Planning for water scarcity

Topic resource

Planning for the Climate Crisis: A guide for local authorities

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Introduction

Increased risk of flooding is one of the most significant impacts of climate change that will affect communities across the UK. However, at the same time as preparing for more periods of intense rainfall, we are also facing increased challenges in relation to long term water supply. Pressures from population growth, climate change and historic underinvestment in new water infrastructure mean there is a risk that there could be a 5 billion litres a day deficit in public water supply in England alone by 2055.[1]

There are regional differences in the long-term availability of water, and water scarcity is likely to have more impact in the south and east of England than areas on the west coast. This can be further exacerbated by high concentrations of population and economic activity.[2]

Work commissioned by the Enabling Water Smart Communities project has demonstrated that in some areas, water scarcity has contributed to delays in the building of new homes.[3] The environmental impacts arising from water abstraction led to stringent requirements for 'water neutrality' being set by Natural England, causing delays to development in areas of south east England. In November 2025, Natural England updated their guidance to allow development to come forward if it meets water efficiency and environmental standards.

These cases have catalysed innovative approaches to water efficient new development, and it is likely that interventions such as 'water smart' homes and community level water recycling and reuse will need significant scaling up to avoid water scarcity becoming an increasing constraint on housebuilding in future. This transformation can be supported by local authorities, through promoting policies and practice that support water efficiency through new developments.

Policy Context

Paragraph 20 (b) of the **National Planning Policy Framework** (NPPF) states that strategic policies should make sufficient provision for infrastructure, including 'water supply, wastewater and flood risk and

coastal change management'.[4] Chapter 14 on climate change was updated in December 2024 and makes clearer reference to water scarcity and drought as issues that the planning system should take account of.

Paragraph 182 of the NPPF also places a requirement for sustainable drainage systems (SuDS) on proposals for development which could affect drainage on or around the site. This policy, strengthened in the December 2024 update, is now supported by Defra's National standards for sustainable drainage systems which prioritise the collection of runoff for non-potable use where any of the following applies:

1. There is a demand for non-potable water and available contributing catchment area that will deliver safe and efficient water savings.
2. There is a need for landscape irrigation.
3. The development is in an area identified as seriously water stressed.

For new buildings, **Approved Document G of the building regulations** sets a baseline requirement for water usage of 125 litres per person per day, but local authorities can set an optional requirement through planning for tighter standards of 110 litres where local need can be demonstrated.[5] Further to this, a Written Ministerial Statement from 2023 states that 'in areas of serious water stress', local planning authorities can set standards higher than 110 litres per day where they are agreed with the Environment Agency and delivery partners.[6] An update to building regulations setting more stringent water efficiency requirements has recently been subject to consultation.

Defra's **Plan for Water** is the overarching national strategy for water supply and water quality in England.[7] The **National Framework for Water Resources** 2025 is produced by the Environment Agency and covers England and Wales. It outlines the current and anticipated pressures on water resources and suggests actions for different sectors to adapt to the changing availability of water in future. This plan recognises the interdependencies between water availability and development, and the increased water demand of sectors including AI and data centres.

Water Resources Management Plans (WRMPs) are produced by water companies every five years and set out their strategy for ensuring the supply of water over a minimum period of 25 years. There are also five regional water resources plans that cover larger geographies than individual water companies. Part of their purpose is to consider more strategic options for water resource management, such as new reservoirs and water transfer.[8]

The **National Model Design Code** identifies opportunities for the design of development to support water efficiency, including 'rainwater harvesting, dual potable and grey water recycling systems and requirements for "water neutrality" for new development'.[9]

Figure 1: A dry river bed during a period of drought in Seven Bridges Valley, North Yorkshire.
Source: Paul Macguire / Shutterstock.com

Key principles

The following principles should underpin how planning authorities promote resilience to water scarcity to support effective water management:

- Planning should support an Integrated Water Management approach. This entails a holistic coordination of water systems which avoids siloing flood risk, water supply and wastewater management. This requires planners to work collaboratively and engage with relevant stakeholders, risk management authorities and communities.
- Catchment-based planning should be integrated into spatial plans, so that flood risk, water quality and water management is coordinated at a strategic scale.
- Land needed for future water infrastructure including reservoirs should be safeguarded.
- Ensure that interventions to manage flood risk and manage water effectively are secured at the strategic, development site and building scale.

Good practice for developing evidence

Evidence on flood risk and water management should consider strategic scale strategies for water management across the catchment area. This means plan evidence should draw on a range of evidence sources such as regional and local water resource management plans, catchment plans and river basin management plans to inform how development can contribute to achieving the broader water management strategy for the area. Producing a Water Cycle Study can be an effective way for local authorities to bring this evidence together in partnership with relevant stakeholders by helping to:

- Identify environmental issues and potential solutions,
- Gather evidence for development plan documents and strategic development sites,
- Inform wider policy planning requirements.

In some water stressed areas, local guidance on achieving tighter water efficiency standards may provide guidance on setting policy requirements that go beyond building regulations (see case study).

Good practice for plan making

Successful adaptation policy involves much more than simply considering flood risk in isolation. It has to take account of a broader range of climate impacts and their complex interactions. Holistic and integrated planning is needed over the long term, with local development plans well placed to take a central role.

Successful adaptation policy has to take account of a broad range of climate impacts and their complex interactions. To account for water scarcity, planning authorities should ensure that their plans and policies:

- Ensure the spatial strategy considers the needs of water intensive development and considers water availability as a key driver for the appropriate location of such development.

- Assess how climate change will affect water availability in the long term and steer development away from areas where unacceptable impacts on water supply may occur.
- Engage early in the plan making process with stakeholders such as water companies, Natural England and the Environment Agency in areas where water stress could be a constraint on development.
- In areas of current or anticipated water stress, use planning policy to promote the water neutrality hierarchy, promoted by Waterwise. The hierarchy seeks to reduce demand through:
  → Efficient fittings and smart metering
  → Reuse rainwater and greywater
  → offset residual use.[10]

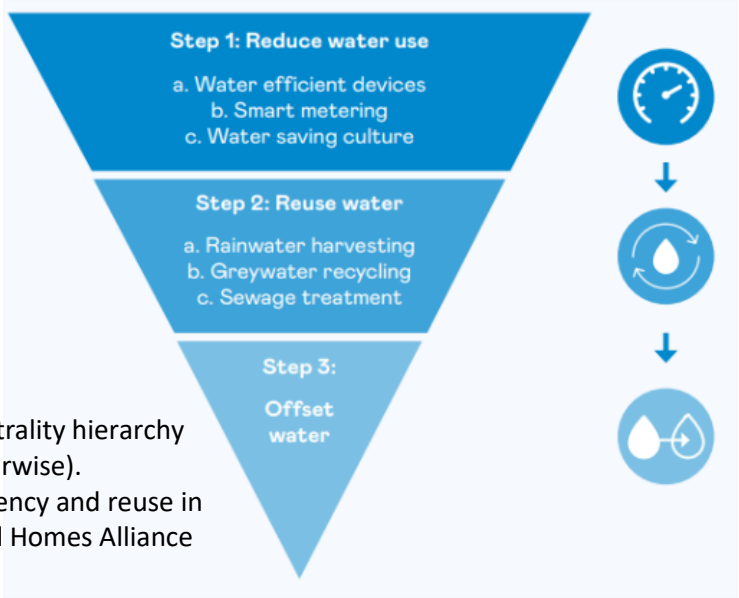

Figure 2: Water neutrality hierarchy (adapted from Waterwise).
Source: Water efficiency and reuse in housing guide, Good Homes Alliance

- Where justified by evidence, set water efficiency standards for residential and non-residential development. For water stressed areas this could be based on the higher standard in building regulations or go beyond it if water scarcity poses a significant constraint.
- Promote the use of rainwater harvesting in development as part of sustainable drainage systems (SuDS) - use policy to require development to incorporate SuDS designed to the national standards for sustainable drainage systems.
- Promote water efficiency interventions through policy, such as rainwater harvesting and reuse. The Good Homes Alliance and Waterwise promote a 'fittings based approach', which seeks to limit the water flow rates for appliances and fixtures to an optimal standard.[11] Environmental incentive payments are available from water companies for developers that install water efficiency measures, meaning support is available to mainstream their delivery.[12]
- Identify and allocate land in the local development plan for climate adaptation measures including land for new traditional flood defences, natural flood management schemes and water storage.

Box 1: Case study - draft policy for water resources and sustainable growth

A Shared Standards document has been developed to provide joint evidence and guidance on setting a design standard of up to 85 litres/person/day for residential developments and using BREEAM standards to guide water efficiency in non-residential development. The guide is for LPAs in four water company areas in the east of England. The following text is an extract from the guide's template local plan policy:

In accordance with the following criteria, development proposals should demonstrate the following measures have been incorporated into their design and use to ensure sustainable use of water resources:

1. *All development will demonstrate water efficient design. This is to be achieved by ensuring that:*
   a. *New residential development is designed to utilise no more than [85]* litres per person per day of mains supplied water / potable water per person per day (l/p/d).*
   b. *New, extended or redeveloped nonhousehold** buildings aim to achieve full credits within the 4 water categories (WAT01, WAT02, WAT03, and WAT04) for BREAAM standard within a minimum score of 3 credits within WAT01 Water Consumption issue category, or an equivalent standard set out in any future update to BREAAM. The applicant will be required to justify and evidence why full credits is not possible/viable for the development*
2. *A Water Efficient Design Statement must be submitted with the application at the earliest stage to demonstrate how policy requirements have been met and will be maintained in relation to water efficient design. The statement shall provide, as a minimum, the following:*
   a. *Baseline information relating to existing water use within a development site; and*
   b. *Full calculations relating to expected water use within a proposed development (such as water efficient fixtures and fittings, rainwater/stormwater harvesting and reuse, or greywater recycling).*

**Note: LPA choose appropriate threshold based on local evidence.*
***Note: 'non-household' means all development except residential dwellings.*
****Note: The draft policy takes into account evidence on the supply-demand balance for water supply, local risks to the water environment and nature recovery, feasibility and viability, and are based on the findings of an up-to-date Water Cycle Study.*

Source: Shared Standards in Water Efficiency for Local Plans. **Date**: July 2025
Author: Natural England, Environment Agency and Water Resources East, Anglian Water, Cambridge Water and Essent and Suffolk Water.
Link: https://naturalengland.blog.gov.uk/2025/06/12/getting-water-wise-shared-standards-in-water-efficiency-for-local-plans-in-east-anglia/

Decision making

In determining planning applications, local planning authorities are recommended to:

- In areas of water stress, require proposals for water intensive development (such as data centres that use water-based cooling) to demonstrate how they will minimise water use and make use of measures such as water recycling.
- Make sure that the design of new buildings and developments incorporate measures to improve water efficiency as set out in development plan policy and design guidance.
- Be mindful of the cumulative impact of development on water quality and water resources.
- Consider the long-term maintenance and stewardship arrangements of water management assets – planning authorities should be satisfied that provision has been made for the long term.
- Include water efficiency in the monitoring and evaluation of new developments, to make sure that agreed standards are met in practice.

Horizon scanning

DEFRA launched a consultation in Autumn 2025 to review water efficiency standards for new homes. Link: https://www.gov.uk/government/news/water-saving-plans-to-reduce-bills-and-unblock-new-homes

Following the review of the water sector report from the Independent Water Commission,[13] a Water White Paper is anticipated, which will outline the government's approach to reform of the water sector.

Further Resources

CIRIA - Delivering better water management through the planning system

Good practice guidance on integrated water management. Available from: https://www.ciria.org/CIRIA/news/CIRIA_news2/Delivering_better_water_management_through_the_planning_system_guide.aspx

CIWEM – Enabling Water Smart Communities

A partnership innovation project looking at enabling actions to mainstream integrated approaches to water management at the building and community level – including water reuse, rainwater harvesting, water efficiency and sustainable drainage. A range of resources. Including case studies and reports are available on the project website: https://www.ewsc.org.uk/

DEFRA - National standards for sustainable drainage systems

Defra's standards for the design, construction, operation and maintenance of sustainable drainage systems. Standards prioritise the collection of rainwater for non-potable use. Available from: https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds

Good Homes Alliance – Water efficiency and reuse in housing

Design guide for securing high standards of water efficiency in housing, for architects, planners, developers and housing associations.
Available from: https://goodhomes.org.uk/news/water-guide-launched

Figure 3: Domestic rainwater harvesting is a simple measure that can save water. Source: Milos Ruzicka / Shutterstock.com

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[11] *Advice on water efficient new homes for England.* Waterwise. https://database.waterwise.org.uk/wp-content/uploads/2019/10/Advice-on-water-efficient-homes-for-England061118.pdf

[12] EWSC has a summary resource on water company environmental incentive offerings here: https://www.ewsc.org.uk/project-reports/summary-of-water-sector-environmental-incentives-2025-2026

[13] The Independent Water Commission Report 2025 is available from: https://www.gov.uk/government/publications/independent-water-commission-review-of-the-water-sector

Acknowledgments

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Cover image: An aerial view of dry Lindley Wood Reservoir, North Yorkshire. Credit: Wirestock Creators / Shutterstock.com
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