

Water pollution and accountability

Joe Cuthbertson



Environment Agency regulation



Where does river pollution come from?

- Agriculture
- Wastewater
- Highway run off



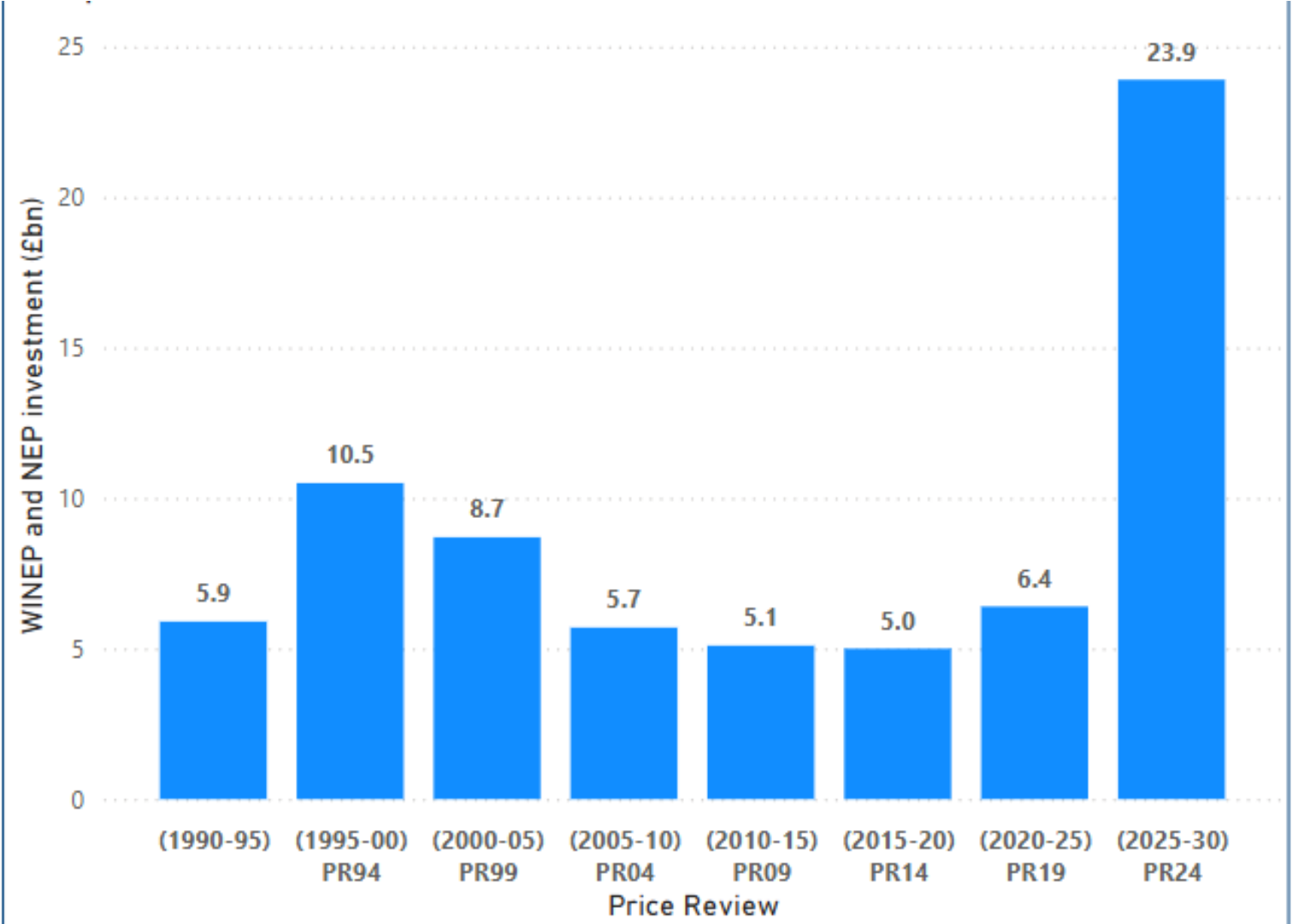
Environment Agency regulation

How do we assess water companies' environmental performance?

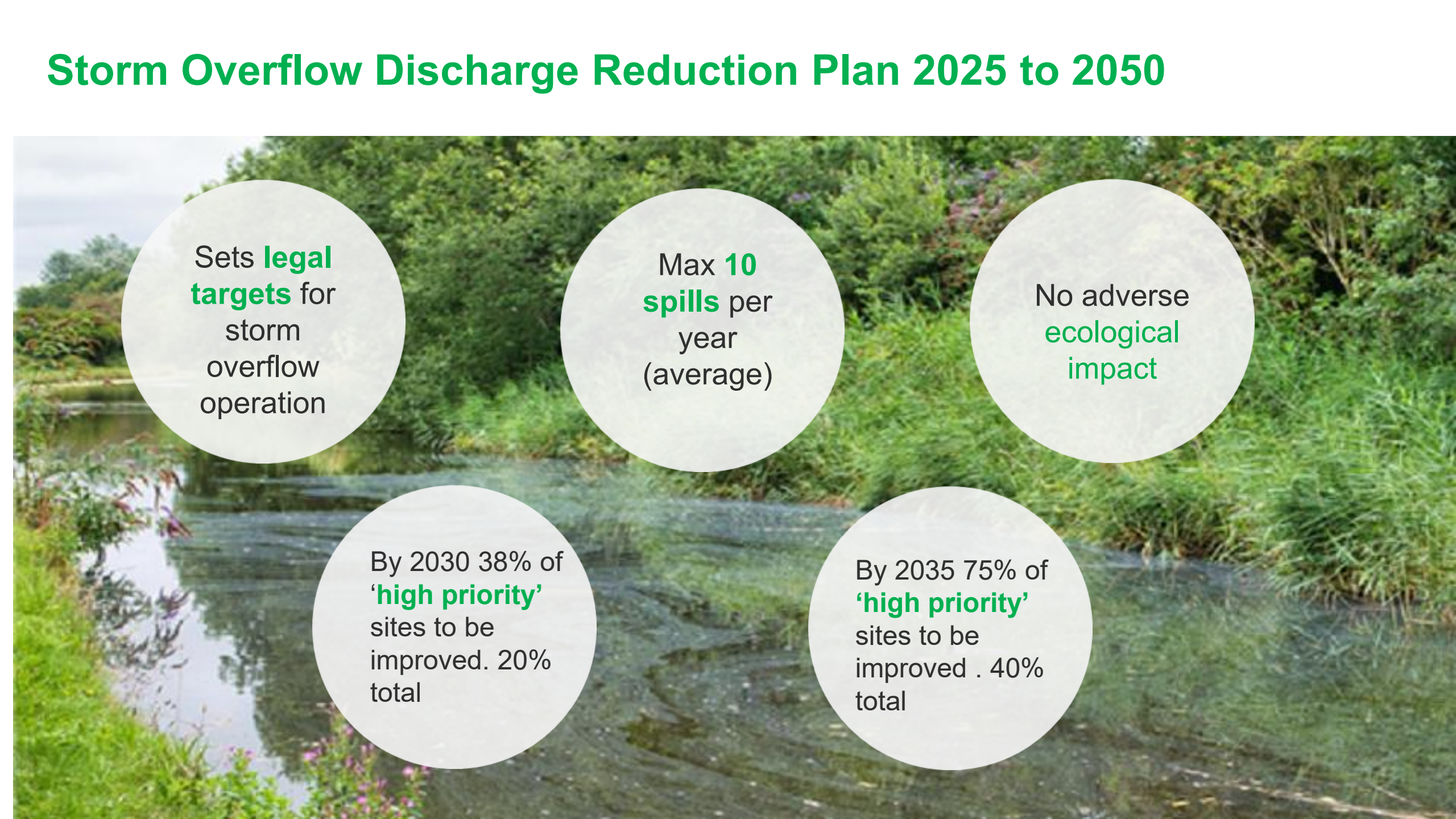
Anglian Water	★ ★ ☆ ☆
Northumbrian Water	★ ★ ☆ ☆
Severn Trent Water	★ ★ ★ ★
Southern Water	★ ★ ☆ ☆
South West Water	★ ★ ☆ ☆
Thames Water	★ ☆ ☆ ☆
United Utilities	★ ★ ☆ ☆
Wessex Water	★ ★ ☆ ☆
Yorkshire Water	★ ★ ☆ ☆



Water Industry National Environment Programme investment (£bn) comparison



Storm Overflow Discharge Reduction Plan 2025 to 2050



Sets **legal targets** for storm overflow operation

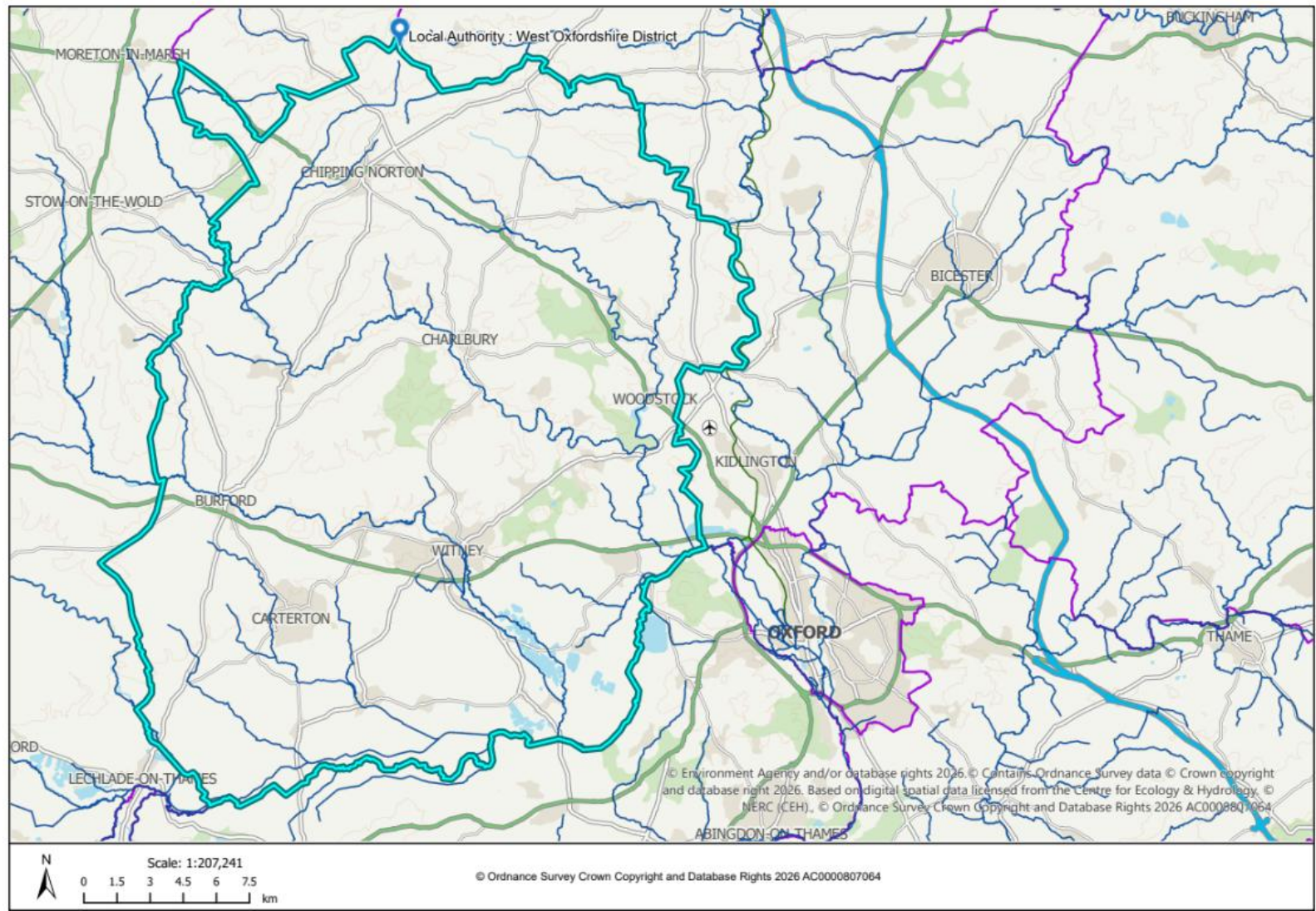
Max **10 spills** per year (average)

No adverse **ecological impact**

By 2030 38% of **'high priority'** sites to be improved. 20% total

By 2035 75% of **'high priority'** sites to be improved . 40% total

Water Framework Directive



Water company regulation

6

new
regulatory
teams

300

inspections
2024 to 2025

850

inspections
2025 to
2026

17

Thames Water
sites
prosecutions

£37m

Fines to
Thames
Water

Water Special Measures Act 2025

- Speed up our enforcement response
- Focus our prosecution activities on the most serious offences
- Strengthening penalties for obstruction offences
- Ensuring accountability



Thank you



Flood risk and mitigation

Joe Cuthbertson



'National assessment of flood and coastal erosion risk in England 2024'

On 17 December 2024 we published the 'National assessment of flood and coastal erosion risk in England 2024' report on GOV.UK



Why our new assessment of risk looks different?



Much better data – We are now using the most up to date national and local flood risk modelling for surface water and rivers and the sea. The new national coastal erosion risk map uses 10 years of data from the Regional Coastal Monitoring Programmes.



Improved modelling methodologies – Updated topographical data and improved modelling methods provide us with a much more detailed and accurate map of England. Computational power has also advanced, so our national modelling is more accurate and makes it possible to provide risk mapping on a 2-metre grid.



Improved property and infrastructure assessment – We can account for a wider range of residential and non-residential properties as well as other infrastructure assets. We have also factored in new building development since our last analysis.



Climate change projections - We are now able to incorporate the UK Climate Projections 2018 (UKCP18) future warming scenarios from the Met Office.

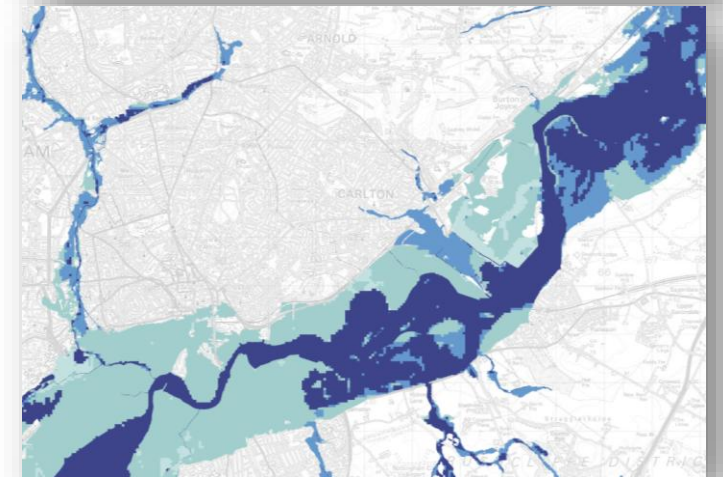
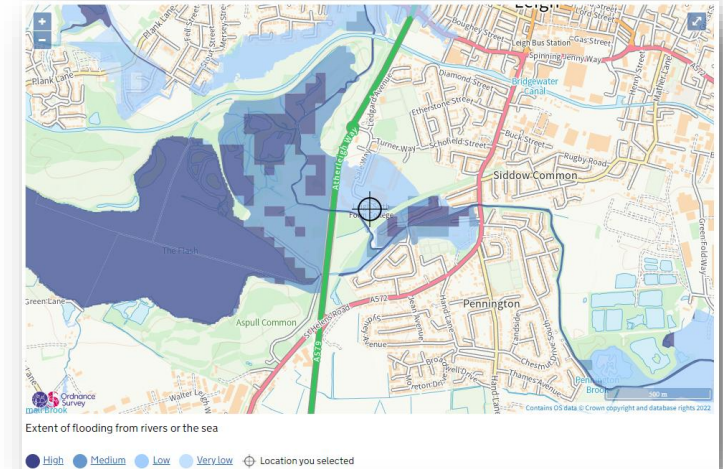
New national flood risk assessment (NaFRA2)

Previous NaFRA:

- No estimates of future flood risk taking into account climate change
- Difficult to update – backlog of local updates
- Limited precision and detail
- Inconsistency in national vs local modelling

New NaFRA2:

- Updates all our national flood risk information
- Better and clearer information to help people understand flood risk and take action to build resilience
- Greater consistency
- Greater accuracy and precision
- Greater range of information
- Greater flexibility and efficiency - enabling regular updates
- An indication of current and future flood risk to guide investment and development planning



Better methods and input data allow us to produce our data at a much higher resolution

Which service for which audience?



Flood risk information



Erosion risk information



Check Your Long-Term Flood Risk

For residents and businesses to enable them to understand their risk, make decisions and take actions to prepare.

Flood Map for Planning

For planners, developers and those carrying out flood risk assessments. Help inform decisions about the location and design of development.

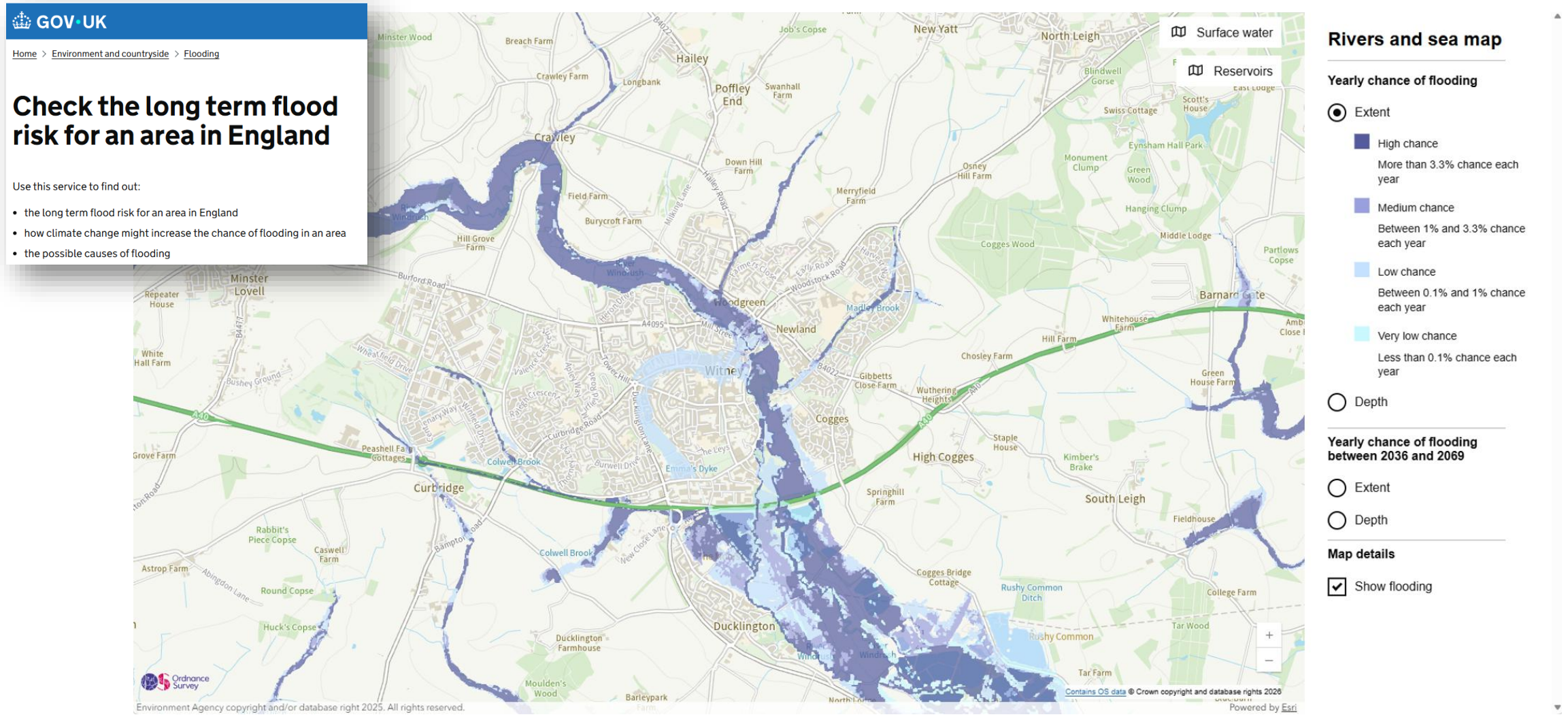
Check coastal erosion risk for an area in England, and Shoreline Management Plan

Explore
For planners, developers, practitioners and the public to make short- and long-term planning and investment decisions.



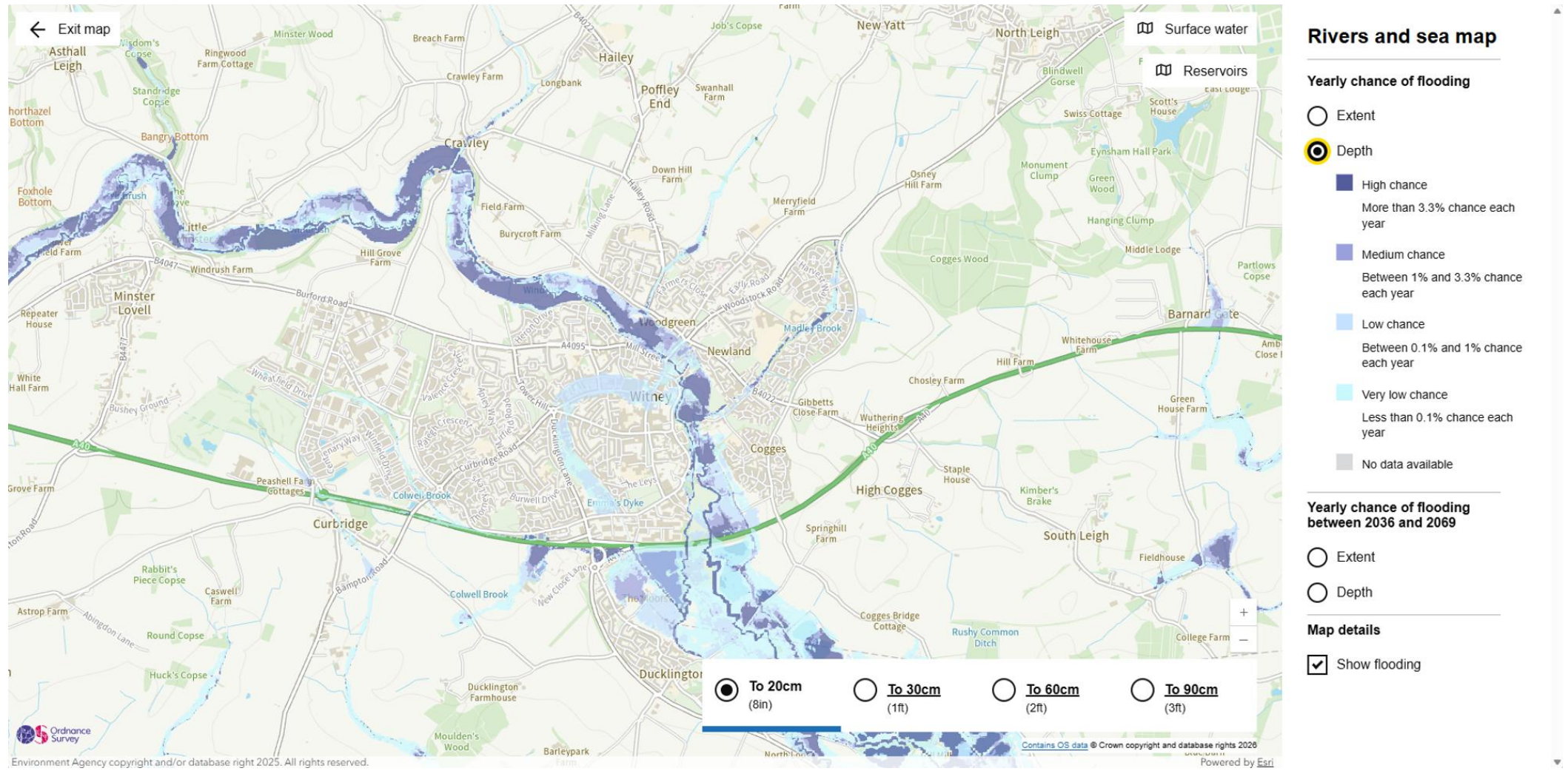
Data services platform: Provides open data access for professional users.

Rivers and Sea – Flood Extents

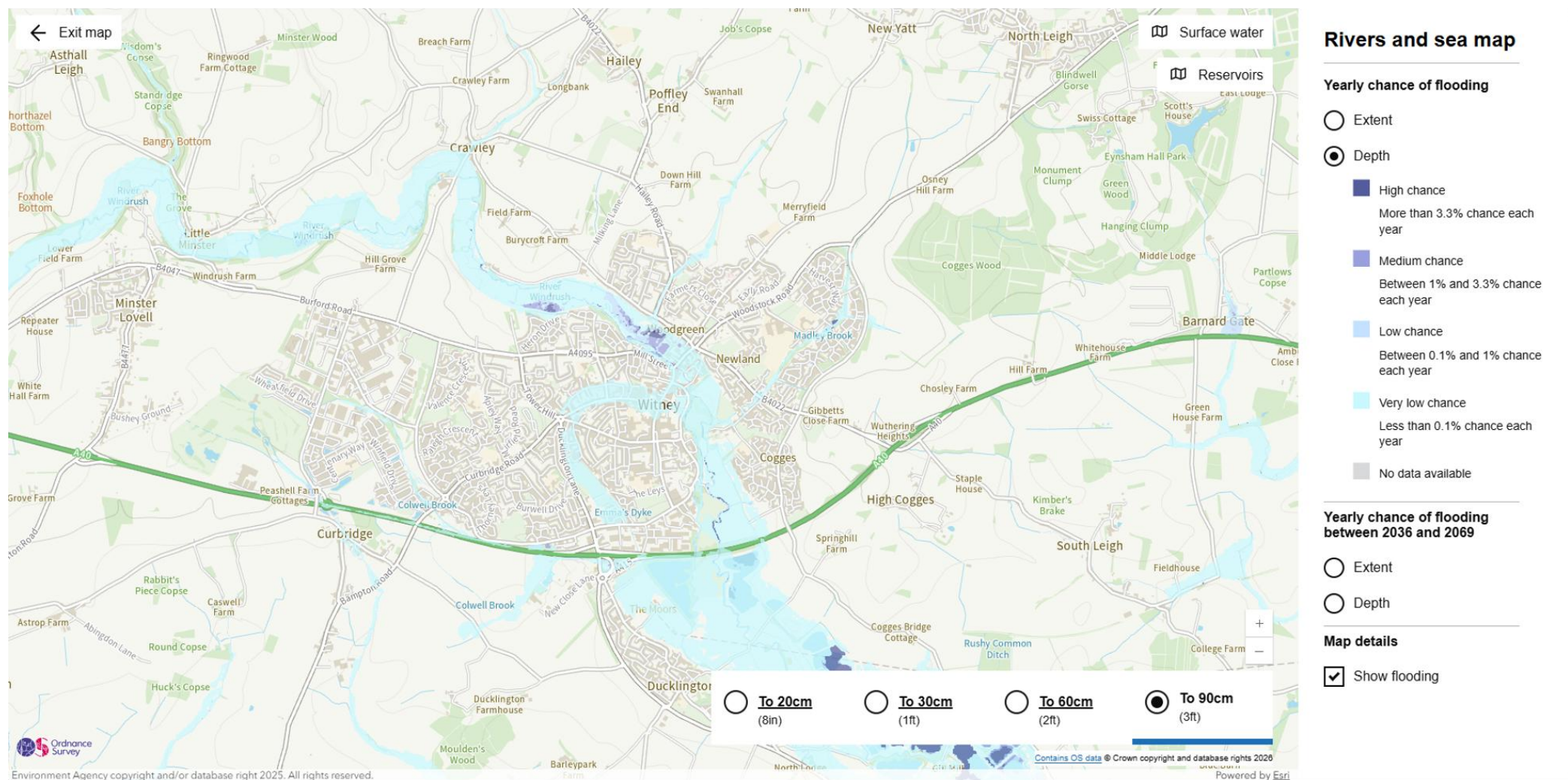


Technical map - Check your long term flood risk - GOV.UK

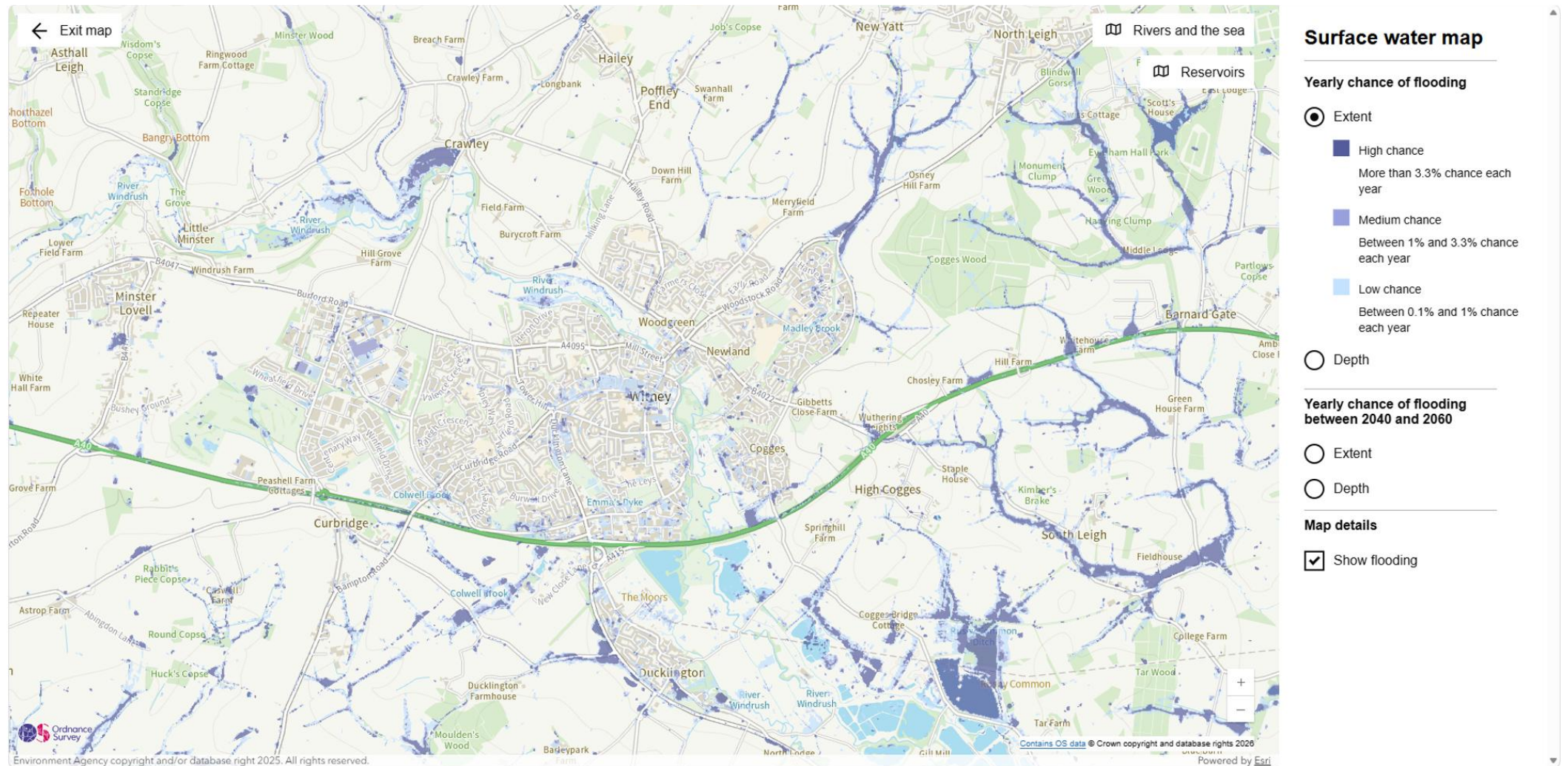
Rivers and Sea – Flood Depth



Rivers and Sea – Flood Depth



Surface Water – Flood Extent



Headlines: All sources of flooding and coastal erosion (England)

Present day risk

6.3 million
properties



are in areas at risk of flooding from at least one of the principal sources: rivers, the sea and surface water (5.5m previously).

3,500
properties



are in areas at risk of coastal erosion over the period to 2055 (2,000 previously).

With climate change

8 million
properties



could be in areas at risk of flooding from at least one of the principal sources: rivers, the sea and surface water by mid century.

19,700
properties



could be in areas at risk of coastal erosion by the end of the century.

Flood risk from rivers and sea

Present day risk

2.4
million



properties in areas at risk of flooding from rivers and the sea – 2.6m previously.

367,900



properties in areas at **high** risk of flooding from rivers and the sea - 88% increase.

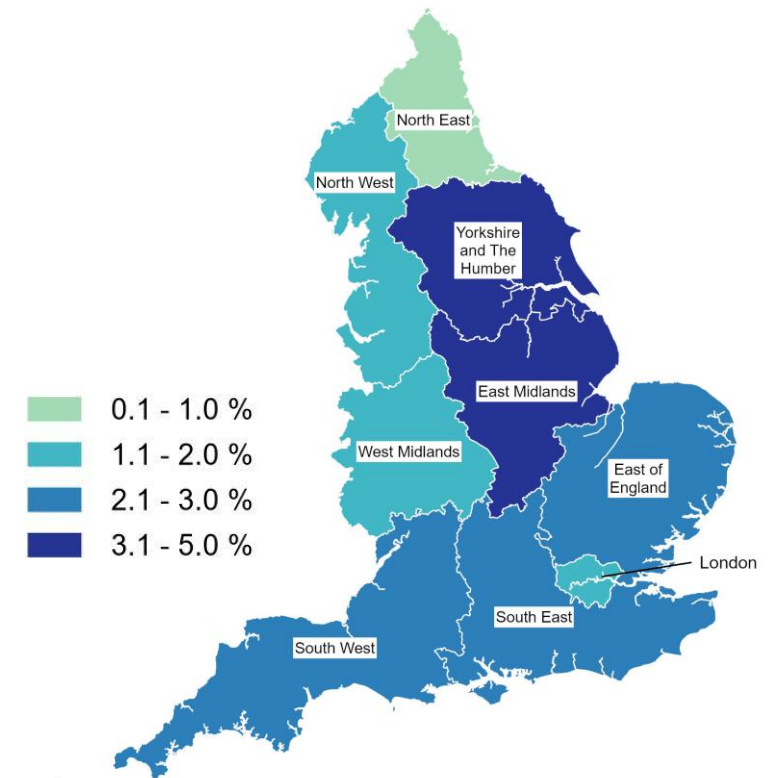
52%

of the total number of properties in areas at **high** or **medium** flood risk are in the East Midlands, Yorkshire and the Humber, and South East.

1 in 10

of properties in areas at **high** and **medium** flood risk are in London.

Properties in areas at high/medium risk of flooding from rivers and sea, as a % of total number of properties per region



Flood risk from surface water

Present day risk

4.6
million



properties in areas at risk of flooding from surface water – 43% increase.

1.1
million



properties in areas at **high** risk of flooding from surface water - three fold increase.

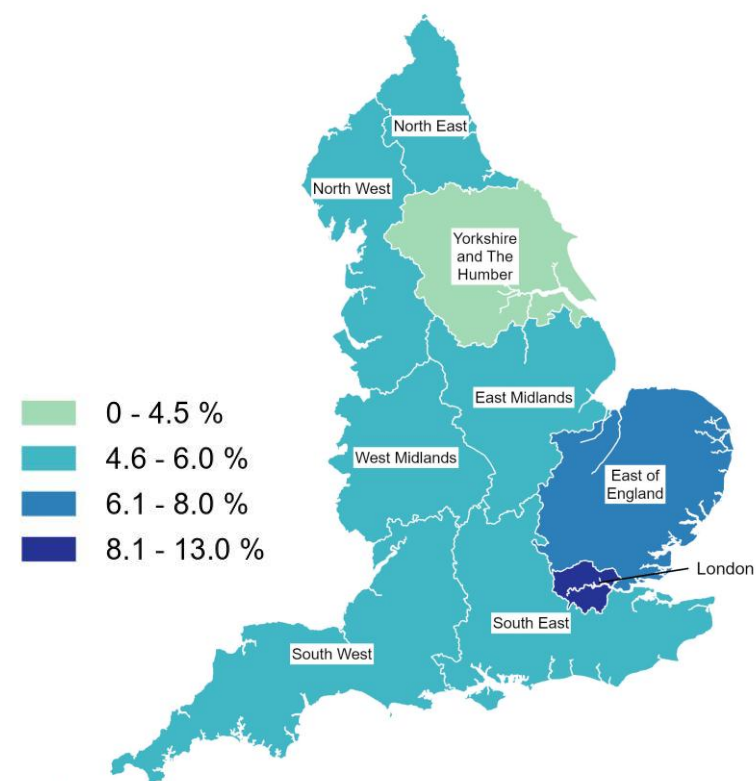
319,800

properties in areas at **high** flood risk from surface water flooding are in London.

38%

of the total number of properties in areas at **high** or **medium** flood risk are in the East of England, the North West and the South East.

Properties in areas at high/ medium risk of flooding from surface water, as a % of total number of properties per region



Climate change projections

Rivers and the sea

- With climate change, we estimate that the total number of properties in areas at risk of flooding from rivers and the sea will increase from 2.4m to around **3.1m**, a **27%** increase between 2036 and 2069.

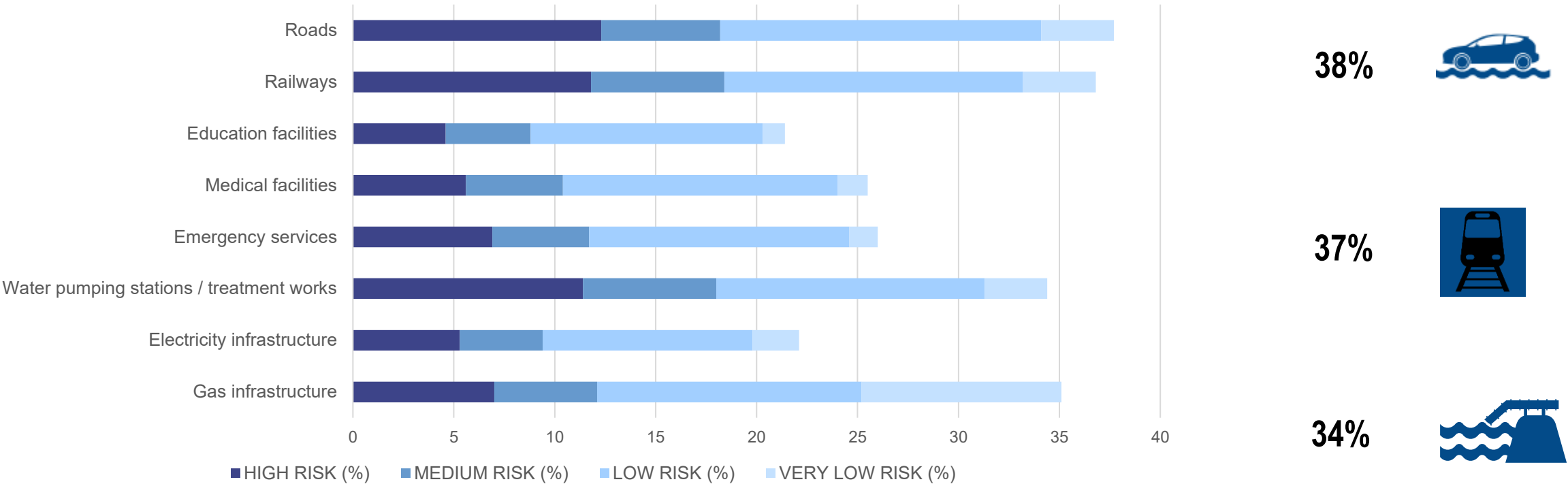
Surface water

- With climate change, we estimate that the total number of properties in areas at risk of flooding from surface water could increase from 4.6m to **6.1m**, a **30%** increase between 2040 and 2060.



Flood risk to infrastructure and agriculture

Present day risk



agricultural land and about 59% of grade 1 agricultural land is at risk of flooding from rivers and the sea.

Thank you

