business disruption, and difficulty accessing insurance.[5] Several Members of our Committee represent constituencies that have experienced repeated flooding in recent years, and we were acutely aware of the urgency of examining whether current policies provide a fair and effective system of flood risk management.

5. Flood risk management in England is primarily overseen by the Environment Agency, which leads on river and coastal flooding, while local authorities have responsibility for surface water and smaller scale risks. The national Flood and Coastal Erosion Risk Management (FCERM) Strategy provides the overarching framework for managing flood risk in England, setting out objectives for long-term resilience, risk reduction, and collaboration between organisations.[6] Complementing this, the Flood Risk Management Plans 2021–2027 outline how national and local bodies, stakeholders, and communities will work together to manage flood risk in each river basin district, with tailored actions for high-risk areas. These plans are reviewed every six years to ensure they incorporate updated evidence, local priorities, and climate projections.[7]

Our inquiry

6. We launched our inquiry as one of our first in this Parliament on 10 December 2024. We received 139 written responses to our call for evidence, and held five public evidence sessions, hearing from 25 witnesses across 10 panels. We heard from a wide range of experts and stakeholders, including flood risk managers, people directly affected by flooding, housing and farmers' representatives, academics and researchers, and the Climate Change Committee's Adaptation Committee, as well as senior officials from the Environment Agency and the Department for Environment, Food and Rural Affairs, and Emma Hardy MP, the Minister for Water and Flooding.

7. As responsibility for managing flooding and coastal erosion is devolved to the administrations in Scotland, Wales and Northern Ireland, our inquiry focused exclusively on flood resilience in England. Our report sets out practical recommendations for action that the Government can implement.

8. As part of the inquiry, we visited the Netherlands to study flood management and resilience solutions, and Shrewsbury to understand local impacts, catchment planning, and community experiences, and we also

5 House of Commons Library, Flood risk management and funding, Research Briefing, November 2024

6 House of Commons Library, Flood risk management and funding, Research Briefing, November 2024

7 Local Government Association, FCERM National Strategy, (Accessed 30 July 2025)

held a roundtable with the Institution of Civil Engineers to discuss technical and engineering perspectives on delivering effective flood resilience.[8] We are grateful to everyone who submitted written evidence, gave oral evidence, or otherwise supported this inquiry, and to those who facilitated and hosted our visits.

9. This report examines England's FCERM system in the context of climate change and the National FCERM Strategy. It reviews governance, investment, and regulatory arrangements; the roles of the EA, local authorities, and Defra; and the integration of structural, catchment wide, and nature-based interventions. The report also explores how households, communities, and insurers can work together to reduce risk, increase resilience, and enable faster recovery.

8 Institution of Civil Engineers, ICE roundtable with the Environmental Audit Committee: How to ensure collaboration, policy and funding enhance flood risk management? (PDF), July 2025

2 A strategic, system-wide approach to flood resilience

10. Despite growing awareness of increasing flood risk due to climate change, and the statutory National Flood and Coastal Erosion Risk Management Strategy for England (FCERM Strategy), the country remains locked in a pattern of reactive flood management. Current arrangements are fragmented across agencies, inconsistently funded, and lacking in enforceable standards, are not sufficient for the scale of adaptation needed.[9]

11. This chapter examines key elements of England's strategic approach to flood resilience: national governance and leadership; roles and responsibilities; resilience standards; catchment-based planning; and the integration of nature-based solutions.

Strengthening the national framework for flood resilience

12. The 2020 FCERM Strategy set out a long-term vision for creating climate resilient places, with a welcome emphasis on adaptation, whole system approaches, and community engagement. However, we heard consistently that its non-binding status undermines its effectiveness.[10] Risk Management Authorities (RMAs), including Lead Local Flood Authorities, are only required to "have regard to" the Strategy under the Flood and Water Management Act 2010.[11] There is no statutory obligation to meet resilience standards, deliver specified outcomes, or align investment decisions with the Strategy. This permissive framework results in inconsistent implementation,

9 Flood Re (FRE0107); Mr Garry Easter (Member at Attleborough & Besthorpe Flood Group); Mrs Lynn Short (Member at Attleborough & Besthorpe Flood Group); Mr Paul Hunter (Member at Attleborough & Besthorpe Flood Group) (FRE0064); Newent Neighbourhood Flood Association (FRE0010); Prof Larissa Naylor (Professor of Geomorphology and Environmental Geography at University of Glasgow) (FRE0133); National Oceanography Centre (FRE0094)

10 Q14; Environment Agency (FRE0083), The National Flood Forum (FRE0088), Wildlife and Countryside Link, Blueprint for Water (FRE0117), Chartered Institution of Water and Environmental Management (FRE0144)

11 Flood and Water Management Act 2010; Q318

variable levels of ambition, and an overall system that lacks urgency.[12] Key stakeholders, including local flood groups, environmental bodies, insurers, and infrastructure operators, repeatedly highlighted the absence of national targets for flood adaptation and the lack of defined minimum protection standards as a fundamental weakness.[13]

13. These concerns were echoed in the recent Cunliffe Review of the water sector regulatory system, which found that England lacks a single, accountable organisation tasked with assessing whether the nation is adapting fast enough to escalating climate risks. It called for stronger leadership and clearer, measurable targets across government to embed resilience in policy and practice.[14] We consider these issues, as they also apply to flooding, later in this chapter.

14. Flood risk in England is increasing rapidly, driven by climate change, unchecked development, ageing infrastructure, and changing weather patterns characterised by hotter, drier summers, and wetter winters.[15] These factors intensify pressures on drainage and water management systems, creating complex, interrelated risks.[16] Despite this, England continues to manage flood risk reactively, with a legacy approach focused on past patterns rather than future projections. Effective flood resilience therefore requires integration within broader water management frameworks that recognise the interdependencies between flood risk, water supply, and environmental sustainability.[17] Without a more robust, enforceable framework, England will remain locked in a cycle of reactive spending, rising damages, and unequal levels of protection.[18]

12 Mrs Linda Bevan (Secretary at Sturmer Flood Action Group); Mr Alan Carter (Chairman at Sturmer Flood Action Group) (FRE0004)

13 Q16; The Fabian Society (FRE0102); ADA (Association of Drainage Authorities) (FRE0132); The Wildlife Trusts (FRE0061); Chartered Institution of Water and Environmental Management (FRE0144); Wildlife and Countryside Link, Blueprint for Water (FRE0117); South Hampstead Flood Action Group (FRE0036); Association of British Insurers (FRE0138); Pennon Group PLC (FRE0131)

14 Independent Water Commission, Final Report, gov.uk, July 2025

15 Professor Larissa Naylor (Professor of Geomorphology and Environmental Geography at University of Glasgow) (FRE0149); Wildlife and Countryside Link, Blueprint for Water (FRE0117)

16 National Farmers' Union (FRE0151); Chartered Institution of Water and Environmental Management (FRE0144)

17 ADA (Association of Drainage Authorities) (FRE0132); Pennon Group PLC (FRE0131); The National Flood Forum (FRE0088)

18 Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050); National Farmers Union (FRE0090)Shrewsbury Quarry Flood Action Group (FRE0058) Dr Andrew Johnston; Mr Paul Cobbing; Direct Line Group (FRE0098), Dr Andrew Johnston; Mr Paul Cobbing (FRE0044)

15. **CONCLUSION**

We are concerned that the current flood risk framework is underpowered and fragmented. The Flood and Coastal Erosion Risk Management (FCERM) Strategy lacks enforceability, and the National Adaptation Programme does not provide the standards, targets, or delivery mechanisms needed to embed resilience across government and infrastructure. Without national benchmarks, statutory duties, and aligned long-term funding, communities remain exposed amid rising climate risks. The system as it stands is reactive and costly. Prevention is more effective and affordable but requires a fundamental shift to the strategic use of resources.

16. **RECOMMENDATION**

Flood resilience must be embedded in statute as a clear responsibility, not left as a discretionary ambition. The Government should bring forward proposals to amend the Flood and Water Management Act 2010 to establish a duty for all relevant authorities to act in accordance with a strengthened Flood and Coastal Erosion Management Strategy, which must clearly define what 'good' flood resilience looks like and embed a long-term framework that transcends electoral cycles, ensuring shared responsibility at all levels.

- Risk Management Authorities (RMAs), including Lead Local Flood Authorities (LLFAs), should be assigned statutory duties to deliver against these standards within two years, with clear accountability and access to adequate, sustained resources.
- The Environment Agency must be empowered to oversee delivery across all sources of flooding, monitor compliance with National Adaptation Programme targets, and coordinate activity across RMAs and central departments.

Establishing clear resilience standards

17. Across our inquiry, we heard repeatedly that the absence of clear, consistent, and measurable resilience standards is undermining the effectiveness and accountability of the flood risk system. At present, individuals and communities do not know what level of protection they can expect from the state, or what their own responsibilities are. This uncertainty weakens public trust, hampers investment decisions, and perpetuates inequality, as those with greater political or economic capital are often able to secure higher standards of protection.[19]

19 Direct Line Group (FRE0098); Shrewsbury Quarry Flood Action Group (FRE0058)

18. While the Environment Agency provides guidance through its long-term investment scenarios[20] and regional flood risk management plans,[21] these are not binding, and standards vary significantly by location, funding, and type of flood risk.[22] This uncertainty hampers investment decisions, weakens public understanding, and makes it harder to hold delivery bodies accountable.[23] It also results in uneven levels of protection, with some areas and sectors receiving disproportionately higher safeguards than others.[24]

19. The Cunliffe Review identified this gap clearly, calling for the development of "adaptation performance metrics" to provide a clear sense of direction, accountability, and ambition.[25] This applies equally to flood resilience. Without clear standards, resilience remains a vague ambition rather than a deliverable goal.[26]

20. We were particularly interested in the Netherlands' approach, where national legislation sets agreed standards of flood protection based on potential consequences. Areas with high population density or significant economic assets are protected to a standard of up to a 1 in 10,000 year flood event,[27] while lower risk areas have proportionately lower thresholds.[28] These standards are legally binding and provide a clear baseline for investment and delivery across local and national authorities, including

20 Environment Agency, Long-term investment scenarios (LTIS) 2019 , gov.uk, updated 1 July 2021, [Accessed 26 July 2025)

21 Environment Agency, Flood risk management plans 2021 to 2027, gov.uk, December 2022, [Accessed 26 July 2025]

22 Policy Connect (FRE0025)

23 Flooded People UK (FRE0153)

24 Flooded People UK (FRE0153); Policy Connect (FRE0025); Wildlife and Countryside Link, Blueprint for Water (FRE0117)

25 Independent Water Commission, Final Report, gov.uk, July 2025

26 The Fabian Society (FRE0102); Dr Katie Jenkins (Research Lecturer at Tyndall Centre for Climate Change Research); Prof Robert Nicholls (Faculty / Former Tyndall Director at Tyndall Centre for Climate Change Research); Dr Ing Paul Sayers (Director at Sayers & Partners Ltd) (FRE0033)

27 Return periods indicate the likelihood of a flood of a given size in any single year, expressed as the annual exceedance probability (AEP). For example, a 1 in 10,000-year flood has a 0.01% chance of occurring in any year, a 1 in 1,000-year flood 0.1%, a 1 in 100-year flood 1%, and a 1 in 30-year flood 3.3%. The term does not mean the event happens only once in that many years; the probability is the same each year, and the risk accumulates over time. For instance, a 1% AEP event has roughly a 26% chance of occurring at least once over a 30-year period. This illustrates why the Netherlands sets very high protection standards for areas with dense populations or critical economic assets, to reduce the likelihood of catastrophic impacts even in extremely rare events. FPS Environmental, What are Flood Return Periods?, [Accessed 24 August 2025]

28 National Delta Programme, What is the national Delta Programme?, [Accessed 24 August 2024]

the regional Water Boards and the national Rijkswaterstaat.[29] This clarity enables long-term planning and ensures consistency across different parts of the country. The Dutch system is supported by sustained public investment through the Delta Fund, which allocates approximately €1.3 billion per year to flood protection and adaptation measures, underpinned by strong political consensus that maintains continuity and consistency across successive administrations.[30]

21. However, witnesses also stressed the complexity of delivering such standards in practice. Philip Duffy, Chief Executive of the Environment Agency, cautioned against adopting a single national flood resilience target, noting that flood risks vary widely across England, from minor garden flooding to major property or infrastructure inundation.[31] He explained that setting a single target would struggle to capture these diverse, sometimes competing risk scenarios, each of which carries different implications for safety, cost, and community impact. His comments reflect a broader concern that one size fits all metrics may oversimplify the diversity of impacts and risk contexts.[32]

22. We note that the National Adaptation Programme (NAP), established under the Climate Change Act 2008, could provide a statutory framework for setting national flood resilience standards and monitoring progress. However, the third iteration (NAP3)[33] has been widely criticised for lacking detail, funding commitments, and clear delivery mechanisms.[34] Evidence highlighted that NAP3 does not adequately address the full range of climate risks, leaving vulnerable communities exposed and lacking clear resilience benchmarks.[35]

29 Rijkswaterstaat is the executive agency of the Dutch Ministry of Infrastructure and Water Management, responsible for the design, construction, management, and maintenance of the country's primary infrastructure facilities. Rijkswaterstaat International

30 National Delta Programme, Delta Programme: flood safety, freshwater and spatial adaptation, [Accessed 24 August 2024]

31 Q318

32 Q318

33 Department for Environment, Food and Rural Affairs, Third National Adaptation Programme (NAP3), gov.uk, updated 21 February 2024, [Accessed 19 August 2025]

34 Friends of the Earth (England, Wales and Northern Ireland) (FRE0078); Wildlife and Countryside Link, Blueprint for Water (FRE0117); Professor Larissa Naylor (Professor of Geomorphology and Environmental Geography at University of Glasgow) (FRE0133)

35 Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050); Aviva (FRE0100)

23. **CONCLUSION**
We are concerned that there is still no agreed national standard for what constitutes a flood resilient property, system, or community. This absence undermines public understanding, weakens accountability, and makes it harder to prioritise investment or measure progress. Without a clear benchmark, resilience remains a vague ambition rather than a deliverable goal. We believe England urgently needs to define what flood resilience means, and commit to delivering it.

24. **RECOMMENDATION**
By 2027, the Government should develop and adopt clear, measurable national flood resilience standards that define the expected level of resilience based on the characteristics of the area or property. These standards should guide national and local investment, support planning decisions, and give the public confidence that resilience is being delivered consistently and transparently. These standards should be:

- Embedded: the standards should be incorporated in the National Adaptation Programme (NAP), supported by long-term funding commitments aligned to those objectives. These commitments must extend beyond existing six-year budget cycles, reflecting the long-term nature of climate risk. Resources should be used more strategically, focusing on prevention and resilience rather than reactive spending.
- Tiered: to reflect different types of risk (e.g., risk to life, property damage, infrastructure disruption) and levels of acceptable risk in different contexts (e.g., urban vs rural, critical infrastructure vs residential areas).
- Comprehensive: applying across infrastructure, housing, and community planning.
- Forward-looking: aligned with future climate projections and long-term adaptation goals.
- Deliverable: backed by adequate funding, a clear implementation plan, and integration into planning, investment, and regulatory frameworks.

Surface water flood risk

25. Surface water flooding, caused by heavy rainfall overwhelming drainage systems, is now recognised as the most frequent form of flood risk in England, yet it remains one of the least understood and least coordinated

aspects of national flood resilience.[36] Despite its prevalence, surface water risk has historically been treated as secondary to fluvial[37] and coastal flooding, resulting in fragmented responsibilities, inconsistent planning, and inadequate investment.[38] This has left communities vulnerable to increasingly intense rainfall events, particularly in urban areas where drainage infrastructure is often outdated or overwhelmed.[39] Witnesses described surface water management as complex and poorly coordinated, with unclear ownership of assets and responsibilities across agencies. They highlighted that drainage systems in cities are especially challenging to manage, and that coordination between water companies, local authorities, and regulators is often lacking.[40] We also heard that surface water flooding receives insufficient strategic attention, despite its growing impact.[41]

26. The Environment Agency's updated national flood risk assessment, published in 2024, indicated a 43% increase in the number of properties at risk from surface water flooding, three times greater than their 2018 assessment, now totalling 4.6 million properties at risk.[42] This increase is driven by improved modelling, climate change, and the expansion of impermeable surfaces.[43] The Environment Agency retains a strategic role in managing surface water flooding, while operational responsibility rests with Lead Local Flood Authorities (LLFAs).[44] This division of responsibilities has led to inconsistent approaches across the country and a lack of integration in flood risk planning.[45]

36 The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) - Flood and Water Management Group (FWMG) (FRE0114); Town and Country Planning Association (FRE0068); Flood Technology Group (FRE0015)

37 Fluvial flooding: flooding that occurs when a river or stream overflows its banks, inundating surrounding lands.

38 Q234; Dr Nick Chappell (Reader in Hydrological Processes & NERC Chief Science Advisor (Flood & Drought Research Infrastructure) at Lancaster University) (FRE0002); Mrs Mary Long-Dhonau OBE (Property Flood Resilience Consultant at FloodMary.com) (FRE0021); Bedford Group of Drainage Boards (FRE0026); Policy Connect (FRE0025)

39 Q213; Mrs Mary Long-Dhonau OBE (Property Flood Resilience Consultant at FloodMary.com) (FRE0021); Newent Neighbourhood Flood Association (FRE0010); East Peckham Parish Council (FRE0017); Cornwall Council (FRE0032)

40 Qq14–15

41 Q39

42 Environment Agency, National assessment of flood and coastal erosion risk in England 2024, gov.uk, 22 January 2025

43 Q314

44 Department for Environment, Food and Rural Affairs (FRE0148); United Utilities (FRE0141)

45 The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) - Flood and Water Management Group (FWMG) (FRE0114); Cornwall Council (FRE0032); Institution of Civil Engineers (FRE0145); Town and Country Planning Association (FRE0068)

27. Surface water risk is still not consistently incorporated into planning decisions, and water companies are not statutory consultees, despite their critical role in managing drainage and sewerage infrastructure.[46] The absence of a national framework for data sharing between drainage authorities, water companies, and planning bodies further compounds the problem.[47] In practice, this has led to developments proceeding without fully assessing the effects on neighbouring areas and infrastructure, and without sufficient safeguards to prevent increased runoff or sewer overloading.[48]

Box 1: Sustainable drainage systems

Sustainable drainage systems, often shortened to SuDs, is a term for a set of environmentally friendly techniques that are designed to help manage and control surface water runoff, close to where it falls. The aim of SuDS is to mimic natural water management processes by allowing water to infiltrate into the ground, evaporate away, or be stored again for later use, rather than immediately diverted into traditional drainage systems. SuDS can include a number of different practices or mechanisms designed to drain or soak up surface water in a more sustainable way than draining water runoff through a pipe into a sewer.

28. Efforts to improve sustainable drainage are hindered by poor integration between planning policy, flood management, and sewerage infrastructure. Although Schedule 3 of the Flood and Water Management Act 2010[49] was intended to create a clearer and more consistent regime for sustainable drainage systems (SuDS), it has not been commenced in England.[50] The Minister indicated that the Government is considering alternative options to Schedule 3 to deliver SuDS more effectively.[51] While Schedule 3 sets a statutory framework for approval and adoption, it does not secure funding for construction or long-term maintenance, which currently falls on developers and local authorities. Witnesses warned that without clear statutory responsibility and guaranteed funding, SuDS implementation will remain inconsistent.[52] Many also observed that current planning policy, and

46 Q172; Chartered Institution of Water and Environmental Management (FRE0144); Town and Country Planning Association (FRE0068); South Hampstead Flood Action Group (FRE0036)

47 JBA Consulting (FRE0120); Friends of the Earth (England, Wales and Northern Ireland) (FRE0078); Energy and Environment Institute, University of Hull (FRE0093)

48 United Utilities (FRE0141); Flood Re (FRE0107)

49 Flood and Water Management Act 2010

50 Cornwall Council (FRE0032); Chartered Institution of Water and Environmental Management (FRE0144); National Farmers' Union (FRE0151); Policy Connect (FRE0025)

51 Q313

52 Chartered Institution of Water and Environmental Management (FRE0144); Cornwall Council (FRE0032); The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) - Flood and Water Management Group (FWMG) (FRE0114); National

the National Planning Policy Framework (NPPF)[53] in particular, remains too weak on requiring SuDS at scale, particularly for retrofit schemes and in managing cumulative impacts on drainage capacity.[54]

29. We heard of recent work to improve surface water mapping and forecasting. The Environment Agency's 2024 National assessment of flood and coastal erosion risk provides the most comprehensive picture to date of surface water flood risk,[55] and the development of the Rapid Flood Guidance Service[56] represent important advances.[57] However, surface water modelling remains underdeveloped compared to fluvial and coastal systems.[58] Without standardised, dynamic datasets and more consistent integration of surface water data into planning and infrastructure decisions, risk will continue to be underestimated and poorly managed.[59] Persistent uncertainty about the condition and capacity of drainage and sewerage infrastructure further limits effective planning, particularly as climate change increases rainfall intensity and urban development expands.[60]

30. **CONCLUSION**

Surface water flooding is the most common source of flooding in England, yet it remains poorly quantified, inconsistently planned for, and often underestimated in development decisions. It is also one of the least understood and least coordinated aspects of flood resilience nationally. This represents a major gap in national flood resilience that must be urgently addressed, though we acknowledge and welcome the Government's commitment to improving surface water mapping and modelling.

Farmers' Union (FRE0151)

53 Ministry of Housing, Communities and Local Government, National Planning Policy Framework, gov.uk, last updated 12 December 2024, [Accessed 15 September 2025]

54 Q172; Chartered Institution of Water and Environmental Management (FRE0144); Association of British Insurers (FRE0138); JBA Consulting (FRE0120);

55 Environment Agency, National assessment of flood and coastal erosion risk in England 2024, gov.uk, 22 January 2025

56 Flood Forecasting Centre, Rapid Flood Guidance service 2025: user guide, last updated 10 April 2025, [Accessed 19 August 2025]

57 Department for Environment, Food and Rural Affairs (FRE0148)

58 Chartered Institution of Water and Environmental Management (FRE0144)

59 Professor David Balmforth (Visiting Professor and Independent Consultant at Department of Civil and Environmental Engineering, Imperial College) (FRE0072); ADA (Association of Drainage Authorities) (FRE0132); Town and Country Planning Association (FRE0068)

60 Q231; Pennon Group PLC (FRE0131); Chartered Institution of Water and Environmental Management (FRE0144)

31. **RECOMMENDATION**
We welcome the flood risk strategy becoming more dynamic and responsive to emerging risks. Surface water flooding, long underestimated, is now understood to be one of the most frequent and complex sources of flood risk. It must no longer be treated as a second-tier issue. By 2027, the Government should ensure that surface water flood risk is consistently quantified and fully integrated into national flood risk assessments. Defra, working with the Environment Agency and Lead Local Flood Authorities, should complete the standardisation of surface water mapping and modelling by the end of 2025, ensuring that dynamic, up-to-date data feeds into national assessments by 2026. The Water Regulator and water companies, supported by Defra, should develop a national framework for data sharing on drainage and sewerage infrastructure, including clear responsibilities for maintenance, capacity, and investment. These improvements must also support better planning, delivery, and maintenance of sustainable drainage systems as part of a coordinated, forward-looking approach to managing surface water.

Embedding catchment-based approaches

32. A catchment-based approach, which manages water at the scale of entire river basins or drainage areas, is widely recognised as essential for integrated water management. It considers literal upstream and downstream impacts of rainfall and runoff, aligns flood and water quality objectives, and maximises the benefits of nature-based solutions.[61] However, despite years of policy rhetoric, we heard that catchment-based planning is still not consistently implemented.[62] Many stakeholders noted that current governance structures make catchment planning difficult to deliver in practice. River catchments do not align with administrative boundaries, and no single organisation is responsible for ensuring that planning happens at a strategic level.[63]

33. Partnerships such as Catchment Partnerships and Regional Flood and Coastal Committees do valuable work, but they often lack formal powers, stable funding, or statutory recognition.[64] Fragmented responsibilities and

61 Q9; JBA Consulting (FRE0120); The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) - Flood and Water Management Group (FWMG) (FRE0114); Wildlife and Countryside Link, Blueprint for Water (FRE0117); Mx Pax Butchart (FRE0019); Cornwall Council (FRE0032)
62 Q76; Flooded People UK (FRE0153); JBA Consulting (FRE0120); Policy Connect (FRE0025)
63 Qq76–77; JBA Consulting (FRE0120).
64 Policy Connect (FRE0025); Environment Agency (FRE0083)

the absence of a coordinating body further reduce their impact.[65] Regional Flood Risk Management Plans (FRMPs) provide some foundation, but they are largely non-binding and remain sector specific. They rarely integrate planning, water company investment, and land use decisions, which undermines coordinated flood risk management and can lead to inefficient or conflicting outcomes.[66]

34. We were told that a shift in focus is needed, moving resources and interventions earlier in flood risk management to prioritise prevention and mitigation, rather than relying on reactive measures.[67] Witnesses argued that a catchment approach allows for a holistic assessment of flood risks and trade-offs, and better integration of nature-based and community-led solutions.[68]

35. Our visit to Shrewsbury, in July 2025, highlighted both the potential and the current limitations of catchment-based approaches. The River Severn Partnership,[69] through projects like the Rea Brook Demonstrator[70] and the Severn Valley Water Management Scheme,[71] is showing how natural flood management, land use change, and smart monitoring technologies can reduce flood risk and deliver wider environmental benefits. These types of initiatives bring together local authorities, environmental agencies, and landowners to manage water at scale. But they also rely on discretionary funding and voluntary cooperation. Without statutory duties, long-term investment, and clear oversight, their impact remains limited and vulnerable to political and financial uncertainty.[72]

36. Catchment-based approaches can treat floodwater as a resource as well as a risk. Evidence shows that capturing and storing excess rainfall for irrigation or later release can reduce flood impacts, support agriculture, and deliver environmental benefits.[73] In the Netherlands we saw effective urban examples, such as the Benthemplein skate park in Rotterdam, which is also designed to function as a water storage area,[74] and heard about

65 JBA Consulting (FRE0120)
66 ADA (Association of Drainage Authorities) (FRE0132)
67 Wildlife and Countryside Link, Blueprint for Water (FRE0117); Mrs Helen Paris (FRE0024)
68 The National Flood Forum (FRE0088); Mr Stephen Blakey (In capacity as the Chair of at Stony Stratford Flood Action Group); Mr Tim Smith (in capacity as a member of Stony Stratford Flood Action Group) (FRE0087)
69 River Severn Partnership, River Severn Partnership, [Accessed 20 August 2025]
70 Severn Rivers Trust, Rea Brook Natural Flood Management Demonstrator, [Accessed 20 August 2025]
71 River Severn Partnership, Severn Valley Water Management Scheme, [Accessed 20 August 2025]
72 Cornwall Council (FRE0032)
73 Environment Agency, National Framework for Water Resources 2025: water for growth, nature and a resilient future, gov.uk 17 June 2025
74 Dutch News, Rotterdam is mostly below sea level, but city feet stay dry, 6 January 2024

innovative solutions in wider areas, such as sports clubs that manage and store water.[75] These demonstrate the effectiveness of multi-purpose flood storage, for both risk management and wider economic and ecological gains.[76]

37. We heard that if England is serious about long-term resilience, catchment-based planning must move from pilot to principle. Regional partnerships should be mandated to lead integrated water management, with defined responsibilities and sustained funding. These partnerships would coordinate key actors across land, water, and infrastructure, and deliver joined-up solutions that address flood risk, water quality, and environmental goals. A statutory model would give catchment partnerships the authority and stability they need to succeed, and ensure that flood resilience is planned at the scale the problem demands.[77]

38. **CONCLUSION**

Catchment-based planning is widely acknowledged as the most effective and integrated way to manage flood risk, improve water quality, and deliver nature-based solutions. However, despite years of policy support, it remains inconsistently applied, poorly coordinated, and underpowered by short-term, discretionary funding. Fragmented responsibilities and the absence of statutory oversight continue to limit its reach and impact. If England is serious about long-term, preventative flood management, catchment-based planning must move from pilot to principle and be embedded as the default approach across the country.

39. **RECOMMENDATION**

Catchment-based planning must become the default approach, not a discretionary extra. By 2027, the Government should mandate catchment-scale planning and delivery through regional partnerships with defined statutory duties, long-term funding, and clear oversight. These partnerships should coordinate key actors across land, water, infrastructure and planning, and lead integrated water management that delivers multiple outcomes, including flood risk reduction, water quality improvements, and environmental enhancement, at the scale and complexity the challenge demands.

75 Third News, The Hague Introduces Innovative Water-Managed Multi-Sport Fields, [Accessed 20 August 2025]

76 See Annex 1 for details of our visit to the Netherlands.

77 Policy Connect (FRE0025); Cornwall Council (FRE0032); JBA Consulting (FRE0120); Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050)

Integrating nature-based solutions

Box 2: Nature-based solutions (NBS)

Nature-based solutions (NBS) are actions or strategies inspired by, supported by, or modelled on natural processes to address environmental, social, and economic challenges. In the context of flood management, NBS aim to reduce flood risks by enhancing natural features such as water storage capacity, soil permeability, and protective ecosystems like wetlands and floodplains. Beyond mitigating flooding, these solutions also offer co-benefits including improved biodiversity, enhanced ecosystem services, and the creation of recreational spaces.

40. Nature-based solutions (NBS), including wetland restoration, leaky dams, floodplain reconnection,[78] and sustainable drainage systems offer multiple benefits including water retention, biodiversity gain, carbon sequestration, and enhanced community wellbeing.[79] We welcome the strong support for NBS in the Flooding Minister's evidence to the Committee, and the increasing number of funded pilots.[80] However, the Government's commitment to applying nature-based approaches consistently across planning, investment, and flood risk management remains weak. Funding criteria has not consistently reflected the wider benefits of NBS. Planning and regulatory systems still favour hard infrastructure, and skills and capacity are patchy at a local level.[81] NBS can also be more cost effective than traditionally engineered solutions, delivering resilience at lower financial and environmental cost.[82] The Flooding Minister acknowledged that the previous funding formula disadvantaged natural flood management (NFM) by requiring evidence of a change in flood risk band, which was difficult to demonstrate. To address this, the Government introduced a dedicated £25 million fund to

78 Wetland restoration involves returning degraded or drained wetlands to their natural state, which helps store water, slow runoff, and provide environmental benefits. Leaky dams are small, permeable structures installed in streams or rivers to slow water flow, reduce downstream flooding, and encourage sediment deposition. Floodplain reconnection restores the natural link between a river and its floodplain, allowing water to spread safely during high flows and reducing flood risk downstream.

79 Wildlife and Countryside Link, Blueprint for Water (FRE0117); Rewilding Britain (FRE0130); Community Planning Alliance (FRE0045); United Utilities (FRE0141); Flood Technology Group (FRE0015)

80 Q368

81 Wildlife and Countryside Link, Blueprint for Water (FRE0117); The Fabian Society (FRE0102);

82 Green Alliance (FRE0134); The Wildlife Trusts (FRE0061)

support NFM projects and is consulting on reforms to fully fund the first £3 million of NFM projects and remove the risk band requirement, aiming to better reflect the wider benefits of nature-based approaches.[83]

41. The Environment Agency's Roadmap for NFM, and investment in 38 pilot schemes[84] is a positive step, but delivery is still *ad hoc*.[85] In many cases, nature-based approaches are still seen as optional extras rather than core infrastructure[86] and where projects are funded, capital funding usually excludes ongoing monitoring and maintenance, reinforcing the perception of NFM as a non-core component of flood management.[87]

42. **CONCLUSION**

Nature-based solutions remain undervalued and underutilised in England's approach to flood risk management. Despite growing evidence of their effectiveness in reducing flood risk, improving water quality, and delivering wider environmental and social benefits, they are still treated as peripheral rather than fundamental to national strategy. We find it deeply concerning that, in the face of escalating climate risks, nature-based solutions continue to be overlooked or deprioritised in policy and funding decisions. We welcomed the Minister's suggestion that the current consultation will encourage nature-based solutions, and we look forward to the results of the consultation. Their long-term value is well recognised, yet current appraisal methods often fail to capture their full benefits, making investment harder to justify. Unless nature-based solutions are fully integrated into planning and flood risk management, England risks missing one of its most cost effective, sustainable tools for building flood resilience.

83 Q368
84 Q318
85 Q26; JBA Consulting (FRE0120); United Utilities (FRE0141)
86 Rewilding Britain (FRE0130); Wildlife and Countryside Link, Blueprint for Water (FRE0117); Professor Larissa Naylor (Professor of Geomorphology and Environmental Geography at University of Glasgow) (FRE0149)
87 Qq26–27

43. **RECOMMENDATION**
The Government should embed nature-based solutions as a core component of national flood and coastal erosion risk management by 2027. Defra, working with the Environment Agency, HM Treasury, and other key partners, should:

- Reform flood funding appraisal and partnership funding rules, following the Government's current consultation on reforming the approach to floods funding, to better reflect the multi-benefit value of nature-based solutions.
- Set national targets for the uptake of nature-based approaches in flood risk management by 2026.
- Fully integrate nature-based solutions into flood, planning, and infrastructure policy by 2027, including economic support for landowners to incorporate flood resilience measures.

Improving the visibility and tracking of flood assets

44. We received consistent evidence that the UK does not have a comprehensive or up to date understanding of its flood resilience infrastructure.[88] While the Environment Agency oversees approximately 270,000 flood defence assets, this figure only captures what falls within its statutory remit and omits a significant range of infrastructure owned or managed by third parties, including private landowners, local authorities, internal drainage boards, and community groups.[89] Critically, nature-based solutions, such as leaky dams, wetlands, or tree planting schemes, are rarely incorporated into asset records despite their importance.[90]

45. This lack of visibility creates fragmentation and weakens coordination. Many assets delivered through local schemes, voluntary initiatives, or small scale nature-based approaches are not systematically monitored, and no consistent framework exists for assessing their effectiveness or

88 Zurich UK (FRE0140); Professor David Balmforth (Visiting Professor and Independent Consultant at Department of Civil and Environmental Engineering, Imperial College) (FRE0072); The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) - Flood and Water Management Group (FWMG) (FRE0114)

89 Department for Environment, Food and Rural Affairs (FRE0148); Policy Connect (FRE0025); Wildlife and Countryside Link, Blueprint for Water (FRE0117); National Audit Office, Resilience to flooding, November 2023

90 Game & Wildlife Conservation Trust (FRE0108); Wildlife and Countryside Link, Blueprint for Water (FRE0117)

maintenance needs.[91] We heard that this patchwork approach hinders investment decisions, leads to missed opportunities to bolster local resilience, and makes it difficult to track where responsibilities lie when maintenance issues or failures arise.[92] Without a unified understanding of asset performance and condition, it is not possible to make effective long-term funding decisions or to assess whether current public spending is yielding value for money, ensuring reliable and sustainable protection.[93]

46. There is also evidence that the condition of known and tracked existing assets is worsening. The Environment Agency estimated that the proportion of high-consequence flood defence assets maintained at required condition has dropped from 98% in 2018–19 to 93% in 2024, an estimated decline in protection for around 200,000 properties.[94] Some cost pressures reflect general inflation and the growing asset base, which increase the real costs of maintenance and construction. However, chronic underfunding and a lack of routine maintenance, particularly for third-party or nature-based assets, remain significant contributors.[95]

47. Flood resilience infrastructure does not function in isolation. Its effectiveness depends on how individual assets interact across wider catchments and drainage systems. Without a holistic view, it is not possible to assess system-wide performance or understand the cumulative risk that communities face.[96] Pressures on wider water systems, such as polluted

91 Dr Nick Chappell (Reader in Hydrological Processes & NERC Chief Science Advisor (Flood & Drought Research Infrastructure) at Lancaster University) (FRE0002); Mrs Thanea Hodges (Self employed Classical Musician at Self-employed) (FRE0011); Dr Tim Marjoribanks (Senior Lecturer in Water Engineering at Loughborough University); Mr Jonathan Vann (PhD Researcher/NbS Consultant at Loughborough University/Riverscape Consultants); Mr Bartholomew Hill (Post-Doctoral Research Associate at University of Lincoln); Professor Ksenia Chmutina (Professor of Disaster Studies at Loughborough University); Professor Mark Gussy (Professor in Rural Health and Social Care at University of Lincoln); Dr Harriet Moore (Senior Lecturer in Geospatial Health & Wellbeing at University of Lincoln); Professor Lee Bosher (Professor of Risk at University of Leicester) (FRE0003)

92 Department for Environment, Food and Rural Affairs (FRE0148); Flood Technology Group (FRE0015); Mr Garry Easter (Member at Attleborough & Besthorpe Flood Group); Mrs Lynn Short (Member at Attleborough & Besthorpe Flood Group); Mr Paul Hunter (Member at Attleborough & Besthorpe Flood Group) (FRE0064)

93 The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) - Flood and Water Management Group (FWMG) (FRE0114); Professor David Balmforth (Visiting Professor and Independent Consultant at Department of Civil and Environmental Engineering, Imperial College) (FRE0072); Watertight International (FRE0091)

94 Q391; Flood Technology Group (FRE0015)

95 Qq261–265; Newent Neighbourhood Flood Association (FRE0010); Chartered Institution of Water and Environmental Management (FRE0144)

96 Institution of Civil Engineers, ICE roundtable with the Environmental Audit Committee: How to ensure collaboration, policy and funding enhance flood risk management? (PDF), July 2025; Qq270–275; Flood Technology Group (FRE0015); Historic England (FRE0031); JBA Consulting (FRE0120)

run-off, sewer blockages, and unclear responsibilities for surface water drainage, further highlight the need for more joined-up management across public and private bodies.[97]

48. We heard that the Flood Risk Management Strategy requires Lead Local Flood Authorities to maintain a register of flood risk assets, but that implementation is inconsistent and that many assets, especially SuDS and nature-based features are not captured.[98] A large number of stakeholders called for a national asset audit or register to address this.[99] They argued that this must include both engineered and nature-based solutions and be designed to support investment planning, maintenance scheduling, and local adaptation strategies.[100] A national audit would enable identification of gaps, dependencies, and potential vulnerabilities across both rural and urban landscapes. It would also provide the necessary foundation for coordinating risk reduction across a wider range of bodies, including water companies, planning authorities, and environmental NGOs.[101] While the Government has made commitments to improve asset information, we heard that current arrangements are too limited in scope and insufficiently joined up.[102]

49. We welcome the recent launch of the National Framework for Water Resources by the Environment Agency and Defra, which aims to establish a national register of water-related assets, their owners, and maintenance responsibilities.[103] A similar approach for flood assets, particularly nature-based and community-managed ones, would provide greater visibility and accountability. It would also help bridge gaps between planning and delivery and ensure that these assets are not left out of funding and resilience strategies.[104]

97 Environmental Audit Committee, Fourth Report of Session 2021–22, Water quality in rivers, HC 74, para 245
98 Kempsford Parish Council (FRE0116)
99 Newent Neighbourhood Flood Association (FRE0010); Flood Technology Group (FRE0015); Dr Nick Chappell (Reader in Hydrological Processes & NERC Chief Science Advisor (Flood & Drought Research Infrastructure) at Lancaster University) (FRE0002)
100 Qq270–275; Flood Technology Group (FRE0015); Institution of Mechanical Engineers (FRE0075); Professor Larissa Naylor (Professor of Geomorphology and Environmental Geography at University of Glasgow) (FRE0149)
101 Qq243–244; Flood Technology Group (FRE0015); Policy Connect (FRE0025); Green Alliance (FRE0134)
102 Qq243–244; JBA Consulting (FRE0120); Arup (FRE0096)
103 Environment Agency, The National Framework for Water Resources 2025, gov.uk, 17 June 2025
104 Qq243–244; Kempsford Parish Council (FRE0116)

50. **CONCLUSION**
We find that the absence of a comprehensive, up-to-date, and accessible record of flood resilience assets significantly limits England's ability to manage flood risk strategically. The lack of visibility over third-party, locally delivered, and nature-based assets fragments responsibility, undermines coordination, and hinders long-term investment decisions. Without a full understanding of where assets are, what condition they are in, and who is responsible for them, it is not possible to plan effectively, ensure reliable protection, or respond proactively to future risks.

51. **RECOMMENDATION**
The Government should commission a national audit of flood resilience assets by 2026, encompassing both engineered and nature-based infrastructure. This audit should identify the type, location, ownership, condition, and maintenance responsibilities of all relevant assets, including those owned or managed by third parties. The process should be led by Defra in collaboration with the Environment Agency and other relevant bodies, and should draw on lessons from the National Framework for Water Resources. The audit must be regularly updated and designed to inform strategic planning, guide investment, and improve coordination between local and national actors.

Clarifying roles and responsibilities

52. Across this chapter, we have identified systemic coordination failures that cut across multiple areas of flood risk management. These recurring weaknesses point to a deeper structural issue: the absence of an effective, overarching governance mechanism to provide national direction, join up local and sectoral efforts, and ensure a coherent, long-term approach to building flood resilience.

53. The Environment Agency told us that its strategic overview role is distinct from operational responsibilities and remains ill-defined in relation to other Risk Management Authorities, particularly in the context of surface water flooding, where fragmented legal responsibilities and inconsistent local practices hinder effective coordination and preparedness.[105]

54. One of the original aims of the Flood and Water Management Act 2010 was to clarify who is responsible for managing flood risk in England.[106] Yet over a decade later, the Committee heard consistent evidence that many communities remain unclear about who is accountable for protecting them

105 Environment Agency (FRE0083)
106 Environment Agency (FRE0083)

from flooding.[107] This reflects a deeper institutional problem: responsibilities are distributed across a range of bodies, including Lead Local Flood Authorities, the Environment Agency, water companies, Internal Drainage Boards, highways authorities, and others, with no single entity empowered to direct or coordinate activity across the system.[108]

Table 1: Flood risk Management authorities[109]

Risk Management Authority	Role
Central government	• The Department for Environment, Food and Rural Affairs (Defra) is the lead government department for flood and coastal erosion risk management. • The Ministry of Housing, Communities and Local Government (MHCLG) is the lead government department for response and recovery when flooding occurs. It is also responsible for planning policy. • The Cabinet Office has responsibility for designating lead government department status across all sectors, and owns the overarching policy in relation to emergency planning and response.
Environment Agency (EA)	Operational responsibility to manage flooding from "main rivers" and the sea; strategic overview of all sources of flooding.
Regional Flood and Coastal Committees	Direct flood risk management decisions in each region; must be consulted by the EA about FCERM work in their region
Lead Local Flood Authorities (LLFAs, unitary authorities and county councils)	Prepare local flood risk management strategies; maintain registers of flood risk assets; lead responsibility for managing floor risk from surface water, groundwater and ordinary watercourses.

107 Shrewsbury Quarry Flood Action Group (FRE0058); Association of British Insurers (FRE0138); Brinkworth Parish Council (FRE0137); Energy and Environment Institute, University of Hull (FRE0093)

108 Flood Technology Group (FRE0015); Pennon Group PLC (FRE0131); Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050); Wildlife and Countryside Link, Blueprint for Water (FRE0117)

109 Local Government Association, Managing flood risk: roles and responsibilities, accessed 20 August 2025, Department for Environment, Food and Rural Affairs, Environment Agency, Flood and coastal erosion: risk management authorities, 7 May 2015

Local Authorities	District and Borough Councils. They play a role in ensuring development is safe, flood resilient and does not increase flood risk overall; local authorities also have statutory powers to carry out flood defence works on "ordinary watercourses" which are not in an Internal Drainage Board area.
Internal Drainage Boards	Independent public bodies covering around 10% of England, mostly low-lying and high-flood-risk areas. Internal Drainage Boards have statutory powers to manage water levels and carry out works within their designated drainage districts.
Water and sewerage companies	Manage the risk of flooding from surface water and foul or combined sewer systems.
Highways authorities	Responsible for highway drainage and roadside ditches

55. While each organisation has defined statutory duties, the division of responsibility by flood type, surface water, fluvial, coastal, and groundwater, creates artificial silos and leads to fragmented delivery.[110] In practice, this results in poor coordination, overlapping or unclear accountability, and inconsistent levels of protection between places.[111] It also inhibits joined-up investment, weakens public trust, and creates barriers to the development of integrated, catchment-scale solutions.[112] We found that, even in areas with proactive local leadership, institutional complexity makes it difficult to align funding streams, share data, or respond quickly to emerging risks.[113] Nationally, there is no baseline for measuring adaptation, and no mechanism for tracking cumulative progress on flood resilience, or for ensuring that responsibilities are being fulfilled consistently across the country.[114]

110 The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) – Flood and Water Management Group (FWMG) (FRE0114); The National Flood Forum (FRE0088)

111 The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) – Flood and Water Management Group (FWMG) (FRE0114); Flood Technology Group (FRE0015)

112 Q259; Centre for Flood Risk and Resilience, Brunel University of London (FRE0071); The National Flood Forum (FRE0088)

113 Professor Larissa Naylor (Professor of Geomorphology and Environmental Geography at University of Glasgow) (FRE0149); Flood Technology Group (FRE0015); The National Flood Forum (FRE0088); The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) - Flood and Water Management Group (FWMG) (FRE0114)

114 Dr Katie Jenkins (Research Lecturer at Tyndall Centre for Climate Change Research); Professor Robert Nicholls (Faculty / Former Tyndall Director at Tyndall Centre for Climate Change Research); Dr Ing Paul Sayers (Director at Sayers & Partners Ltd) (FRE0033); Aviva (FRE0100)

56. Our evidence also highlighted that Fire and Rescue Services in England lack a statutory duty to respond to flooding, unlike their counterparts in Scotland, Wales, and Northern Ireland. The National Fire Chief's Council explained that this gap limits their ability to plan, train, and invest in flood response capacity, despite their frontline role in life-saving operations during flood events.[115]

57. The findings of the Cunliffe Review reinforce the need for reform. It identifies a lack of cross-government coordination, insufficient clarity over leadership for adaptation, and the absence of effective mechanisms to prioritise risk and drive action at pace. It calls for stronger national accountability, supported by robust central oversight and the introduction of a "Resilience Test" to embed climate risk into policy and investment decisions.[116]

58.

CONCLUSION

We are deeply concerned that even after more than a decade of reform, many communities still do not know who is responsible for managing flood risk where they live. A system that leaves the public unclear about accountability is not fit for purpose. Despite the original aim of the Flood and Water Management Act 2010 to clarify roles and support local leadership, responsibilities remain fragmented, coordination is inconsistent, and there is no single point of national accountability. This structural weakness is not simply a communications issue, it undermines trust, delays response, and obstructs long-term, strategic planning. England needs clearer leadership, stronger national oversight, and more effective coordination to build resilience at the pace and scale required.

115 National Fire Chiefs Council (NFCC) (FRE0150); Q386

116 Independent Water Commission, Final Report, gov.uk, July 2025

59. **RECOMMENDATION**

Flood resilience must be planned, integrated, and accountable, not fragmented, reactive, or opaque. The Government should establish a clear national mechanism for strategic oversight and accountability in flood risk management. By the end of 2025, it should set out how it intends to deliver this, whether by strengthening the Environment Agency's mandate, amending the Flood and Water Management Act 2010, or formally assigning oversight responsibilities to a permanent coordinating body, such as the Flood Resilience Taskforce. Implementation should begin no later than 2026. This mechanism should:

- Provide strategic oversight across all sources of flood risk, fluvial, surface water, coastal, and groundwater, and set national priorities for risk management authorities.
- Coordinate investment, standards, and adaptation targets across departments, sectors, and funding streams.
- Support and equip Lead Local Flood Authorities with the powers, funding, and technical capacity needed to deliver locally.
- Maintain and publish a national statement of responsibilities, setting out the duties of all relevant actors, including water companies, local authorities, infrastructure operators, and the public.
- Ensure flood risk and climate adaptation are fully integrated into spatial planning and development decisions through strategic oversight and consistent national policy.

60. **RECOMMENDATION**

The Government should consult on introducing a statutory duty for Fire and Rescue Services in England to respond to flooding, supported by dedicated funding for training, equipment, and operational planning. This should be undertaken by the end of 2025. This would align England with devolved administrations and strengthen national flood resilience. This should also look at making the Fire and Rescue Services a statutory consultee in planning decisions, to respond to local flooding situations.

3 Embedding flood resilience across Government policy and public investment

61. This chapter explores key gaps in flood resilience policy, focusing on planning failures, funding challenges, and the need for a fairer, more strategic approach that protects vulnerable communities and manages flood risk effectively.

Embedding resilience in public investment

62. Evidence to our inquiry shows that the UK lacks a coherent framework for embedding flood resilience into public investment. While the Flood and Coastal Erosion Risk Management (FCERM) Strategy and its investment programme are central, they fall short of the scale of climate risk. The funding model is fragmented, heavily reliant on partnership contributions that slow delivery and leave communities and infrastructure exposed.[117] Defra's flood budget is increasingly the 'thin blue line' protecting the nation's transport, energy, housing and utilities from escalating flood impacts, yet remains siloed, with no cross-government accountability for measurable outcomes or value for money.[118]

63. This weak alignment between risk data, policy ambition and funding leads to inconsistent preparedness and long-term inefficiency. Departments and agencies often pursue separate strategies with siloed funding, and there is no mechanism to test investments against a shared resilience standard, as explored in Chapter 2. Opportunities for prevention are routinely missed, with natural flood schemes, planning policies and capital programmes operating in parallel but uncoordinated.[119]

117 Q243; Q287; Policy Connect (FRE0025); Dr Katie Jenkins (Research Lecturer at Tyndall Centre for Climate Change Research); Professor Robert Nicholls (Faculty / Former Tyndall Director at Tyndall Centre for Climate Change Research); Dr Ing Paul Sayers (Director at Sayers & Partners Ltd) (FRE0033)

118 Qq243–245

119 Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050); Green Alliance (FRE0134); Dr Tim Marjoribanks (Senior Lecturer in Water Engineering at Loughborough University); Mr Jonathan Vann (PhD Researcher/NbS Consultant at

The flood budget

64. Stakeholders across sectors pointed to a persistent shortfall in flood resilience funding. The Government's capital investment commitment of £7.9 billion over ten years,[120] averaging around £790 million per year, is intended for structural flood defences.[121] However, for the period of April 2024 to March 2026, it has also allocated £2.65 billion, covering both capital and operational (resource) spending, rising to £4.2 billion through to March 2029.[122] Even so, the total falls short of the £1 billion per year the Environment Agency says is needed to avoid worsening risk,[123] and well below the £1.5 billion recommended by the former National Infrastructure Commission[124] to keep pace with climate impacts.[125]

65. Flooding already imposes substantial economic costs. Physical damage alone is estimated at £2.4 billion annually and could rise to £3.6 billion by 2050. Wider economic impacts, including disruption to employment and productivity, are valued at around £6.1 billion per year, of which approximately 36% affects public assets such as roads, railways, schools, and hospitals. Flooding disrupts work in affected areas for an estimated 10 days per year, costing around £290 million in lost productivity.[126] The Secretary of State acknowledged the high return on investment in flood

Loughborough University/Riverscape Consultants); Mr Bartholomew Hill (Post-Doctoral Research Associate at University of Lincoln); Professor Ksenia Chmutina (Professor of Disaster Studies at Loughborough University); Professor Mark Gussy (Professor in Rural Health and Social Care at University of Lincoln); Dr Harriet Moore (Senior Lecturer in Geospatial Health & Wellbeing at University of Lincoln); Professor Lee Bosher (Professor of Risk at University of Leicester) (FRE0003); United Utilities (FRE0141); Energy and Environment Institute, University of Hull (FRE0093)

120 Department for Environment, Food and Rural Affairs, Hundreds of thousands of homes and businesses to benefit from largest flood defence investment programme in history, gov.uk, 2 July 2025

121 Construction Index, Defra secures flood defence budget, June 2025

122 Department for Environment, Food and Rural Affairs, Record investment to protect thousands of UK homes and businesses, February 2025

123 Qq318–320

124 The National Infrastructure commission was dissolved in April 2025 and replaced by the National Infrastructure and Service Transformation Authority. National Infrastructure Commission, National Infrastructure Commission, gov.uk [Accessed 26 August 2025]

125 Qq241–245

126 Public First, From risk to resilience: The case for flood-resilient communities, economy and growth, March 2025

defences: every £1 spent prevents £5 in damages, including £2 in direct savings to the Exchequer.[127] Without a funding step-change, these losses, projected at £6.1 billion over the next decade, will continue to mount.[128]

66. The Flood Resilience Taskforce has improved cross-government coordination, strengthening preparedness and flood warning systems.[129] Stakeholders welcomed its convening power across the Environment Agency, Defra and the Cabinet Office.[130] However, its remit is limited, and better coordination must be matched by changes in investment behaviour and delivery outcomes.[131]

67. Nationally significant assets such as the Thames Barrier are critical to managing future risk, yet their long-term upgrade and maintenance needs are not consistently integrated into national infrastructure plans.[132] While flexibility exists within current funding envelopes, witnesses called for clear statutory obligations to ensure these assets are enhanced in line with climate projections.[133] Baroness Brown highlighted that the Thames Estuary 2100 Plan is internationally recognised as a strong example of adaptive planning, but noted its limitations: it is not a statutory or funded plan, and 88% of the estuary's defences are owned by riverside landowners[134] rather than the Environment Agency. She emphasised the urgency of making a decision by 2040 on whether a second Thames Barrier is needed and stressed the importance of reserving land and securing funding mechanisms to support such future infrastructure.[135]

127 Letter from the Secretary of State for Environment, Food and Rural Affairs, responding to the Committee's 28 May 2025 letter on flood budget, dated 5 June 2025

128 Q243, Dr Katie Jenkins (Research Lecturer at Tyndall Centre for Climate Change Research); Professor Robert Nicholls (Faculty / Former Tyndall Director at Tyndall Centre for Climate Change Research); Dr Ing Paul Sayers (Director at Sayers & Partners Ltd) (FRE0033)

129 Qq326–330; Department for Environment, Food and Rural Affairs (FRE0148)

130 Qq326–330; Department for Environment, Food and Rural Affairs (FRE0148)

131 Energy and Environment Institute, University of Hull (FRE0093); Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050)

132 Qq331–335

133 Department for Environment, Food and Rural Affairs (FRE0148)

134 Riparian landowners are those who own land adjacent to rivers, streams, or other watercourses. They have legal responsibilities related to the maintenance of the watercourse on or bordering their property, including ensuring that it is free from obstructions, managing vegetation, and allowing the natural flow of water. These duties can affect flood risk, as poorly maintained or blocked channels may contribute to localised flooding downstream.

135 Q13

68. **CONCLUSION**
The evolving understanding of climate risk and growing data on economic losses make clear that resilience must become a central organising principle for public investment. Without a shift from reactive to preventive spending, and from loosely coordinated action to clearly mandated delivery, future climate shocks will continue to impose avoidable costs on communities, infrastructure, and public finances.

69. **RECOMMENDATION**
By 2026, the Government should embed climate and flood resilience as a core test for all departmental spending and public investment proposals. This should be supported by clear resilience standards, measurable targets, and a requirement for every department to demonstrate how its spending aligns with these standards.

70. **CONCLUSION**
Experts have been clear: the UK is not investing at the scale required to keep pace with climate risk. This fragmented approach is leaving communities and infrastructure exposed and storing up greater costs for the future, and in real terms costing more than prevention measures due to disruption and damage to infrastructure and property.

71. **RECOMMENDATION**
Flood investment must match the scale of risk. The Government's flood budget should rise to at least £1.5 billion per year by 2030, as recommended by the National Infrastructure Commission to keep pace with climate impacts, and be explicitly tied to the delivery of measurable resilience outcomes.

72. **CONCLUSION**
We welcome the Flood Resilience Taskforce's role in improving cross-government coordination, including between the Environment Agency, Cabinet Office, and Defra. Its convening power should now be strengthened to influence investment priorities as well as preparedness, ensuring lessons from past events drive decisive action for the future.

73. **RECOMMENDATION**
The Government should strengthen the Flood Resilience Taskforce's mandate by 2026 to provide formal oversight of investment priorities and preparedness measures, ensuring that lessons from past events are systematically incorporated into national flood resilience planning across Government departments.

Making investment fairer and more inclusive

74. We heard extensive evidence that the current flood budget allocation framework prioritises economic efficiency, with decisions typically based on the number of properties protected and the economic value of damages avoided. This approach can result in areas with fewer properties, or lower property values, receiving less funding even when flood risk is high.[136] The reliance on monetised benefits and property counts has made it difficult for schemes in areas of high deprivation or low housing density to secure funding, even where flood risk is severe and recurring.[137] The partnership funding model was also identified as a barrier, particularly for communities with limited financial capacity, where schemes have stalled for years due to an inability to meet funding thresholds.[138] This economic focus risks excluding those who are socially vulnerable or face repeated hardship from flooding.[139]

75. Stakeholders called for reforms to make funding more equitable and responsive. This included factoring social vulnerability, such as deprivation, health inequalities, disability, and language or cultural barriers, into funding criteria; improving access for small-scale, rural, and community-led schemes; and recognising the cumulative, long-term impacts of flooding on people, places, and livelihoods.[140] Witnesses also supported including wider co-benefits, such as biodiversity, mental health, and economic stability, and moving beyond rigid cost-benefit analysis to adopt more inclusive metrics.[141]

136 Policy Connect (FRE0025); The Fabian Society (FRE0102); ADA (Association of Drainage Authorities) (FRE0132); National Farmers Union (FRE0090)
137 Q114; Qq214–215
138 Qq178–179, Manchester University, The Spatial Tool for Climate Just - assessing the geography of England's vulnerability to climate change, [accessed 20 August 2025]
139 Green Alliance (FRE0134); Wildlife and Countryside Link, Blueprint for Water (FRE0117)
140 Green Alliance (FRE0134); Flood Re (FRE0107)
141 Q214; Qq171–175

The Government's consultation on flood investment

76. The Minister for Water and Flooding confirmed that the Government is consulting on a revised funding framework. Under the proposals, eligible flood resilience projects would receive full Government funding for the first £3 million of project costs, after which partners, such as local authorities or landowners, would only be required to contribute 10% of remaining costs.[142] The consultation explores new prioritisation criteria, including deprivation, frequency of flooding, and nature-based solutions.[143] The Minister acknowledged that the previous formula separated funding pots for natural flood management and frequently flooded communities to ensure both received adequate funding, describing it as the "chimney pot formula".[144] The intention is to simplify access and enable more schemes to progress to prioritisation. The Minister also stated that the revised framework aims to embed previously marginalised approaches, such as natural flood management, rather than rely on ringfenced funds.[145] The weighting of prioritisation criteria remains open for consultation.

77. **CONCLUSION**

We welcome the Government's consultation on a new investment framework for flood and coastal resilience. The proposed shift to a simpler, more strategic approach is a positive step. However, unless the revised framework explicitly considers social vulnerability and the long-term community impacts of flooding, it risks perpetuating current shortcomings. Without such reform, funding may continue to prioritise projects based primarily on narrow financial metrics rather than broader measures of social and community need, even when projects remain economically justifiable.

142 Q386
143 Department for Environment, Food and Rural Affairs, Reforming our approach to floods funding, Citizen Space, 3 June 2025
144 Q387
145 Qq388–389

78. **RECOMMENDATION**

As the Government prepares to implement the new investment framework from April 2026, it must prioritise funding for communities most at risk from flooding. A simpler system must also be a fairer one, capable of supporting those facing the greatest hardships and repeated flood events. The framework should be designed to deliver fairer and more inclusive outcomes, by:

- Incorporating social vulnerability factors such as deprivation, health inequalities, insurance exclusion, and rural isolation, particularly where flooding cuts off entire communities, in decision making,
- Improving access to funding for small-scale, rural, and community-led schemes,
- Recognising the long-term and repeated impacts of flooding on people, places, and livelihoods,
- Valuing the co-benefits of adaptation, including biodiversity, mental health, and economic stability, and
- Moving beyond rigid cost-benefit rules to ensure resilience is built where it is most urgently needed.

Planning and infrastructure policy and flood resilience

79. The Government's stated ambition to improve flood resilience is not yet embedded in the frameworks that guide development, planning and public investment.[146] Despite recent reforms to the National Planning Policy Framework (NPPF) and the Flood and Coastal Erosion Risk Management Strategy, flood resilience is still inconsistently applied in local plans, infrastructure programmes, and building regulations.[147] Strategic planning continues to treat flooding as a problem to be engineered away on individual sites, rather than as a structural risk requiring coordinated, catchment-scale management.[148]

146 Town and Country Planning Association (FRE0068); Green Alliance (FRE0134)

147 Aviva (FRE0100); Mr Andrew Chapman (Retired multidisciplinary engineering manager at various high-tech and medical products manufacturers) (FRE0042); National Fire Chiefs Council (NFCC) (FRE0150);

148 The Wildlife Trusts (FRE0061); The National Flood Forum (FRE0088)The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) – Flood and Water Management Group (FWMG) (FRE0114)

Persistent development in high-risk areas

80. Our evidence demonstrates that developments continue to be approved in areas at high risk of flooding, despite increasing frequency and severity of flood events.[149] This includes cases where new developments flooded multiple times within a year, leaving residents uninsured and displaced.[150] Aviva has expressed concern that nearly 110,000 new homes built in the last decade are located in high-risk flood zones, potentially leaving homeowners at risk and not covered by the Flood Re insurance scheme.[151] The planning system fails to prioritise directing growth towards low risk areas, often overlooking surface water flooding, which is frequently underestimated and poorly managed.[152] It is essential that where development occurs, water displacement impacts are properly anticipated and mitigated.[153] The current system's failure to protect remaining undeveloped urban spaces that provide natural flood buffering further exacerbates vulnerability.[154]

Limitations of current risk assessments and enforcement

81. There is low uptake of strong flood policies among local planning authorities. Flood Risk Assessments are often limited in scope, applied on a site-by-site basis, and do not adequately capture cumulative or downstream impacts of development.[155] The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) has called for the designation of Critical Drainage Areas, stronger enforcement of the sequential test, and planning rules that actively avoid, rather than merely mitigate, development in high-risk areas.[156]

82. Schedule 3 of the Flood and Water Management Act 2010, which would mandate Sustainable Drainage Systems in new developments, has still not been fully brought into force in England, despite the previous Government

149 National Fire Chiefs Council (NFCC) (FRE0150); Department for Environment, Food and Rural Affairs (FRE0148)
150 Q97
151 Aviva (FRE0100)
152 Town and Country Planning Association (FRE0068); ADA (Association of Drainage Authorities) (FRE0132); Flood Re (FRE0107)
153 JBA Consulting (FRE0120); Mr Hugh Disley (Member at Culmington Flood Action Group) (FRE0018)
154 Dr Nick Chappell (Reader in Hydrological Processes & NERC Chief Science Advisor (Flood & Drought Research Infrastructure) at Lancaster University) (FRE0002)
155 Watertight International (FRE0091); South Hampstead Flood Action Group (FRE0036)
156 The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) – Flood and Water Management Group (FWMG) (FRE0114)

pledging to do so.[157] Evidence from the Environment Agency and others called for the immediate commencement of Schedule 3. In addition, they recommended a new legal duty for Strategic Flood Risk Assessments to be updated every five years, and mandatory property-level flood resilience (PFR) measures in new builds and major refurbishments.[158] Evidence suggests that embedding resilience at build stage delivers major long-term savings, avoiding the far higher retrofitting and recovery costs that currently fall on households, insurers, and the public sector.[159] When questioned, Emma Hardy MP, the Minister for Water and Flooding, stated that the Government has not yet decided whether to bring Schedule 3 into force in England. She emphasised that the Government is exploring whether the same outcomes could be achieved through alternative means, and highlighted recent updates to national standards and planning policy to support SuDS delivery.[160]

83. HM Treasury investment rules compound these policy gaps. The Green Book[161] and the Flood Defence Grant-in-Aid formula prioritise short-term returns, measured largely in "properties better protected," and undervalue the co-benefits of measures implemented earlier in the catchment, nature-based, or multi-functional schemes. This bias limits prevention and underfunds interventions with the greatest long-term payback.[162] The Fabian Society, a think tank, urged a "Triple Dividend" approach, capturing avoided losses, development benefits, and wider economic stability.[163] Defra also recognised the need for improved metrics and longer-term planning frameworks that reflect the true value of resilience.[164]

157 Chartered Institution of Water and Environmental Management (FRE0144); Policy Connect (FRE0025); National Farmers' Union (FRE0151); The Fabian Society (FRE0102)

158 Q342; Chartered Institution of Water and Environmental Management (FRE0144); JBA Consulting (FRE0120); Flood Re (FRE0107); Policy Connect (FRE0025)

159 Mr Garry Easter (Member at Attleborough & Besthorpe Flood Group); Mrs Lynn Short (Member at Attleborough & Besthorpe Flood Group); Mr Paul Hunter (Member at Attleborough & Besthorpe Flood Group) (FRE0064); Arup (FRE0096); Association of British Insurers (FRE0138); Flood Re (FRE0107)

160 Q379

161 The Green Book: Central Government Guidance on Appraisal and Evaluation provides the Treasury's methodology for assessing the costs, benefits, and wider impacts of public policies, programmes, and projects, including guidance on incorporating economic, social, and environmental considerations.

162 The Fabian Society (FRE0102); ADA (Association of Drainage Authorities) (FRE0132)

163 The Fabian Society (FRE0102).

164 Department for Environment, Food and Rural Affairs (FRE0148)

The catchment perspective

84. We heard consistent evidence that England's planning system is not equipped to manage flood risk at scale. Strategic Flood Risk Assessments, where they exist, are often outdated, incomplete, and non-statutory, leaving local authorities reliant on fragmented data, especially for surface water flooding, now the most common source of flood risk.[165] Without a statutory cumulative impact test, developments proceed that, in aggregate, increase flood pressures further along the watercourse and raise resilience costs.[166]

85. These gaps affect rural as well as urban areas. Farmers are increasingly expected to absorb runoff from upstream developments on their land, often without consultation, compensation, or clarity over their legal obligations as riparian landowners.[167] Evidence from the National Farmers Union (NFU) described growing crop losses, loss of insurance cover, and regulatory confusion. The NFU told us that the farming sector is willing to host floodwater and deliver natural flood management but lacks clear incentives and formal recognition of these as public goods.[168]

86. We also heard that opportunities to reduce flood risk through coordinated development are routinely missed. Large scale urban extensions (i.e., new housing or mixed-use developments on the edge of existing settlements) and regeneration schemes could be required to slow runoff, create flood storage, and integrate green infrastructure. However, without a statutory framework for cumulative impact assessment, these benefits remain ad hoc.[169] Examples of good practice, such as the Northumbrian Integrated Drainage Partnership, remain isolated rather than standard.[170]

87. The Government's proposed Land Use Framework offers a chance to join up housing, food, energy, and nature objectives, but unless flood risk is treated as a strategic constraint and catchment-scale planning is embedded, it will not deliver resilience at the scale needed. Poorly planned development in high-risk areas not only increases future damages but undermines productivity, disrupts transport, and erodes investor confidence.[171]

165 Q94; Q97
166 Q88; Q90
167 Qq92–93; Riparian landowners are those whose property borders a river or stream. They may have legal rights to access the water and duties to maintain banks and channels without obstructing flow, depending on local and national regulations.
168 Qq117–124
169 Q97; Association of British Insurers (FRE0138); JBA Consulting (FRE0120); Heath & Hampstead Society, Hampstead Neighbourhood Forum (FRE0129)
170 Q113. See CIWEM, Case studies: Northumbrian Integrated Drainage Partnership, (August 2022).
171 Public First, From risk to resilience: The case for flood-resilient communities, economy and growth, March 2025

88. **CONCLUSION**

The planning system in its current form is not keeping pace with the modern realities of flooding but is instead building risk into the landscape. We recognise the need for new homes, but development should not be permitted in areas known to be at high risk of flooding. Such building undermines resilience, burdens households and public services, and drives escalating costs. Prevention is far more effective and cheaper than recovery. Planning policy, and especially the National Planning Policy Framework, must give flood risk greater weight and must treat flood risk as a strategic constraint, directing development to safer areas and embedding long-term resilience.

89. **RECOMMENDATION**

The Government should initiate consultation on statutory requirements for assessing the cumulative impact of development on flood risk within local and regional plans by the end of 2025. These requirements should be introduced by 2027, ensuring land use policy and planning decisions are aligned with catchment-scale flood management strategies. Delivery should be supported through spatial planning frameworks and statutory, regularly updated Strategic Flood Risk Assessments. To address persistent weaknesses in implementation, the system must also include stronger compliance and enforcement mechanisms for both strategic and site-level Flood Risk Assessments, with requirements for post-construction inspections to ensure mitigation measures are delivered in practice. In addition, we recommend:

- That water companies should be made statutory consultees on major planning applications.
- That Defra work with the Environment Agency and farming bodies to develop a standardised approach for compensating farmers who host floodwater or implement natural flood management measures, recognising this as a public good.
- That the Environment Agency publish clear guidance for riparian landowners on their statutory obligations and available support, and report annually on enforcement and compliance.
- Defra should ensure that the Land Use Framework explicitly incorporate agricultural land and food production as strategic considerations in flood planning, including mechanisms to safeguard productive land and support multifunctional land use.

90. **RECOMMENDATION**
Despite repeated pledges by successive governments, Schedule 3 of the Flood and Water Management Act 2010 has still not been brought into force in England, leaving Sustainable Drainage Systems (SuDS) optional in new developments and missing a critical opportunity to embed resilience from the outset. The Government should now commence Schedule 3 in England without further delay, making SuDS mandatory in all new developments.

4 Supporting people, places and preparedness

91. This chapter examines how households, government, and insurers can strengthen flood resilience. It considers the human, social, health, and economic impacts of flooding, gaps in awareness and preparedness, the role of Property Flood Resilience (PFR), barriers to uptake of resilience measures, and how insurance can both maintain affordability and incentivise investment in protection.

The human and community impacts of flooding

92. The evidence we received paints a stark and multifaceted picture of the impacts of flooding on individuals and communities. These extend well beyond physical damage to homes and infrastructure, encompassing profound emotional, social, health, and economic consequences. Flooding was repeatedly described as both a social and an economic event, with deep humanitarian consequences.[172]

93. The emotional and mental health effects are among the most enduring. Victims of repeated flooding described living in a "permanent state of anxiety".[173] Studies have shown that mental health impacts can persist for years after a flood.[174] We also clearly heard the growing anger and distress in communities facing repeated flooding without effective action, rooted in both the emotional toll of repeated loss and the perceived failure of authorities to respond meaningfully.[175]

172 Q203
173 Qq160–161
174 Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050)
175 Qq161–162; Shrewsbury Quarry Flood Action Group (FRE0058); Brinkworth Parish Council (FRE0137); BBC News, Fixing Shrewsbury floods 'isn't rocket science', locals say, July 2025

94. Economic disruption is equally severe.[176] Since 2007, five major flood events have caused an estimated £7.6 billion in damages, affecting transport, utilities, and leading to business closures and job losses.[177] Businesses, particularly SMEs, face particular challenges: limited access to insurance, disrupted supply chains, and difficulties with continuity planning. Indirect losses often exceed direct damages yet are rarely considered in funding assessments.[178]

95. Flooding also fractures community life, disrupting schools, healthcare, and essential services.[179] Villages, like Minsterley in Shropshire, have been cut off from essential services, carers unable to reach patients, and schools and healthcare severely disrupted.[180] The impacts are unevenly distributed: people in deprived areas are more likely to be flooded, less likely to be insured, and less able to adapt, and many flood victims experiencing mental health impacts such as stress, anxiety, or post-traumatic stress.[181] Children are particularly vulnerable, with flooding disrupting education, play, and wellbeing, factors which are not captured in current resilience metrics.[182]

Closing the flood awareness gap

96. Despite flooding becoming more frequent and severe, public understanding remains alarmingly low. Even in areas that flood repeatedly, many residents are unsure how to respond to warnings and do not know what practical steps to take to protect their homes and families. The Environment Agency's own

176 Professor Suresh Renukappa (Professor of Sustainable Smart Innovation at University of Wolverhampton); Mr Mark Stride (Research Scholar at University of Wolverhampton); Miss Victoria English (Researcher at University of Wolverhampton); Professor Subashini Suresh (Professor of Knowledge Management at University of Wolverhampton); Professor Lingaraja Gandhi (Vice Chancellor at Bengaluru City University); Professor Jayakara Shetty (Vice Chancellor at Bangalore University); Dr Chandrashekara Kalenahally Gangegowda (Executive Director at Karnataka State Higher Education Council) (FRE0013)

177 Energy and Environment Institute, University of Hull (FRE0093)

178 Dr Steven Forrest (Lecturer in Flood Resilience and Sustainable Transformations at University of Hull) (FRE0113); Professor Suresh Renukappa (Professor of Sustainable Smart Innovation at University of Wolverhampton); Mr Mark Stride (Research Scholar at University of Wolverhampton); Miss Victoria English (Researcher at University of Wolverhampton); Professor Subashini Suresh (Professor of Knowledge Management at University of Wolverhampton); Professor Lingaraja Gandhi (Vice Chancellor at Bengaluru City University); Professor Jayakara Shetty (Vice Chancellor at Bangalore University); Dr Chandrashekara Kalenahally Gangegowda (Executive Director at Karnataka State Higher Education Council) (FRE0013); Country Land and Business Association (CLA) (FRE0099); Green Alliance (FRE0134)

179 Q166

180 See Annex 1; Friends of the Earth (England, Wales and Northern Ireland) (FRE0078); Community Planning Alliance (FRE0045)

181 Q215; British Red Cross (FRE0109)

182 Dr Katie Parsons (Research Fellow at Loughborough University) (FRE0001)

data shows that fewer than half of those who receive a flood warning know what to do next.[183] This is not a marginal issue; it limits the effectiveness of national flood resilience efforts and leaves communities exposed.[184]

97. Flood preparedness is uneven. While many property owners are aware of their risk, few have taken practical steps.[185] Nearly half of recent flood victims report that they had not seen any information about flooding in their area.[186] Mary Long-Dhonau OBE, better known as 'Flood Mary', described meeting residents with no alerts, no flood plan, and little understanding of simple resilience measures.[187] Renters and recent movers are especially vulnerable with no requirement for flood risk disclosure at sale or lease and no minimum resilience standards in rental properties.[188] Low levels of flood literacy reflect not inaction, but rather a lack of accessible, clear guidance and support. Witnesses called for tailored outreach, practical tools, and education integrated into schools, workplaces, and public messaging, on par with fire safety.[189]

98. A single, trusted national flood reporting and information service is essential to improving public clarity and response. Evidence from flood-affected communities consistently highlights confusion over who to contact during a flood, with responsibilities split between multiple agencies—local authorities, the Environment Agency, water companies, and emergency services.[190] Witnesses described being passed "from pillar to post," with no clear point of accountability.[191] This fragmentation delays response, increases distress, and undermines trust.[192] The Environment Agency acknowledged the issue but was cautious about exploring a national reporting line, noting that "it would need to work" and must involve local authorities to ensure practical support and continuity of care, especially for vulnerable residents.[193] The EA also noted that coping with call surges during major flood events is operationally challenging, and that the current system, Floodline for general advice, local authorities for recovery, is not

183 Q204
184 Qq213–214; The Fabian Society (FRE0102); Mrs Mary Long-Dhonau OBE (Property Flood Resilience Consultant at FloodMary.com) (FRE0021)
185 Mr Garry Easter (Member at Attleborough & Besthorpe Flood Group); Mrs Lynn Short (Member at Attleborough & Besthorpe Flood Group); Mr Paul Hunter (Member at Attleborough & Besthorpe Flood Group) (FRE0064)
186 Institution of Civil Engineers (FRE0145)
187 Q181
188 The Fabian Society (FRE0102); British Red Cross (FRE0109)
189 Dr Katie Parsons (Research Fellow at Loughborough University) (FRE0001); Chartered Institution of Water and Environmental Management (FRE0144); Green Alliance (FRE0134)
190 Q170
191 Newent Neighbourhood Flood Association (FRE0010)
192 Pitcombe Flood Action (FRE0066)
193 Q234

seamless for communities.[194] A widely promoted, centralised reporting line would streamline communication, ensure timely support, and act as a visible symbol of national coordination. It must be accessible to all, including those without digital access, and embedded across public messaging, emergency planning, and local resilience forums.[195]

99. **CONCLUSION**

Public awareness of flood risk is dangerously low, undermining national flood resilience efforts. Too many people do not understand the risks they face, how to respond to warnings, or how to protect their homes. This reflects both a strategic failure and an associated communications oversight, leaving lives, livelihoods, and infrastructure exposed.

100. **RECOMMENDATION**

The Government must launch a major national flood awareness campaign, co-designed with flood-affected communities and delivered with trusted local partners such as flood wardens, schools, the media, and frontline services. This campaign should be coordinated across relevant public bodies and agencies, ensuring consistent messaging and integration into their day-to-day operations as a core part of national flood strategy. It should begin as soon as possible, and no later than March 2026, and must seek to:

- Increase sign-up to flood warning services and public readiness to act on them,
- Improve public use of risk maps and clarify agency roles and responsibilities in response and recovery,
- Target outreach to hard-to-reach groups, including people with low literacy, limited digital access, or language barriers, as well as those with physical or mental health challenges, and
- Embed flood education in schools and workplaces, on par with fire safety, with practical household guidance.

194 Q234

195 Mrs Thanea Hodges (Self employed Classical Musician at Self-employed) (FRE0011); Professor Suresh Renukappa (Professor of Sustainable Smart Innovation at University of Wolverhampton); Mr Mark Stride (Research Scholar at University of Wolverhampton); Miss Victoria English (Researcher at University of Wolverhampton); Professor Subashini Suresh (Professor of Knowledge Management at University of Wolverhampton); Professor Lingaraja Gandhi (Vice Chancellor at Bengaluru City University); Professor Jayakara Shetty (Vice Chancellor at Bangalore University); Dr Chandrashekara Kalenahally Gangegowda (Executive Director at Karnataka State Higher Education Council) (FRE0013)

101. **CONCLUSION**
A single national flood reporting and information service is not just a communications improvement; it is a strategic necessity. Without a clear, accessible point of contact, the public remains confused, response is delayed, and resilience efforts are undermined. Establishing this service will provide clarity, coordination, and confidence during flood events, and must be treated as a core component of national flood strategy.

102. **RECOMMENDATION**
The Government should establish a single, widely promoted national flood reporting and information service by March 2026. This service should build upon and expand the existing Floodline system to provide a clear point of contact for all types of flooding, offer consistent guidance, and be accessible via phone, SMS, and online. It must be co-designed with flood-affected communities and delivered in partnership with local authorities, water companies, and emergency services, supported by a national awareness campaign.

Building local capacity for resilience

103. Local flood groups and volunteers are a vital part of England's flood resilience system, yet their contribution is often undervalued and inconsistently supported. Many operate with little formal recognition, irregular funding, and limited access to training or equipment, despite providing essential first-response support during flooding, including practical help, local intelligence, and reassurance to affected communities.[196] We also heard evidence that training for volunteers is often piecemeal or short lived, and that without a stronger support framework, community willingness to engage is not being fully harnessed.[197]

104. Siobhan Connor, Chair of the Shrewsbury Flood Action Group, described how she has had to take on multiple roles; community liaison, coordinator, and advocate, alongside her full-time job, because no agency was leading locally.[198] Many community groups become dormant when a small number of committed individuals are unable to continue, highlighting the fragility of grassroots efforts.[199] Access to standardised training, reliable equipment,

196 Mx Pax Butchart (FRE0019); Mr Garry Easter (Member at Attleborough & Besthorpe Flood Group); Mrs Lynn Short (Member at Attleborough & Besthorpe Flood Group); Mr Paul Hunter (Member at Attleborough & Besthorpe Flood Group) (FRE0064)
197 Q219
198 Q167
199 Department for Environment, Food and Rural Affairs (FRE0148); Warwickshire County Council (FRE0122); Dr Sarah Percival (Senior Lecturer at Liverpool John Moores University) (FRE0095); The National Flood Forum (FRE0088)

and formal recognition varies widely. While national and regional flood risk management strategies, including the Environment Agency's Flood and Coastal Erosion Risk Management Strategy, reference the role of flood action groups in supporting local resilience, practical support, funding, and training for these groups remain inconsistent and unevenly distributed across urban, rural, or deprived areas.[200]

105. Local authorities also face significant capacity and skills challenges. Lead Local Flood Authorities and local resilience forums vary widely in capability, resourcing, and experience.[201] Technical expertise is limited, small teams are stretched, and councils are under increasing pressure to manage multiple incidents simultaneously. These constraints make it difficult for councils to fully deliver statutory duties, coordinate effectively with community groups, or provide consistent support to residents in high-risk areas.[202] The launch of the National Framework for Water Resources, which sets out responsibilities for water asset planning, highlights the scale of the coordination challenge facing local government, particularly in catchments where multiple risks converge.[203]

106. This is also a problem of coordination between community volunteers and local authorities. Our evidence showed that both community-led groups and local authorities play complementary roles in flood preparedness and response. Community groups offer rapid, practical support and local intelligence, while local authorities oversee statutory responsibilities and wider coordination.[204] However, gaps in training, resourcing, and support affect the reach and sustainability of these efforts, leaving the system heavily reliant on a small number of committed volunteers and overstretched local teams.[205] This was reinforced by the Cunliffe Review, which found that fragmentation between local, regional, and national tiers weakens resilience, particularly where councils are under financial pressure.[206]

200 Mr Garry Easter (Member at Attleborough & Besthorpe Flood Group); Mrs Lynn Short (Member at Attleborough & Besthorpe Flood Group); Mr Paul Hunter (Member at Attleborough & Besthorpe Flood Group) (FRE0064)

201 Qq206–207

202 Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050); The Fabian Society (FRE0102); ADA (Association of Drainage Authorities) (FRE0132)

203 House of Commons Library, Future water resources, July 2025

204 Mr Garry Easter (Member at Attleborough & Besthorpe Flood Group); Mrs Lynn Short (Member at Attleborough & Besthorpe Flood Group); Mr Paul Hunter (Member at Attleborough & Besthorpe Flood Group) (FRE0064); Institution of Civil Engineers (FRE0145); Mx Pax Butchart (FRE0019)

205 Mx Pax Butchart (FRE0019); Mr Robert Haddon (Chairman at Shropshire Flood Action Group Forum (SFAGF)); Mr Colin Dalziel (Vice Chairman at Shropshire Flood Action Group Forum (SFAGF)) (FRE0050); Cambridgeshire County Council (FRE0056); Diglis Flood Relief Action Group (FRE0057); Islington Climate centre (FRE0126)

206 Independent Water Commission, Final Report, gov.uk, July 2025

107. Finally, adaptation finance and private investment needs to be mobilised to scale resilience. Examples such as the £200 million Leeds Flood Alleviation Scheme demonstrate how partnership funding, including contributions from Yorkshire Water and Network Rail, can deliver measurable economic returns, while aligning incentives for insurers, local authorities, and infrastructure operators.[207] Creating investible assets in flood resilience, through pooled schemes or compact-style agreements, could help to incentivise private capital, however we heard such examples are rare.[208]

108. **CONCLUSION**
Local flood groups and volunteers are indispensable to England's resilience, yet they remain undervalued, underfunded, and poorly supported. Without proper recognition and resources, this community capacity risks collapsing at the very moment it is most needed.

109. **RECOMMENDATION**
The Government should establish a national support framework for local flood groups and volunteers by March 2026. This must provide:

- Core funding to cover basic operational costs, provided through local authorities or Regional Flood and Coastal Committees,
- Formal recognition in local resilience plans and flood response structures,
- Standardised training, equipment, and guidance,
- A national toolkit to support group formation, continuity, and coordination, and
- Targeted outreach to harder-to-reach communities, ensuring equity across rural, deprived, and low-participation areas.

110. **CONCLUSION**
Local authorities lack the capacity to deliver their flood risk duties effectively. Without adequate resources and skills, local authorities cannot fulfil their statutory responsibilities or support communities facing increasing flood risk.

207 Qq258–263
208 Qq264–268

111. **RECOMMENDATION**
The Government should complete its review of local government funding for flood risk management by the end of 2025 and commit to a long-term, needs-based settlement that enables councils to fulfil their flood duties. The Government should set out how it will address critical skills shortages in local flood resilience, including funding and workforce planning. These measures must ensure that local government is equipped to assess, plan for, and respond to flood risk in a changing climate.

Making flood resilience work for households and businesses

112. Property Flood Resilience (PFR) is one of the most effective ways to limit the long-term costs and disruption of flooding.[209] It encompasses not only physical measures, such as raised electrics, tanked basements, and water resistant kitchens, but also awareness, planning, and preparedness.[210] Mary Long-Dhonau OBE, described it as a holistic approach: knowing your risk, signing up for free flood warnings, preparing a flood plan, and even using household items to protect sentimental belongings.[211] Recoverable measures, such as washable kitchens, plastic flooring, breathable wall coatings, and crystalline slurry at wall–floor joints, are critical to reducing damage and speeding recovery.[212] Even with comprehensive PFR, homes may still flood, 'inundated with dirty, foul water',[213] reinforcing that resilience reduces impact but does not eliminate risk.[214] Siobhan Connor, Chair of the Shrewsbury Flood Action Group, reflected that her home had all recommended PFR measures but still flooded, demonstrating both the limits of PFR in isolation and the necessity for wider systemic support.[215]

113. Protecting a home or business is, in practice, largely the responsibility of the owner.[216] Tracey Garrett of the National Flood Forum noted that many people invest tens of thousands of pounds of their own money before

209 Policy Connect (FRE0025); Mrs Mary Long-Dhonau OBE (Property Flood Resilience Consultant at FloodMary.com) (FRE0021)
210 The Flood Hub, Property Flood Resilience, [Accessed 20 August 2025]
211 Qq181–182
212 The Flood Hub, Property Flood Resilience, [Accessed 20 August 2025]
213 Q226
214 Qq181–182; Qq226–227
215 Q167
216 Q227

seeking any grant support.[217] We also heard that every £1 spent on PFR can yield up to £5 in avoided future damages,[218] but the current system does not enable households and businesses to realise the benefits.

114. Despite its potential, the current system of support is inadequate. The Government's PFR grant has been fixed at £5,000 since 2009, an amount widely considered insufficient to fund meaningful interventions.[219] We heard of households spending up to £70,000 on resilience measures.[220] Siobhan Connor described the grant as "like giving us £1 towards making your home resilient".[221] Graham French, owner of the Kingfisher Café at Walcott, explained that after being unable to obtain insurance following a 2013 flood, he had to self-finance the rebuilding: "I was fortunate enough to have access to a pension that I was able to cash in, so I could inject some funds into the business".[222] These examples show how the requirement to pay upfront excludes small businesses and households without savings, while renters and social housing tenants are largely shut out altogether, leaving many of the most vulnerable with no route to resilience.[223]

115. The Government has acknowledged that PFR is not suitable for everyone. Some households are considered too vulnerable to rely on self-managed resilience, highlighting the need for alternative protections.[224] At the same time, the Government has commissioned a review to improve the PFR offer, indicating recognition of gaps in affordability, accessibility, and market provision. Key barriers identified in our evidence include high upfront costs, uncertainties over product quality, planning or conservation constraints (especially for historic properties), limited availability of skilled installers, and disruption during installation.[225] We also heard that many households lack accessible, reliable information about resilience products and installers, and called for a national list of tested and approved products and accredited contractors.[226]

217 Q227
218 The Flood Hub, Property Flood Resilience, [Accessed 20 August 2025]
219 The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) – Flood and Water Management Group (FWMG) (FRE0114); Ryde Monkton Area Flood Association (formerly Ryde Flood Action Group) (FRE0027); Mr Clive Walker (FRE0028); Diglis Flood Relief Action Group (FRE0057)
220 Q173
221 Q173
222 Q176
223 The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) – Flood and Water Management Group (FWMG) (FRE0114), Ryde Monkton Area Flood Association (formerly Ryde Flood Action Group) (FRE0027); Chartered Institution of Water and Environmental Management (FRE0144)
224 Q386
225 Qq386–390
226 Qq236–237

116. To increase uptake and awareness, recovery funding and guidance need to be more practical and visible. The Build Back Better scheme allows households to recover with resilient, recoverable products, such as washable kitchens and modular flooring, by covering the difference in cost between standard and recoverable installations.[227] While uptake has been limited by low awareness and complexity, witnesses agreed it demonstrates how grants can be used more effectively to combine repair with resilience, reducing future costs and impacts.[228]

117. Wider reforms are needed to foster a functioning PFR market. Witnesses called for streamlined, national frameworks and greater local delivery, such as block funding to councils or direct supplier payments, reducing the upfront burden on households.[229] We also heard support for insurers being able to apply for resilience grants on behalf of their customers, which would simplify the process and allow coordinated upgrades during post-flood repairs.[230]

118. **CONCLUSION**

Flood resilience is not only about individual protection but about sustaining communities, businesses, and housing markets. Property Flood Resilience (PFR) must be mainstreamed as a core part of flood recovery, rather than treated as an optional add-on. Without reform, PFR will remain inaccessible to those who need it most, deepening inequalities and leaving households and businesses vulnerable to repeated disruption. The Government must act to make resilience mainstream, affordable, and fair.

119. **RECOMMENDATION**

The Government should consult on how to make Property Flood Resilience (PFR) a routine part of flood recovery. This consultation should explore options for reforming the existing grant scheme to provide consistent, needs-based funding and wider accessibility, including simplifying the process, updating grant levels, and extending eligibility to renters and social housing tenants. Any changes should be implemented following consultation and evaluation. Local delivery models, such as block grants to councils, direct supplier payments, or insurer-led applications should be explored to increase uptake and reduce barriers.

227 Qq290–292

228 Mrs Mary Long-Dhonau OBE (Property Flood Resilience Consultant at FloodMary.com) (FRE0021); Policy Connect (FRE0025)

229 Chartered Institution of Water and Environmental Management (FRE0144)

230 Qq171–172

The role of insurance in flood resilience

120. Insurance is a critical mechanism for climate adaptation, but the UK's current system faces urgent challenges, and we heard that affordable insurance remains uneven. Flood Re, established under the Water Act 2014, is a government backed reinsurance scheme that helps insurers provide affordable flood insurance for high-risk homes, including those that have previously flooded. It covers residential properties built before 2009, but does not cover new build homes, commercial properties, or properties outside England and Wales.[231]

121. Average premiums for homes covered by the scheme have fallen from £4,500 to £1,100, and availability has increased from 60% to near-universal coverage.[232] Yet around one in eight households in the UK, particularly renters, leaseholders, and those in deprived areas, remain uninsured or underinsured, leaving them financially exposed when flooding strikes.[233] Tracey Garrett, from the National Flood forum observed, "If you do not have insurance, nobody is coming [to help]".[234]

122. Flood Re excludes new builds constructed after 1 January 2009, on the assumption that higher planning and building standards would reduce their flood risk, as well as multi-unit dwellings and all businesses, creating gaps that leave many without viable protection. However, evidence shows that these standards have not always been met, with thousands of post-2009 homes still built in flood risk areas.[235]

123. We heard that some residents, particularly in socially deprived areas, remain effectively excluded from insurance: one witness explained that her insurer was not part of Flood Re, leaving her unable to benefit from the scheme, and that while she continued paying high premiums, she feared losing coverage entirely if she switched providers.[236] We also heard that many people who were declined insurance before Flood Re still believe they cannot get it, and that some must choose between essential expenses, such as food, and flood insurance.[237] Without reform, the evidence suggests these pressures will deepen over time, threatening both household security

231 Flood Re, Flood Re - A flood re-insurance scheme, [Accessed 20 August 2025]
232 Q245
233 British Red Cross (FRE0109); Green Alliance (FRE0134)
234 Q203
235 South Hampstead Flood Action Group (FRE0036); Dr Andrew Johnston; Mr Paul Cobbing (FRE0044); Dr Steven Forrest (Lecturer in Flood Resilience and Sustainable Transformations at University of Hull) (FRE0113); British Red Cross (FRE0109)
236 Q173
237 Q171

and market stability. This includes extending or replacing Flood Re to cover excluded groups, providing targeted support for low-income households, and improving public awareness of insurance and resilience options.[238]

124. Flood Re will cease to operate in 2039 and has a statutory objective to manage the insurance market transition to risk reflective pricing.[239] However, the Government's own evidence indicates that, by that date, flood risks will not have been sufficiently managed, and many households in high risk areas will still face unaffordable, risk reflective premiums.[240] Without intervention, households in high risk areas may face unaffordable or unavailable insurance, threatening mortgage availability and long-term market stability.[241] We heard that mortgage lenders are already reacting.[242] Major lenders are already restricting lending on properties deemed at high flood risk.[243] Without reform, the evidence suggests these pressures will deepen over time, threatening both household security and market stability. It was noted that lenders are significant beneficiaries of Flood Re, and without early planning for its successor, the scheme may fail to sustain long-term lending or encourage resilience investment.[244]

125. There is also broad support for Flood Performance Certificates (FPCs), which would provide households with an independent rating of their property's flood risk and resilience, analogous to Energy Performance Certificates (EPCs). Their introduction could support household decision-making by identifying gaps in PFR, incentivising improvements, and linking awareness with financial protection.[245]

126. Strengthening the role of insurance requires a joined-up approach, linking funding, resilience, and market incentives. The Build Back Better scheme complements this by funding recoverable PFR measures during post-flood repair, reducing future claims and risk. Flood Performance Certificates could formalise these gains by providing a standardised property rating, enabling insurers and lenders to reward resilience and inform household decisions.[246] Piloting FPCs in high-risk areas, with free or subsidised assessments for low-income households, would ensure fairness and encourage widespread adoption.[247]

238 The National Flood Forum (FRE0088); Green Alliance (FRE0134)
239 Flood Re, Transition Plan 2023–2028, [Accessed 20 August 2025]
240 Qq246–248; Department for Environment, Food and Rural Affairs (FRE0148)
241 Qq249–251
242 Mrs Mary Long-Dhonau OBE (Property Flood Resilience Consultant at FloodMary.com) (FRE0021)
243 Department for Environment, Food and Rural Affairs (FRE0148)
244 Qq249–251
245 Green Alliance (FRE0134)
246 Qq304–306; Green Alliance (FRE0134)
247 Green Alliance (FRE0134)

127. **CONCLUSION**

Flood insurance is not just a financial product but a cornerstone of household and market stability. Without reform, growing risk and the eventual withdrawal of Flood Re will leave vulnerable households uninsured, businesses exposed, and communities at risk of economic decline. Uninsurable or repeatedly flooded properties risk becoming unmortgageable, depressing local housing markets and trapping families in unsellable homes. The Government must act now to secure a fair, resilient insurance system that underpins recovery, incentivises resilience, and sustains access to housing and finance in a changing climate.

128. **RECOMMENDATION**

The Government should begin work with the insurance and mortgage sectors to ensure the continued availability and affordability of flood insurance beyond 2039, when the current Flood Re scheme is due to end. This should include options for a successor scheme ("Flood Re 2.0") that recognises resilience measures, supports low-income households, and enables a fair transition to a more risk-reflective market.

129. **RECOMMENDATION**

By the end of 2025, the Government should consult with insurers and stakeholders on strengthening the role of insurance in flood resilience. This should include promoting and simplifying access to the Build Back Better scheme.

The Government should support the development and piloting of Flood Performance Certificates (FPCs) as a voluntary tool to improve awareness of property flood risk and resilience. FPCs should be introduced initially on a voluntary basis, with Government support. FPCs should be piloted in high-risk areas with a clear, trusted methodology for assessing resilience, in partnership with local authorities, insurers and estate agents, and they should be free or subsidised for low-income households. Following evaluation of the pilot, the Government should consider how to expand FPCs more widely. Objectives could include minimising the risk that homeowners are penalised for factors beyond their control and reducing the likelihood that properties become difficult to sell or insure due to flood risk.

Annex 1: Visit of the Environmental Audit Committee to the Netherlands, 16–19 March 2025

From 16 to 19 March 2025, members of the Committee undertook a visit to the Netherlands in connection with its inquiries into Environmental sustainability and housing growth and Flood resilience in England.

Ten members of the Committee (Toby Perkins [Chair], Julia Buckley, Ellie Chowns, Barry Gardiner, Anna Gelderd, Martin Rhodes, Blake Stephenson, Cameron Thomas, John Whitby, and Sammy Wilson) and two staff visited:

- The Hague
- Delft
- Rotterdam
- Katwijk aan Zee
- Noordwaard (Room for the River)
- Kinderdijk

The Committee's principal interlocutors included:

- The Ministry of Infrastructure and Water Management
- The Ministry of Housing and Spatial Planning
- The British Embassy in The Hague
- Technical University of Delft and The Green Village
- Deltares Research Institute
- Rotterdam Municipal Authorities

- Local water boards and project managers at Katwijk and Noordwaard
- NGOs and community representatives engaged in resilience and sustainable housing initiatives

The Committee's activities included meetings in The Hague with Dutch ministries and embassy officials on long-term flood and housing policy; discussions in Delft with researchers and innovators on sustainable housing design, embodied carbon, and flood resilience; and visits to The Green Village, an experimental site for sustainable construction and energy systems. In Rotterdam, Members examined the city's multifunctional flood infrastructure, including water plazas and port adaptation projects. Field visits to Katwijk aan Zee demonstrated coastal defence through dune reinforcement and the "sand engine," while Noordwaard provided insight into managed retreat and farmland adaptation under the Room for the River programme. The visit concluded at Kinderdijk, where Members considered the historical and continuing role of Dutch water management.

The detailed conversations and site visits gave Members first hand insights into how the Netherlands integrated long-term investment, catchment-scale planning, and community engagement in both housing growth and flood resilience. The Committee was extremely grateful to all those who hosted the visit, shared their expertise, and gave generously of their time.

Annex 2: Visit of the Environmental Audit Committee to Shrewsbury, 16–17 July 2025

Members of the Committee undertook a visit to Shrewsbury in connection with its inquiry into Flood resilience in England. The visit aimed to allow Members to see local flood resilience work first hand.

Six members of the Committee (Toby Perkins [Chair], Olivia Blake, Julia Buckley, Barry Gardiner, John Whitby, and Sammy Wilson) and two staff visited:

- Hanwood,
- Minsterley,
- Malehurst Farm.
- Shrewsbury town centre, and
- Flood resilience sites around Shrewsbury.

The Committee's activities included:

- Visits to Hanwood to examine Natural Flood Management delivery within the Rea demonstrator, including meetings with landowners and the Severn Rivers Trust.
- A walk-and-talk session in Minsterley with Parish Council representatives and the Flood Action Group, exploring the social and economic impacts of repeated flooding on homes, businesses, and local services.
- Engagement with farmers and landowners at Malehurst Farm on drainage, grassland management, and natural flood management on the floodplain.

- Meetings with Shrewsbury businesses to discuss resilience measures, adaptation strategies, and the establishment of a local flood action group for commercial properties.
- Presentations over lunch at Shrewsbury BID offices on the Severn Valley Water Management Scheme, green skills development, and geospatial flood modelling.
- A site visit with Harper Adams University to observe DSIT funded wireless water level and flow sensors, explore their integration with the Smart Abstraction Project, and understand how modelling can support mitigation and land use decisions.

The detailed conversations and site visits allowed Members to better understand local challenges, implementation of flood resilience measures, and the role of community engagement in preparing for and responding to flooding. The Committee was extremely grateful to all local hosts, landowners, businesses, and academics who shared their expertise and time.

Conclusions and recommendations

A strategic, system-wide approach to flood resilience

1. We are concerned that the current flood risk framework is underpowered and fragmented. The Flood and Coastal Erosion Risk Management (FCERM) Strategy lacks enforceability, and the National Adaptation Programme does not provide the standards, targets, or delivery mechanisms needed to embed resilience across government and infrastructure. Without national benchmarks, statutory duties, and aligned long-term funding, communities remain exposed amid rising climate risks. The system as it stands is reactive and costly. Prevention is more effective and affordable but requires a fundamental shift to the strategic use of resources. (Conclusion, Paragraph 15)

2. Flood resilience must be embedded in statute as a clear responsibility, not left as a discretionary ambition. The Government should bring forward proposals to amend the Flood and Water Management Act 2010 to establish a duty for all relevant authorities to act in accordance with a strengthened Flood and Coastal Erosion Management Strategy, which must clearly define what 'good' flood resilience looks like and embed a long-term framework that transcends electoral cycles, ensuring shared responsibility at all levels.

    - Risk Management Authorities (RMAs), including Lead Local Flood Authorities (LLFAs), should be assigned statutory duties to deliver against these standards within two years, with clear accountability and access to adequate, sustained resources.

    - The Environment Agency must be empowered to oversee delivery across all sources of flooding, monitor compliance with National Adaptation Programme targets, and coordinate activity across RMAs and central departments. (Recommendation, Paragraph 16)

3. We are concerned that there is still no agreed national standard for what constitutes a flood resilient property, system, or community. This absence undermines public understanding, weakens accountability, and makes

it harder to prioritise investment or measure progress. Without a clear benchmark, resilience remains a vague ambition rather than a deliverable goal. We believe England urgently needs to define what flood resilience means, and commit to delivering it. (Conclusion, Paragraph 23)

4. By 2027, the Government should develop and adopt clear, measurable national flood resilience standards that define the expected level of resilience based on the characteristics of the area or property. These standards should guide national and local investment, support planning decisions, and give the public confidence that resilience is being delivered consistently and transparently. These standards should be:

- Embedded: the standards should be incorporated in the National Adaptation Programme (NAP), supported by long-term funding commitments aligned to those objectives. These commitments must extend beyond existing six-year budget cycles, reflecting the long-term nature of climate risk. Resources should be used more strategically, focusing on prevention and resilience rather than reactive spending.
- Tiered: to reflect different types of risk (e.g., risk to life, property damage, infrastructure disruption) and levels of acceptable risk in different contexts (e.g., urban vs rural, critical infrastructure vs residential areas).
- Comprehensive: applying across infrastructure, housing, and community planning.
- Forward-looking: aligned with future climate projections and long-term adaptation goals.
- Deliverable: backed by adequate funding, a clear implementation plan, and integration into planning, investment, and regulatory frameworks. (Recommendation, Paragraph 24)

5. Surface water flooding is the most common source of flooding in England, yet it remains poorly quantified, inconsistently planned for, and often underestimated in development decisions. It is also one of the least understood and least coordinated aspects of flood resilience nationally. This represents a major gap in national flood resilience that must be urgently addressed, though we acknowledge and welcome the Government's commitment to improving surface water mapping and modelling. (Conclusion, Paragraph 30)

6. We welcome the flood risk strategy becoming more dynamic and responsive to emerging risks. Surface water flooding, long underestimated, is now understood to be one of the most frequent and complex sources of flood risk. It must no longer be treated as a second-tier issue. By 2027, the

Government should ensure that surface water flood risk is consistently quantified and fully integrated into national flood risk assessments. Defra, working with the Environment Agency and Lead Local Flood Authorities, should complete the standardisation of surface water mapping and modelling by the end of 2025, ensuring that dynamic, up-to-date data feeds into national assessments by 2026. The Water Regulator and water companies, supported by Defra, should develop a national framework for data sharing on drainage and sewerage infrastructure, including clear responsibilities for maintenance, capacity, and investment. These improvements must also support better planning, delivery, and maintenance of sustainable drainage systems as part of a coordinated, forward-looking approach to managing surface water. (Recommendation, Paragraph 31)

7. Catchment-based planning is widely acknowledged as the most effective and integrated way to manage flood risk, improve water quality, and deliver nature-based solutions. However, despite years of policy support, it remains inconsistently applied, poorly coordinated, and underpowered by short-term, discretionary funding. Fragmented responsibilities and the absence of statutory oversight continue to limit its reach and impact. If England is serious about long-term, preventative flood management, catchment-based planning must move from pilot to principle and be embedded as the default approach across the country. (Conclusion, Paragraph 38)

8. Catchment-based planning must become the default approach, not a discretionary extra. By 2027, the Government should mandate catchment-scale planning and delivery through regional partnerships with defined statutory duties, long-term funding, and clear oversight. These partnerships should coordinate key actors across land, water, infrastructure and planning, and lead integrated water management that delivers multiple outcomes, including flood risk reduction, water quality improvements, and environmental enhancement, at the scale and complexity the challenge demands. (Recommendation, Paragraph 39)

9. Nature-based solutions remain undervalued and underutilised in England's approach to flood risk management. Despite growing evidence of their effectiveness in reducing flood risk, improving water quality, and delivering wider environmental and social benefits, they are still treated as peripheral rather than fundamental to national strategy. We find it deeply concerning that, in the face of escalating climate risks, nature-based solutions continue to be overlooked or deprioritised in policy and funding decisions. We welcomed the Minister's suggestion that the current consultation will encourage nature-based solutions, and we look forward to the results of the consultation. Their long-term value is well recognised, yet current appraisal methods often fail to capture their full benefits, making investment harder to justify. Unless nature-based solutions are fully

integrated into planning and flood risk management, England risks missing one of its most cost effective, sustainable tools for building flood resilience. (Conclusion, Paragraph 42)

10. The Government should embed nature-based solutions as a core component of national flood and coastal erosion risk management by 2027. Defra, working with the Environment Agency, HM Treasury, and other key partners, should:

- Reform flood funding appraisal and partnership funding rules, following the Government's current consultation on reforming the approach to floods funding, to better reflect the multi-benefit value of nature-based solutions.
- Set national targets for the uptake of nature-based approaches in flood risk management by 2026.
- Fully integrate nature-based solutions into flood, planning, and infrastructure policy by 2027, including economic support for landowners to incorporate flood resilience measures. (Recommendation, Paragraph 43)

11. We find that the absence of a comprehensive, up-to-date, and accessible record of flood resilience assets significantly limits England's ability to manage flood risk strategically. The lack of visibility over third-party, locally delivered, and nature-based assets fragments responsibility, undermines coordination, and hinders long-term investment decisions. Without a full understanding of where assets are, what condition they are in, and who is responsible for them, it is not possible to plan effectively, ensure reliable protection, or respond proactively to future risks. (Conclusion, Paragraph 50)

12. The Government should commission a national audit of flood resilience assets by 2026, encompassing both engineered and nature-based infrastructure. This audit should identify the type, location, ownership, condition, and maintenance responsibilities of all relevant assets, including those owned or managed by third parties. The process should be led by Defra in collaboration with the Environment Agency and other relevant bodies, and should draw on lessons from the National Framework for Water Resources. The audit must be regularly updated and designed to inform strategic planning, guide investment, and improve coordination between local and national actors. (Recommendation, Paragraph 51)

13. We are deeply concerned that even after more than a decade of reform, many communities still do not know who is responsible for managing flood risk where they live. A system that leaves the public unclear about accountability is not fit for purpose. Despite the original aim of the

Flood and Water Management Act 2010 to clarify roles and support local leadership, responsibilities remain fragmented, coordination is inconsistent, and there is no single point of national accountability. This structural weakness is not simply a communications issue, it undermines trust, delays response, and obstructs long-term, strategic planning. England needs clearer leadership, stronger national oversight, and more effective coordination to build resilience at the pace and scale required. (Conclusion, Paragraph 58)

14. Flood resilience must be planned, integrated, and accountable, not fragmented, reactive, or opaque. The Government should establish a clear national mechanism for strategic oversight and accountability in flood risk management. By the end of 2025, it should set out how it intends to deliver this, whether by strengthening the Environment Agency's mandate, amending the Flood and Water Management Act 2010, or formally assigning oversight responsibilities to a permanent coordinating body, such as the Flood Resilience Taskforce. Implementation should begin no later than 2026. This mechanism should:

- Provide strategic oversight across all sources of flood risk, fluvial, surface water, coastal, and groundwater, and set national priorities for risk management authorities.
- Coordinate investment, standards, and adaptation targets across departments, sectors, and funding streams.
- Support and equip Lead Local Flood Authorities with the powers, funding, and technical capacity needed to deliver locally.
- Maintain and publish a national statement of responsibilities, setting out the duties of all relevant actors, including water companies, local authorities, infrastructure operators, and the public.
- Ensure flood risk and climate adaptation are fully integrated into spatial planning and development decisions through strategic oversight and consistent national policy. (Recommendation, Paragraph 59)

15. The Government should consult on introducing a statutory duty for Fire and Rescue Services in England to respond to flooding, supported by dedicated funding for training, equipment, and operational planning. This should be undertaken by the end of 2025. This would align England with devolved administrations and strengthen national flood resilience. This should also look at making the Fire and Rescue Services a statutory consultee in planning decisions, to respond to local flooding situations. (Recommendation, Paragraph 60)

Embedding flood resilience across Government policy and public investment

16. The evolving understanding of climate risk and growing data on economic losses make clear that resilience must become a central organising principle for public investment. Without a shift from reactive to preventive spending, and from loosely coordinated action to clearly mandated delivery, future climate shocks will continue to impose avoidable costs on communities, infrastructure, and public finances. (Conclusion, Paragraph 68)

17. By 2026, the Government should embed climate and flood resilience as a core test for all departmental spending and public investment proposals. This should be supported by clear resilience standards, measurable targets, and a requirement for every department to demonstrate how its spending aligns with these standards. (Recommendation, Paragraph 69)

18. Experts have been clear: the UK is not investing at the scale required to keep pace with climate risk. This fragmented approach is leaving communities and infrastructure exposed and storing up greater costs for the future, and in real terms costing more than prevention measures due to disruption and damage to infrastructure and property. (Conclusion, Paragraph 70)

19. Flood investment must match the scale of risk. The Government's flood budget should rise to at least £1.5 billion per year by 2030, as recommended by the National Infrastructure Commission to keep pace with climate impacts, and be explicitly tied to the delivery of measurable resilience outcomes. (Recommendation, Paragraph 71)

20. We welcome the Flood Resilience Taskforce's role in improving cross-government coordination, including between the Environment Agency, Cabinet Office, and Defra. Its convening power should now be strengthened to influence investment priorities as well as preparedness, ensuring lessons from past events drive decisive action for the future. (Conclusion, Paragraph 72)

21. The Government should strengthen the Flood Resilience Taskforce's mandate by 2026 to provide formal oversight of investment priorities and preparedness measures, ensuring that lessons from past events are systematically incorporated into national flood resilience planning across Government departments. (Recommendation, Paragraph 73)

Making investment fairer and more inclusive

22. We welcome the Government's consultation on a new investment framework for flood and coastal resilience. The proposed shift to a simpler, more strategic approach is a positive step. However, unless the revised framework explicitly considers social vulnerability and the long-term community impacts of flooding, it risks perpetuating current shortcomings. Without such reform, funding may continue to prioritise projects based primarily on narrow financial metrics rather than broader measures of social and community need, even when projects remain economically justifiable. (Conclusion, Paragraph 77)

23. As the Government prepares to implement the new investment framework from April 2026, it must prioritise funding for communities most at risk from flooding. A simpler system must also be a fairer one, capable of supporting those facing the greatest hardships and repeated flood events. The framework should be designed to deliver fairer and more inclusive outcomes, by:

- Incorporating social vulnerability factors such as deprivation, health inequalities, insurance exclusion, and rural isolation, particularly where flooding cuts off entire communities, in decision making,
- Improving access to funding for small-scale, rural, and community-led schemes,
- Recognising the long-term and repeated impacts of flooding on people, places, and livelihoods,
- Valuing the co-benefits of adaptation, including biodiversity, mental health, and economic stability, and
- Moving beyond rigid cost-benefit rules to ensure resilience is built where it is most urgently needed. (Recommendation, Paragraph 78)

24. The planning system in its current form is not keeping pace with the modern realities of flooding but is instead building risk into the landscape. We recognise the need for new homes, but development should not be permitted in areas known to be at high risk of flooding. Such building undermines resilience, burdens households and public services, and drives escalating costs. Prevention is far more effective and cheaper than recovery. Planning policy, and especially the National Planning Policy Framework, must give flood risk greater weight and must treat flood risk as a strategic constraint, directing development to safer areas and embedding long-term resilience. (Conclusion, Paragraph 88)

25. The Government should initiate consultation on statutory requirements for assessing the cumulative impact of development on flood risk within local and regional plans by the end of 2025. These requirements should be introduced by 2027, ensuring land use policy and planning decisions are aligned with catchment-scale flood management strategies. Delivery should be supported through spatial planning frameworks and statutory, regularly updated Strategic Flood Risk Assessments. To address persistent weaknesses in implementation, the system must also include stronger compliance and enforcement mechanisms for both strategic and site-level Flood Risk Assessments, with requirements for post-construction inspections to ensure mitigation measures are delivered in practice. In addition, we recommend:

- That water companies should be made statutory consultees on major planning applications.
- That Defra work with the Environment Agency and farming bodies to develop a standardised approach for compensating farmers who host floodwater or implement natural flood management measures, recognising this as a public good.
- That the Environment Agency publish clear guidance for riparian landowners on their statutory obligations and available support, and report annually on enforcement and compliance.
- Defra should ensure that the Land Use Framework explicitly incorporate agricultural land and food production as strategic considerations in flood planning, including mechanisms to safeguard productive land and support multifunctional land use. (Recommendation, Paragraph 89)

26. Despite repeated pledges by successive governments, Schedule 3 of the Flood and Water Management Act 2010 has still not been brought into force in England, leaving Sustainable Drainage Systems (SuDS) optional in new developments and missing a critical opportunity to embed resilience from the outset. The Government should now commence Schedule 3 in England without further delay, making SuDS mandatory in all new developments. (Recommendation, Paragraph 90)

Supporting people, places and preparedness

27. Public awareness of flood risk is dangerously low, undermining national flood resilience efforts. Too many people do not understand the risks they face, how to respond to warnings, or how to protect their homes. This reflects both a strategic failure and an associated communications oversight, leaving lives, livelihoods, and infrastructure exposed. (Conclusion, Paragraph 99)

28. The Government must launch a major national flood awareness campaign, co-designed with flood-affected communities and delivered with trusted local partners such as flood wardens, schools, the media, and frontline services. This campaign should be coordinated across relevant public bodies and agencies, ensuring consistent messaging and integration into their day-to-day operations as a core part of national flood strategy. It should begin as soon as possible, and no later than March 2026, and must seek to:

- Increase sign-up to flood warning services and public readiness to act on them,
- Improve public use of risk maps and clarify agency roles and responsibilities in response and recovery,
- Target outreach to hard-to-reach groups, including people with low literacy, limited digital access, or language barriers, as well as those with physical or mental health challenges, and
- Embed flood education in schools and workplaces, on par with fire safety, with practical household guidance. (Recommendation, Paragraph 100)

29. A single national flood reporting and information service is not just a communications improvement; it is a strategic necessity. Without a clear, accessible point of contact, the public remains confused, response is delayed, and resilience efforts are undermined. Establishing this service will provide clarity, coordination, and confidence during flood events, and must be treated as a core component of national flood strategy. (Conclusion, Paragraph 101)

30. The Government should establish a single, widely promoted national flood reporting and information service by March 2026. This service should build upon and expand the existing Floodline system to provide a clear point of contact for all types of flooding, offer consistent guidance, and be accessible via phone, SMS, and online. It must be co-designed with flood-

affected communities and delivered in partnership with local authorities, water companies, and emergency services, supported by a national awareness campaign. (Recommendation, Paragraph 102)

31. Local flood groups and volunteers are indispensable to England's resilience, yet they remain undervalued, underfunded, and poorly supported. Without proper recognition and resources, this community capacity risks collapsing at the very moment it is most needed. (Conclusion, Paragraph 108)

32. The Government should establish a national support framework for local flood groups and volunteers by March 2026. This must provide:

- Core funding to cover basic operational costs, provided through local authorities or Regional Flood and Coastal Committees,
- Formal recognition in local resilience plans and flood response structures,
- Standardised training, equipment, and guidance,
- A national toolkit to support group formation, continuity, and coordination, and
- Targeted outreach to harder-to-reach communities, ensuring equity across rural, deprived, and low-participation areas. (Recommendation, Paragraph 109)

33. Local authorities lack the capacity to deliver their flood risk duties effectively. Without adequate resources and skills, local authorities cannot fulfil their statutory responsibilities or support communities facing increasing flood risk. (Conclusion, Paragraph 110)

34. The Government should complete its review of local government funding for flood risk management by the end of 2025 and commit to a long-term, needs-based settlement that enables councils to fulfil their flood duties. The Government should set out how it will address critical skills shortages in local flood resilience, including funding and workforce planning. These measures must ensure that local government is equipped to assess, plan for, and respond to flood risk in a changing climate. (Recommendation, Paragraph 111)

35. Flood resilience is not only about individual protection but about sustaining communities, businesses, and housing markets. Property Flood Resilience (PFR) must be mainstreamed as a core part of flood recovery, rather than treated as an optional add-on. Without reform, PFR will remain inaccessible to those who need it most, deepening inequalities and

leaving households and businesses vulnerable to repeated disruption. The Government must act to make resilience mainstream, affordable, and fair. (Conclusion, Paragraph 118)

36. The Government should consult on how to make Property Flood Resilience (PFR) a routine part of flood recovery. This consultation should explore options for reforming the existing grant scheme to provide consistent, needs-based funding and wider accessibility, including simplifying the process, updating grant levels, and extending eligibility to renters and social housing tenants. Any changes should be implemented following consultation and evaluation. Local delivery models, such as block grants to councils, direct supplier payments, or insurer-led applications should be explored to increase uptake and reduce barriers. (Recommendation, Paragraph 119)

37. Flood insurance is not just a financial product but a cornerstone of household and market stability. Without reform, growing risk and the eventual withdrawal of Flood Re will leave vulnerable households uninsured, businesses exposed, and communities at risk of economic decline. Uninsurable or repeatedly flooded properties risk becoming unmortgageable, depressing local housing markets and trapping families in unsellable homes. The Government must act now to secure a fair, resilient insurance system that underpins recovery, incentivises resilience, and sustains access to housing and finance in a changing climate. (Conclusion, Paragraph 127)

38. The Government should begin work with the insurance and mortgage sectors to ensure the continued availability and affordability of flood insurance beyond 2039, when the current Flood Re scheme is due to end. This should include options for a successor scheme ("Flood Re 2.0") that recognises resilience measures, supports low-income households, and enables a fair transition to a more risk-reflective market. (Recommendation, Paragraph 128)

39. By the end of 2025, the Government should consult with insurers and stakeholders on strengthening the role of insurance in flood resilience. This should include promoting and simplifying access to the Build Back Better scheme.

The Government should support the development and piloting of Flood Performance Certificates (FPCs) as a voluntary tool to improve awareness of property flood risk and resilience. FPCs should be introduced initially on a voluntary basis, with Government support. FPCs should be piloted in high-risk areas with a clear, trusted methodology for assessing resilience, in partnership with local authorities, insurers and estate agents, and they should be free or subsidised for low-income households. Following evaluation of the pilot, the Government should consider how to expand

FPCs more widely. Objectives could include minimising the risk that homeowners are penalised for factors beyond their control and reducing the likelihood that properties become difficult to sell or insure due to flood risk. (Recommendation, Paragraph 129)

Formal Minutes

Monday 15 September 2025

Members present

Mr Toby Perkins, in the Chair

Julia Buckley

Ellie Chowns

Barry Gardiner

Anna Gelderd

Sarah Gibson

Pippa Heylings

Chris Hinchliff

Cameron Thomas

Martin Rhodes

John Whitby

Sammy Wilson

The Committee deliberated.

Flood resilience in England

Draft Report (*Flood resilience in England*), proposed by the Chair, brought up and read.

Paragraphs 1 to 129 read and agreed to.

Summary agreed to

Annexes agreed to.

Resolved, That the Report be the Fourth Report of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

Adjournment

Adjourned till Wednesday 15 October 2025 at 2.00 pm.

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the inquiry publications page of the Committee's website.

Wednesday 22 January 2025

The Baroness Brown of Cambridge DBE, Chair, Adaptation Committee, Climate Change Committee; **Professor Richard Dawson**, Member, Adaptation Committee, Climate Change Committee Q1–36

Professor Jim Hall, Commissioner, National Infrastructure Commission; **Professor Briony McDonagh**, Professor of Environmental Humanities, University of Hull; **Professor Larissa Naylor**, Professor of Geomorphology and Environmental Geography, University of Glasgow; **Paul Sayers**, Partner, Sayers and Partners Q37–86

Wednesday 12 February 2025

Hannah Burgess, President, Chartered Institute of Water and Environmental Management (CIWEM); **Celia Davis**, Senior Projects and Policy Manager, Town and Country Planning Association; **Rachel Hallos**, Vice President, National Farmers' Union Q87–158

Monday 19 May 2025

Mary Long-Dhonau OBE, Property Flood Resilience Consultant, FloodMary.com; **Siobhan Connor**, Chair, Shrewsbury Flood Action Group; **Graham French**, Owner, Kingfisher CafÈ Q159–201

Tracey Garrett, Chief Executive, National Flood Forum; **Ian Moodie**, Technical Manager, Association of Drainage Authorities; **Julie Foley OBE**, Director, Strategy and Adaptation, Environment Agency Q202–240

Wednesday 11 June 2025

Emma Howard Boyd CBE, Chair, Steering Committee, Public First Q241–255

Jonathan Moxon, Flood Risk Manager, Leeds City Council; **Emma Brown**, Manager of Strategic Partnerships, Yorkshire Water; **Matthew Shelton**, Route Engineer, Network Rail Q256–274

Martin Lennon, Director of Policy, Flood Re; **Megan Dunford**, Head of Large and Complex Property Claims, Zurich UK; **Mark Shepherd**, Head of General Insurance Policy, The Association of British Insurers (ABI) Q275–317

Wednesday 9 July 2025

Philip Duffy, Chief Executive, Environment Agency Q318–349

Emma Hardy MP, Parliamentary Under-Secretary of State (Minister for Water and Flooding), Department for Environment, Food and Rural Affairs; **Dr Sebastian Catovsky**, Co-director, Floods and Water, Department for Environment, Food and Rural Affairs Q350–391

Published written evidence

The following written evidence was received and can be viewed on the inquiry publications page of the Committee's website.

FRE numbers are generated by the evidence processing system and so may not be complete.

1	ADA (Association of Drainage Authorities)	FRE0132
2	Arup	FRE0096
3	Ashton Keynes Parish Council	FRE0115
4	Association of British Insurers	FRE0138
5	Aviva	FRE0100
6	Bailey, Mrs Jacqueline	FRE0039
7	Baldwin, Dame Harriett MP	FRE0136
8	Balmforth, Professor David (Visiting Professor and Independent Consultant, Department of Civil and Environmental Engineering, Imperial College)	FRE0072
9	Beaver Trust	FRE0009
10	Bedford Group of Drainage Boards	FRE0026
11	Blakey, Mr Stephen (Chair, Stony Stratford Flood Action Group); and Mr Tim Smith (Member, Stony Stratford Flood Action Group)	FRE0087
12	Brinkworth Parish Council	FRE0137
13	Bristow, Mr Jonathan	FRE0086
14	British Insurance Brokers' Association	FRE0156
15	British Red Cross	FRE0109
16	Bucknell Flood Action Group	FRE0104
17	Butchart, Mx Pax	FRE0019
18	Cambridgeshire County Council	FRE0056
19	Canal and River Trust	FRE0125
20	Centre for Flood Risk and Resilience, Brunel University of London	FRE0071

21	Chapman, Mr Andrew	FRE0042
22	Chappell, Dr Nick (Reader in Hydrological Processes & NERC Chief Science Advisor (Flood & Drought Research Infrastructure), Lancaster University)	FRE0002
23	Chartered Institution of Water and Environmental Management	FRE0144
24	Christian Malford Parish Council	FRE0034
25	Cirencester Town Council	FRE0082
26	Community Planning Alliance	FRE0045
27	Connelly, Dr Angela (Senior Lecturer in Architecture, Manchester School of Architecture, Manchester Metropolitan University); and Dr. Paul O'Hare (Senior Lecturer in Geography and Development, Manchester Metropolitan University)	FRE0110
28	Cook, Nigel	FRE0012
29	Cornwall Council	FRE0032
30	Country Land and Business Association (CLA)	FRE0099
31	Cumbria Rivers Authority Governance Group (CRAGG)	FRE0047
32	Department for Environment, Food and Rural Affairs	FRE0148
33	Diglis Flood Relief Action Group	FRE0057
34	Direct Line Group	FRE0098
35	Disley, J	FRE0118
36	Disley, Mr Hugh (Member, Culmington Flood Action Group)	FRE0018
37	Dorpe, Johan van den	FRE0084
38	Down Ampney Parish Council	FRE0060
39	East Peckham Parish Council	FRE0017
40	Easter, Mr Garry (Member, Attleborough & Besthorpe Flood Group); Mrs Lynn Short (Member, Attleborough & Besthorpe Flood Group); and Mr Paul Hunter (Member, Attleborough & Besthorpe Flood Group)	FRE0064
41	Energy and Environment Institute, University of Hull	FRE0093
42	Environment Agency	FRE0083
43	Fairford Town Council	FRE0079
44	Flood Re	FRE0107
45	Flood Technology Group	FRE0015

46	Flooded People UK	FRE0153
47	Floodmatik LTD	FRE0059
48	Forrest, Dr Steven (Lecturer in Flood Resilience and Sustainable Transformations, University of Hull)	FRE0113
49	Friends of the Earth (England, Wales and Northern Ireland)	FRE0078
50	GMB Union	FRE0105
51	Game & Wildlife Conservation Trust	FRE0108
52	Gibson, Sam (Director, Nicholsons)	FRE0049
53	Goodden, Anna (PhD Candidate, Departments of Political Economy and Geography, King's College London); Dr James Porter (Senior Lecturer in Environment, Science and Policy, Department of Geography, King's College London); and Dr Francesca Vantaggiato (Senior Lecturer in Public Policy, Department of Political Economy, King's College London)	FRE0121
54	Greater London Authority	FRE0106
55	Green Alliance	FRE0134
56	Haddon, Mr Robert (Chairman, Shropshire Flood Action Group Forum (SFAGF)); and Mr Colin Dalziel (Vice Chairman, Shropshire Flood Action Group Forum (SFAGF))	FRE0050
57	Halliday, Cllr Kate (Cllr Belle Vue Ward Shrewsbury, Shropshire Council)	FRE0111
58	Heath & Hampstead Society; and Hampstead Neighbourhood Forum	FRE0129
59	Herefordshire County Council	FRE0112
60	Historic England	FRE0031
61	Hodges, Mrs Thanea	FRE0011
62	Hoyle, Mr Geoff	FRE0022
63	Hydro-GIS Ltd	FRE0069
64	Institute of Civil Protection and Emergency Management	FRE0101
65	Institution of Civil Engineers	FRE0145
66	Institution of Mechanical Engineers	FRE0075
67	Internal Drainage Boards Special Interest Group; and South & East Lincolnshire Councils Partnership	FRE0085
68	Islington Climate centre	FRE0126
69	J E Collingborn & Son dairy farmers	FRE0124

70	JBA Consulting	FRE0120
71	Jenkins, Dr Katie (Research Lecturer, Tyndall Centre for Climate Change Research); Prof Robert Nicholls (Faculty / Former Tyndall Director, Tyndall Centre for Climate Change Research); and Dr Ing Paul Sayers (Director, Sayers & Partners Ltd)	FRE0033
72	Johnston, Dr Andrew; and Mr Paul Cobbing	FRE0044
73	Kamau-Mitchell, Dr. Caroline	FRE0063
74	Kempsford Parish Council	FRE0116
75	Lancashire County Council	FRE0142
76	Lines, Mr Peter	FRE0029
77	Little, Dr Juliet de	FRE0053
78	London Climate Resilience Review	FRE0065
79	London Drainage Engineers	FRE0128
80	Long-Dhonau, Mrs Mary, OBE	FRE0021
81	Macdonald, Professor Neil (Professor of Geography, University of Liverpool)	FRE0119
82	Macilwraith, Mr Graham	FRE0067
83	Management, Flooding Resilience and	FRE0080
84	Marjoribanks, Dr Tim (Senior Lecturer in Water Engineering, Loughborough University); Mr Jonathan Vann (PhD Researcher/NbS Consultant, Loughborough University/Riverscape Consultants); Mr Bartholomew Hill (Post-Doctoral Research Associate, University of Lincoln); Professor Ksenia Chmutina (Professor of Disaster Studies, Loughborough University); Professor Mark Gussy (Professor in Rural Health and Social Care, University of Lincoln); Dr Harriet Moore (Senior Lecturer in Geospatial Health & Wellbeing, University of Lincoln); and Professor Lee Bosher (Professor of Risk, University of Leicester)	FRE0003
85	Martin, Professor Stephen (Hon Professor of Sustainability, University of Nottingham)	FRE0007
86	MetaInfrastructure	FRE0055
87	Monahan, Thomas (Schmidt AI in Science Fellow, University of Oxford)	FRE0152
88	National Farmers Union	FRE0090
89	National Farmers' Union	FRE0151

90	National Fire Chiefs Council (NFCC)	FRE0150
91	National Flood Forum; Upper Medway Internal Drainage Board; Kent Flood Action Group Forum; and Southern Regional Flood and Coastal Committee	FRE0076
92	National Oceanography Centre	FRE0094
93	Naylor, Prof Larissa (Professor of Geomorphology and Environmental Geography, University of Glasgow)	FRE0133
94	Naylor, Professor Larissa (Professor of Geomorphology and Environmental Geography, University of Glasgow)	FRE0149
95	Newby, Keith	FRE0147
96	Newent Neighborhood Flood Association	FRE0010
97	Norfolk Strategic Flooding Alliance; and Norfolk County Council	FRE0074
98	Paris, Mrs Helen	FRE0024
99	Parsons, Dr Katie (Research Fellow, Loughborough University)	FRE0001
100	Pennon Group PLC	FRE0131
101	Percival, Dr Sarah (Senior Lecturer, Liverpool John Moores University)	FRE0095
102	Pitcombe Flood Action	FRE0066
103	Policy Connect	FRE0025
104	Pulteney Estate Residents' Association	FRE0051
105	Renukappa, Professor Suresh (Professor of Sustainable Smart Innovation, University of Wolverhampton); Mr Mark Stride (Research Scholar, University of Wolverhampton); Miss Victoria English (Researcher, University of Wolverhampton); Professor Subashini Suresh (Professor of Knowledge Management, University of Wolverhampton); Professor Lingaraja Gandhi (Vice Chancellor, Bengaluru City University); Professor Jayakara Shetty (Vice Chancellor, Bangalore University); and Dr Chandrashekara Kalenahally Gangegowda (Executive Director, Karnataka State Higher Education Council)	FRE0013
106	Resilience, Equity in Flood (Doctoral Researcher, Faculty of Environment and lIfe Sciences, University of Southampton)	FRE0073
107	Rewilding Britain	FRE0130
108	Ryde Monkton Area Flood Association	FRE0027

109	Save Hemsby Coastline	FRE0016
110	Shortt, Mrs Lynn	FRE0062
111	Shrewsbury Quarry Flood Action Group	FRE0058
112	Siddington Parish Council	FRE0023
113	Smith, Cllr Martin (Wiltshire Councillor for the Sherston Division, Wiltshire Council)	FRE0035
114	South Hampstead Flood Action Group	FRE0036
115	Stockall, Mr Raymond	FRE0030
116	Stone, John	FRE0014
117	Sturmer Flood Action Group	FRE0004
118	Sustainable Soils Alliance	FRE0103
119	The Association of British Insurers (ABI)	FRE0154
120	The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) – Flood and Water Management Group (FWMG)	FRE0114
121	The Environmental Horticultural Group	FRE0052
122	The Fabian Society	FRE0102
123	The Lakes by Yoo	FRE0135
124	The National Flood Forum	FRE0088
125	The Soil Association	FRE0097
126	The Wildlife Trusts	FRE0061
127	Town and Country Planning Association	FRE0068
128	United Utilities	FRE0141
129	University of Cambridge Institute for Sustainability Leadership	FRE0155
130	Veary, Mr Henry	FRE0143
131	Walker, Mr Chris (Vice President Scientific Support, Meso-Scale Discovery UK)	FRE0081
132	Walker, Mr Clive	FRE0028
133	Walker, Mrs Caroline	FRE0070
134	Warwickshire County Council	FRE0122
135	Watertight International	FRE0091
136	Watton & Saham Flood Action Group, Breckland District, Mid Norfolk	FRE0040
137	Wellesbourne & Walton Flood Action Group (WWFAG)	FRE0043

138	Wildlife and Countryside Link	FRE0117
139	Williams, Mr Dan (Project Officer, Dorset Coast Forum)	FRE0077
140	Wolstenholme, Dr Josh (Research Associate in Geoscience, Loughborough University)	FRE0020
141	Zurich UK	FRE0140

List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the publications page of the Committee's website.

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Number	Title	Reference
3rd	The UK and the Antarctic environment	HC 499
2nd	Governing the marine environment	HC 551
1st	The role of natural capital in the UK's green economy	HC 501
5th Special	The UK and the Antarctic environment: Government Response	HC 1273
4th Special	Governing the marine environment: Government Response	HC 1272
3rd Special	The role of natural capital in the green economy: Government Response	HC 1242
2nd Special	Net zero and UK shipping: Government Response	HC 705
1st Special	Enabling sustainable electrification of the economy: Government Response	HC 564