

National Infrastructure Commission: Surface Water Flooding Study

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**NATIONAL
INFRASTRUCTURE
COMMISSION**

Better infrastructure for all

Purpose and mission

The Commission provides government with impartial, expert advice on major long term infrastructure challenges.

The Commission's objectives are to:

- support sustainable economic growth across all regions of the UK,
- improve competitiveness,
- improve quality of life,
- And support climate resilience and the transition to net zero emissions by 2050.

The Commission produces:

- a 5-yearly National Infrastructure Assessment
- Specific HM Treasury commissioned studies.

About the surface water flooding study

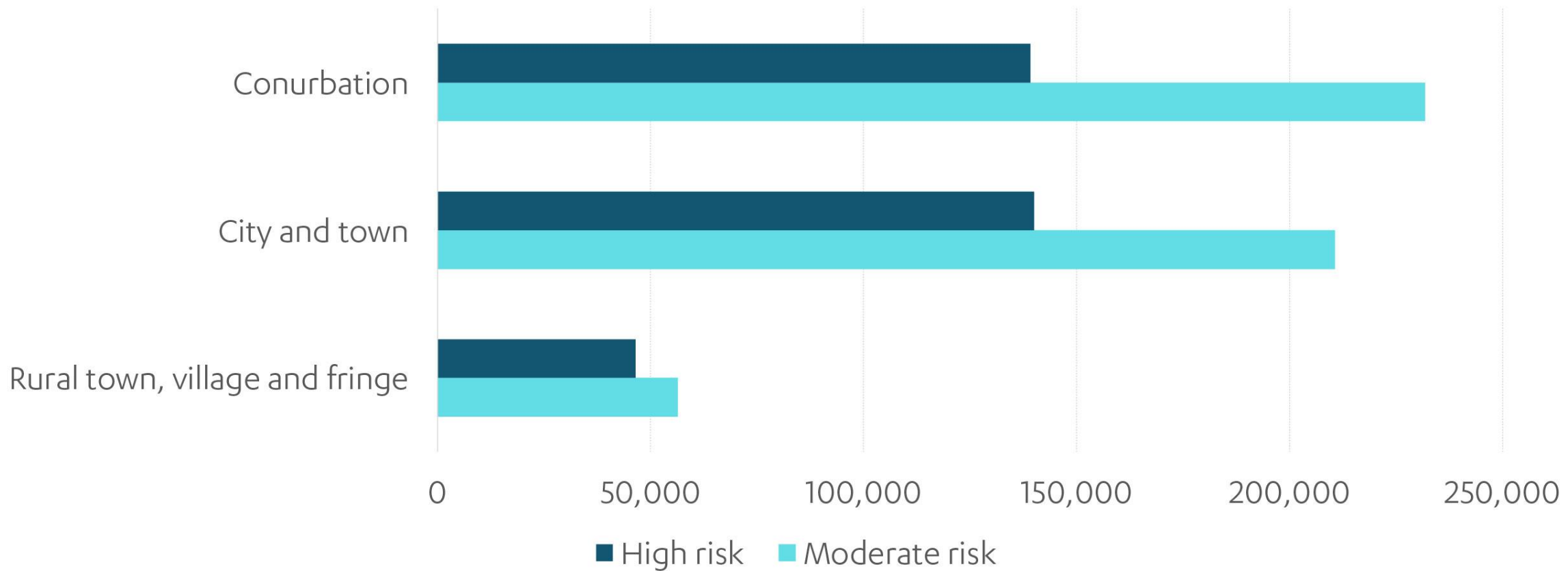
In November 2021, the government asked the Commission to conduct an assessment of how responsible bodies in England can better manage and mitigate surface water flooding, with a focus on the role of infrastructure.

The study includes:

- analysis of the risks of SWF and the opportunities that exist to address these in the short and long term
- determining improvements needed to drainage systems to manage and prevent SWF in urban and rural areas, including through nature-based solutions and hard engineering
- considering the optimum cost-benefit analysis of infrastructure options and how these can be combined to provide greater resilience and value for money, including through improving current governance arrangements

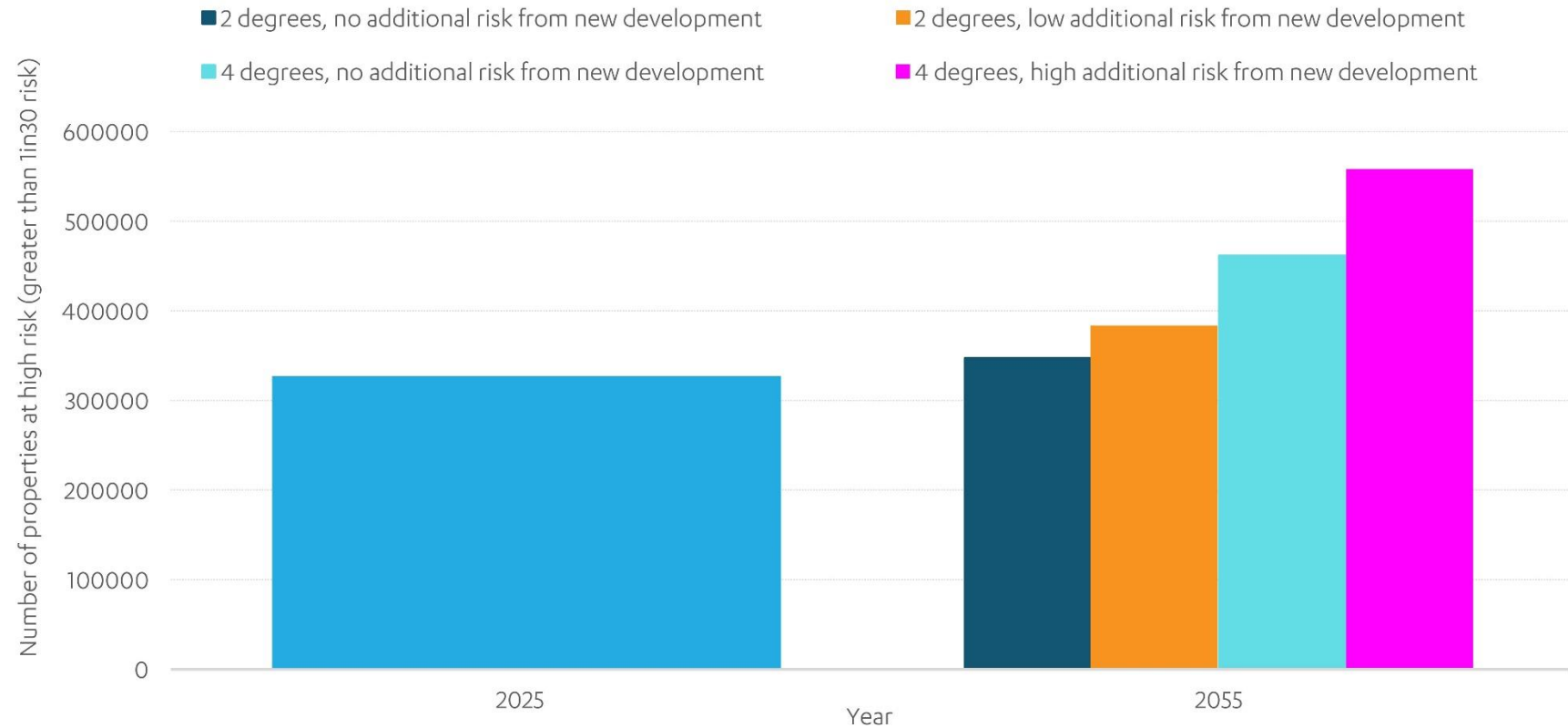


325,000 properties are in high risk areas in England



A growing risk

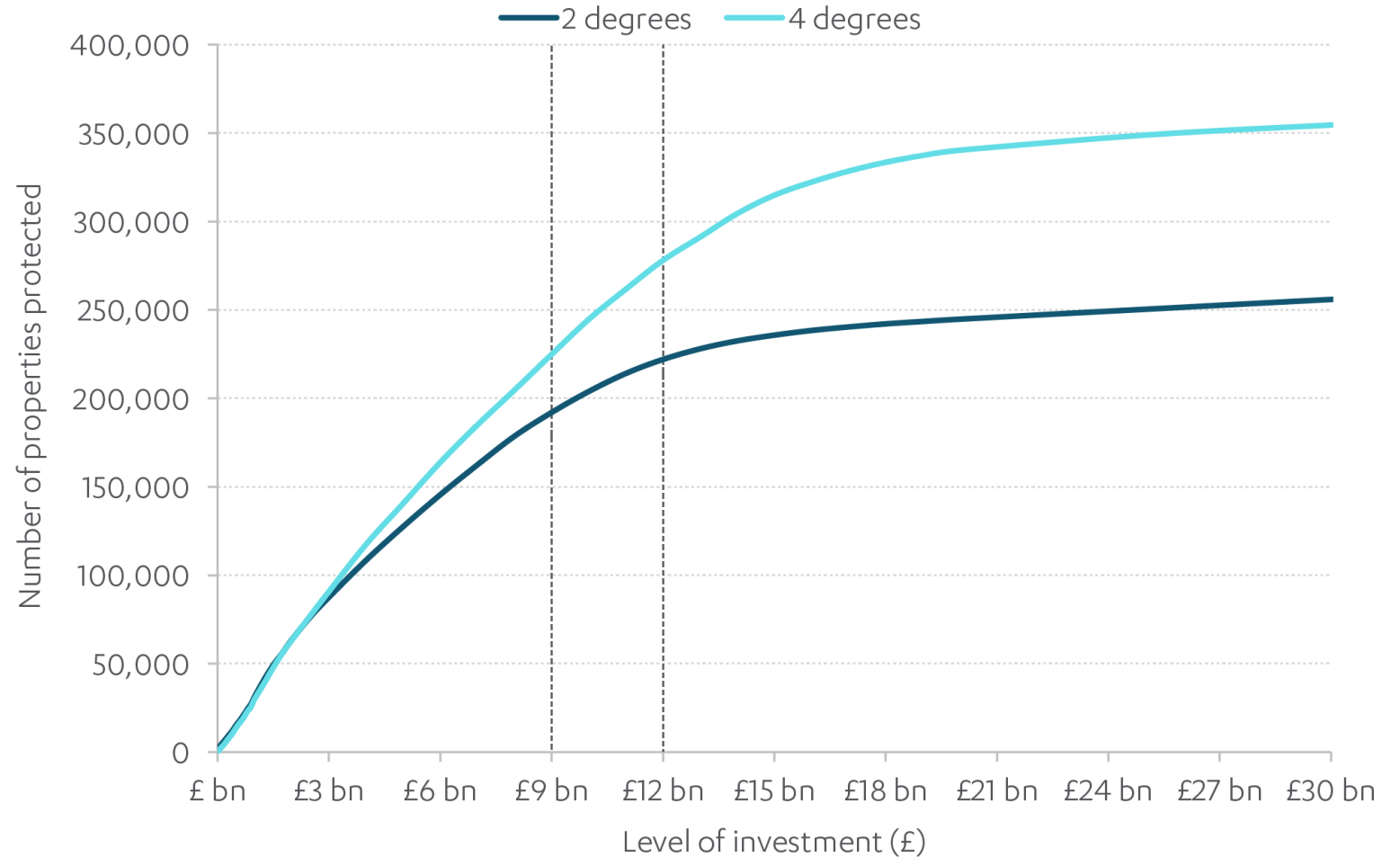
The number of properties in high risk areas could almost double over the next 30 years



Note: The 'degrees' warming represents the future rainfall scenario for the UK corresponding to a global mean temperature increase in 2100 of 2 or 4 degrees

A cost beneficial level of investment

£12 billion investment would reduce the number of properties at high risk by 60 per cent



A hierarchy of solutions, beginning with better maintenance

1

Optimise existing drainage

Better maintenance and technical optimisation



2

Above ground interventions

Including nature-based solutions like rain gardens



3

Below ground options

Additional pipes, sewers and storage



Recommendations to improve governance

To deliver investment effectively, the study makes the following recommendations:

To mitigate the impacts of urbanisation, government should :

- Implement Schedule 3 of the Flood and Water Management Act 2010 and update its technical standards for sustainable drainage systems
- Carry out a comprehensive review of options to manage urban creep, and decide whether to make policy changes or adjust investment levels

To identify risks and set an ambition to reduce them, government should:

- Require the Environment Agency to use the results of the second National Flood Risk Assessment in 2024 to identify new flood risk areas
- Require relevant risk management authorities in the new flood risk areas to develop detailed local risk maps that can be integrated into the national map, and models that can be used to plan future management of surface water flooding.
- Set a long term target for a reduction in the number of properties at high and medium risk of surface water flooding, should require risk management authorities in the new flood risk areas to agree appropriate local targets

Recommendations to improve governance

To deliver investment effectively, the study makes the following recommendations:

To translate targets to action, government should:

- Clarify in its strategic priorities for Ofwat that it should enable water and sewerage companies to invest in solutions to manage surface water flooding including sustainable drainage
- Require risk management authorities in new flood risk areas to produce and deliver costed, joint investment plans for managing surface water that achieve the agreed local objectives and follow the ‘solutions hierarchy’, with the EA to review and assure the final plans with input from Ofwat and support from Regional Flood and Coastal Committees
- Devolve public funding to upper tier local authorities in or containing new flood risk areas, based on the Environment Agency’s assessment of the levels of risk in each new flood risk area, with the funding allocation reviewed every five years
- Explore options for funding property level measures for those properties that remain at high risk of surface water flooding

What happens next

6-12 months – Government response:
Government accepts or rejects the
Commission’s recommendations

March 2024 onwards: Commission begins
monitoring progress in implementing
accepted recommendations in annual
Infrastructure Progress Review

