

Planning for climate change in water supply and flooding in the UK

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Climate change in water supply



- ➔ 1996 – Government instruction for all water companies to consider climate change in supply
- ➔ 1998 – first guidance from Environment Agency
- ➔ 2003 Water Act tells company to include climate change in plans, including carbon footprint

Technical assessments



- ⇒ 1996 – impact of climate change on demand
- ⇒ 1996 – climate change on river flows
- ⇒ 2003 – further work on demand
- ⇒ 2006 – consistent methods for river flows and groundwater

Floods



- ➔ State provision of flood defences
- ➔ Cannot defend everywhere
- ➔ Aim to maximise benefit of flood defence spend

Technical developments



- ➔ 1975 - Flood studies report
- ➔ 1999 – Flood Estimation Handbook
- ➔ 2006 – Government guidance on flood allowances

Parameter	1990-2025	2025-2055	2055-2085	2085-2115
Net sea level rise (SE England) – mm/yr	4.0	8.5	12.0	15.0
Peak rainfall intensity	+5%	+10%	+20%	+30%
Peak river flows	+10%		+20%	
Extreme wave height		+5%	+10%	+10%

Conclusions



- ➔ Institutional frameworks encouraged consistency
- ➔ Nationally consistent approaches existed before climate change was considered
- ➔ Accessible tools and methods encourage wide adoption
- ➔ Users and decision-makers may not appreciate limitations