Flood Risk Management: The NIC's Perspective

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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 carbon emissions by 2050.

In fulfilling our purpose and objectives, we:

- **Set a long term agenda** – identifying the UK's major economic infrastructure needs, and the pathways to address them,
- **Develop fresh approaches and ideas** – basing our independent policy recommendations on rigorous analysis, and
- **Focus on driving change** – building consensus on our policy recommendations, and monitoring government progress on their delivery.

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Surface water flooding study (2022)

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

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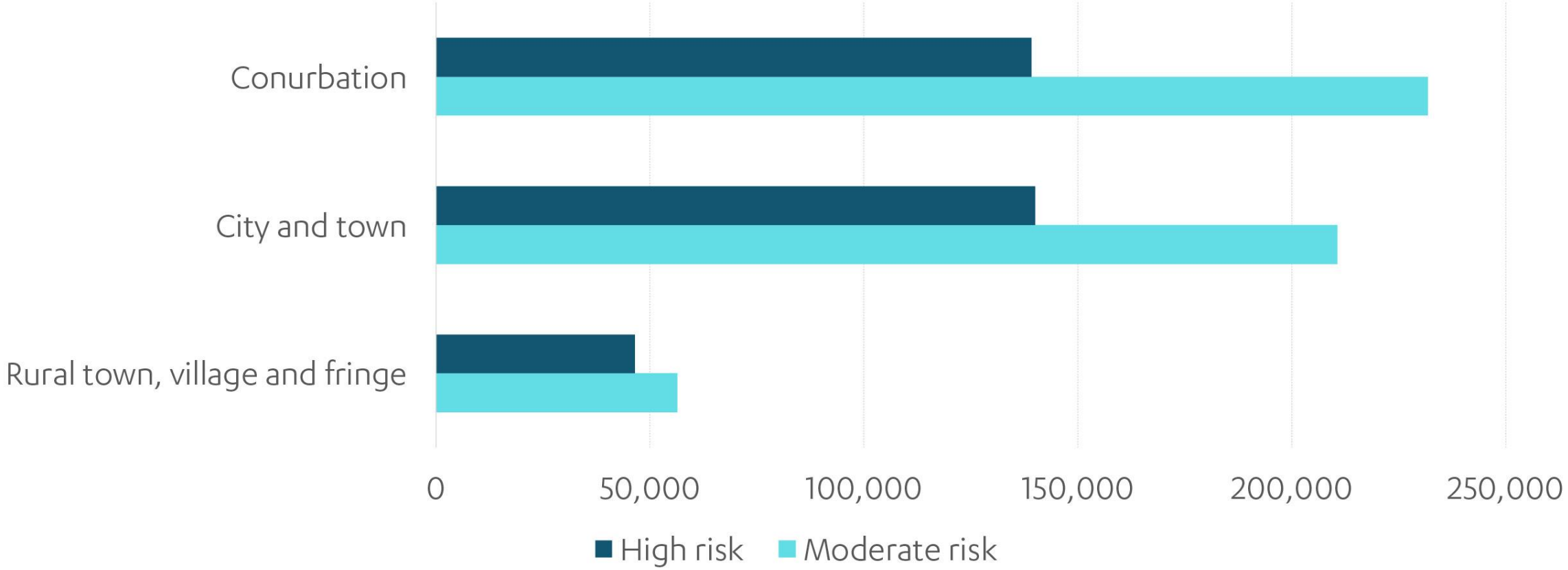
325,000 properties are in high risk areas in England



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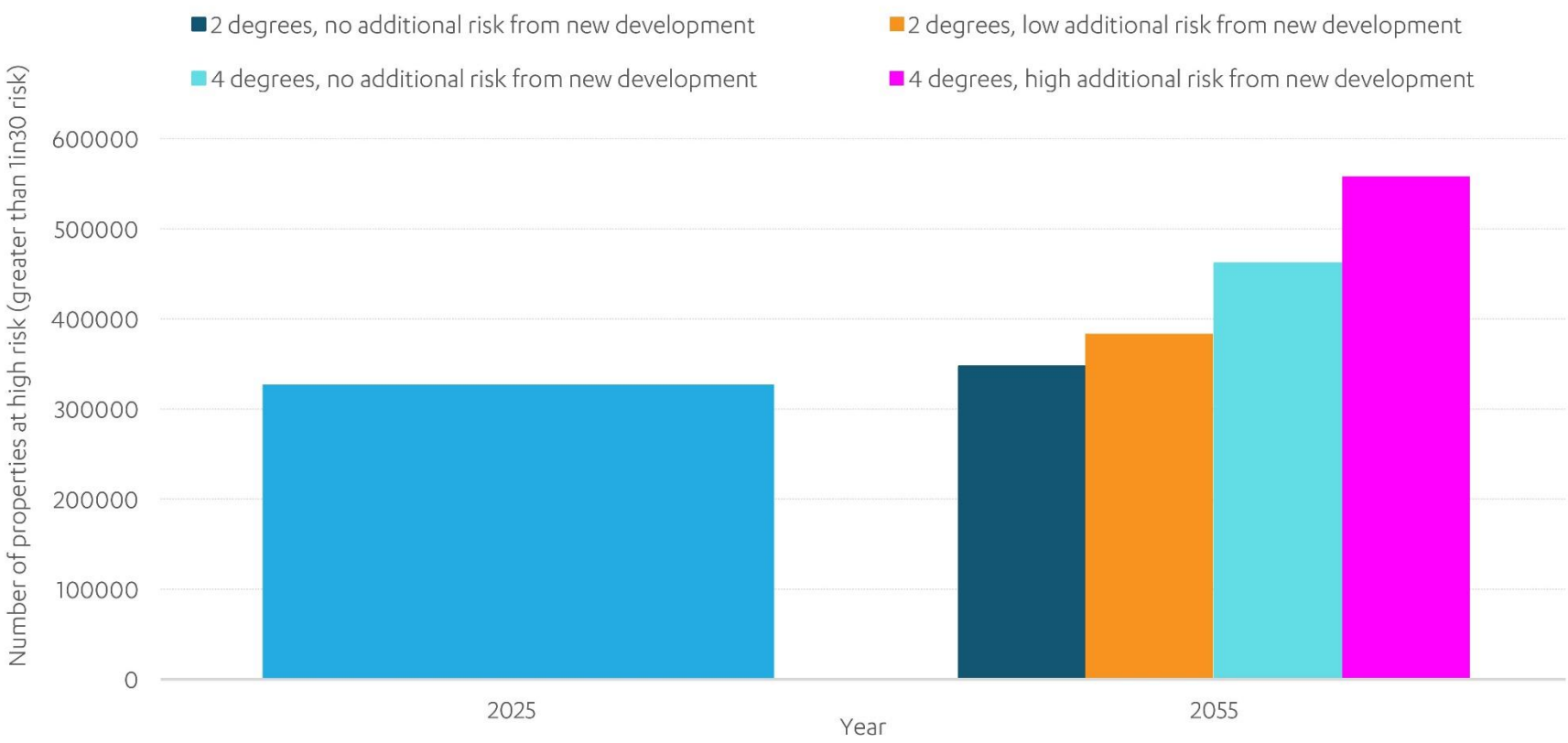
A growing risk

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

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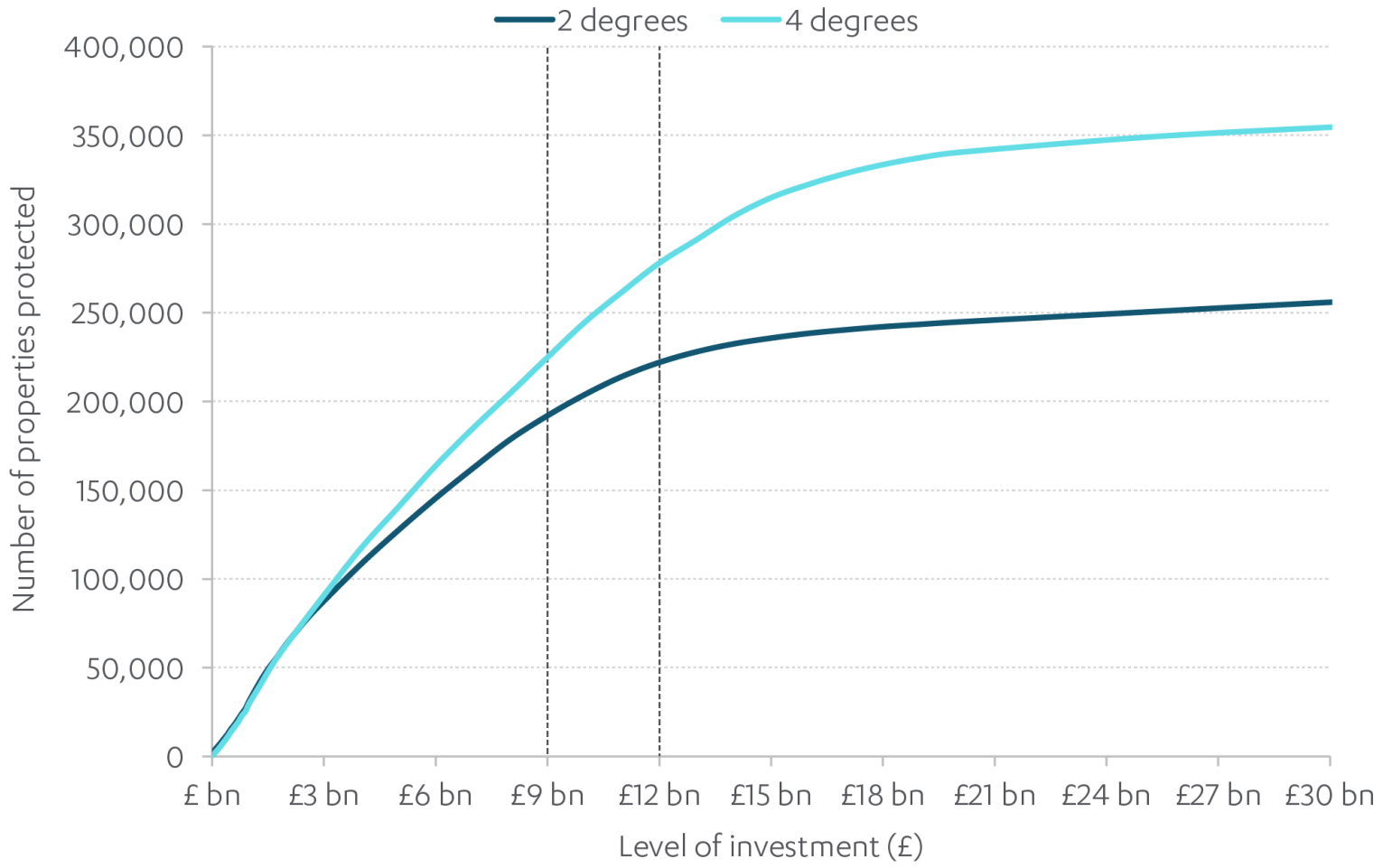
A cost beneficial level of investment

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

Of this, £3.6 billion would be above current baseline expenditure by government and water companies



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Recommendations from SWF study

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, and this should require risk management authorities in the new flood risk areas to agree appropriate local targets

Recommendations from SWF study

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

To translate targets to action, government should:

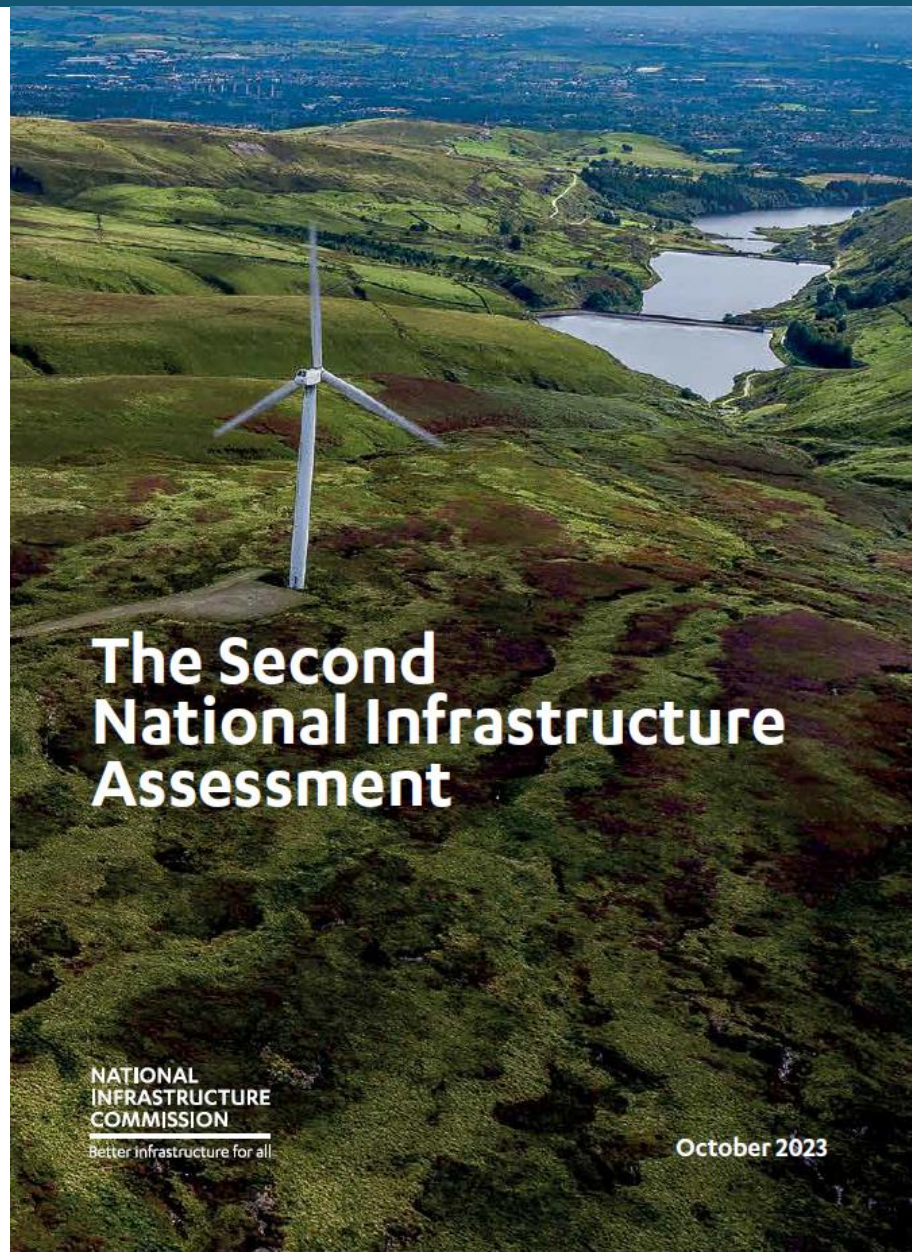
- Clarify in its strategic priorities for Ofwat that it should enable water and sewerage companies to invest in solutions to manage surface water flooding including sustainable drainage
- Require risk management authorities in new flood risk areas to produce and deliver costed, joint investment plans 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

Second National Infrastructure Assessment

The second National Infrastructure Assessment was **published on 18 October**

The Assessment is centred around three strategic themes:

- Energy and reaching net zero
- Improving resilience and the environment
- Supporting growth across regions



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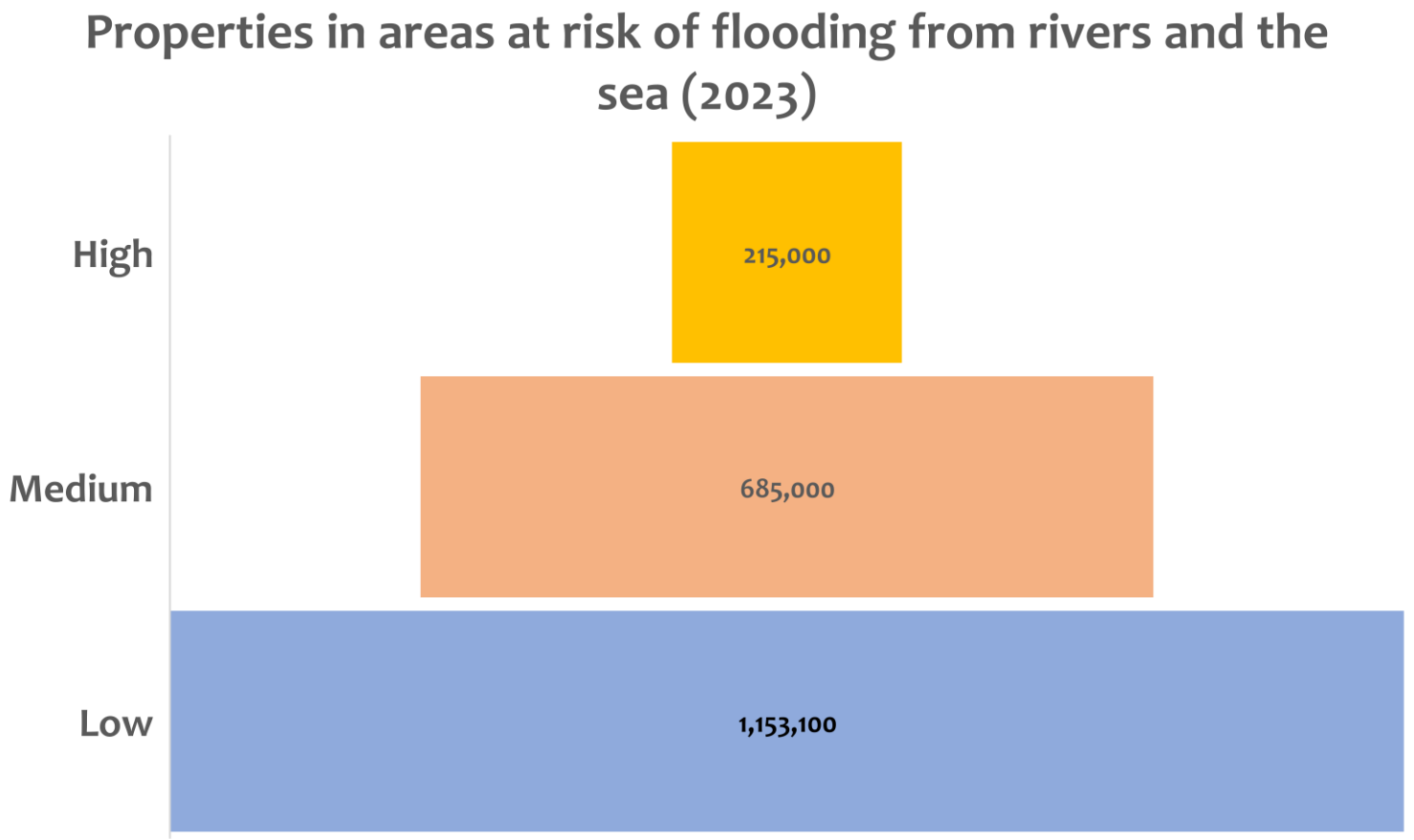
Flooding from rivers and the sea

Approximately 900,000 properties in England have more than a one per cent chance each year of being flooded by rivers and the sea



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Flooding from rivers and the sea

To manage flood risk, public investment will need to rise from around £800m now to £1.4bn in the late 2040s.

Government's current investment level of £5.2bn (2021-27) is broadly appropriate, but it must commit to a rolling programme of investment at increasing levels to 2055.

2025-29	2030-34	2035-39	2040-44	2045-49	2050-54
£800	£1,000	£1,400	£1,400	£1,400	£1,100

Gross public investment in economic infrastructure under the Commission's recommendations, average annual expenditure (£ million, 2022 prices)

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Recommendations from NIA2

By 2025, government should set a long term measurable target to reduce the number of properties likely to be flooded by rivers or the sea.

Progress against this target should be tracked using the Environment Agency's new National Flood Risk Assessment and take account of property level protection.

In setting and delivering the target, government should:

- use as a starting point the Commission's proposed standard of protection against flooding of an annual likelihood of 0.5 per cent and 0.1 per cent for densely populated areas
- make use of National Flood Risk Assessment 2 and future iterations of the Environment Agency's Long Term Investment Scenarios to quantify risk and establish targets for cost effective risk reduction
- adopt different standards of protection in local areas, where cost effective and based on discussions with affected communities
- invest in line with the profile set out by the Commission
- maximise the use of nature based and catchment solutions and consider the additional benefits beyond flood mitigation that they bring
- adequately fund wider resilience measures to prepare for and recover from flooding
- require planning authorities to ensure that from 2026 all new development is resilient to flooding from rivers with an annual likelihood of 0.5 per cent for its lifetime and does not increase risk elsewhere.

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

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