

Planning for the Climate Emergency

The role of Town and Country Planning in Flood and Coastal Resilience

The Environment Agency and Town & Country Planning Association have partnered to produce an introductory video on addressing flood risk through the planning system in England. This video explains how and why planning must consider flood risk and explores different options and opportunities.

This video will be useful for local authority planning officers and elected members in England, planning school students and anyone else with an interest in planning for flood risk.

<https://tcpa.org.uk/planning-for-flood-risk-in-england>

Key Points:

- Frontlines all sources of flooding
- 1 in 3 chance of rainfall records being broken somewhere in England every winter
- Doubling of properties on flood plain in next 50 years if existing growth trends continue
- Warmer, wetter winters and hotter, dryer summers - more surface water flooding
- National Climate Change Risk Assessment puts flooding and coastal change as one of the top climate risks that we face as a nation
- Planners and developers have a vital role to play in getting the right growth in the right places – SFRAs are the key tool that Local Planning Authorities need to use to help identify risk areas, assess local impacts of climate change on flood risk and to use this to steer local plan land allocations away from areas at risk **(from all sources of flooding)**.
- The Sequential Test needs to be applied both at Local Plan level as well as at application level
- Use FRAs (both SFRAs and application level FRAs) to identify flood risks over a development lifetime. Avoid Flood Risk Areas wherever possible, development that is necessary and cannot go elsewhere due limited availability of low risk land make it safe, resilient to damage (and recoverable quickly after a flood)

Our changing climate

Observed and projected changes in UK hazards due to climate change

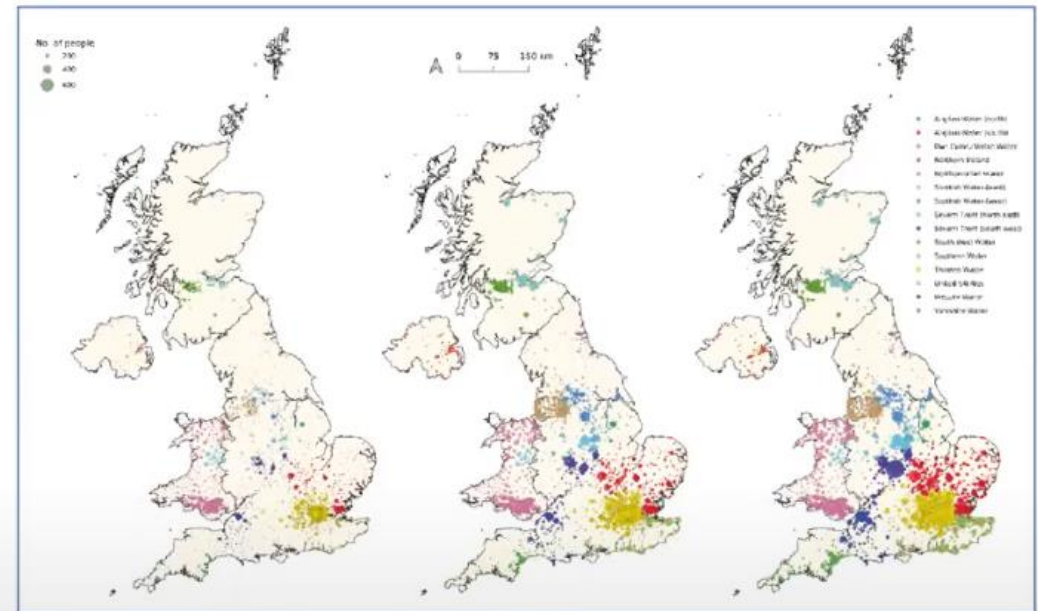
	Observed change	Expected change by mid-century	2°C global warming by the end of the century	4°C global warming by the end of the century
Average annual UK temperatures	0.6°C from 1981 - 2000	~1.3°C from 1981 - 2000	~1.5°C from 1981 - 2000	~3°C from 1981 - 2000
Hot summer occurrence – '2018 summer'	10 – 25% chance each year	~50% chance each year	~50% chance each year	>>50% chance each year
Average summer rainfall	0 no significant long-term trend	~10% drier than over 1981 - 2000	~15% drier than over 1981 - 2000	~30% drier than over 1981 - 2000
Average winter rainfall	0 no significant long-term trend	~5% wetter than over 1981 - 2000	~5% wetter than over 1981 - 2000	~20% wetter than over 1981 - 2000
Heavy rainfall	0 some increase, but not significant long-term trend	~10% increase	~20% increase	~50% increase
Sea level rise	~6.5cm above 1981 - 2000	10 – 30cm above 1981 - 2000	25 – 45cm above 1981 - 2000	55 – 80cm above 1981 - 2000

Source
UKCP18 projections

Present and future impact of flooding

- The risk of flooding to people, communities and buildings is one of the most severe risks from climate hazards for the UK population – both now and in the future.
- Flooding results in a significant economic cost, through physical damage to assets and also results in intangible social impacts.
- The planning system is one of the key tools available to us, to adapt to this important climate risk.
 - Planning can direct development away from areas of flood risk, and
 - Ensure that flood risk is mitigated when development does occur in areas of flood risk

Figure 1.1 Present and Future Flood Risk



Source: Sayers et al, Future Flood Risk (2020)

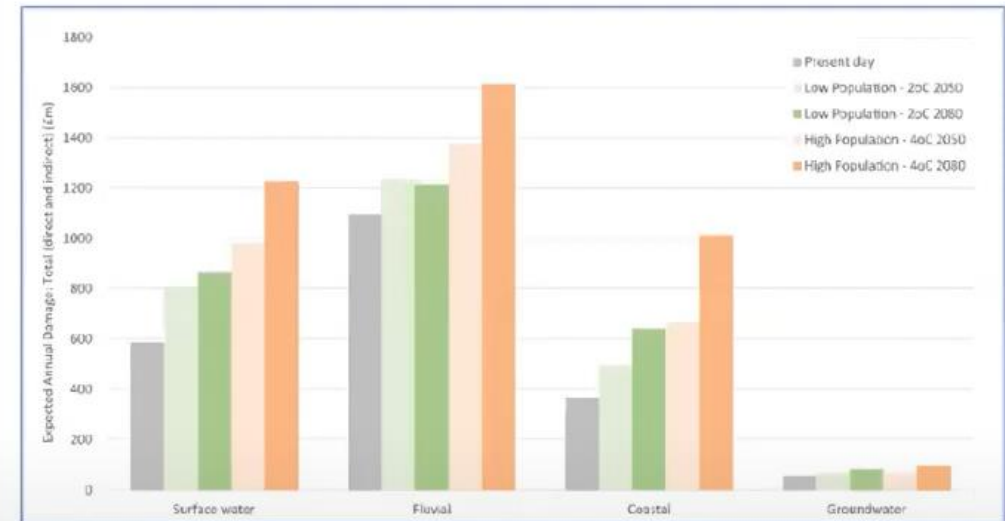
Left: Present-day. Middle: 4oC High Growth 2050s; Right: 4oC High Growth 2080s.
Frequent flooding refers to a return period of 1 in 30 year return period or more frequent

Flood risk in the UK

Present and future impact of flooding

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Figure 1.2 Expected Annual Damages of Flood Risk



Source: Sayers et al, Future Flood Risk (2020)
Expected annual damages by flood source

Other Key Points:

The Town & Country Planning Association did a survey of 65 Local Authorities in the UK. Results showed that just **12% strongly agreed that they have the skills and expertise to take account of flood risk now and in the future in planning decisions...**

and that despite 60% of councils declaring climate emergencies, there is a critical shortage of skills and expertise in relation to planning for climate change.

For example, **only 2% of Local Authorities consider future insurance availability and affordability when making planning decisions...**

and only **a third of Local Authorities are seriously considering the impacts of climate change when deciding to grant planning permission.**

Additional TCPA resources on planning, climate change and its impacts:

- **Building a safer future: a guide for communities on the planning system and flood risk -** <https://tcpa.org.uk/resources/building-a-safer-future/> ;
- **Rising to the climate change challenge: The role of housing and planning within local councils -** <https://tcpa.org.uk/resources/rising-to-the-climate-change-challenge-the-role-of-housing-and-planning-within-local-councils/> and
- **The Climate Crisis – a guide for local authorities on planning and climate change -** https://tcpa.org.uk/wp-content/uploads/2021/11/tcpartpicclimateguide_oct2021_final.pdf