

Executive Working Group
Climate Change Appendices
Environment Agency Assessment of Situation

Key Impacts of Climate Change

Water Supply

- Increased water demand plus droughts could worsen water supply problems in parts of England
- Low summer rainfall may stress protected sites
- Saline intrusion to coastal aquifers

Build Environment

- Flooding
- Sewerage system overflow following intense rainfall
- Structural damage and subsidence
- Heat and air quality problems

Environment

- Loss of land and biodiversity to the sea
- Low river flows reduce effluent dilution, which increases the likelihood of algal blooms and damage to wetlands and aquatic habitats
- Biodiversity losses due to higher water temperatures; poor quality and eutrophication
- Major ecological change in upland areas, wetlands and aquatic habitats
- Invasive species
- Change in timing of event (biological phenology)

Health

- Increase in heat-related summer deaths and more cases of food poisoning and vector - and waterborne diseases
- Significantly fewer cold-related deaths (mainly the elderly)
- Mental stress to victims of extreme weather events

Agriculture

- Water Shortages could lead to reduced crop production
- Increased costs for irrigation and livestock feed
- Intense rainfall and periods of drought would lead to soil damage and erosion
- Reduced frost damage, longer growing season

Business and Industry

- Power cuts due to storm and flood damage
- Restrictions on industrial water supply (e.g. for cooling)
- Insurance industry - higher payouts for storm damage, flooding and subsidence
- Expansion of wave and wind power potential

Transport

- High temperatures can cause damage to road and rail infrastructure and restrictions to navigation on waterways.
- Gales and flooding during winter will affect all modes of transport and ports, especially in coastal areas.
- Passenger discomfort in hot weather

Tourism/Leisure

- Low flow and poor water quality may restrict recreational activities on rivers/lakes
- Extreme weather may create problems for conservation of heritage sites (both built and archaeological), especially at coastal sites
- Warmer, drier and sunnier summers could benefit domestic summer tourism.