The Chartered Institution of Highways and Transportation (CIHT) Response to DEFRA Reforming our approach to floods funding consultation

The Chartered Institution of Highways and Transportation (CIHT) is a membership organisation representing over 10,000 people who work in the highways and transportation sector. CIHT members plan, design, build, operate and maintain best in-class transport systems and infrastructure.

CIHT welcomes the opportunity to respond to this consultation on DEFRA's approach to floods funding. Flood risk mitigation is a key consideration across multiple policymaking functions, particularly transport infrastructure planning and development. CIHT has produced research documents in this area and encourages the government to continue to engage with a wide range of stakeholders to ensure that long term policy decisions around flood mitigation meet the needs of all sectors.

This response is a general response focussed on the Call for evidence on local choice, English devolution and opportunities for flood risk management. CIHT supports place-based solutions to transport infrastructure planning. Place-based solutions are of particular importance to areas of high flood risk where flood risk mitigation is a key investment priority.

Impact of floods on the highway network

As highlighted in CIHT's recent report *Delivering a Resilient Transport Network*[1], the potential impacts of rain and flooding include: overwhelmed drainage systems which lead to surface water on the road (pluvial flooding); erosion of riverbanks threatening road stability; roads flooding from adjacent river flooding (fluvial flooding); damage to power lines and erosion of pavements, to name a few. Added to this is the threat to life, damage to property, businesses and possessions. When the transport network is flooded, this affects households in a number of ways, including flooding of properties, bus and rail service disruption, and road closures causing communities to be cut-off. Drainage maintenance is a growing problem, and particularly impacts road safety. Persistently blocked gullies increase the potential for loss of control of motor vehicles and cycles, especially in winter when the water freezes. Many cycleways are along rivers and water courses (on floodplains), meaning rain events, floods and surface water can often close important strategic cycleways.

In 2024, the Environment Agency suggested that 113,900km (38%) of roads in England are at risk of one or more sources of flooding and of that, about 18% of roads are in areas at high or medium risk of flooding - this equates to 6.8% of all roads in England. They projected that this figure will rise to 137,700km (46%) of roads at risk by 2050.[2] The UK Roads Leadership Group has concluded that '*Simply*

[1] CIHT (2024), Delivering a resilient transport network: Maintaining and future proofing highway infrastructure from extreme weather events, Chartered Institution of Highways and Transportation
[2] Environment Agency (2024), National Flood Risk Assessment, Department for Environment, Environment Agency

put, these figures suggest that we will not be able to make our whole network completely robust to flooding, we will need new approaches.'[3]

Investing in nature-based solutions

Implementing green and blue infrastructure (GBI) supports the delivery of green, resilient, accessible places and healthier sustainable transport options. GBI implementation is also an effective nature-based flood mitigation measure because it can help to slow the flow or store of flood waters.[4]

Where a natural solution to flood management is not suitable, sustainable drainage systems (SuDS), such as permeable pavements, swales, rain gardens, detention and retention ponds, and underground storage, can be an appropriate GBI alternative as they aim to mimic natural drainage systems.[5] Rain gardens and swales harvest daily rainfall, capture it to prevent immediate runoff (less flooding) and water planting in that area, reducing the need to water street trees/plants which otherwise may die. Plants survive on this water (from larger catchment than their soil area) and retain a street scene and local climate benefit because places with street trees are cooler than those without. These interventions mean more vibrant streets with lower maintenance and lower local overheating. As so much GBI is placed on our streets, much of the responsibility for implementing and maintaining GBI falls onto local authorities. Despite this, there is relatively little street-specific policy and guidance available to those looking to implement, manage, and maintain GBI on our streets and roads. This lack of whole-life guidance is a crucial part of why local authorities struggle to fully engage in the GBI process and may not necessarily be aware of the wider placemaking benefits of these schemes.[6] The CIHT report Delivering a Resilient Transport Network recommended that design standards should be reviewed to ensure that they support resilience and adaption measures.[7]

As noted in the consultation document, mayors are well placed to convene a range of partners to facilitate a more integrated and joined up approach to flood planning – across a broad range of mayoral responsibilities including transport, housing and regeneration. Highway and transport authorities and other stakeholders should put GBI at the heart of local policy and make it a core component of their activity.[8] Spatial development strategies are expected to play a key role in the coming years, with the framework for these strategies currently making their way through Parliament in the Planning and Infrastructure Bill. Strategic authorities should provide support and oversight of GBI and sustainable infrastructural solutions by embedding

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[3] Hugh Deeming (2025), Emergency Preparedness, Response, & Recovery, UK Roads Leadership Group
[4] Environment Agency (2022), National flood and coastal erosion risk management strategy for England: executive summary, Environment Agency
[5] CIHT (2023), Green and Blue Infrastructure: A Transport Sector Perspective, Chartered Institution of highways and Transportation
[6] CIHT (2023), Green and Blue Infrastructure: A Transport Sector Perspective, Chartered Institution of highways and Transportation
[7] CIHT (2024), Delivering a resilient transport network: Maintaining and future proofing highway infrastructure from extreme weather events, Chartered Institution of Highways and Transportation
[8] CIHT (2024), A transport network fit for all our futures, Chartered Institution of highways and Transportation

these considerations in spatial development strategies, with any relevant flood strategies also being integrated into spatial development strategies.

Integrated approaches to strategic flood planning

At a strategic level, mayoral and strategic authorities could also provide support for much needed transdisciplinary collaboration. Both public sector and private sector stakeholders involved in planning and development require knowledge of climate resilience to ensure new buildings can withstand long-term changes in weather patterns. Greater engagement is needed with landscape architects, environmental engineers, emergency managers, and other disciplines in the general design and maintenance of all types of building and infrastructure to ensure that these needs are being met in the design process.

Cross-boundary collaboration remains an ongoing strategic issue across multiple local government functions. Collaboration between the planning and highway functions of authorities, as well as the local and trunk roads authorities is uncoordinated across the country and needs wider support. Closer working is needed between utility companies and highway authorities on new street works and routine and adaptive maintenance projects to ensure interactive impacts arising from possible worsening weather impacts are identified and managed.[9] Multiagency working is essential, with national and regional bodies – such as the Environment Agency and the Canals & Rivers Trust – also integral to long-term flood resilience and strategic infrastructure protection.

Generally, there is a lack of integrated approaches in local government, resulting in siloed policy and decision-making. Flood risk management requires a number of interdisciplinary considerations across multiple administrative functions. Without effective integration, there is a risk that local-level measures do not provide the required level of risk mitigation and flood management. This consultation '*acknowledges that there are currently missed opportunities to achieve better integration between flood strategies and plans which could deliver better outcomes*.' To achieve a more holistic approach to flood management, government needs to provide the support and resources for this to be embedded in local-level practices. Government should provide effective guidance that supports infrastructure management and planning that accounts for the interdependencies between different systems and the cascading failures from extreme weather to better understand interdependencies and the whole system picture.

Funding Approach

CIHT would recommend that the funding approach includes criteria which checks if the flood defence can be incorporated or combined with other infrastructure projects like transport projects, for example sometimes elevated roads could work as flood defences.

[9] CIHT (2024), Delivering a resilient transport network: Maintaining and future proofing highway infrastructure from extreme weather events, Chartered Institution of Highways and Transportation

It is unclear whether measures like monitoring centres or early detection systems which require a large initial capital investment are in-scope for funding. These types of projects are also important in the management of flood risk.

It is important to note that the differing risk profiles and response measures involved in fluvial and pluvial flooding present different challenges, including different funding mechanisms. Maintenance of existing drainage systems, such as gullies in the road, is important and should be prioritised within the funding approach, as should schemes that provide more local control and, retention and slowing of water into carrier systems and rivers.

Funding systems should also consider the need to support interdisciplinary skills in flood management and mitigation. Asset management requires a range of skills and approaches. Intelligent asset management can improve effectiveness, for example through monitoring what silt is removed at which gulley. Some may need cleansing one once every 5 years, while others may need more frequent cleansing. Asset management requires skills to adapt approaches to different circumstances and scenarios.

In the tables in the consultation, which illustrated how the different funding options would impact outcomes, for example Table 3.3, it would have been useful to have a line to see the impact on the mileage of roads which would benefit, i.e. roads which currently flood which would no longer flood if the measure was implemented, as this would provide some indication of the impact on transport (both personal and freight) of the proposed funding option.

The importance of long-term funding certainty

CIHT's report Delivering a resilient transport network recommends that highways practitioners promote a forward-looking approach by shifting from reactive adaptation to proactive resilience strategies.[10] The Government's ambition to build 1.5 million new homes[11] mean that adapting to the increased risk of flooding is increasingly important to ensure these new homes are not built in areas which will be susceptible to flooding.

There is a need for a shift away from maintenance for road preservation to strengthening, elevating and extending infrastructure to reduce the risks associated with future weather conditions. Preventative maintenance will allow the sector to account for the future pressures from possible extreme weather events and better manage these events when they occur. However, it is extremely difficult for local authorities to shift to preventative maintenance without long-term funding certainty.

The local highway network is subject to short-term, fragmented, and often ringfenced funding mechanisms. This approach has significantly hindered effective asset management and contributed to a growing maintenance backlog. To ensure the road

[10] CIHT (2024), Delivering a resilient transport network: Maintaining and future proofing highway infrastructure from extreme weather events, Chartered Institution of Highways and Transportation
[11] Ministry of Housing, Communities and Local Government (2024), Press Release: Planning overhaul to reach 1.5 million new homes, Ministry of Housing, Communities and Local Government

network remains reliable amid increasing climate risks—such as flooding, extreme heat, and more frequent storms—authorities must undertake significant adaptation measures. Long-term funding provides the stability required to plan and deliver large-scale resilience projects based on robust climate impact assessments.[12]

There is also a need to review the existing funding formula to better reflect the realities of climate risk and local infrastructure needs. A more sophisticated, data-led approach would ensure that funding is directed where it is most needed—taking into account geographical vulnerabilities and the demands placed on local networks.[13]

A longer-term, multi-year settlement for local roads investment could be efficiently managed through emerging governance structures. The formation of Combined Authorities and the proposed establishment of Strategic Authorities, as outlined in the English Devolution White Paper, provide a timely opportunity to anchor long-term funding within strong regional leadership and integrated transport planning.[14]

Conclusion

CIHT recommend DEFRA work with the Department for Transport to ensure a joined-up approach and delivery of government resources to ensure the effectiveness of how funding is most effectively targeted at flood risk mitigation. CIHT have highlighted how the transport network should be a critical component of wider funding considerations for flood resilience.

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[12] CIHT (2025), Unlocking the Benefits of Long-Term Funding for Local Roads: Key message for policy makers, Chartered Institution of Highways and Transportation
[13] CIHT (2025), Unlocking the Benefits of Long-Term Funding for Local Roads: Key message for policy makers, Chartered Institution of Highways and Transportation
[14] CIHT (2025), Unlocking the Benefits of Long-Term Funding for Local Roads: Key message for policy makers, Chartered Institution of Highways and Transportation