



Plain Dealing Revisited

PLANNING FOR FLOOD RESILIENCE

By Sandy Forsyth



About Localis

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We are a leading, independent think tank that was established in 2001. Our work promotes neo-localist ideas through research, events and commentary, covering a range of local and national domestic policy issues.

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Executive summary

In Autumn 2021, Localis published *Plain Dealing: Building for flood resilience*. The study took for its context the sense that development on flood risk areas sits at the intersection of the housing and climate crises. In the three years since publication 22 named storms have made impact on the UK and Ireland causing myriad and extensive damages to properties, communities, and livelihoods. In 2023 alone, weather-related home insurance claims reached a staggering £573m in the UK, with flood damage following storms accounting for £286m.

The relevance of this issue only increases when considering the current political context. Labour's 2024 general election win was delivered on a manifesto including pledges to greatly increase housebuilding in brownfield and green belt areas. Such a programme will require a careful balancing of climate resilience measures with robust planning policies and transparent decision-making. Absorbing locally-learned lessons at the national level, and understanding the extent of the policy and financial requirements for reform, will therefore be crucial to future resilience.

The existing policy framework and potential future changes

Many areas of the UK are naturally flood prone, and in the context of repeated calls for continued urban development programmes to meet pressing housing and supporting infrastructure needs, new developments are influencing risk levels. Development can affect surface water runoff or river overflow, as changing ground levels or new slopes have the potential to exacerbate flood risks in neighbouring areas. As such, large developments are required to undergo a flood risk assessment for both flooding from rivers or sea, and surface water flooding.

Despite this rigorous and multi-stage approach to flood-aware development and the mitigation of flood impacts by risk management authorities, a combination of crumbling flood defences and the consent of development on functional floodplains, even at times against the Environment Agency's advice, means that millions of properties in England remain at risk. Analysis of EA flood defence inspections has shown that seven percent of England's flood defences are in a "poor" state, with 1.3 percent classed as "very poor", and deterioration of defences in all areas of England despite the billions of pounds funnelled through funding and investment initiatives in Flood and Coastal Erosion Risk Management (FCERM).

The FCERM investment programme, renewed every six years, currently accounts for £5.2 billion of funding for projects from 2021-27. The new government have pledged an extensive review of capital spending, which observers have criticised as lagging behind the pace of investment needed for urgent resilience measures due to issues such as inflation and poor public sector capacity. Emma Hardy MP, minister for water and flooding, has highlighted the significant issue of maintenance, pointing to a new flood resilience taskforce in the works to co-ordinate the country's flood response. The government has also advanced immediate efforts to organise the nation's flood response. The approach includes a 'COBRA-style' flood resilience taskforce to meet before every winter's peak flooding season to coordinate and target cross-sectoral response.

Labour's 2023 commitments also considered an overhaul of local resilience forums, the multi-agency partnerships that respond to localised incidents and emergencies through the production of emergency plans based on the identification of potential risks. The detail here is especially important given the housebuilding target of 370,000 homes a year. The government are taking a hardline approach to housing supply under proposed reforms, with local authorities seeking a lower housing requirement having to demonstrate that they have spared no effort to find alternative land supply, including local green belt boundary review. This, alongside a stronger and more explicit "presumption in favour of sustainable development", is likely to push a greater onus for local resilience through development onto councils and increase the intensity of the discourse around floodplain development.

The insurance issue

In light of ongoing exposure to risk for properties across England, property insurance represents a significant element of the country's flood resilience. The year 2023 saw a near 10 percent increase on 2022 home insurance totals – an increase, notably, driven by weather-related damage¹. In recent months, home insurance providers across the board have flagged the impacts on insurance pricing due to storms, particularly following the storm-intense 2023/24 winter season, with the Association of British Insurers calling for more to be done to support resilience in communities as the value of the average home insurance claim rose by 64 percent in only one year².

In order to alleviate some of the demands on those affected by flooding and the necessities of preparation for flood events, the Flood Reinsurance, or 'Flood Re', scheme was introduced in 2016 through collaboration between the insurance industry and the government to help providers reduce otherwise impossible premiums for high-risk properties built before 2009. Flood Re was created with an expiry date – the scheme will become obsolete in 2039 – and progression of the programme is designed to allow for a straightforward transition in a more flood-resilient UK. However, the Public Accounts Committee has raised concerns that the Flood Re scheme has so far failed to provide a suitable amount of protection for enough properties to become resilient by 2039, with particular emphasis on increasing flood risks and the limited advancement of the country's flood defence capital programme.

The future of home insurance for at-risk properties therefore remains an issue. Furthermore, public awareness of flood risk and of the necessity of property-level flood resilience and insuring properties proactively, ahead of flooding, needs widespread improvement across the country. Insurers themselves can implement better awareness programmes, but resourcing needs also to be extended to Lead Local Flood Authorities and other public sector stakeholders to allow this kind of proactive engagement to shore up individual and community-level resilience across the country.

1 ABI (2023) – [Weathering the Storm](#)

2 Financial Times (2024) – [Floods will add to rising UK home insurance bills](#)

The debate over floodplain development

Planning permissions

In *Plain Dealing*, Localis observed where new, floodplain development was occurring in the twelve local planning authorities with more than ten percent of properties already at a greater than one percent risk of flooding, as recorded in 2020. For the purposes of this report, we have revisited these authorities to assess the ongoing pattern of development in areas at an existing high risk of flooding. In the first half of 2024³, **1,006** dwellings were given planning approval in the 12 local authorities with the highest percentage of properties already at risk. Adding in developments which were approved in previous years and continued to move through the planning system in the first half of 2024 reveals a further **6,110** dwellings with planning approval, amounting to a total of **7,116** dwellings in the planning pipeline for these authorities. Additionally, **2,389** new dwellings were granted planning permission on previously developed land or as a result of change-of-use applications, and **280** of those were new applications this year.

Planning permission is granted for a number of core reasons: primarily, to give permission for construction or demolition to take place under the auspices of a series of planning documents, including the Local Plan, that ensure the suitability of design and location of the development. Planning conditions control construction at all stages of development, and can range from environmental and noise limits to design and material requirements. Later stages of planning can bring the submission of additional documents such as access plans and flood assessments. As such, a whole pipeline emerges from which the process of construction, from prior approval to the ongoing discharge of conditions, can be tracked, albeit without an idea of final completion of the development.

3 Planning portals were analysed from the 1st of January to the 14th July 2024

Weighing the risks

From the planning perspective, the National Planning Policy Framework (NPPF), although not a legally binding document, is averse to floodplain development. Referring to 'inappropriate development', the NPPF suggests that planners should direct development away from areas at highest risk, taking into account future risk; that strategic flood risk assessments inform strategic policies; and that all plans apply a sequential test followed by, if necessary, an exception test, in order to prioritise the least-worst location for development. Ostensibly, these tests consider the appropriateness of development weighed against risk.

Appropriateness, however, remains a subjective quality. Despite reasonable precautions, it remains that there is no existing law against the granting of planning permission for and construction of homes in areas at high risk of flooding, and the Environment Agency compiled 267 instances of homes granted planning permission against their advice on flood risk in the year 2022-23 alone. While the presumption against development may seem clear from this perspective, opinions in favour of floodplain development are also held by many experts.

Many existing urban settlements in the UK, by dint of the historical importance of water-based transportation, lie in close proximity to rivers and sea, and consequently new developments naturally spring up in these areas to make use of existing infrastructure and bolster local growth. Some experts have called for heightened levels of development specifically so that communities can be better prepared for flooding, with better infrastructure and flood risk management catering towards more resilient places. Others note that floodplains make ideal sites for housing, as they are often flat and well-connected spaces that are cheap to develop. Furthermore, understanding of risk is not an exact science in terms of probability – some areas are at much lower risk than others, and the risk profile of some areas will change in future, although our understanding of future risk is constantly improving and the Environment Agency are producing an improved and updated flood risk map.

Recommendations

1. The **Flood Resilience Taskforce** should be given an expanded remit to examine the current state of existing flood defences, improve public information and review how effectively resilience measures are implemented in the planning system.
 - a. The **Minister for Water and Flooding**, currently located within Defra, should be given a joint brief covering Defra and MHCLG, with the responsibility of overseeing the taskforce and implementing its recommendations.
 - b. **The Environment Agency must have its capacity greatly improved:** to ensure the maintenance of flood defence assets, both public and privately held, and to enforce regulations in planning. The Taskforce should be given a remit to examine how this can be achieved.
 - c. The Taskforce must work to **improve the availability and accessibility** of data on floodplain development – current transparency measures around planning decisions are not sufficient for understanding aggregate flood-risk across development.
 - d. To help combat poor awareness of flood risk, the Taskforce should work to **develop a live system providing flood-risk category certification for new buildings** to increase risk awareness among homeowners and occupiers, which would update in response to new development to capture compounding local flood risk.
2. The **Planning and Infrastructure Bill** as well as the **revised National Planning Policy Framework** present an opportunity to consolidate and reinforce planning resilience measures.
 - a. While it currently exists as a guideline in the NPPF, the **sequential test for floodplain development must be made law**, to ensure that new development takes place in the most strategically appropriate places for national flood resilience.
 - b. To ensure that an area's aggregate flood risk is being considered, **lead local authorities should be consulted by law on all developments of more than two dwellings on floodplain land**, and total permissions of all sizes should be periodically reviewed.
 - c. In the context of greater green belt urbanization, surface water drainage requires specific consideration in the National Planning Policy Framework.
 - d. The **Flood Risk Assessment process should be reviewed**, ensuring that assessments are fully inclusive of not only dwellings and businesses, but also the surrounding environment and infrastructure, as well as emergency response.

Introduction

In Autumn 2021, Localis published *Plain Dealing: Building for flood resilience*. The study took for its context the sense that development on flood risk areas sits at the intersection of the housing and climate crises. Plain Dealing reviewed the then current policy landscape for flood resilience, measured the debate around the issue and put forwards policy recommendations for a balanced approach to resilience and resistance when deliberating housing demand.

In the three years since Localis published *Plain Dealing*, 22 named storms have made impact on the UK and Ireland causing myriad and extensive damages to properties, communities, and livelihoods. In 2023 alone, weather-related home insurance claims reached a staggering £573m in the UK, with flood damage following storms accounting for £286m⁴. Flash floods in London, Somerset, and Devon have also made for distressing headlines, while coastal areas remain at severe risk as the frequency and severity of storm surges swell in line with sea level rise and climate change.

Alongside the spate of challenging flood events and increasing pressures on flood risk services since *Plain Dealing*, a number of positive changes have been made to the national policy landscape surrounding flood resilience, not least in the country's continued progress towards existing net zero commitments⁵. Developments in data standards for flood risk and improvements to existing flood insurance mechanisms – such as Flood Re's revised levy amount and liability limit, alongside the launch of the Build Back Better scheme for property-level flood resilience⁶ – are two of the major additions to flood resilience across England since 2021, alongside progression of ongoing capital investment, maintenance of flood defences and risk assessment measures.

4 Association of British Insurers (2024) – [Weather damage insurance claims worst on record](#)

5 Chris Skidmore MP (2024) – [Mission Zero: Independent Review of Net Zero](#)

6 Hansard (2022) – [Flood Reinsurance \(Amendment\) Regulations 2022](#)

This report revisits the policy terrain in light of these developments, and in the context of a new government. The landslide Labour victory in the 2024 general election was delivered on a manifesto including pledges to greatly increase housebuilding in brownfield and green belt areas. As has been already acknowledged by ministers, such a programme will require a careful balancing of climate resilience measures with robust planning policies and transparent decision-making. The recommendations laid out at the end of this report are designed to help strike this balance in a way which empowers the local state to deliver on housing goals whilst planning for long-term flood resilience.

CHAPTER ONE

Policy framework

Climate scientists have noted that – although seasonal variations in weather events do and will fluctuate – climate change will trigger storms to become a more frequent occurrence among wetter and warmer winters, while the increasing dryness of summers will exacerbate flash flooding later in the year. Within this context, and under the backdrop of some languishing urgency in the drive to Net Zero⁷, the image emerges of a costly balancing act for policymakers between provisioning the country’s housing and infrastructural needs and assembling reliable protections against increasingly likely inundation in many areas of the country.

7 [Climate Change Committee \(2023\) – 2023 Progress Report to Parliament](#)

1.1 Floodplain management policies

Policies on the management of floodplains must deal with the process of deciding when and how development has an appropriate risk level, as well as overseeing the maintenance and sufficiency of flood defence infrastructure. In addition to this, public policy has a role in undergirding the insurance system for flood-risk properties.

1.1.1 The state of flood defences

On the 24th of July, the newly appointed minister for water and flooding, Emma Hardy, received questions from MPs on how the new Labour government will adopt and improve the UK's existing, expansive system of flood defences⁸. MPs raised concerns that inadequate flood defences mean an increase in homeowners' insurance premiums, although continued and cumulative spending has vastly improved community-level resilience. Defences in the UK range from property-level flood resilience (PFR) measures to the Thames Barrier, the world's second largest movable flood barrier. The diversity of flood management solutions and the extent of flood impacts across local geopolitical boundaries pushes the need for cross-institutional and cross-governmental collaboration into the spotlight.

During Storm Babet, the Environment Agency (EA) reported that nearly 100,000 properties were protected from flooding by its response across England. Nevertheless, some local flood defences in Lincolnshire failed, causing 80 properties to become inundated across Horncastle, highlighting the ongoing concern with the current and future condition of defences. Analysis of EA flood defence inspections has shown that seven percent of England's flood defences are in a "poor" state, with 1.3 percent classed as "very poor"⁹, and deterioration of defences in all areas of England despite the billions of pounds funnelled through funding and investment initiatives in Flood and Coastal Erosion Risk Management (FCERM).

Over a quarter of England's flood defences are under private ownership by landowners, maintained, according to a Greenpeace investigation, by "third parties" unnamed in EA inspections, and consequently almost twice as likely to be in poor condition than those maintained by the EA¹⁰. Notwithstanding the better condition of EA defences, the National Audit Office has noted that the

8 House of Commons Hansard (2024) – Flood Defences: West Worcestershire

9 Unearthed (2023) – Thousands of England's flood defences were in poor condition before storms hit

10 Unearthed (2023) – Thousands of England's flood defences were in poor condition before storms hit

EA's maintenance of its assets does not optimise value for money, with more than 200,000 properties at increased risk of flooding despite £34m going towards maintenance funding in 2022-23 alone, pointing additionally to massive underspending to date of the EA's capital programme¹¹.

The FCERM investment programme, renewed every six years, currently accounts for £5.2bn of funding for projects from 2021-27. Defra leads on FCERM, with some funding funnelling directly towards the EA as 'Grant-in-Aid' to disburse for maintenance, new infrastructure, and further grant provision to risk management authorities including internal drainage boards and local authorities, who may also shore up their funding through alternative partnership funding mechanisms and special levies¹². 'Grant in Aid' funding is designed to account for the reduced capacity for more deprived areas, which are often at higher risk from flooding, to recover from the impacts of flooding. Consequently, since 2011/12, the proportion of households better protected from flooding in the most deprived areas in England has consistently risen to above 20 percent from only 9.2 percent in 2011/12¹³.

Schemes to offset the costs of flood resilience measures for individual households, businesses and communities provide additional locally driven support. Hardy has assured that the new government are undergoing extensive review of capital spending, which observers have criticised as lagging behind the pace of investment needed for urgent resilience measures due to inflation, pandemic impacts, and poor public sector capacity¹⁴, and noted the significant issue of maintenance, pointing to the new flood resilience taskforce as the means to coordinate the country's flood response. This coordination, alongside funding and public awareness, comprise the three constituent factors that must underpin the country's flood response, and each needs significant work if England is to maintain a suitable level of protection in the coming years.

1.1.2 Development levels and risk management

An area's risk exposure to flooding is defined as the probability of a flood event occurring multiplied by its impact. The likelihood of a flood event occurring is calculated on an annual basis of probability – flood zones are geographic regions that are more vulnerable to floods in any one given year. The higher the flood zone number, from one to three, the higher the flood risk. Many areas of the UK

11 National Audit Office (2023) – [Resilience to flooding](#)

12 House of Commons Library (2024) – [Flood risk management and funding](#)

13 Defra (2024) – [The floods investment programme: investment in deprived areas](#)

14 Committee of Public Accounts (2024) – [Resilience to flooding](#)

are naturally flood prone, and in the context of repeated calls for continued urban development programmes to meet pressing housing and supporting infrastructure needs, new developments are influencing risk levels.

Development can affect surface water runoff or river overflow, as changing ground levels or new slopes have the potential to exacerbate flood risks in neighbouring areas. As such, large developments are required to undergo a flood risk assessment for both flooding from rivers or sea, and surface water flooding, delineating plans for drainage, location, and assessing all potential flood risk for the site, following a sequential test designed to encourage building in the least hazardous zones.

Despite this rigorous and multi-stage approach to flood-aware development and the mitigation of flood impacts by risk management authorities, a combination of crumbling flood defences and the consent for development on functional floodplains, even at times against the EA's advice, means that millions of properties in England remain at risk¹⁵. The EA continue to tally the number of properties at risk, with the most recent data showing an inflation in figures accounted for by a better-informed approach to the agency's understanding and cataloguing of flood risk for properties.

The EA indicates that there were 77,000 fewer properties with a medium to high risk of river or sea flooding in 2021/22 than 2015/16, namely due to the FCERM initial capital investment programme and other work from risk management authorities across the country¹⁶. This work includes the extension of obligatory six-year flood risk management plans (FRMPs) to river basin districts across England. FRMPs, responding to public consultation, arrange the primary objectives, measures, and responsibilities for lead local flood authorities (LLFAs) and risk management authorities (RMAs) to meet the individual requirements of areas at risk of flooding¹⁷.

15 Committee of Public Accounts (2024) – [Resilience to flooding](#)

16 Environment Agency (2024) – [Flood and coastal erosion risk management report: 1 April 2022 to 31 March 2023](#)

17 Environment Agency (20220) – [Flood risk management plans 2021 to 2027](#)

1.1.3 Insurance

In light of ongoing exposure to risk for properties across England, property insurance represents a significant element of the country's flood resilience. Although preparation is always the more financially efficient mitigation for risk, home insurance providers can underwrite the costs of unexpected damage to property from flooding and are increasingly relied upon as major weather events become more likely due to climate change and as inflation leads to escalating re-building costs.

In 2022, households made 170,000 insurance claims related to storms damage and heavy rains, costing providers around £1.5bn¹⁸. The year 2023 saw a near 10 percent increase on 2022 home insurance totals – an increase, notably, driven by weather-related damage¹⁹. In recent months, home insurance providers across the board have flagged the impacts on insurance pricing due to storms, particularly following the storm-intense 2023/24 winter season, with The Association of British Insurers (ABI) calling for more to be done to support resilience in communities as the value of the average home insurance claim rose by 64 percent in only one year²⁰. Climate observers at the Met Office have noted in the most recent *State of the UK Climate* report that the UK has seen winters in the last decade nine percent wetter than the average for 1991-2020 and 24 percent wetter than the twenty years prior to that²¹. The frequency of extreme rainfall events has also increased, particularly in the summer months. Overall, future projections of worsening trends create a worrying picture for those already living in or moving to flood-prone areas.

Additionally, as property owners struggle with damages from flash flooding resulting from poor road and drainage maintenance, local authorities are liable to substantial bills – amounting to nearly £1m from 2020 to 2022²². Budgetary pressures on councils have for years constrained local authority efforts to mitigate such risks.

In order to alleviate some of the demands on those affected by flooding and the necessities of preparation for flood events, the Flood Reinsurance, or 'Flood Re', scheme was introduced in 2016 through collaboration between the insurance industry and the government, to help home insurance providers reduce otherwise impossible premiums for high-risk properties and improve the availability of insurance cover to households. The scheme works by charging a levy from UK

18 Confused.com (2024) – [UK Home insurance statistics 2024](#)

19 ABI (2023) – [Weathering the Storm](#)

20 Financial Times (2024) – [Floods will add to rising UK home insurance bills](#)

21 Mike Kendon et al. (2024) – [State of the UK Climate 2023](#)

22 Local Government Chronicle (2023) – [Councils call for greater funding for road repairs amid £14bn backlog and rise in compensation claims](#)

home insurers to subsidise expensive payouts at times of crisis, charging insurers a fixed premium based on council tax bands for properties at risk of flooding, resulting in lower costs for customers. As an incentive to avoid further development of new-build housing in high-risk areas, Flood Re has from its inception only covered homes built prior to 2009.

Flood Re was created with an expiry date: the scheme will become obsolete in 2039. As such, progression of the programme and uptake by insurers is designed to allow for a straightforward transition to a free market for flood insurance in a more flood-resilient UK. However, the Public Accounts Committee has raised concerns that the Flood Re scheme has so far failed to provide a suitable amount of protection for enough properties to become resilient by 2039, with particular emphasis on increasing flood risks and the limited advancement of the country's flood defence capital programme²³.

The future of home insurance for at-risk properties therefore remains an issue. Furthermore, public awareness of flood risk and of the necessity of property-level flood resilience and insuring properties proactively, ahead of flooding, needs widespread improvement across the country. Insurers themselves can implement better awareness programmes, but resourcing needs also to be extended to Lead Local Flood Authorities and other public sector stakeholders to allow this kind of proactive engagement to shore up individual and community-level resilience across the country.

1.2 Changes since 2021

Since the publication of *Plain Dealing* in 2021, the most significant development to the policy landscape around flooding has been the announcement of a new and updated methodology for producing the flood-risk map, as well as further extensions and modifications to the Flood Re scheme.

1.2.1 New mapping for flood risk and erosion

Later this year and into 2025, the Environment Agency plans to introduce updated flood risk information, using new national flood risk assessment (NaFRA2) data and an updated National Coastal Erosion Risk Map to inform a new report by December 2024. This work will be joined by new data on flood risk from rivers, sea, and surface water and updated flood zone data on the flood map for

23 Committee of Public Accounts (2024) – [Resilience to flooding](#)

planning²⁴, via which information on the flood risk of all properties in the UK can be accessed – including by 2025, for the first time, surface water flood risk.

The new data and risk assessment will include data according to future national climate change scenarios, where all previous data has been unable to provide information on potential variation under different scenarios on peak river flow, peak rainfall intensity, sea level rise, and offshore wind speed and extreme wave height. This additional information from the EA is extremely welcome, as it will allow planners, developers, and other leading decision-makers in the built environment context to better understand the changing elements of risk at the local level, with new modelling able to capture greater detail and better spatial resolution of flood risk than previously tenable. Hopefully, this will mean that further transformations to the built environment across the country are more prepared for and respond better to future risk.

1.2.2 Flood Re and the Build Back Better scheme

In 2016, it was announced that the Flood Re programme would be obliged to undergo quinquennial – or five year – reviews (QQRs) until its dissolution in 2039 to examine its progress and explore opportunities for developing the structure of the programme to benefit consumers and their property risk resilience. The year 2019 saw the first of these QQRs, within which Flood Re made initial adjustments to the Levy amount and Liability Limit, alongside extended investment permissions to ensure viability in the face of ongoing erosion of assets²⁵.

QQR2, published within days of the 2024 general election, engaged primarily with encouraging uptake of property-level flood resilience (PFR) and adaptation. Communities in areas at high flood risk, which often experience repeat damaging events due to their location, can receive funding through the £100m Frequently Flooded Allowance if 10 or more properties have flooded twice or more in the previous 10 years as part of the FCERM investment programme²⁶. Beyond this allowance for better flood protection in qualifying communities, shoring up individual PFR in all areas at risk of flooding will likewise prevent further extensive damages in future event of flooding.

24 Environment Agency (2024) – [Updates to national flood and coastal erosion risk information](#)

25 Flood Re (2019) – [Regulation 27: The Quinquennial Review](#)

26 Defra (2023) – [The Third National Adaptation Programme \(NAP3\) and the Fourth Strategy for Climate Adaptation Reporting](#)

The first QQR in 2022 introduced the Build Back Better scheme, through which Flood Re has extended property resilience measures of £10,000 for individual homes covered by participating insurance providers as part of a flood claim, above the cost of damage repair and loss. QQR2 has suggested that the reimbursement for insurers under the BBB scheme increase to £15,000, recognising the pressures of inflation on construction and the cost-of-living crisis on the individual's capacity to respond to disaster and prepare for future risk events²⁷.

Other considerations of the QQR2 have encompassed insurance affordability in the cost-of-living crisis; ensuring the scheme's continued viability; and promoting effective market mechanisms, attempting to foreshadow the environment within which the scheme will come to an end. Among other adjustments to Flood Re's limitations on loss and spending, efforts will also be made to improve public awareness of Flood Re's more affordable premium and PFR to provoke widespread efforts across the country to improve flood resilience.

1.2.3 Increasing capacity constraints

The responsibilities of the Environment Agency are wide and varied, from mitigating pollution and enhancing wildlife and biodiversity to its role as a flood risk management authority for main rivers and the coast. Yet its real significance for the country's environment and resilience has failed to attract government support. Funding to the EA has suffered massive year-on-year cuts since 2009/10 to the tune of more than 50 percent in real terms by 2022²⁸, leading to widespread redundancies and thousands of staff quitting due to the ongoing real terms funding cuts and endemic low morale across the agency²⁹. More staff have left than joined the EA in four of the last eight years, producing a workforce crisis in concurrence with very diminished funds to extend to capital investment schemes and maintenance programmes for the country's flood resilience. Added to this, the impact of high inflation of the past few years has left the EA with very constrained capacity to tackle the most pressing of issues.

In recent years, media attention and popular outrage has made clear the expectation for the EA to control the sewage scandal currently tarnishing watercourses and coastlines across the country. The precedence given to cleaning

27 Flood Re (2024) – [The Quinquennial Review: July 2024](#)

28 [The Independent \(2022\) – Environment Agency funding cut by 50% over past decade as sewage spills rise, analysis shows](#)

29 [Liberal Democrats \(2024\) – Almost 9,000 staff leave Environment Agency following cuts and low morale](#)

up the country's rivers and launching a criminal inquiry into illegal sewage dumping by water companies, in concurrence with Ofwat's own investigation, has left the EA working overtime to continue to give communities the attention that they require in terms of flood alleviation and risk assessment.

Looking further down the hierarchy of flood risk management, alongside the EA sits a real assortment of authorities to whom further responsibilities – for smaller watercourses, for riverbanks, for drainage – are divided. And at each stratum, there lie massive constraints on capacity to manage their obligations. So, when every organisation at each level of governance is constantly on the front foot, dealing with crisis after crisis with faltering funds, the ability to take a step back and collaborate with other bodies or to engage a strategic oversight becomes immensely limited.

The EA's diminished capacity spills over and puts local flood authorities under more intense pressure to provide the bare minimum of flood risk assessment and consultation, when LLFAs themselves are having to tackle dwindling resources and spreading their expertise far too thin. Local planning authorities, at the most local level, hit by the weight of austerity's cuts and struggling without the workforce and resources to instil the appropriate levels of vigilance to prevent unsafe development are left dealing with an almost insurmountable workload. The systemic deprivation of resources to LPAs therefore leaves communities more susceptible to potentially unsafe common practices and reliant on the willingness of risk authorities to work often voluntarily beyond their means. Without at least stronger statutory obligations to provide better attention to risk, measures to mitigate flooding, and a necessary capacity uplift for planning authorities and flooding authorities, then the risk resilience of the built environment will continue to diminish.

1.3 Looking to the future

The future of floodplain management policy involves a concerted effort, involving a combination of reforms to the policy framework itself and the revitalisation and refocusing of central government housebuilding policy – alongside the ongoing implementation of legislation from the previous Parliament.

1.3.1 Labour's flood policy

The new government has advanced immediate efforts to organise the nation's flood response. The approach includes a 'COBRA-style' flood resilience taskforce to meet before every winter's peak flooding season in order to identify communities most at-risk, to coordinate flooding preparation across the public sector, communities and emergency services, and ensure that flood defences and natural flood management schemes are up to standard. The taskforce was launched in September 2024, with

the first meeting focusing on improving coordination between institutional actors and identifying areas where greater protection is needed.

Labour's 2023 commitments also considered an overhaul of local resilience forums, the multi-agency partnerships that respond to localised incidents and emergencies through the production of emergency plans based on the identification of potential risks. Labour, in opposition at the time, claimed that the Conservatives were taking a "sticking plaster" approach to flooding that undermined coordination between all relevant stakeholders and failed to protect communities and local economies³⁰. The then-incumbent party noted that the UK's existing flood resilience infrastructure was already expansive and well-established.

It remains to be seen whether the new government will introduce any significant transformation to flood management and resilience policy, and how effective any such changes will become. Amongst the slew of immediate grievances that the new government have raised with their fiscal, infrastructural, and institutional inheritance from the Conservatives, and between criticisms of the state of Britain's water management infrastructure, Steve Reed, the new Secretary of State for Environment, Food and Rural Affairs has pointed a condemning finger at the condition of flood defences as, "far worse than we were led to believe."³¹ The call from the top, then, appears to be preparation for urgent resourcing towards the problem. The source and rapidity of such resourcing remain uncertain.

Otherwise, the announcement of a regular cycle of multi-year spending reviews from the Chancellor alongside the possibility of better protections for public services, and other commitments regarding devolution of powers to local government in England, may provide the breathing room for local authorities to bolster community and regional resilience to flooding. Planning departments, for instance, with the capacity to make and respond to well-informed and strategic, regional, long-term decisions would be a good starting point in ensuring that all development is undertaken with an understanding of its aggregated impact on flood risk. In recent years there have been a number of calls for greater devolution of funding for flood defences to local areas, and so there remains potential in the new government for perhaps shifting the lens of focus away from the centre and towards the authorities that have the best and most detailed knowledge of community and localised requirements.

30 Labour (2023) – Labour pledges to establish a Flood Resilience Taskforce that meets before every winter to protect communities from the dangers of flooding

31 BBC News (2024) – Labour accuse Tories of 'cover up' over public services

1.3.2 Housing priorities

Since the general election, the Labour government has hit the ground running in terms of meeting housing and planning goals to 'get Britain building again.' Having announced major initial changes to the National Planning Policy Framework to rejuvenate a sluggish planning system, the new government has also resumed mandatory local housing targets discarded by their predecessors. In doing so, the Ministry of Housing, Communities and Local Government (MHCLG) will put pressure on local planning authorities to bring new development to areas already constrained by environmental factors, from nature protection zones to flood risk areas.

Although local authorities will, under the new system, retain the capacity to justify a lower housing requirement under the indication of 'hard constraints' to development, such as flood risk³², the fact remains that even under current housebuilding requirements, to meet local need many authorities continue to plan for development that broaches considerations for sustainability. Sustainable development must not only align with the current needs of communities but also be prepared for the future requirements of changing demographics, environmental requisites, and changing risk profiles. As such, introducing new and extensive mandates for housing supply, as much as this is needed to meet demand, will result in a more pronounced influence on planning departments and the decisions that will have to be made regarding the release, and suitability, of land for development.

Proposed changes to the NPPF are taking a hardline approach to housing supply, with especial focus on collaboration and sharing responsibility between neighbouring authorities. It will also be the case that local authorities seeking a lower housing requirement will have to demonstrate that they have spared no effort to find alternative land supply, including local green belt boundary review³³. This, alongside a stronger and more explicit "presumption in favour of sustainable development" to meet more stringent housing requirements without giving developers leeway to promote low quality development, is likely to push a greater onus for local resilience through development onto local authorities. The Ministry of Housing, Communities, and Local Government has also acknowledged that there may be room for planning policy surrounding flood risk and climate adaptation more broadly to improve in clarity and proportion, although tangible actions for improvement are yet to be confirmed.

32 [Matthew Pennycook MP, Ministry of Housing Communities & Local Government \(2024\) – Building the homes we need](#)

33 [MHCLG \(2024\) – Proposed reforms to the National Planning Policy Framework and other changes to the planning system](#)

In deference to the needs of the ambitious housing targets in this context of ‘proportional’ action, not only have the government announced a programme for new towns, which remains in its earliest stages at the time of writing, but the potential for the release of green belt land for construction. According to Labour’s proposals, the ‘golden rules’ of green belt development will ensure that only what the party terms as ‘grey belt’ land will be released for development – land that makes only a limited contribution to the purpose of the green belt – and that all green belt development meets a 50 percent affordable housebuilding target.

While these measures highlight the urgency of the British housebuilding operation, in terms of planning for flood risk it is worth noting that while green belt development to this point has traditionally been of lower density, releasing land for housing developments will have compound effects on flood risk, disturbing the runoff effect by introducing more impervious surfaces to otherwise permeable, rural areas. All new development must, without question, consider the impacts of levels and density of development and expected land use on the resilience of newly urban environments to flooding³⁴ – especially because a proportion of green belt land falls within low-lying areas at the periphery of existing built-up areas with limited capacity for mitigating particularly surface water flooding.

A number of the local authorities that already had a high proportion of properties at flood risk in 2020 – those highlighted for consideration in this report – contain extensive areas of green belt land, emphasising the overlapping pressures of environmental strictures against housebuilding for some local authorities. However, releasing green belt land may prove successful in reducing pressure on floodplain development elsewhere, ultimately providing a much-needed opportunity for sustainable development in more suitable areas and avoiding unnecessary construction on floodplains³⁵ – but provided, again, that the local authorities in question have the capacity, resourcing, and the willingness to encroach upon historic land use boundaries.

34 Cheol Hee Son et al. (2023) – [Analysis of the impact and moderating effect of high-density development on urban flooding](#)

35 Centre for Cities (2020) – [More people are calling for Green Belt reform – and the Government is listening](#)

Local planning authority	% total land designated as Green Belt, 2023 ³⁶	% properties at >1% risk of flooding, 2020 ³⁷
Runnymede	74.3	22.1
Spelthorne	64.9	13
Doncaster	40.5	12.6
Windsor and Maidenhead	81.9	11.2

1.3.3 Schedule Three and SuDS Implementation

Not all flood resilience measures undertaken in these early stages of the new government will be original policy innovations. Plans to implement Schedule Three of the Flood and Water Management Act 2010 have been underway since early 2023. Schedule Three outlines the framework for the adoption of sustainable drainage systems (SuDS) for new developments in England, recommended to become a mandatory instrument by a Defra review on SuDS in 2023³⁸. Under Schedule Three, LLFAs will have an obligation to ensure the correct design and implementation of SuDS for all construction work with drainage implications, limiting the risks of surface water flooding. All new developments, therefore, from green belt, grey area land to new town programmes, will be protected under Schedule Three.

It is, however, worth noting that the Public Accounts Committee has previously observed that local authorities are in need of support from Defra and the then-Department for Levelling Up, Housing, and Communities, now-MHCLG, in terms of skill and resource identification to implement Schedule Three and install SuDS, with the EA to provide guidance and training on surface water flooding³⁹. Defra has committed to implementing Schedule Three by the end of 2024, although it remains to be seen how the addition of stages, time, and effort to the planning process will interact with the new government's push for urgent planning reform and widespread development.

36 DLUHC (2023) – [Local authority green belt statistics for England: 2022 to 2023](#)

37 NAO (2020) – [Managing flood risk – raw data files](#)

38 Defra (2023) – [Sustainable drainage systems review](#)

39 Committee of Public Accounts (2024) – [Resilience to flooding](#)

CHAPTER TWO

Building on floodplains

For obvious reasons, there is often staunch opposition to the idea of developing on floodplains, particularly where close to areas already at risk of flooding. On the other hand, the housing crisis, at least in some areas, will be alleviated in part only if the supply of housing is improved on a scale so extensive that floodplain development, particularly in local authority areas that are most predominantly at risk or already very built-up areas, becomes a viable course of action. The planning system must both properly manage risk whilst also working to resolve the serious issues with housing supply which have been stored up over decades in the UK.

2.1 The debate on floodplain development

The debate over when and how to build on floodplains plays out in the rules for determining where building is inappropriate, set against the cases made for increasing development and in the context of institutional responsibilities for managing risk and minimising damage.

2.1.1 Determining ‘inappropriate’ development

The Environment Agency, in its FCERM Strategy ‘Roadmap’ to 2026, has underlined the paramount importance of effective spatial planning and strategic land use in balancing growth with climate resilience. Investment in flood and coastal risk management, insurance, and recovery are considered in equal measure. Among its primary outcomes, the EA has assured that “new homes will be safe from flooding by avoiding inappropriate development in flood risk areas”⁴⁰. As such, the EA’s overall directive opposes extensive housebuilding on floodplains, with its strategic oversight assuring that it will lend planning advice to prevent ‘inappropriate development’, and work with planning authorities to assess future risk and respond accordingly.

However, with only permissive powers to regulate its advisory command, the EA’s targets rely wholly upon the reasonable discretion of those with the responsibilities over flood risk management, including local planning authorities and individual property and landowners⁴¹. From the planning perspective, the NPPF, although not a legally binding document, is also averse to floodplain development. Referring once more to ‘inappropriate development’, the NPPF suggests that planners should direct development away from areas at highest risk, taking into account future risk; that strategic flood risk assessments inform strategic policies; and that all plans apply a sequential test followed by, if necessary, an exception test, in order to prioritise the least-worst location for development⁴².

The sequential test requires that developments in flood zones two and three are first filtered by means of questioning whether there are any other reasonably available sites suitable for that development in areas with a lower probability of flooding. Subsequently, the exception test asks whether, if there are no other reasonably available sites, the development will have wider sustainability benefits to the community that outweigh the flood risk and whether the development will

40 Environment Agency (2022) – Flood and Coastal Erosion Risk Management Strategy Roadmap to 2026

41 House of Commons Library (2024) – Who is responsible for managing flood risk? (England)

42 Ministry of Housing, Communities & Local Government (2023) – National Planning Policy Framework

be safe for its lifetime for its users, without increasing flood risk elsewhere, and, where possible, will reduce flood overall⁴³. Ostensibly, these tests consider the appropriateness of development weighed against risk.

Appropriateness, however, is a subjective quality. Despite reasonable precautions, it remains that there is no existing law against the granting of planning permission for and construction of homes in areas at high risk of flooding, and the EA compiled 267 instances of homes granted planning permission against their advice on flood risk in the year 2022-23 alone⁴⁴. And there is no guarantee that developers will want to carry out the sequential test, nor that planning authorities will enforce the commitment – particularly given that flood risk precautions and measures of appropriateness are undertaken on a case-by-case, discretionary basis⁴⁵. Flood risk assessments are the responsibility of applicants to bring to the flood risk management authority for evaluation, raising questions of accountability in the process. Although the exception test considers a development's wider impact on overall flood risk, the system of decision-making and its lack of legislative heft does not inspire confidence in its capacity to support planners to create sustainable and resilient communities, no matter how salient the EA's advice.

The cracks in the system make for ardent criticism from a number of notable sources. The UK Green Building Council has lamented the £1.3bn that the 1.8 million homes at significant risk of flooding cost the UK economy each year, suggesting that climate resilience belongs at the heart of the planning system⁴⁶. The Climate Change Committee points out that buildings, both new and old, in areas of flood risk must be resilient, but notes mixed progress towards this outcome and laments the wider funding gap in UK-wide climate resilience. In particular, its Adaptation Progress Report highlights the lack of data to track and policies in support of property flood resilience (PFR) and prioritises enforcement of the planning system to ensure that buildings in flood risk areas receive appropriate PFR measures. Significantly, the report also draws attention to the room in the NPPF for better promotion of sustainability at the heart of plan-making, illustrated against the lack of consistent enforcement in policies and plans – resulting in an ongoing absence of urgency and ambition in planning for adaptation⁴⁷.

43 MHCLG, DLUHC (2022) – [Flood risk and coastal change](#)

44 Environment Agency (2023) – [Flood and coastal erosion risk management report: 1 April 2022 to 31 March 2023](#)

45 The Developer (2023) – [Why are we building homes in high risk flood zones?](#)

46 UK GBC (2024) – [Climate Resilience](#)

47 Climate Change Committee (2023) – [Progress in adapting to climate change: 2023 Report to Parliament](#)

The third National Adaptation Programme, published in 2023 and covering the UK's strategy for adaptation to climate change until 2028, paid heed to government plans to review the NPPF following the Levelling Up and Regeneration Bill, encouraging better enforcement of climate change mitigation and adaptation in planning policies with particular scope for resilience against flood and coastal erosion risk⁴⁸. In the policy environment surrounding floodplain development, therefore, a picture emerges of experts in agreement that there needs to be greater enforcement in planning against exacerbating flood risk in the built environment, and yet there exists an ongoing permissiveness to at-risk development supported by the discretionary nature of planning and the assessment process to evaluate appropriate development.

2.1.2 The housing crisis and the case for construction

Plain Dealing proved that regardless of concerns for resilience and sustainability, in the first nine months of 2021, 5,283 new dwellings were approved on floodplains in the twelve districts in England with the most homes already at risk of flooding⁴⁹. Opinions in favour of floodplain development abound. Some call for heightened levels of development specifically so that communities can be better prepared for flooding, with better infrastructure and flood risk management catering towards more resilient places⁵⁰. Others note that flood plains make ideal sites for housing, as they are often flat and well-connected spaces that are cheap to develop⁵¹. Furthermore, understanding of risk is not an exact science in terms of probability⁵² – some areas are at much lower risk than others, and the risk profile of some areas will change in future, although our understanding of future risk is constantly improving.

Many existing urban settlements in the UK, by dint of the historical importance of water-based transportation, lie in close proximity to rivers and sea, and consequently new developments naturally spring up in these areas to make use of existing infrastructure and bolster local growth. Most urban regeneration and development in built-up areas happens on existing brownfield sites where new, sustainable construction and retrofitting will have a mitigating effect on flood risk. And finally, the majority of planning applications happen well within the constraints

48 Defra (2023) – *The Third National Adaptation Programme (NAP3) and the Fourth Strategy for Climate Adaptation Reporting*

49 Localis (2021) – *Plain Dealing: Building for flood resilience*

50 Institute of Civil Engineers (2021) – *How building houses on flood plains could be the 'best choice'*

51 The Guardian (2016) – *Build on flood plains despite the risks, say UK government advisers*

52 Ilan Kelman (2003) – *Build on Floodplains (Properly)*

of Environment Agency recommendations, as far as the assumption of ‘reasonable’ development can be measured.

A swathe of publications, from The Guardian to The Telegraph^{53,54}, picked up *Plain Dealing’s* evidence of ongoing floodplain development⁵⁵, primarily responding to the concerns raised by insurers about the expected damage and loss to property and for homeowners and climate change’s exacerbation of flood risk⁵⁶. The report highlighted the balance that must be struck by central government between preparing for climate change and ensuring that housing policy provides for demand⁵⁷, with responses picking up that local government budget cuts have continuously reduced councils’ capacity to manage such a perilous balancing act^{58,59}.

Later analysis by Bloomberg of London’s planned housebuilding set Mayor Sadiq Khan’s 28 ‘opportunity areas’ for new homes, jobs, and infrastructure against the areas of the city most vulnerable to flood risk, using metrics that included rainfall patterns and residents’ ability to deal with flooding⁶⁰. This analysis discovered, of course, that huge amounts of planned regeneration and development would happen co-locationally with flood-vulnerable areas.

London perhaps represents the crux of the wider argument: extensive opportunity for new housing arises because of existing infrastructure, capacity for brownfield development and new investment, and high levels of demand. And because of existing development, the city is not only at the mercy of the continued operation and maintenance of the Thames Barrier but also highly vulnerable to surface water flooding due to low levels of permeability, high surface runoff, and patchy drainage support across the whole conurbation. If, however, construction happens under a suitably detailed and holistic flood risk strategy, then this kind of floodplain development can actually have an overall mitigating effect on risk, improving drainage through SuDS, introducing more green and blue infrastructure to manage flooding, and ensuring that construction is flood resilient.

53 The Telegraph (2021) – [Developers building thousands of homes on land at risk of flooding](#)

54 The Guardian (2021) – [More than 5,000 homes in England approved to be built in flood zones](#)

55 i news (2021) – [Thousands of homes win planning permission in 2021 despite high flood risk](#)

56 Big Issue (2021) – [Revealed: Thousands of homes being built on floodplain ignore climate change risk](#)

57 The MJ (2021) – [Gove warned of climate change floods risk](#)

58 Planning Resource (2021) – [Housing target pressures and budget cuts ‘resulting in planning consents on flood risk land’](#)

59 The Independent (2021) – [Thousands of new homes to be built in areas at high risk of flooding](#)

60 Bloomberg (2022) – [London’s Housing and Climate Crises Are on a Collision Course](#)

Most worrying is a lack of public awareness and preparedness surrounding owning at-risk properties⁶¹, associated inflation of insurance premiums, and the fact that, since the publication of *Plain Dealing*, the planning system has seen little in the way of producing better powers for governance over planning for resilience, in line with Localis recommendations⁶². The 2021 spending review did affirm the doubling of the FCERM investment programme to £5.2 billion, yet the state of the country's flood defences has remained in question since the Public Accounts Committee (PAC) noted in a review at the beginning of 2021 that Defra had failed to address insurance costs and obstacles to PFR measures for households, regional variation in flood defences, and that flood risk indicators overlooked risk to agricultural land, businesses, and infrastructure⁶³.

2.1.3 Governmental responsibility

Despite a brewing 'scandal' in 2021, the 2024 PAC report into flood resilience was no more positive than its 2021 counterpart, noting in particular a lack of progress from Defra in terms of its previous commitments and improving its leadership and support for local authorities. A National Infrastructure Commission study on surface water flooding, commissioned in the 2021 review specifically to review the EA's remit to expand its strategic oversight in relation to surface water flooding⁶⁴, concluded that the government has an obligation to mitigate the impact of urban development on surface water flooding including the setting of a long-term target for a reduction in the number of properties at high and medium risk of surface water flooding⁶⁵.

With the Labour government pushing the national housing target to as many as 370,000 homes per year, there is a clear prerogative for legislation that cements that governmental obligation across responsible public sector bodies, for all types of flood risk, especially if places are to benefit from a strategic oversight of preventative flood management measures and if such extents of new development are not to exacerbate existing risks. Place leaders, planning authorities, central government agencies, and other stakeholders must develop holistic knowledge of how flooding impacts communities, including more vulnerable residents – for instance, how surface water flooding might impact those living in basement

61 Insurance Business (2023) – Property owners' flood resilience "stubbornly low" – Flood Re

62 Localis (2021) – Plain dealing: Building for flood resilience

63 Public Accounts Committee (2021) – "Next housing and building regulations scandal brewing" in flood protection failures

64 HM Treasury (2021) – Autumn Budget and Spending Review 2021

65 National Infrastructure Commission (2022) – Reducing the risk of surface water flooding

properties – as well as infrastructure, land, individual safety, livelihoods, and businesses. Furthermore, public engagement that happens proactively, ahead of risk events, in addition to the extension of assistance and awareness programmes following floods, would ensure better resilience across the board, particularly in a context of the extent of resilience reliant on privately owned defences.

Additionally, because of the lagging capacity of planning departments across the country, it remains a concern that ongoing development, through no individual fault, might be undertaken without the skills to assuredly alleviate flood risk and the requisite understanding of how widespread development can have a compounding effect on the country's flood resilience, or that the requisite attention might not be given to each case in the incidence of under-resourced and under-staffed departments. Even in well-resourced areas, capacity to engage with residents about flood risk or to invest in preventative, upstream assets and cooperate with private water companies, who oversee the maintenance of public sewers, can be limited, meaning that progress often happens after-the-fact of flood events – responsive, rather than proactive.

Governmental obligation must therefore extend to supporting local authority capacity, otherwise responsibilities will be delegated to regional or local bodies without the ability to engage in actual preventative measures. The new government's push to recruit 300 additional planning officers evidences willingness to target the widespread problem of planning capacity. If recruits were to receive necessary training to be aware of and mitigate flood risk in their role as planners, then it is likely that nationwide flood resilience would see improvement.

2.2 The planning process for new developments

Arriving at planning approval for new developments in England can be a drawn-out process at the best of times, and there are several extra steps to consider when seeking approval on a floodplain – nevertheless, approvals are granted in their thousands on an annual basis for development in flood-risk areas, with local authorities seeking to offset the risk with a variety of mitigation strategies, checks and balances.

2.2.1 Stages of planning

The stages of planning for new developments are incremental, often lengthy, and require the collaboration of a range of stakeholders often at cross-purposes. Initially, the Local Plan is prepared by the local planning authority (LPA) after a time- and effort-consuming process of evidence gathering, consultation, pre-submission

publication, examination, inspection, and, finally, adoption. The final product provides a strategic oversight, alongside local spatial development strategies, of all local development in line with wider national policies and housing targets, ensuring that all local construction occurs in accordance with the needs of the place and, when necessary, in agreement with neighbouring or regional authorities. The Local Plan informs the allocation of sites for different types and designs of development and should be reviewed according to NPPF guidance on a five-year basis.

Individual development applications can also be brought forward by developers as speculative applications, although these may be refused by the LPA, or proposals for development can be submitted as evidence in the consultation process for the local plan. If the proposed development site is in flood zones two, three, or 3b, which describe the likelihood of an area for flooding from fluvial or tidal flooding, then it is the duty of the applicant to provide a flood risk assessment (FRA), usually with the help of a paid flood risk specialist. An initial sequential test may be able to guide development towards areas with lower probabilities of flooding, but any development with a site area of more than one hectare or those within areas that have been indicated at increased risk of flooding during the development's lifetime, will also have to undergo an FRA regardless of flood zone allocation⁶⁶.

Flood Zone	Annual probability of flooding
2	0.1-1% fluvial, 0.5% tidal
3	>1% fluvial, >0.5% tidal
3b	Functional floodplain, >5% fluvial or tidal

Flood risk assessments must also take account for the current and future risk of surface water flooding, which itself may be exacerbated by introducing new development without appropriate drainage and flood risk management solutions. Notably, flood zones do not account for the effect of flood defences on flood risk, however, the EA does provide alternative mapping that highlights where areas benefit from defences.

⁶⁶ Environment Agency (2024) – [Flood risk assessments: applying for planning permission](#)

Significantly, it is up to the discretion of the planning authority whether a development may go ahead, under the requirement of no overall increase in flood risk. Usually, this includes the necessity of preparing an FRA. However, depending on the capacity and judgment of the local planning authority, or indeed the judgment of the developer, development may go ahead regardless of the provision of a suitable FRA and against EA advice. Alternatively, following an FRA the developer or LPA may conclude that new development will have an overall mitigating effect on flood risk.

The sequential and exception tests only effectively refer to fluvial and tidal flooding, not surface water, and assessment until now has been further complicated by the fact that flood probability is calculated using modelling that fails to account for climate change. Guidance from the NPPF is that local planning authorities are responsible for ensuring that all development is appropriate, is located at a suitable site of least risk, and does not increase flood risk elsewhere. The conclusion of the present policy environment in terms of mitigating flood risk is that development should be undertaken with as much reasonable care as possible. The reality, on the other hand, is that there is a great deal of variation in terms of assessment and how far developers and LPAs comply with EA advice.

2.2.2 Flood mitigation opportunities

As highlighted above, flood zone mapping fails to account for present and future flood defence systems, meaning that FRAs may conclude on the safety of any individual development based on a more informed understanding of existing flood risk to the site. The responsibility for mitigating risk at the site-level depends on the type of flood risk, the strategic purview of the risk management authority, and ownership of the site.

The EA takes on a primarily advisory role for developments, but also takes charge of flood warning systems and works on main rivers, watercourses, and flood and sea defences. Lead Local Flood Authorities (LLFAs) have regional administrative responsibility, and prepare strategies for, assessments of, and preparations against local flood risk from all kinds of flooding, as well as preparing flood risk management plans and policies to enforce flood risk management. Water and sewerage companies have oversight over flooding in relation to water management and sewerage systems⁶⁷. Finally, individual owners of property

in the proximity of watercourses, or “riparian owners”, are responsible for the management of their own property’s flood risk.

Measures to contain flooding range from natural flood management, property flood resilience, catchment-based maintenance of assets such as flood risk assets, highways, and individual riparian maintenance, community resilience, coastal management, and wider flood risk management schemes⁶⁸. As there are so many actors involved at different levels and so much variation in the size and spatial extent of developments and urban areas at existing risk of flooding, a strategic, preventative perspective of flood management that accounts for both current and future flood risk becomes very challenging. The Environment Act 2021, for instance, while it obligates water companies to progressively reduce the adverse impacts of discharges from storm overflows⁶⁹, fails to regulate for upstream methods of prevention, leaving water companies with targets entirely directed at responding to overflow without measure for strategic solutions nor opening the door for wider partnership working against the causes of overflow.

However, there are a number of best practice examples of flood mitigation schemes that exemplify how partnership between risk management authorities can produce efficient mitigation of flood risk and improve community-level resilience⁷⁰.

68 The Flood Hub (2024) – [How Flood Risk is Managed](#)

69 [legislation.gov.uk \(2024\) – Environment Act 2021](#)

70 LGA (2024) – [Essex’s Make Rain Happy scheme to reduce flooding](#)

Essex: Make Rain Happy

Essex County Council implemented the pilot scheme “Make Rain Happy” in 2019 for a residential street on Canvey Island, an area historically very vulnerable to surface water flooding. “Make Rain Happy” is a partnership-first solution, conceived with two targets in mind: to “reduce the risk of flooding by using the street’s grass verges and public open space to absorb surface water,” and to “provide other benefits to the community like livening up the street with tree planning and an attractive planting scheme.” The project saw Essex County Council working with Anglian Water to provide, for the first time in the county, green infrastructure to address highway flooding issues, contributing additionally towards Essex County Council’s climate action plan for net zero, its green infrastructure strategy, and commitments in the LLFA team to use natural flood management where possible. The SuDS implemented across the scheme include rain gardens, swale, tree planting, road resurfacing, permeable parking, and a balancing pond. The scheme has been immensely popular with residents and considered a success by the council. Wider benefits have ranged from improving the environmental beauty of the area to enhancing local biodiversity, highlighting where successes in flood resilience can add extensive, holistic value to communities provided there is good community outreach, partnership across stakeholders, and that resources are targeted towards where they are most needed.

2.2.3 Development in at-risk areas

In *Plain Dealing*, Localis observed where new floodplain development was occurring in the twelve local planning authorities with more than ten percent of properties already at a greater than one percent risk of flooding, as recorded in 2020. For the purposes of this report, we have revisited the following authorities to assess the ongoing pattern of development in areas at an existing high risk of flooding:

- South Holland
- Boston
- Fenland
- Runnymede
- King’s Lynn and West Norfolk

- City of Kingston upon Hull
- East Lindsey
- North Lincolnshire
- Spelthorne
- Doncaster
- Exeter
- Windsor and Maidenhead

We initially extended Freedom of Information Requests to all the authorities in the top 10 percent in terms of properties at high risk of flooding, totalling 32 authorities including the 12 listed above, asking for **“The total number of new dwellings granted planning consent within the boundaries of [the] council in the year 2024 in flood zones 2-3.”**

In response to our FOI requests, six of these authorities, excluding those whose planning portals were analysed for this research – North Yorkshire, Gloucester, Hart, Folkestone and Hythe, Huntingdonshire, and West Devon – responded positively with figures that added up to a total of **685** dwellings consented in areas at risk of flooding. The rest failed to provide information on the basis that the answer to our request could be obtained by cross-referencing publicly available information using council planning portals and flood zone mapping⁷¹.

For full clarity, it should be noted that scanning each council’s planning portal to obtain this information takes, at minimum, several hours of detailed work and cross-referencing, suggesting that better standardisation and reporting of data concerned with floodplain development would be highly beneficial not only to planning departments across the country, flood risk management authorities, and leaders who in future might be obliged to take a strategic or regional approach to flood risk management, but also in order to improve public awareness of ongoing local construction in relation to flood risk. The disparity in the responses to our FOI requests implies that different planning authorities have varying access or varying capacity to access this data. Data standardisation would also require, ultimately, more stringent legislation regarding the transparency of flood risk levels for new dwellings.

71 See appendix for full details of FOI request responses

Understanding aggregation

The scope of LLFAs as defined by the Flood and Water Management Act 2010 encompasses the requirement to develop a strategy for flooding based on an assessment of local flood risk, manage flood assets across their authority, and provide statutory consultation to local planning authorities on surface water drainage for major developments – those being ten dwellings or more. Due to capacity constraints on LLFAs, it is very unlikely that they extend their responsibilities beyond what they are obligated by legislation, although some are willing on a voluntary basis to assess smaller development sites. Namely, this is because there can be very little difference in a development's impact on flood risk whether it contain eight, nine, or ten new dwellings. LLFAs do recognise the nuance in the practice as opposed to what is legislated, but are often unable to provide more than their statutory consultations for large developments. Without this assessment, nominally 'small' developments can add to a creeping aggregate of developments that incrementally exacerbate flood risk across the country. In a previous report on surface water flooding, Localis recommended that the NPPF require local plans to demonstrate how LLFAs have assessed aggregate risk across the whole area, as well as how flood impacts will be avoided, controlled, mitigated, and managed⁷². In the context of widespread and ongoing development in high-risk flood zones, every measure to reduce overall risk should be taken and assured by appropriate legislative constraint.

In order to collect information about the state of floodplain development in 2024, our data gathering, while unable to account for existing or future flood defences due to the nature of flood zone mapping – although planned updates to the EA's flood zone mapping to account for future changes to flood risk for sites is very welcome – considered not only brand new planning applications, but also ongoing changes to existing development sites.

Planning permission is granted for a number of core reasons: primarily, to give permission for construction or demolition to take place under the auspices of a series of planning documents, including the Local Plan, that ensure the suitability of design and location of the development. The construction of dwellings can occur on entirely unused land, or on brownfield sites, agricultural buildings, or other

72 Localis (2022) – Surface Tensions: Working together against flash flooding

land previously occupied. Construction is only permitted if certain conditions can be met, and further planning permissions may be granted based on the variation of conditions, and confirmation of the successful discharge of conditions. Planning conditions control construction at all stages of development, and can range from environmental and noise limits to design and material requirements. Later stages of planning can bring the submission of additional documents such as access plans and flood assessments. As such, a whole pipeline emerges from which the process of construction, from prior approval to the ongoing discharge of conditions, can be tracked, albeit without an idea of final completion of the development.

The data collected counted not only full or prior approval permissions for the construction of dwellings, but also catalogued non-material amendments to planning conditions, material variations to conditions, and the discharge of conditions for all planning of dwellings as they were decided in the first half of 2024. In this way, it was possible to establish a picture of the overall pipeline of ongoing developments on floodplains in these authorities, beyond initial planning permissions. It was also possible to take note of where permissions were granted on previously undeveloped land in comparison with dwellings granted permission on brownfield sites, agricultural land, or under change-of-use applications. The results of the analysis are quite clear: there is ongoing development on flood zones across the authorities in question, with little change from 2021 in most areas.

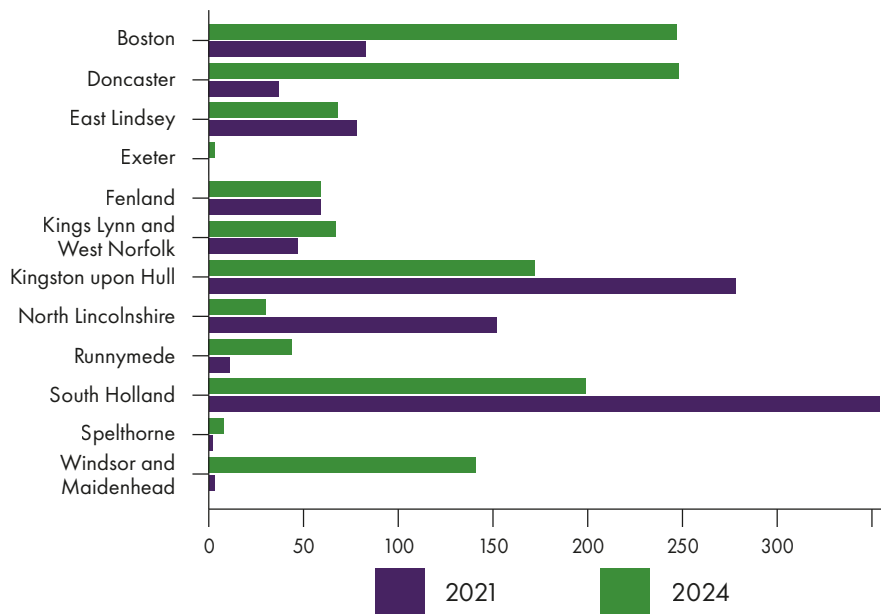
In the first half of 2024⁷³, **1,006** dwellings were given planning approval in the 12 local authorities with the highest percentage of properties already at risk. Adding in developments which were approved in previous years and continued to move through the planning system in the first half of 2024 reveals a further **6,110** dwellings with planning approval, amounting to a total of **7,116** dwellings in the planning pipeline for these authorities. Additionally, **2,389** new dwellings were granted planning permission on previously developed land or as a result of change-of-use applications, and **280** of those were new applications this year.

73 Planning portals were analysed from the 1st of January to the 14th July 2024 for approvals of all applications including reserved matters applications, modifications of conditions, permission in principle applications, prior approval applications. The location of new applications was checked against the flood risk map for zones 2 and 3. 'New' approvals are those relating to full, outline or reserved matters applications decided in the examined time period involving construction of new dwellings, with the 'planning pipeline' defined as all applications relating to ongoing permissions and 'dwellings on previously developed land' referring to change of use applications and applications where existing structures were to be demolished before constructing new dwellings

Local planning authority	Dwellings in the planning pipeline	New planning permissions 1st January to 14th July 2024
Boston	777	229
Doncaster	431	227
East Lindsey	367	51
Exeter	700	0
Fenland	545	35
King's Lynn and West Norfolk	1169	54
Kingston upon Hull	441	90
North Lincolnshire	44	15
Runnymede	170	0
South Holland	1695	178
Spelthorne	647	0
Windsor and Maidenhead	130	130
Total	7,116	1,006

Figure 1. New dwelling permissions in high-risk areas

2021 and 2024



Source: Localis analysis of planning portals, High-risk taken from NAO (2021) analysis of percentage of homes at risk

Comparing this data with the original Plain Dealing report reveals only a slight overall decrease – the first six months of the data examined in 2021 showed **1104** dwellings granted approval.

Although 2024 has seen an estimated overall decrease in planning consents to record lows in comparison to the relative boom of post-pandemic years^{74,75}, the overarching trend otherwise fails to account for significant variation in these select districts. Additionally, the twelve local authorities studied have not seen notable decreases or variation in housebuilding starts statistics in the years from 2020-2023 in comparison to other local authorities⁷⁶.

74 Home Builders Federation (2024) – Lowest planning permissions on record show challenge new government faces

75 MHCLG, DLUHC (2024) – Live tables on planning application statistics

76 Office for National Statistics (2023) – House building, UK: permanent dwellings started and completed by local authority

A number of large-scale developments at the edge of flood zones were noted in our wider observations, indicating ongoing supply to meet housing demand being planned in deference to flood risk areas – suggesting the successful application of sequential tests specifically to avoid higher-risk areas and therefore the maintenance of good practice even in areas with high flood zone coverage.

Change of use and regeneration

There are two kinds of planning permission that can result in net increases in the number of dwellings on already-developed land. The first occurs when existing buildings are demolished and replaced by new builds. Our survey counted for **210** dwellings planned as replacement dwellings, with **2134** further dwellings constructed on large-scale housing developments on brownfield land.

On the other hand, new dwellings in flood zones can also come about through the change of use of buildings such as shops, offices, or barns into residential properties. As these projects are often smaller schemes by nature of the type of development and require no, or very little, outward construction, they are often undertaken without reference to flood risk. In the first half of 2024, **459** dwellings were granted planning permission through change of use in our highest risk authorities. Significantly, while this kind of development does not necessarily alter existing flood risk in the same manner as new construction, new dwellings can still introduce residents into areas of flood risk which otherwise would remain uninhabited and, consequently, into the habitation of spaces that require personal flood resilience measures and insurance in case of flooding. As such, despite no necessity for an FRA for new development, there must be concerted effort to extending the awareness of risks to new residents in these cases.

Overall, however, the regeneration of urban spaces, redevelopment using modern standards of construction, and the implementation of better urban design can mitigate cumulative flood risk, and so these developments on already-developed land, from the small to the large scale, can provide a positive solution for the challenge of balancing housing supply against current and future flood risk.

The results further indicated that some local authorities with existing developed land could be, provided capacity, engaging more with renovating brownfield sites to ensure flood zone development is happening on already at-risk land rather than changing the landscape of non-developed land. This would perhaps improve the mitigation of flooding at the preventative level, alleviating existing risks from, in particular, surface water runoff. The onus should not, however, solely land with the local planning authorities, particularly in the context of their duty to meet local housing targets. Rather, the responsibilities of a holistic and preventative approach to tackling flood risk in conjunction with development and other environmental constraints should have the potential, through the right mechanisms and resourcing, to be divided between risk management authorities at the appropriate spatial and institutional levels.

CHAPTER THREE

Case studies: managing flood risk for development

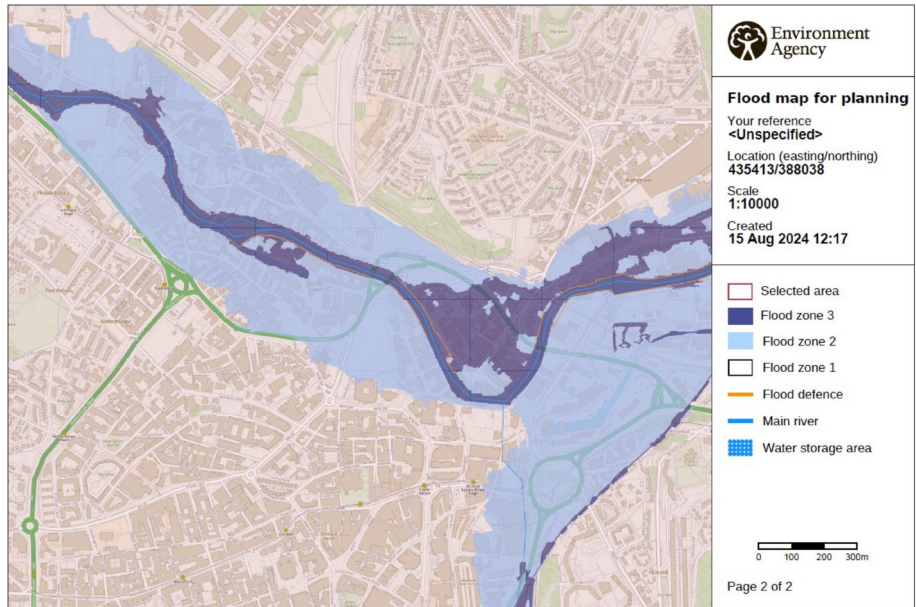
This section provides case studies of two areas in different parts of the country, with different governance structures and demographic pressures, yet united in a need to find a way to develop in a resilient and sustainable manner on land that often includes floodplains.

3.1 Sheffield: planning at a confluence

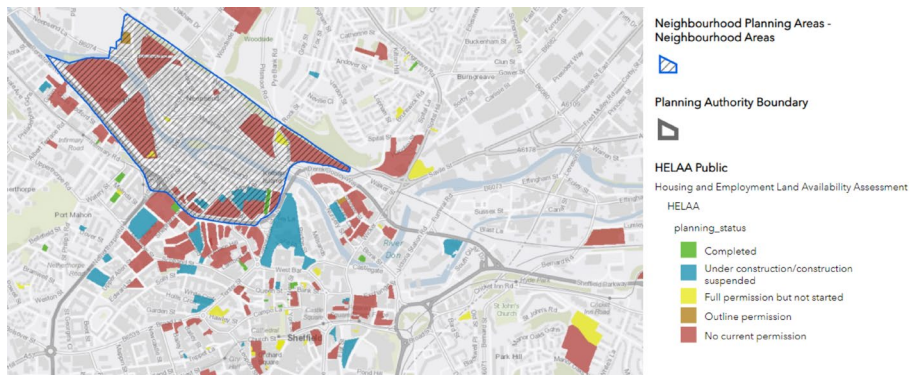
At the southern end of the Humber River basin, within the catchment area of the River Don, and located at the confluence of five rivers, Sheffield frequently endures flooding of various extremes. As a bustling, built-up area, expanding from its riparian location, drainage and defence systems across the city sometimes struggle to keep its inhabitants and properties above the water line. The most severe of events have included, in 2007, the flooding of the Don that took two lives and caused widespread evacuations, flash flooding in 2009, 2012, and 2018, and the Don breaking its banks once more in 2019. Heavy urbanisation extending right to the rivers' banks, an abundance of culverts, and the city's topography all exacerbate the risk of flooding for Sheffield's inhabitants, to the extent that as of 2022, an estimated 40,790 people lived at risk of surface water flooding in the area⁷⁷.

Sheffield City Council, which holds the position of Lead Local Flood Authority (LLFA) for the Sheffield Flood Risk Area, is currently in the process of drafting its Local Plan, with which it will allocate land for development to meet its housing supply targets over the next 15 years. A number of developments proposed within the Sheffield Housing and Economic Land Availability Assessment (SHELAA) lie within areas designated as flood zones two or three and are therefore classified as being at high risk from river flooding. The maps below representing, respectively, Flood Zones for river and sea flood risk and SHELAA for the centre of the city, highlight the issue. SHELAA concerns all potential future land supply that is, under the council's consideration, "suitable, available and achievable for housing and economic development uses." The centre of Sheffield is highly urbanised and the pre-eminence of brownfield development as a policy solution to remedy a constrained housing supply has evidently produced an urban planning environment that forgoes flood zoning in questions of suitability for allocation.

77 Environment Agency (2022) – Humber River Basin District Flood Risk Management Plan 2021 to 2027



Source: Environment Agency



Source: Sheffield City Council

Sheffield is, however, protected by an extensive array of flood defences, including buildings designed for defence, walls and banks, flood doors, flap valves, flood gates, and penstocks, as well as river level measuring stations across the city under observation by the EA. It should also be noted again that the EA's mapping for fluvial flood zones does not account for the impacts of

defences on risk, and that the majority of the sites indicated by the SHELAA are at the earliest stage of allocation and have not been granted planning permission. More recent major flood risk events, namely Storm Babet in 2023 and the triple-impact of Storms Dudley, Eunice, and Franklin in February 2022, saw river levels reach equivalent extremes to flooding in 2007 and 2019. However, the Council noted that because of improvements to flood defences, extensive flooding could be avoided.

The flood and water management team at Sheffield City Council work alongside other departments and in an advisory capacity to support its performance as LLFA. The team extend their responsibilities to flood asset mapping, better understanding local flood risk, and duties under the Flood and Water Management Act 2010 as statutory consultees in the planning process. Following the 2019 floods, the council were able to access flood resilience grants, which were used primarily to improve the preparedness of residents and their properties for repeat events. In putting together the local plan, the team reviewed the updated flood modelling carried out for the Strategic Flood Risk Assessment to inform site allocations and advised on updated policies to increase the uptake of SuDS, secure new-build sites at distance from rivers, and encourage the removal of culverts and the opening up of watercourses.

In partnership with the EA, the council has registered six major flood protection schemes on the Government's National Flood Investment Programme at a total of £120m of investment⁷⁸, directed towards the protection of existing properties and infrastructure, and enabling investment and regeneration for affected areas. The Lower Don Valley flood defence project has already been completed to the tune of £20m worth of improved defences with the primary goal of protecting businesses, helping them to secure flood risk insurance, and at potentially more competitive rates. An additional £1.4m was raised towards this project by means of private sector support from the local Business Improvement District⁷⁹. The council aspire to complete implementation of the full protection programme by 2028, with further measures to include natural flood management solutions, sustainable drainage systems for large housing developments, and a renewal programme for culverts across the city.

78 Sheffield City Council (2024) – Flood protection schemes

79 Sheffield City Council (2024) – Lower Don Valley Flood Defence project & Business Improvement District

The momentum generated by Sheffield's ongoing and successful flood defence programme has facilitated a wider uptake of SuDS and other schemes across the city, advantaged by better relationships across city-wide partnerships. New green infrastructure has also brought popular advantages such as rejuvenating the built environment and heightened environmental benefits.

On the other hand, there are ongoing challenges for the city's flood response. Namely, the council would require better resourcing than it has at present in order to proactively engage with the public to encourage better understanding of risks and inform individual resilience measures.

Additionally, although a strategic approach to surface water flooding across the catchment area would be valuable, particularly to instigate better investment into retrofitting, SuDS, and surface water storage and disconnection – particularly for existing housing at risk of flooding, given that new development accounts for only a small portion of Sheffield's land area – capacity again rears its head as a fundamental obstacle to best practice. Likewise, because legislation levies accountability onto water companies only for sewer overflow, with large extents of the city reliant on combined sewer networks and potentially underserved by surface water drainage, the strategic approach remains unsupported in policy.

Brownfield development is a necessity to tackle the housing crisis in cities like Sheffield, even though large swathes of brownfield and developed land in urban areas are at existing flood risk. Better support for strategic oversight of water and flood management across systems has the potential to alleviate existing pressures, acting upstream rather than mitigating downstream damage, and better capacity for planning and flood departments to invigorate the drainage and storage capabilities of existing and new development sites is required so that new development is not exacerbating problems. If a local authority such as Sheffield City Council with a strong track record of good practice in flood management, despite the city's unique challenges, must tackle so many obstacles to ensure widespread flood resilience, then an injection of resources and support must be needed for local authorities across the board.

3.2 Surrey: risk across the Thames region

Earlier this year, Storm Henk ravaged much of England and Wales with heavy winds, rain, and waves and continued an already waterlogged winter season to the tune of almost 300 flood warnings across England⁸⁰. As the impacts of climate change become ever increasingly apparent, it is expected that such wet and stormy winters will become the norm, and so the country will have to become resilient to more frequent and extensive flood risk. In Surrey, Storm Henk's excess rains caused floods across the county, with warnings put into place and evacuations carried out across areas including Chertsey, Walton, Sunbury, Molesey, and Egham⁸¹.

Risk areas for flooding comprise a large extent of Surrey's land mass, including the districts of Runnymede and Spelthorne, two of the local authorities with the highest proportion of homes at fluvial flood risk. Winter floods have continually brought the dangers of floodplain living to the fore. In the winter season of 2013/14, hundreds of Thames-adjacent properties were evacuated and almost 1,000 homes flooded across the South East region⁸² when the river burst its banks after exceptionally high rainfall. Past flooding in Surrey has also affected Woking and Caterham on the Hill, which experienced flash surface water flooding in 2016⁸³.

Surrey County Council (SCC), as the Lead Local Flood Authority (LLFA) for the county, has in place a number of flood reduction and resilience activities within the overarching Local Flood Risk Management Strategy; the most recent version published only a few years following the disastrous events of 2013/14. The strategy objectives aim to tackle the flood risk associated with a geographic area permeated by major rivers, such as the River Thames and its tributaries, a vast network of smaller watercourses, navigations and other waterbodies, as well as the high number of properties at surface water and groundwater risk across the county. The vision of the SCC strategy is for "All partners with flood risk management duties to work together effectively through the Surrey Flood Risk Partnership Board to mitigate the effects of flooding⁸⁴". SCC work in partnership with the other flood risk management authorities (the EA, all of its constituent districts and borough councils, Highways England, water and sewerage companies), and riparian property owners. The multiplicity of responsibilities divided between organisations, particularly in consultation for new developments, can introduce challenges in all

80 Met Office (2024) – [Storm Henk, 2 January 2024](#)

81 BBC News (2024) – [Surrey floods: Evacuations made as damage continues](#)

82 Environment Agency (2014) – [February 2014 flooding](#)

83 Surrey County Council (2024) – [Past incidents in Surrey](#)

84 Surrey County Council (2017) – [Surrey Local Flood Risk Management Strategy 2017-2032](#)

stages of development, from planning to maintenance.

As LLFA, SCC also has a statutory responsibility to consult on major development sites of (10 or more dwellings or equivalent commercial size) for local planning authorities. Understanding the value of providing surface water and sustainable drainage advice even on smaller sites, the LLFA provide consultation on a voluntary basis, above and beyond their statutory duty but with support from SCC's cabinet, for some non-major applications to improve cumulative outcomes for resilience across the county. By recording the reductions in off-site flows due to their interventions, the team have been able to measure significant positive impact directly from their consultations. However, the consideration of good practice often relies on the relative experience and understanding of the client concerning flood risk and sustainable drainage systems (SuDS), meaning that there can be widespread variety in outcomes, particularly on smaller applications.

These smaller applications are becoming increasingly challenging to assess, as EA thresholds for bespoke consultation responses rise simultaneously with a reduction in experienced resources among LPAs, who are unable to provide technical assessment at the planning stage for every development that passes through their attention. The capacity of local planning authorities, the Environment Agency and the county council to respond to applications can only extend so far given existing funding; so many smaller sites at both the strategic and development management levels may not get full regulatory oversight to check they meet the requirements of the National Planning Policy Framework and local policies. Despite supportive guidance and a comparatively well-resourced team at SCC, many new developments continue to fail to fully account for all sources of flood risk at submission, or to propose adequate SuDS. Concern once again turns to those authorities with more limited capacity, such as some smaller unitary authorities, who are equally at risk of flooding and, due to high levels of urbanisation, more likely to benefit from risk reduction by installing SuDS. The flash flooding of 2021 across London showed the severity of the surface water problem across the London Boroughs against the backdrop of the ongoing need for investment into flood and water management, and the maintenance of existing assets in the city.

At the wider scale, SCC in partnership with the EA is leading the River Thames Scheme (RTS) to reduce flood risk for thousands of properties and key infrastructure assets from Egham to Teddington. The strategy takes a "landscape-based approach" that sits in the intersection between climate resilience, sustainable growth for communities, and flood risk management⁸⁵. The primary objectives of the Scheme

85 River Thames Scheme (2024) – [The River Thames Scheme](#)

encompass a new river channel, watercourse capacity increases, improved access to green space and connections with wildlife, and the creation of a network of high-quality habitats to support biodiversity net gain. The completion of the RTS will see 11,000 homes and 1,600 businesses better protected from flooding, sustainable economic growth, and opportunities for recreation and wildlife along the Thames. Statutory public consultations have informed the Scheme's development on an ongoing basis, responding to concerns such as the Scheme's impact on downstream flood risk and on wildlife and the environment around the Thames.

The Scheme is being funded through the Surrey Flood Alleviation Programme, which amounts to £270m agreed by SCC's cabinet for long-term flood risk management work – the total cost of the scheme amounts to £640m with the balance covered by government Grant in Aid investment and other partnership funding. Surrey's Flood Alleviation Programme is also contributing £33m towards other flood alleviation projects in the county⁸⁶.

Delivery of examples like the RTS represent the low-hanging fruit of flood risk alleviation. Smaller schemes that are less viable, or have harder to evidence non-monetary benefits, and individual property flood resilience works tend to have shorter period of benefit and rely on property owners' awareness of risk and maintenance – and awareness raising is very hard for risk management authorities to achieve proactively.

Delivering flood risk management across Surrey highlights an ongoing concern for risk management authorities across the country – namely, that there are many players at different organisational and strategic levels with slightly different perspectives and objectives attempting to manage flooding, which has no such spatial-political restrictions.

Surrey Adapt, the council's Climate Change Adaptation and Resilience Strategy, places flooding into the wider conversation around landscape and ecosystem management, with special focus on landscape scale resilience programmes and using existing partnerships between landscape managers and authorities. It notably includes a call for action to protect Surrey's housing stock from flooding and overheating, and encouraging wider property climate resilience. Thinking about flooding through the lens of climate resilience and sustainability, introduces an effective handle from which risk management authorities at different levels can organise their responses, and the methods via which resilience can be achieved.

86 River Thames Scheme (2024) – River Thames Scheme funding announced as part of Surrey Flood Alleviation Programme

This approach turns the focus towards sustainable water management techniques; such as the possibility for water companies to engage in water reuse practices, for planning to coordinate biodiversity net gain, a wholesale improvement in water quality, and improved asset maintenance, and different causes of flooding, which fluvial Flood Zones may not account for. By placing flood risk into this broad dialogue concerned with climate resilience, SCC are able to engage better public awareness, capacity building, and ensuring holistic water management to tackle water scarcity and flood risk simultaneously⁸⁷.

SCC is a first point of contact for public engagement and as such is able to highlight the lack of information and awareness across Surrey's residents about different types of flooding. Since SCC's appointment as LLFA, public understanding of risk has improved, with concurrent improvements in the EA's flood risk mapping allowing better risk awareness. However, the evidence supporting planning legislation remains somewhat slower in terms of regulating for all sources of flooding equally and facilitating the local planning authorities' ability to plan spatially in a straightforward way.

With Schedule 3 of the Flood and Water Management Act as yet unenacted, there are no mandatory SuDS requirements for all developments and no specific provisions for adoption or maintenance. Clear legislation surrounding strategic flood and water management, and flood and drainage asset maintenance, would produce widespread improvements in sustainability, climate resilience and, potentially, the enforcement of standards following the planning stages of new developments. Maintenance is overwhelmingly underfunded across the board⁸⁸ – a reconsideration of the revenue-capital balance for flood risk management assets may be required to ensure that developments in flood risk areas, such as Surrey, are protected.

87 Surrey County Council (2024) – Surrey's climate change adaptation and resilience strategy

88 Committee of Public Accounts (2024) – Resilience to flooding – Report Summary

CHAPTER FOUR

Recommendations

As this report has laid out, the considerations around floodplain development and planning are myriad and complex. However, there are steps government can take to ensure that planning authorities, developers, insurers and – most importantly – the occupiers of homes both old and new are well informed in their decision-making. The following recommendations are aimed at enabling central and local agencies to take these steps:

1. The **Flood Resilience Taskforce** should be given an expanded remit to examine the current state of existing flood defences, improve public information and review how effectively resilience measures are implemented in the planning system.
 - a. The **Minister for Water and Flooding**, currently located within Defra, should be given a joint brief covering Defra and MHCLG, with the responsibility of overseeing the taskforce and implementing its recommendations.
 - b. **The Environment Agency must have its capacity greatly improved:** to ensure the maintenance of flood defence assets, both public and privately held, and to enforce regulations in planning. The Taskforce should be given a remit to examine how this can be achieved.
 - c. The Taskforce must work to **improve the availability and accessibility** of data on floodplain development – current transparency measures around planning decisions are not sufficient for understanding aggregate flood-risk across development.
 - d. To help combat poor awareness of flood risk, the Taskforce should work to develop a live system providing flood-risk category certification for new buildings to increase risk awareness among homeowners and occupiers, which would update in response to new development to capture compounding local flood risk.
2. The **Planning and Infrastructure Bill** as well as the **revised National Planning Policy Framework** present an opportunity to consolidate and reinforce planning resilience measures.
 - a. While it currently exists as a guideline in the NPPF, the **sequential test for floodplain development must be made law**, to ensure that new development takes place in the most strategically appropriate places for national flood resilience.
 - b. To ensure that an area's aggregate flood risk is being considered, **lead local authorities should be consulted by law on all developments of more than two dwellings on floodplain land**, and total permissions of all sizes should be periodically reviewed.
 - c. In the context of greater green belt urbanization, surface water drainage requires specific consideration in the National Planning Policy Framework.
 - d. The **Flood Risk Assessment process should be reviewed**, ensuring that assessments are fully inclusive of not only dwellings and businesses, but also the surrounding environment and infrastructure, as well as emergency response.

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