



Chapter four: A long term approach to clean and sustainable water



Priority actions for the UK Government: Water



1 A long-term strategy...

Adopt a long-term approach to water that acknowledges humans as part of the water system, prioritising strategic network solutions that work with nature.



2 for clean water...

End the crisis for water quality by tackling all sources of pollution, providing healthy rivers and bodies of water for communities and the natural environment.



3 and water resilience...

Integrate the UK's approaches to water and climate, providing water security and flood resilience, maximising benefits for communities and our natural world.



4 backed by robust data...

Modernise the Government's approach to evidence through purpose-built standards and indicators, with clear guidance for Ministers and delivery organisations.



5 ...implemented locally.

Deliver sustainable water resource management at the catchment scale, developing necessary infrastructure with transparent, reasonable and actionable plans for implementation.

“In the long-term, the only sustainable future for water is to work with the water cycle.”

Water is essential to people, the economy, and the environment.

More than ever, people across the UK are aware of the challenges facing water quality, water resilience, and the systems which rely on effective water management.

The water sector must be honest about what can be achieved in the short term, and in the long term cannot compromise on high ambitions for water.

We cannot avoid taking action to address the most pressing and readily-solvable challenges for water, which require immediate triage to lay the foundations of a sustainable approach.

Water stress, compounding challenges for freshwater quality, and water security in the wake of climate change are all immediate priorities to safeguard the health of our water system.

Water companies must be held to account for the sewage crisis, whilst also addressing the other causes of poor water quality, including highway runoff and agriculture.

In the long-term, the only sustainable future for water is to work with the water

cycle, minimising human impacts on ecosystems without compromising on clean and plentiful water across the country.

By the middle of the century, we can achieve a water system which is healthy, sustainable, and resilient, delivered over the coming decades by efficient, robustly-informed regulators and a water industry focused on providing the most benefits to communities and the natural world.

Box 3. About the Foundation for Water Research (FWR)

The **FWR Community** was launched following the IES inheriting the mission of the Foundation for Water Research (FWR) in 2022.

The Community is a cohesive, innovative, and independent-thinking community of water professionals offering guidance and strategic thought leadership for the IES's water activities.

The FWR Community uses an integrated, systems-thinking approach to water issues and their interactions with land and air.

1. Adopt a long-term approach to water that acknowledges humans as part of the water system, prioritising strategic network solutions that work with nature.

- i. Deliver the commitments in **Defra's Integrated Water Plan** (IWP) to review the implementation of the **WER 2017** and transform management of the whole water system, embedding a strategic approach to the multiple causes of poor water quality and water stress.
- ii. Work with the water industry to create a roadmap to sustainable water resource management, in line with the IWP. Tackle the sector's skills gaps to support sustainable water management across industry.
- iii. Address highway runoff, sewage overflows, and runoff from agriculture and food production as distinct parts of a combined challenge, aligning with ELMS. Unblock barriers to resource recovery and re-use to prevent treated sludge being applied to agriculture.
- iv. Overhaul the Environment Agency and Ofwat to make water system transformation a core principle of their long-term strategies. Ensure that both organisations have sufficient access to expertise in science and engineering, as well as the resources to take a robust approach to enforcement and regulatory oversight.
- v. Deliver comprehensive risk assessment and management, identifying high risk areas and developing joint emergency response plans with delivery organisations and the water industry. In parallel, increase public understanding of the risks associated with water use, including for drinking water, PFAS and PFOS contamination, and water stress.

This will be crucial to ensuring that the **Government's commitment** to **"put failing water companies under special measures"** delivers change in the long-term.

This would support the delivery of the Government's **manifesto commitment** to **"improve resilience and preparation across central government, local authorities, local communities, and emergency services."**

2. End the crisis for water quality by tackling all sources of pollution, providing healthy rivers and bodies of water for communities and the natural environment.

- i. Ensure that all UK rivers have a plan in place by the end of the current Parliament for how they will reach good ecological and chemical status.
- ii. Work to make healthy rivers accessible to everyone, implementing a target that everyone should live within 50 miles of an inland or coastal bathing water in good or excellent quality.
- iii. Fully deliver existing targets and policies on freshwater conservation, ecological status, and water quality, committing to no further delays or reversals of commitments. Carry out periodic reviews of **the IWP**, identifying opportunities to scale up ambitions for water quality.
- iv. Give Ofwat and other delivery organisations clear guidance and resources to consistently and robustly enforce the regulations we already have.
- v. Make a long-term commitment to the sustainability of wastewater and its effects on the environment, supporting the UK's strategic approach with a new Chief Scientist for Wastewater.

A broad approach to water quality will support delivery of the **core priority** of the incoming government to **“Clean up Britain’s rivers, lakes and seas.”**

This will help to achieve in practice the aspiration underpinning the Government’s **Water (Special Measures) Act** and its **review of the water sector**.

3. Integrate the UK's approaches to water and climate change, providing water security and flood resilience, while maximising benefits for communities and our natural world.

- i. Support strategic planning for water stress and insecurity at a catchment level, including joined-up planning for responsible authorities that embeds climate resilience as well as mitigation.
- ii. Commit to a strategic programme of reservoir building which identifies opportunities to work with the water cycle. Unlock water storage through ELMS, SuDS and nature-based solutions.
- iii. Work with environmental scientists to produce a coherent long-term plan on surface water flooding, implementing the recommendations of **Defra's review** and rolling out SuDS with support for planning and delivery organisations.
- iv. Adopt opportunities for co-benefits between water management and climate action, such as the potential role of wastewater in enabling a transition to shared networks for heating buildings.
- v. Explore market and behavioural mechanisms to urgently accelerate action on water security, while delivering existing commitments on leakage and per capita consumption.

This will be support the Government's **manifesto commitment** to increasingly "[adapt] to the changes [the climate and nature emergencies] will bring to our environment" in line with the manifesto's commentary that "**without action, flooding and coastal erosion will pose greater risks to lives, livelihoods and people's wellbeing.**"

Pilot schemes could support the delivery of **the Warm Homes Plan** and the Government's **manifesto commitment** to **support investment in "low carbon heating to cut bills."**

4. Modernise the Government’s approach to evidence through purpose-built standards and indicators for water, supported by clear guidance for Ministers and delivery organisations.

- i. Assess water quality standards, indicators, and targets to ensure they are robust, relevant to the context of often-degraded natural environments, appropriate for the purposes for which they are used, and deliverable in practice.
- ii. Work with the OEP and regulators to deliver a joined-up approach to the use of evidence from **governance** through to implementation, supporting standards on ‘what works’. Ensure the OEP and regulators have appropriate support, funding and powers to carry out their functions.
- iii. Adopt a cross-government approach to the use of evidence in decision making, supported by guidance for Ministers and civil servants on how evidence should be used, as well as primers on water quality data and its environmental implications for those working with water systems.
- iv. Support the delivery of a systems approach to water with models of the integrated water system, aligned with the UK’s **implementation of the Water Framework Directive**.
- v. Work with the environment sector to develop a national standardised framework for citizen science projects to support standards for how projects are delivered and managed, providing quality assurance for data collection.

This will support the delivery of the Government’s ambitions for water quality and will be a crucial step towards its **manifesto commitment** to “**ensure independent monitoring of every outlet.**”

This will support continued alignment with Europe and will align English water systems with the **Government’s desire** to make the UK “**a leading nation in Europe once again, with an improved and ambitious relationship.**”

5. Deliver sustainable water resource management at the catchment scale, developing necessary infrastructure with transparent, reasonable and actionable plans for implementation.

- i. Provide sufficient resources and skills to deliver sustainable water management at the catchment scale across regions. Facilitate local decision making about sustainable water management and provide investment to guarantee everyone has access to a local catchment partnership.
- ii. Work with the water industry and delivery organisations to implement sustainable water management at a catchment scale, supporting local delivery of nature-based solutions, engineering works, and pipeline solutions as appropriate for the context of the local catchment.
- iii. Work with academia to support key priorities for research and innovation, such as wastewater-based epidemiology and novel contaminants of concern.

This aligns with the Government's **manifesto commitment** to **“transfer power out of Westminster, and into our communities”**, ensuring they have the power to make choices about water.