

# Independent Water Commission

Final Report

21 July 2025



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## Foreword

It has been a privilege to lead this Commission.

All of us depend, every day, on the supply of safe drinking water and treatment of wastewater. It is fundamental to our economy, public health and food production. But it is more than a utility. Our rivers, lakes, coasts and estuaries are part of our national identity.

Resetting this sector and restoring pride in the future of our waterways matters to us all. In countless conversations I have been struck by the urgent need and passion for change. My team and I have met just shy of 250 organisations and individuals between us. I am grateful to all those who have contributed generously and constructively with their time, expertise and challenge. That includes the 50,000+ responses to our Call for Evidence.

I have said it before, but it bears repeating. There is no single, simple change, no matter how radical, that will reset the water sector and restore the trust that has been lost. This sector requires fundamental reform on all sides – how we manage the demands on water, how the system is regulated, how companies are governed and how we manage the critical infrastructure on which we all rely.

In this report, my objective is to set the system for water in England and Wales on a course to lasting change across several key areas.

First, we must address the absence of a long-term, cross-sector strategy for water. It may sound academic, but it is profoundly important. A clear set of national priorities for water – covering the water industry, agriculture, land-use, energy, transport, housing development – is essential. Without it, we will continue to be dogged by inconsistency, short termism, unintended consequences and risk willing the ends without ever fully understanding the means required.

National priorities must be translated into locally owned plans, through empowered and accountable regional bodies. At present, that local engagement and ownership is missing, cutting off decisions on water from local development and leaving many communities feeling excluded from decisions that affect their water environment. We propose a new system to put this right.

Second, the legal framework for water must be modernised. The way we use and interact with water has changed dramatically since many of the existing environmental laws were introduced. We set out where legislation needs updating



and why. We have also set out where we believe greater flexibility in the legislative framework would be helpful, provided strong safeguards are in place.

Third, we have made significant recommendations on how the water sector is regulated. Organisational change is never an easy option, but I believe that a new integrated regulator for water – bringing together environmental, economic and drinking water functions – would be in the best long-term interests of our water supply, our water environment, consumers and investors in the water industry.

Much of what we care about is environmental outcomes under one set of regulators, yet how those are delivered and paid for is done via a different regulatory system. A single regulator would also ensure a ‘whole firm view’ of water company performance and compliance.

We therefore recommend bringing together Ofwat, the Drinking Water Inspectorate, and the water environment functions of the Environment Agency and Natural England into a new organisation in England. In Wales, we propose embedding new economic regulatory responsibilities within Natural Resources Wales.

In addition, we have made specific proposals on economic, environmental, water supply, drinking water and consumer regulation. There is a great deal to cover here.

For the environment, we recommend greater transparency in areas such as operator self-monitoring and scrutiny of water company reporting, and stronger oversight of pollution from other sources such as agriculture and highways. We also cover abstraction, drinking water standards and water supply. After one of the driest springs on record, we believe more compulsory water metering, changes to wholesale tariffs for industrial users, and greater water reuse and rainwater harvesting schemes are all needed.

For consumers, we have set out changes to improve affordability and customer service, including the introduction of a single social tariff. As part of this, I have recommended the Government consider upgrading the Consumer Council for Water into a fully-fledged ombudsman for customers and transferring responsibility for consumer advocacy to Citizens Advice.

For economic regulation, we have set out detail of a new, fundamental rebalancing with the introduction of a company-specific supervisory function to sit alongside and to inform the econometric, industry-wide benchmarking approach that currently dominates Ofwat’s Price Review and incentive-setting framework. We are also proposing changes to the Price Review process that include new mechanisms to make sure sufficient funding is dedicated to asset maintenance, to make the appeals process shorter and simpler and to restore investor confidence that investing in the sector is a ‘fair bet’.

We look at water company structures, ownership and governance. I understand the concerns raised by many about profit in the provision of water and wastewater. Within our Terms of Reference, we have looked in depth at ways to ensure water



companies are aligned with the public interest. Alongside a stronger regulatory approach, we have set out changes to governance including a new regime for senior accountability and changes to company licence conditions. We also propose giving the regulator the power to block material changes in control of water companies – for example, where investors are not seen to be prioritising the long-term interests of the company and its customers.

And finally, we cover infrastructure – the underground pipes and other assets that underpin our water and wastewater services. We need far greater clarity on the health of these crucial assets and the resilience of the system as the infrastructure ages and the pressures upon it increase. Given the importance of this vital national infrastructure, we have proposed new national resilience standards to drive the action and funding necessary to ensure these assets are fit for the future.

As I bring the Commission to a close, I would like to thank the Secretary of State and Deputy First Minister for Wales for appointing me to lead such important work. I would like to thank my excellent Advisory Group, whose insights have shaped and sharpened our thinking. And finally, I must thank the incredibly hard-working and indefatigable Commission Secretariat team without whom this report would not have been possible.

Throughout my career, I have encountered many complex and important public policy issues but securing the future for water has, perhaps, been the most important of them all. While it will not happen overnight, I am convinced that if the major changes recommended in this report are adopted and pursued with sustained commitment, we can restore trust and have a future for water that is desired on all sides.

**Sir Jon Cunliffe, July 2025**

## Executive Summary

The Independent Water Commission has undertaken a comprehensive review of the water sector. Following a Call for Evidence and extensive engagement with a diverse set of stakeholders, this report sets out the Commission's final conclusions and recommendations. These are organised around seven themes, where the Commission believes that ambitious change is needed to drive a fundamental 'reset' of the water sector. It has also considered issues around implementation.

Chapter 1 of the report focuses on the **strategic direction for the water system** provided by the UK and Welsh governments. The Commission is recommending that new national strategies should be brought forward and has outlined elements these should include to provide a better long-term vision that drives delivery, articulates priorities and trade-offs, and has a cross-sectoral focus. It is further recommending that these elements are mirrored in improved guidance, at a more detailed level, to the water industry.

Chapter 2 focuses on **planning** for the water system, the bulk of which is undertaken currently by the water industry. The Commission is recommending the introduction of systems planners that will more effectively integrate planning across the whole water system – at a regional level in England, and the national level in Wales. To improve industry planning, it is further recommending that current planning approaches are significantly streamlined, additional flexibility is built into the 5-year Price Review cycle, and a common and robust approach to economic appraisal is implemented.

Chapter 3 focuses on the **legislative framework** for water. To reduce complexity and increase clarity and focus, the Commission is recommending that this framework is reviewed, with a particular focus on the Water Framework Directive and the Urban Wastewater Treatment Regulations. It is recommending that legislative changes should drive solutions to reduce pollutants and rainwater entering the system, that a public health objective should be included in the overarching framework, that the regulator should be better resourced to improve monitoring, and that the regulator should have more 'constrained discretion' to achieve better outcomes.

Chapter 4 focuses on **regulator reform**. The Commission is clear that there is a need for a much stronger and integrated regulatory framework – one that can respond to challenges, regulate the water sector as a whole and command public confidence. In England, the Commission is recommending that the water functions of all the existing regulators are combined into one integrated water regulator for England. In Wales, it is recommending that a new economic regulator is created, either embedded within the existing environmental regulator or established as a standalone independent body.

Chapter 5 focuses on **regulation reform**. As part of a fundamental reset in the way the regulator engages with companies, the Commission is recommending that it adopts a 'supervisory approach' and has outlined several elements that should be

considered in doing so. It is further making recommendations across all functions of the regulator to address stakeholder concerns. These include improvements to the Price Review methodology to support maintenance spending and reduce the volatility of returns, strengthened monitoring and enforcement powers to improve environmental outcomes, measures to incentivise water efficiency and thereby reduce pressures on the water supply, improved incentives for companies to raise levels of customer satisfaction where these are currently low, and enhanced support for low-income households and for customers with cause for complaint.

Chapter 6 focuses on water **company structures, ownership, governance and management**. To ensure water companies act in the public interest, the Commission is recommending enhanced powers for the regulator over owners as well as strengthened governance standards and a new regime to make senior executives directly accountable. Along with reforms to regulators and regulation, it is further recommending actions by regulators and government to reduce risks to investing in the water industry and thereby attract long-term investors. Recognising past financial weaknesses, it is recommending measures to strengthen regulatory oversight of company finances, including through the supervisory approach, and to establish a formal recovery regime. The Commission is also recommending reviews, where appropriate, of competition markets for the water industry.

Chapter 7 focuses on water industry **infrastructure and asset health**. To improve resilience, the Commission is recommending that statutory resilience standards be adopted, that requirements for companies to map their assets should be strengthened, and oversight improved through the supervisory approach. It is also recommending that legislation and enforcement powers relating to security should be strengthened. To support more timely delivery of infrastructure, the Commission is making recommendations to strengthen arrangements in four areas: planning, planning processes, regulatory coordination, and standardised practices. The Commission is further recommending reviews of Ofwat's delivery assurance frameworks and delivery incentive mechanism, and that supervisory teams should gain assurance on workforce and supply chains. And to support innovation, it is recommending that regulatory sandboxes are introduced and that the efficacy of innovative funding mechanisms is reviewed.

Chapter 8 focuses on **implementation** of the Commission's recommendations. The Commission recognises that some reforms will be complex and lengthy, with the potential to create significant uncertainty. It is therefore recommending that the UK and Welsh governments produce transition plans, as well as establishing an implementation advisory group. It also sets out which recommendations which could be delivered earlier.



## Wales Summary

1. **In reviewing the water industry across England and Wales, the Commission has acknowledged the distinct and unique nature of the water system in Wales.** Water holds deep cultural significance in Wales, and it remains a sensitive issue, particularly due to historical events such as the creation of the Tryweryn reservoir.
2. **Since devolution, Wales has gained increasing authority over water and environmental policy.** These areas are now fully devolved.
3. **One of the key differences in approach is the way public bodies in Wales, including the Welsh Government and NRW, are required by law, through the Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016, to work together to ensure the sustainable management of natural resources for current and future generations.** This has driven certain differences compared to England, a notable example is the Price Review Forum, convened by the Welsh Government to bring together regulators, water companies, and stakeholders during the water industry price review process in a collaborative way.
4. **The pressures facing Welsh water systems are also different.** Wales has a significantly higher proportion of land used for agriculture, 90% compared to 67% in England. Agricultural and transport runoff are major contributors to river pollution in Wales, with 62% of phosphorous loading across Special Areas of Conservation (SAC) rivers in Wales attributed to agriculture, with 28% attributed to storm overflows.

## Strategic direction

5. **The recommendation for a new National Water Strategy for Wales will establish a stronger national direction for the Welsh water system,** with a clear framework of priorities and interim targets to drive delivery. For the two Welsh water companies, Dŵr Cymru and Hafren Dyfrdwy, this will be bolstered through a new Ministerial Statement for Water Industry Priorities.

## Systems planning

6. **A new independent national systems planner will enable a more integrated approach to planning across the range of sectors interacting with water in Wales,** including the agricultural sector. It will also have responsibility for directing important sources of funding in line with priorities set out in the National Water Strategy for Wales. As noted in Chapter 8, the Welsh and UK governments will need to ensure effective cooperation agreements to manage cross-border water bodies such as the Wye.

## Legislative Framework

7. **A review of legislation, including the WFD Regulations and UWWTR should ensure legislation is updated to better align with the Well-being of Future Generations (Wales) Act 2015 and other Welsh priorities.** The introduction of public health in a new water framework, supported by evidence from a new public health taskforce led by the Welsh Chief Medical Officer, is a significant change aimed at ensuring recreational water use in Wales is better considered.
8. **This Chapter also recommends that the concept of constrained discretion is taken forward across Wales.** This is not a new concept, however there is cultural and legislative change needed to encourage its effective deployment, within constraints, in Wales. In NRW there are already alternative options for testing innovative solutions through experimental powers, but these are not widely used due to risk of challenge or a perception that traditional approaches will provide quicker and more reliable solutions.

## Regulator reforms

9. **The Commission has heard ongoing concerns about Ofwat's ability to balance the needs of England with the needs of Wales.** The Commission recommends the Welsh Government should establish a new economic regulator for Wales, which could be integrated into NRW. Alternatively, it could sit as a stand-alone body.
10. **This would be a significant development, which would ensure that economic regulation of Welsh water companies better reflects the priorities and context of Wales.** It is likely to take some time to establish any new arrangements, given the need for primary legislation. Transitional arrangements, which interface with the new English regulator will ensure stability in the intervening period.
11. **The Commission recommends the Drinking Water Inspectorate (DWI) continues to operate across Wales and England, reporting to the Welsh Ministers and Defra Secretary of State.** The DWI commands significant public respect and maintaining a Wales and England basis would support ongoing confidence in drinking water. These functions are clear, scientific and evidence based.

## Regulation

12. **The economic regulator for Wales would perform a supervisory function to better oversee the performance and improvement of Welsh water companies.**

13. With respect to environmental regulation, **the Commission proposes that NRW requires stronger environmental oversight** in the following areas:
- reforming monitoring practices, including operator self-monitoring;
  - improving regulatory oversight of sludge using the environmental permitting regulations;
  - expanded enforcement powers; and
  - improved capacity and capability to support improvements.
14. **The Commission concludes the system for drinking water regulation is delivering high-quality outcomes, but a review of drinking water standards would ensure continued provision of high-quality drinking water**, considering emerging risks. The Commission also consider the DWI should have powers to cover all third-party operators.
15. **With respect to water resources, around 95% of Wales' water supply comes from surface water, with only 5% from groundwater.** Wales must therefore capture and store much of its water supply. However, the UK Climate Change Risk Assessment<sup>1</sup> warns that rising temperatures will likely increase consumer demand and evaporation from reservoirs. This highlights the need for Wales to invest in resilient water infrastructure and long-term planning. Furthermore, the Commission notes that:
- current measures to identify and repair leaks should continue to be a primary focus for water companies
  - regulation of water abstraction activity should also be strengthened
  - household consumption and demand needs to be reduced, and the Commission recommends introducing compulsory smart metering in a greater range of circumstances
  - Measures to reduce non-household consumption should be introduced, including removing regulator barriers to water re-use.
16. **With respect to Welsh consumers, the Commission believes they are still not adequately protected.** The Commission's recommendations for an enhanced customer experience metric will enable the regulator to better hold companies to account to deliver high standards of customer service. The Commission also recommends the Welsh Government reviews social tariff schemes in Wales and considers reforms to ensure these are adequate to support those facing water poverty. Consumer protections will be further strengthened through the creation of a mandatory ombudsman for water for England and Wales.

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<sup>1</sup> [UK Climate Change Risk Assessment: Summary for Wales](#), UK Climate Risk



## Water Company Governance & Competition

17. **Wales is primarily served by Dŵr Cymru Welsh Water, a not-for-dividend company owned by Glas Cymru.** The remainder of customers are served by Hafren Dyfrdwy, a small private water company which is part of the larger, England-based Severn Trent Group. As a result, the public debate in Wales does not focus on for-profit water company models of ownership. However, the Commission believes all water companies need to be managed according to higher standards of corporate governance. A new regime for senior water company individual accountability should be established by the Welsh government.
18. **The Commission recognises the Welsh Government's concerns around fragmentation from competition initiatives.** While the Commission is recommending reform to support the BRM and NAV market in England, the Welsh Government may wish not to pursue these reforms.

## National Infrastructure

19. **The UK and Welsh governments will need to work collaboratively to ensure infrastructure decisions include Welsh priorities.**
20. **Statutory resilience standards, covering system, infrastructure and supply chains, should be developed and adopted for the water industry in Wales.** Resilience standards should ensure all companies make forward-looking, long-term assessments of their systems and assets and of their ability to recover from disruption to their network.
21. **The Welsh Government should strengthen the requirements on companies to map and assess the health of their assets,** and the regulator should ensure metrics for asset health are sufficiently forward looking.
22. **The National Infrastructure Commission for Wales (NICW) is currently reviewing water infrastructure needs for Wales** and the Commission recognises that decisions on infrastructure and asset health should be taken forward by the Welsh Government with consideration to NICW's findings.

## What the recommendations mean in practice

There are 88 recommendations in this report. Given the length and depth of the report, the Commission has set out key outcomes we would expect for a) consumers b) the water environment c) investors and d) water companies. These explain what the recommendations mean in practice for different groups.

### Consumers

Consumers should have a stronger voice in shaping the future of their water environment. They should feel that local voices that represent them are heard in decisions, such as where new infrastructure is built or how pollution from different sources is tackled. They should know there is a joined-up, cross-sectoral approach to address water issues in their area, with the nine new regional water authorities bringing together representation from local government, agriculture, public health, the environment and consumers (**Chapter 2**).

As billpayers, there should have a mandatory water ombudsman service to give a clearer route to resolving complaints. National social tariffs should provide fair, consistent support for low-income customers who are unable pay their bills (**Chapter 5**).

Consumers should be reassured that senior managers in water companies are required to consider the public interest, and that regulators have the right resources, culture and powers at their disposal to ensure they do (**Chapters 4, 5 and 6**). Critically, they also should know that the bills they are asked to pay are fair for the improvements being made and the services they receive (**Chapter 5**).

### The water environment

The water environment will benefit from a radical overhaul of the water planning system, ensuring all sectors responsible for pollution (for example, water companies, agriculture, transport) play their part and are held accountable. It should mean that decisions on the improvement and management of water systems – our river basins, coasts and aquifers – pull in the same strategic direction, while reflecting regional and local priorities (**Chapter 1, Chapter 2**).

At every stage, water should be protected through a strong legislative framework which is ambitious, transparent and drives improvements in both public health and the environment (**Chapter 3**). It should be protected through a more coherent and robust regulatory framework, with confidence that the regulators can and will take action if environmental standards are not met. This includes significant reforms to Operator Self-Monitoring, with greater use of digitalisation, automation and third-party assurance (**Chapter 4, Chapter 5**). Similarly, there should be a stronger grip on the state of water assets and the regulatory incentives in place to improve them (**Chapter 7**).

Finally, the environment will benefit from stronger controls in how water companies are governed, who owns them and how they are acting in line with the public interest. It will also benefit from a sector that can attract investment for the long-term and harness the innovation to improve it. (**Chapter 6**).

## Investors

Investors should feel confident that, by investing in the water system and putting their capital at risk, they are investing in an industry that has a clear, stable and long-term framework (**Chapter 1**). They should know that the government has an objective to restore the stability of the regulatory framework with reference to its credit rating and broaden its narrative regarding water sector performance (**Chapter 6**).

They should be assured that the companies they invest in are regulated in an efficient, stable and predictable way that recognises each company's individual circumstances (**Chapter 4, Chapter 5**). They should know that the regulator has a duty to support the investability of the sector (**Chapter 4**). They should believe that they can earn a fair, balanced return. Through a new financial supervision framework, they should know that the companies they invest in are resilient and able to absorb shocks (**Chapter 6**).

They should know that the workforce and supply chains are in place to facilitate the projects. And they should know there is strong regulatory oversight to ensure they will be delivered on time (**Chapter 2, Chapter 5, Chapter 7**).

Taken together, the recommendations are intended to help attract investors that take a long-term, low-risk and low-return investment approach, for example, pension, sovereign wealth and infrastructure funds

## Water companies

Water companies should be in no doubt about the culture they are expected to set for the public interest. That includes reforms around governance, a new regime for senior managers and greater oversight of company finances (**Chapter 6**). They should be clear about the government's long-term priorities for water and their own obligations with regards to their customers, the environment and the maintenance and resilience of their infrastructure, from pipes to pumping stations to treatment works (**Chapter 1, Chapter 7**).

A simpler business planning process should consolidate the 9 existing plans into 2 key frameworks ('Water Environment' and 'Water Supply'), with stronger cost-benefit analysis from regulators in how these are assessed (**Chapter 2, Chapter 3**). A single integrated regulator should clarify and simplify the regulatory framework (**Chapter 4**). Through the new supervisory model, they should feel there is a deeper, more tailored understanding from the regulator about their specific circumstances, with the right incentives in place (**Chapter 5**). And by devolving from the Environment Agency to



new regional water authorities to develop water investment plans that reflect local needs and local voices, water companies should get a clear view of coordinated action from all sectors impacting water (**Chapter 1**).



# Chapter 1: Strategic direction for the water system

## 1.1: Government strategic direction

### Background

1. **The pressures and demands on water in England and Wales come from multiple and competing directions:** pressures to preserve and restore this vital part of our natural environment; demands to take water out of the system for households, agriculture and industry and to manage wastewater; and demands for safe, healthy water bodies for recreation and wellbeing.
2. **The management of these competing demands and pressures has developed piecemeal over many years, often in sectoral or policy silos.** But as demands and pressures have grown our ability to manage and balance the pressures and demands in this way have increasingly fallen short.
3. **The management of water has to balance multiple policy objectives.** Abstraction of water, for example, is vital for economic growth and development.<sup>2</sup> The UK Government has aimed to build 1.5 million homes in England over the course of this Parliament and the Welsh Government has an ambition to build 20,000 new low carbon social homes – all of which will require water.<sup>3</sup> Water scarcity has been a limiting factor in relation to development. For example, Cambridge is a targeted growth area but is also an area where water supply relies on rare, protected chalk aquifers. The Environment Agency (EA) has said development must not increase abstraction and risk deterioration to these water bodies.<sup>4</sup> Government's Artificial Intelligence (AI) Strategy and Net Zero Strategy also have high water needs but there is a high degree of uncertainty, and they are not adequately covered in current water resource planning.<sup>5</sup> Major investment and changes in consumer behaviour can help to resolve these tensions. But investment costs can be high and often have to be paid for through water bills. Consumers, used to relatively cheap and plentiful water, are resistant to higher bills.<sup>6</sup>

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<sup>2</sup> Environment Agency, '[National Framework for Water Resources](#)', 2025

<sup>3</sup> Prime Minister's Office, '[Plan for Change](#)', 2024; Llywodraeth Cymru Welsh Government '[Programme for government: update](#)', 2021

<sup>4</sup> Defra and Ministry of Housing, Communities & Local Government, '[Addressing water scarcity in Greater Cambridge: update on government measures](#)', 2024

<sup>5</sup> Department for Science, Innovation and Technology and others, '[National AI Strategy](#)', 2022; Department for Energy Security and others, '[Net Zero Strategy](#)', 2022; Environment Agency, '[National Framework for Water Resources](#)', 2025

<sup>6</sup> If the effect of inflation is removed, water bills have reduced nearly every year since 2014. However, water bills are expected to rise in Price Review 2024; CCW '[Understanding consumer priorities 2025](#)', 2025



4. **The management of water also has to operate across multiple economic sectors.** As shown in Figures 1 and 2, agriculture has the most significant environmental impact on water bodies in England and Wales. Nutrient pollution from farming can damage water body health by causing algal blooms, oxygen depletion, and habitat destruction.<sup>7</sup> The River Wye is an example of this, where over 70% of excess nutrients and sediment in the English stretch of the river have been identified as entering from agricultural land.<sup>8</sup> The water industry is the sector with the second most significant impact on water quality. Both treated and untreated sewage can impact water bodies by introducing chemicals, pathogens, or nutrients, such as phosphorus. Urban and transport sectors are the third highest sector of impact. Road run-off contains the build-up of pollutants from oil spills and tyre and brake wear of vehicles on roads. These pollutants accumulate, particularly in dry periods, and are then washed into nearby rivers when it rains, posing risks to river ecological health and aquatic life.<sup>9</sup>
5. **Environmental, demographic and financial pressures on the water system are only growing.** By 2025, the National Infrastructure Commission (NIC) estimates there is a 1 in 4 chance that large numbers of households in parts of England will have their water supplies cut off for an extended period, due to severe drought.<sup>10</sup> There is also an emerging awareness of contaminants, such as per-and poly-fluoroalkyl substances (PFAS) ('forever chemicals') and microplastics, entering our waterways.<sup>11</sup> All of these pressures and differing demands on the water system create a complex landscape for the management of water.

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<sup>7</sup> Environment Agency, '[2021 river basin management plans](#)', 2019

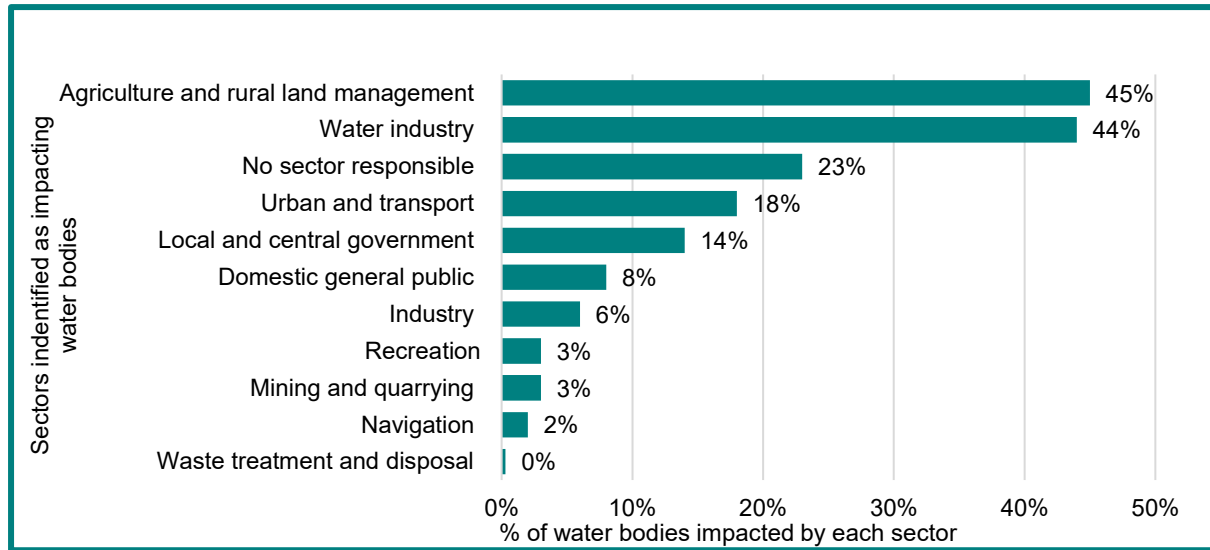
<sup>8</sup> Defra, '[Farming rules for water](#)', 2017; Defra, '[River Wye Action Plan](#)', 2024

<sup>9</sup> Mayor of London, '[Road runoff water quality survey](#)', 2019

<sup>10</sup> National Infrastructure Commission, '[Preparing for a drier future \(archived content\)](#)', 2018

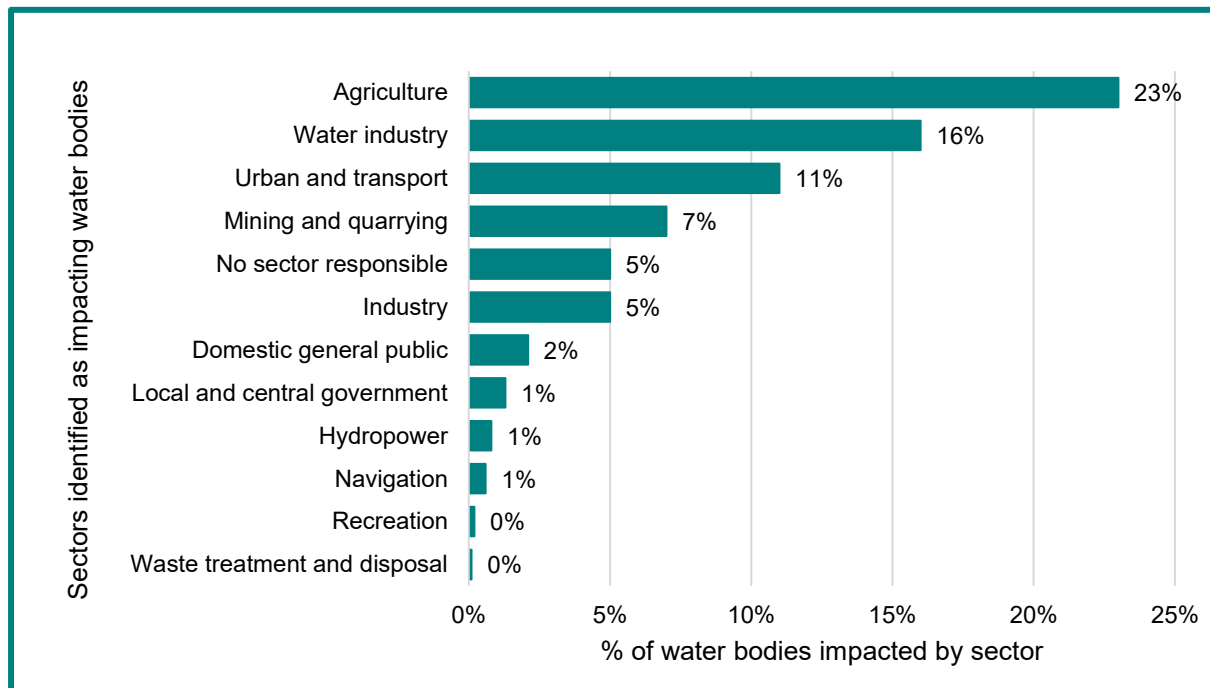
<sup>11</sup> Defra, '[Plan for Water](#)', 2023

**Figure 1 - Percentage of water bodies impacted environmentally by sector, England, 2019**



Source: Independent Commission analysis<sup>12</sup>

**Figure 2 - Percentage of water bodies impacted environmentally by sector, Wales, 2019**



Source: Natural Resources Wales data<sup>13</sup>

<sup>12</sup> Figures are taken from the 2019 set of probable and confirmed reasons for not achieving good status (RNAGs), linked to 2016 Water Framework Directive classifications. Percentages are based on the total number of water bodies in England, not just those not achieving good status. Information and data: 25 YEP B3 evidence pack

<sup>13</sup> Analysis provided directly to the Independent Commission by Natural Resources Wales. Data from: [Natural Resources Wales](#)



6. **The UK and Welsh government have, more recently, attempted to provide comprehensive guidance to help manage the demands and pressures facing the water system.** The Water Strategy for England (2008) set out actions to improve the management of water across the issues of water supply, demand, pollution and flooding.<sup>14</sup> The Water for Life White Paper (2011) sought to describe a ‘vision for future water management’ in England.<sup>15</sup> The Water Strategy for Wales (2015) set out policies and principles towards the aim of integrated and sustainable management of water over a 20+ year period.<sup>16</sup> More recently, the UK Government’s Plan for Water (2023) set out goals, targets and policies across activities impacting water.<sup>17</sup> The Environmental Improvement Plan (EIP), also published in 2023, set out policies to achieve the Environment Act 2021 long-term water targets.<sup>18</sup>
7. **Alongside these strategies, government and regulators have set a range of additional requirements.** In England, for example, these include targets in the Storm Overflows Discharge Reduction Plan and the EA’s National Framework for Water Resources.<sup>19</sup> In Wales, the Well-being of Future Generations (Wales) Act 2015 places duties on public bodies in Wales to act in accordance with the sustainable development principles.<sup>20</sup> It has led to further targets for the water industry, such as storm overflow targets (through the Better River Quality Taskforce Action Plans), and phosphorus reduction targets for Special Areas of Conservation (SAC) rivers.<sup>21</sup>

## Issues

8. **The Commission has identified 7 main issues in relation to government strategic direction:**
  - a lack of a systems-based approach
  - a lack of a cross-sectoral approach
  - not sufficiently long-term

<sup>14</sup> Defra, ‘[Water strategy for England – ‘future water’](#)’, 2008

<sup>15</sup> Defra, ‘[Water for life](#)’, 2011

<sup>16</sup> Llywodraeth Cymru Welsh Government, ‘[Water Strategy for Wales](#)’, 2015

<sup>17</sup> Defra, ‘[Plan for Water](#)’, 2023; Llywodraeth Cymru Welsh Government ‘[Water Strategy for Wales](#)’, 2015; Defra, ‘[Environment Improvement Plan](#)’, 2023

<sup>18</sup> The 4 [statutory Environment Act 2021](#) targets to 1. reduce water demand, 2. reduce nutrient pollution from wastewater 3. reduce nutrient pollution from agriculture, and 4. to reduce pollution from abandoned metal mines

<sup>19</sup> Environment Agency. ‘[National Framework for Water Resources 2025](#)’, 2025

<sup>20</sup> [Well-being of Future Generations Act 2015 - Future Generations Wales](#)

<sup>21</sup> Llywodraeth Cymru Welsh Government, ‘[Wales Better River Quality Taskforce](#)’ (viewed 16 July 2025)

- limits in short-term direction
- a lack of progress reporting
- a lack of robust cost-benefit analysis
- a lack of clear guidance on how to manage trade-offs.

### Lack of a systems-based approach

9. **Despite these efforts, the Commission has heard that approaches to strategic direction for water in England and Wales have not been sufficiently integrated, or systems-based.** Responses to the Call for Evidence highlighted that the most recent UK government strategy documents for water, the Plan for Water and the EIP, set individual, siloed targets with limited consideration of their interaction.<sup>22</sup> The Welsh 2015 Water Strategy took a more integrated approach, but there has been no reporting on progress since 2016, meaning it is hard to evaluate delivery against the strategy.<sup>23</sup> The Commission has also heard that previous efforts to establish strategic direction for the water system have had major gaps. Some have suggested they have not sufficiently focused on recreational use of waters, while others have called for a more holistic approach to managing rainwater as a drainage issue.<sup>24</sup>

### Lack of cross-sectoral focus

10. **The Commission has heard existing strategic government direction in Wales and England does not appear to have taken a sufficiently cross-sectoral approach.** As described previously, the evidence shows that action by the agricultural and transport sectors is critical to restoring environmental health in water bodies. However, the Commission has heard action has been lacking.<sup>25</sup> The Office for Environmental Protection (OEP) said effective implementation “will depend on an approach that effectively looks at and addresses all pressures from all sectors”.<sup>26</sup> The Commission has heard that failures to take a cross-sectoral approach to water are also making delivering wider government objectives harder and more inefficient. The EA recently predicted that by 2055 England will need an extra five billion litres of water each day just to serve the population.<sup>27</sup> This forecast does not include new or emerging demands associated with wider public policy objectives, such as the water needed for both the transition to delivering the UK government’s

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<sup>22</sup> Engagement with the Commission, 2025

<sup>23</sup> Llywodraeth Cymru Welsh Government, ‘[Water Strategy for Wales](#)’, 2015

<sup>24</sup> Environment Agency engagement with the Commission, 2025

<sup>25</sup> Engagement with the Commission, 2025

<sup>26</sup> [Office for Environmental Protection response to the Call for Evidence](#), 2025<sup>27</sup> Environment Agency, ‘[National Framework for Water Resources](#)’, 2025

<sup>27</sup> Environment Agency, ‘[National Framework for Water Resources](#)’, 2025

clean energy superpower mission, or the likely water needs of AI.<sup>28</sup> Water and wastewater services are also essential infrastructure services to enable the UK Welsh government's aims for housebuilding.<sup>29</sup>

## Lack of enduring vision with long-term focus

11. **Concerns have been raised that the approach of government is not sufficiently long-term.** UK and Welsh governments' efforts to set strategic direction for the sector, described previously, have been largely sporadic and have rarely endured beyond the term of the government that was responsible for publishing them. In England, the Plan for Water had few measurable long-term milestones and made no provision to be binding on future government. While the EIP does include long-term milestones, it is not aligned with the water industry Price Review cycle, which has limited its use to drive water industry investment. United Utilities has said "...there is a need for stability and timeliness of government policy and guidance from regulators. Fluctuations in the programme of work create ambiguity in delivering statutory duties and funding uncertainty."<sup>30</sup> Respondents to 38 degrees and Surfers Against Sewage consultations emphasised a lack of confidence that government's long-term vision reflects the needs and ambitions of the sector and the public.<sup>31</sup> Natural Resources Wales (NRW) said in their response to the Call for Evidence, "...going forward we would encourage the Commission to consider a framework which allows an integrated approach to setting direction, for a period extending beyond the next Price Review. This would enable a longer-term planning and investment cycle and could facilitate more integrated solutions which provide multiple benefits".<sup>32</sup>

## Limits in short-term direction

12. **Where long-term targets have been set, the Commission has heard how the lack of interim milestones has resulted in backloading of delivery and made it harder for regulators to hold sectors accountable for their progress in delivery.** This is an issue illustrated by the profile of expenditure on environmental enhancement over recent price reviews. Figure 3 details that, in 2022-23 real terms, the Water Industry National Environment Programme (WINEP) averaged £5.4 billion in the Price Reviews from 2004 to 2019, before jumping fourfold to almost £24 billion in

<sup>28</sup> Prime Minister's Office, '[Plan for Change](#)', 2024; OECD, '[How much water does AI consume?](#)', 2023; Environment Agency, '[National Framework for Water Resources: 2025](#)', 2025

<sup>29</sup> Prime Minister's Office, '[Plan for Change](#)', 2024; Llywodraeth Cymru Welsh Government, '[Programme for government: update](#)', 2021

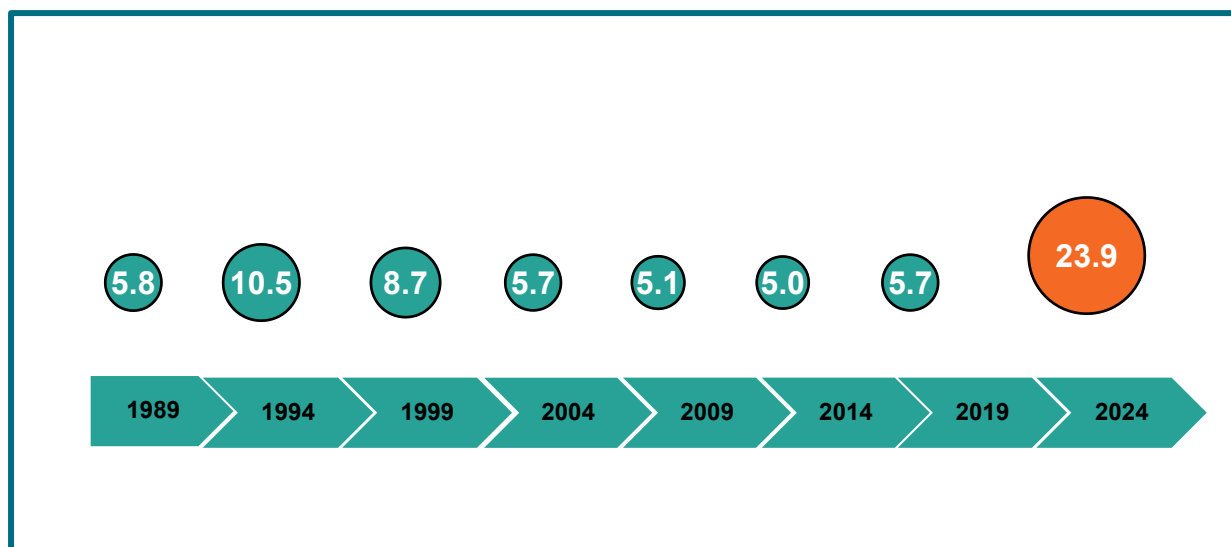
<sup>30</sup> United Utilities response to the Call for Evidence, 2025

<sup>31</sup> 38 degrees and Surfers against Sewage responses to the Call for Evidence, 2025

<sup>32</sup> Cyfoeth Naturiol Cymru National Resources Wales response to the Call for Evidence, 2025

Price Review 2024.<sup>33</sup> It is further illustrated through water supply – no new reservoirs have been built for over 30 years, but 9 new reservoirs are now suddenly to begin as part of Price Review 2024.<sup>34</sup> Further, the Commission has heard that a lack of interim targets for the water system has contributed to the lack of progress on the Good Ecological Status (GES) objectives set by the Water Framework Directive (WFD) Regulations regarding water quality. In England, the OEP have recommended ‘SMART interim targets on the trajectory to meet long-term targets. These should be pursued through specific and timebound delivery plans, accompanied by review mechanisms’.<sup>35</sup>

**Figure 3 - Estimated historical environmental expenditure allowances Water Industry National Environment Programme (WINEP), England and Wales, 1989 to 2030, £billion, 2022-23 prices**



Source: Ofwat<sup>36</sup>

### Lack of progress reporting

13. **The Commission has heard that a lack of reporting requirements has limited government’s ability to monitor and ensure short-term progress to support delivery against long-term goals.** As with the Wales Water Strategy 2015, the UK Plan for Water 2023 has no associated progress reports.<sup>37</sup> While the EIP does provide annual reports, which cover some water targets, it does not report against wider water requirements.

<sup>33</sup> 2022/23 prices. Ofwat engagement with the Commission, 2025

<sup>34</sup> Defra, ‘[Government steps in to build first major reservoirs in 30 years](#)’, 2025

<sup>35</sup> [Office for Environmental Protection response to the Call for Evidence](#), 2025

<sup>36</sup> Ofwat analysis provided directly to the Independent Commission. Only high-level figures are available for early price controls. For Price Review 2014 Ofwat did not provide separate WINEP allowances as they provided overall total expenditure allowances. For this period company business plan requests were used to estimate the scale of the WINEP. Figures have been indexed by CPIH.

<sup>37</sup> Defra, ‘[Plan for water](#)’, 2023

Stakeholders have highlighted that neither English nor Welsh strategic direction provides consistent SMART (Specific, Measurable, Achievable, Measurable and Time-bound) targets, making it harder to measure progress and hold actors accountable for delivery in the short and long-term. Wildlife and Countryside Link noted that a core part of the government's role is setting "clear, specific and measurable delivery pathways for how...targets will be achieved".<sup>38</sup>

## Lack of costings

14. **The Commission has heard, in England and Wales, that there has been a failure to consistently analyse the costs and benefits of the legislative and regulatory requirements which underlie all strategic documents and planning.**<sup>39</sup> While assessments are typically carried out for individual policy areas, they are not always carried out for strategy documents. This means there is rarely a cumulative assessment of the impacts of government policies on the sector. For example, the UK government's Plan for Water was not subject to a robust assessment. This has resulted in policies being imposed on the sector, with costs passed through to consumers and the public, without a good understanding of the cumulative impact of these policies. Ofwat noted, "in many cases, plans are set without meaningful public consultation and in silos, with no assessment of how to maximise their aggregate impacts at the lowest costs."<sup>40</sup> This was also noted by the National Audit Office (NAO) in their recent review into the water sector: "Defra set... targets without direct consideration for consumer bills or affordability. In its accompanying impact assessment, Defra stated that funding will be negotiated between water companies and Ofwat and costs ... [will be] passed on to customers in their bills." The NAO continued, "[Defra] did not attempt to quantify these costs. Defra also did not consider the availability of a supply chain and deliverability of the targets."<sup>41</sup>

## Prioritisation and trade-offs

15. **The Commission has heard government has not provided clear prioritisation or direction to the regulators on how to navigate trade-offs between goals.** The Commission has heard clearly from regulators that they are not getting the vital strategic direction they need to manage the sector and deliver government's priorities, particularly how the regulatory system should balance affordable bills for customers with enabling water companies to deliver the investment needed to meet required environmental standards. Water UK said that responsibility for making trade-offs "should not

<sup>38</sup> [Wildlife and Countryside Link and Blueprint for Water response to the Call for Evidence](#), 2025

<sup>39</sup> Engagement with the Commission, 2025

<sup>40</sup> [Ofwat response to the Call for Evidence](#), 2025

<sup>41</sup> National Audit Office, ['Regulating for investment and outcomes in the water sector'](#), 2025



sit with an independent regulator but with an elected government who can give expression to the needs of society”.<sup>42</sup> Water regulators have been clear that exercising greater discretion requires the statutory space to do so and clear articulation from government of their desired outcomes.<sup>43</sup> Ofwat has said it is key that clarity on trade-offs is provided “early in the strategic planning process lifecycle to enable plans to be developed”.<sup>44</sup> Natural England (NE) has also supported greater clarity on trade-offs: “policy and ambition are currently set at national level but there is no integrated plan that enables priorities to be cross-checked, integrated and trade-offs made.”<sup>45</sup>

## Conclusions and recommendations

### *Clarity is needed from government on a strategic approach for the water sector.*

16. **To deliver positive long-term water outcomes for the environment, citizens and economic growth, it is essential there is a step change in government’s strategic approach to water.** At present, the issues facing the sector are resolved by the unplanned – and often unintended – interplay between siloed guidance and policy, as well as over-lapping and under-lapping legislative requirements. Strategic guidance is key to equip the regulators with the tools they need to properly provide oversight. Providing such guidance will be a major and by no means an easy exercise. It necessarily involves interdepartmental consultation and coordination and the balancing of different objectives and interests. It must be comprehensive, cross-sectoral, and must command the confidence of the water users as well as the sectors impacting the water system.

**Recommendation 1: The UK and Welsh government should each bring forward a new, long-term, cross-sectoral, and systems-focused National Water Strategy for England and Wales respectively.**

### Scope

17. **The scope of the National Water Strategy should be sufficiently broad to overcome the siloed approaches historically seen in the water sector.** Firstly, it should take an integrated approach to setting targets and direction, across the whole water system and its interdependencies. This includes water supply and resources, drainage, wastewater, public health and recreation needs, interactions with flood risk and the wider environment, including Net Zero.

<sup>42</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>43</sup> Regulator engagement with the Commission, 2025

<sup>44</sup> [Ofwat response to the Call for Evidence](#), 2025

<sup>44</sup> [Ofwat response to the Call for Evidence](#), 2025

<sup>45</sup> Natural England response to the Call for Evidence, 2025

18. **The Strategy should be cross-sectoral, setting out in one place the requirements on all the sectors impacting on or interacting with the water environment.** As part of this, the Strategy should set out what existing levers and additional mechanisms are needed to mitigate the impact of key sectors, including agriculture (further detail in Chapter 2). To achieve clean, plentiful and resilient water multiple sectors must deliver their part – long-term objectives cannot be delivered by the water industry alone. In recent years, the water industry has put forward significant investment plans to reduce pollution. However, achieving a future environmental target for water – as set out in Chapter 3 - will depend more and more upon reducing the contribution of agricultural pollution.<sup>46</sup> This is especially true in Wales, where National Resources Wales (NRW) has identified that 61% of water bodies in SACs failed phosphorus targets, with this closely linked to agriculture production.<sup>47</sup> Action by other sectors is also needed, for example to improve drainage and management of surface run-off from roads and urban areas. A National Water Strategy should therefore include the impact of agriculture, land-use, energy, transport and housing development, and any other sectors that are particularly reliant on or impact the water system. In Wales, the inclusion of the mining sector is particularly important.
19. **The National Water Strategy should consider relevant milestones within other interdependent strategies that have a bearing on the water system, including flood planning, climate and adaptation strategies, the Net Zero Strategy, the Environment Improvement Plan and the 10 Year Infrastructure Strategy.** A truly cross-cutting water strategy would enable water interdependencies between government policy objectives to be recognised and addressed and ensure that water is adequately factored into policy thinking across government. When setting the strategy, government should also aim to align and, or replace wider planning documents in water with the National Water Strategy.

### Priorities and trade-offs

20. **The National Water Strategy should set out a clear framework for prioritising and managing trade-offs.** Government should look to domestic and international regulated sectors to decide how best to design this. There are a number of ways this could be articulated and examples that could be drawn upon. These include tiered objectives, a hierarchy of outcomes, and national guidance on areas of conflict. Box 1 sets out a range of suggestions.

<sup>46</sup> Environment Agency engagement with the Commission, 2025; expanded on in Chapter 3

<sup>47</sup> In 107 of 125 water bodies assessed with 18 water bodies not being assessed due to inadequate data. Cyfoeth Naturiol Cymru Natural Resources Wales, '[Compliance Assessment of Welsh River SACs Against Phosphorus Targets](#)', 2021

### **Box 1 – Case study: Methods for supporting prioritisation and the management of trade-offs to achieve government targets**

#### **Tiered objectives**

This would involve articulating primary objectives in the National Water Strategy, alongside secondary objectives, and lastly areas to which delivery partners must have regard. Such an example can be seen in the functioning of the Prudential Regulation Authority (PRA), which has two primary objectives, two secondary objectives, then finally recommendations from HM Treasury which they must have regard to when carrying out their function. These objectives and recommendations guide the development of standards and policies that set out the expectations of firms, with strategic priorities reviewed and announced yearly.<sup>48</sup>

#### **Hierarchy of outcomes**

A precedent for this can be found in the Te Mana o Te Wai hierarchy, within the National Objectives Framework of the Ministry for the Environment in New Zealand. Te Mana o Te Wai refers to the vital importance of water. When managing freshwater, it ensures the health and well-being of the water is protected and human health needs are provided for before enabling other uses of water. This hierarchy is applied to all decision-making and prioritises the health and well-being of water bodies and freshwater ecosystems first. The second priority is the health needs of people (such as drinking water). The third priority is the ability of people and communities to provide for their social, economic and cultural well-being, both now and in the future.<sup>49</sup> While the Commission does not necessarily recommend introducing this specific hierarchy within England and Wales, the government should consider whether a similar approach may enable a clearer articulation of priorities to the water sector and allow better decision-making on trade-offs.

Te Mana o Te Wai does not require all activities to come to a halt, nor that all water bodies must be restored to a pristine state before other needs in the hierarchy can be addressed (for instance, drinking water). However, it requires decision makers to understand existing pressures and prioritise the hierarchy based on the current state and also requires that decisions are made that provide for activities without detracting from Te Mana o Te Wai. In degraded water bodies this will require changes to current resource use, to restore Te Mana o Te Wai. New development may proceed but in a way that gives effect to Te Mana o Te Wai. This means economic gain, urban development or lifestyle activities cannot come at the expense of the health of a water body.

<sup>48</sup> Bank of England 'Prudential Regulation Authority Business Plan 2023-24', 2023

<sup>49</sup> New Zealand Ministry for the Environment, 'National Objectives Framework', 2022; Ministry for the Environment, 'Clause 1.3: The fundamental concept of Te Mana o te Wai and its use in the NOF', 2022

An additional example of this approach has been taken in Tasmania. Here, public health issues from water supply were deliberately prioritised over the environmental impacts to deal with water quality issues. There was the ability to deviate from the hierarchy where there was critical need to do so - the environmental regulator was explicit in outlining that TasWater should focus on areas with significant public health issues, rather than areas that may be non-compliant with a lower risk of environmental damage. There was also spatial prioritisation of investment into areas it was deemed to have the most value.<sup>50</sup>

### **National guidance for areas of tension**

UK and Welsh governments may also consider releasing specific national guidance for likely areas of tension. This approach has been adopted in Germany, where the German Government have devised national agreed criteria for existing and future conflicting objectives in land-use (for example, appropriate areas and sites for groundwater recharge, drinking water abstraction, flood protection, use for energy production) to be solved at the regional level.<sup>51</sup> A National Water Strategy could outline where these areas of guidance are likely to be needed and what criteria should be applied by regulators and, or, systems planners to their decision-making on these trade-offs. This could include guidance on where regulators and systems planners may need to exercise constrained discretion, as outlined in Chapter 3.

21. **The Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 may already provide a framework for Welsh ministers (and other named public bodies) through which to consider trade-offs in a long-term context.**<sup>52</sup> Welsh Government's Price Review Forum has also been successful in navigating some trade-off decisions for the water industry during Price Review 2024.<sup>53</sup> Other tools used by the Welsh Government include Habitats Regulation Assessments, Strategic Environmental Assessments and Equality Impact Assessments when considering the socio-economic impacts of policy decisions (for example, previous decisions on social tariffs).<sup>54</sup> Welsh Government should also consider how it can better articulate cross-sector trade-offs. This may include expanding the membership of the Price Review Forum to include representation from other sectors.
22. **Alongside a framework within the National Water Strategy, government should also develop a clear escalation route to support managing**

<sup>50</sup> Frontier Economics, '[Dry Down Under: Australia's water woes](#)', (viewed 16 July 2025)

<sup>51</sup> German National Water Strategy, '[National Water Strategy - Cabinet decision of 15 March 2023](#)', 2023

<sup>52</sup> [The Well-being of Future Generations, 2016; Environment \(Wales\) Act, 2016](#)

<sup>53</sup> Engagement with the Commission, 2025

<sup>54</sup> Llywodraeth Cymru Welsh Government engagement with the Commission, 2025

**unforeseen policy conflicts and trade-offs where necessary.** Wherever possible, resolving conflicts and trade-offs should be made by regulators within the priorities and trade-off decision making framework set in the National Water Strategy and the Ministerial Statement of Water Industry priorities (MSWIP) (further information provided in Section 1.2). However, government may not anticipate every circumstance that will occur; or its decisions may become inappropriate. Further, as suggested by the National Infrastructure Commission (NIC) in their report on supporting resilient infrastructure, government may not always be comfortable providing ex ante guidance to the regulator without the regulator providing information on the context and potential impacts of different choices. For example, the UK Government takes decisions on climate change targets alongside independent expert advice from the Committee on Climate Change. To provide this escalation route, government should adopt the NIC's recommendation – giving regulators the power to seek explicit guidance on policy conflicts and trade-off decisions from ministers, against a menu of feasible options provided by the regulator alongside detailed impact assessments.<sup>55</sup>

## Timing

23. **The National Water Strategy should be published every 5 years.** Publication should line up with the Price Review cycle, ensuring that the Strategy arrives early enough to guide water industry planning and there are strong arguments that it should be provided no later than the end of first year of the Price Review cycle. Once published, the Strategy should not be revisited until the 5-year period has passed, unless a serious case can be made, (for example a major change of policy, or general election) and due process followed. Government may wish to look to legislation for the Strategy and Policy Statement for Energy - the Secretary of State is required by legislation to review the statement within a set period - no more than 5 years since the last review should elapse, though the statement can be reviewed before that under certain conditions, such as if there has been a general election or significant change in energy policy.<sup>56</sup>
24. **The National Water Strategy should have a minimum horizon of 25 years to ensure an adequate long-term perspective.** It should set out clear interim milestones on a 5/10/25 year basis to align with Price Review planning horizons. The strategy should constantly roll forward every 5 years, so that there is always a 25-year end point. Furthermore, the National Water

<sup>55</sup> National Infrastructure Commission, '[Strategic Investment and Public Confidence \(archived content\)](#)' 2019

<sup>56</sup> [Energy Act 2023](#)



Strategy should act as the driver for all aspects of water planning, including regional and company planning.

25. **At each 5-year review and revision, the government should consider what adjustments need to be made to delivery trajectories, milestones or interim targets.** Any revision should be made with consideration of supporting progress towards long-term targets. This may include considering if new long or short-term targets are needed, to ensure the sector is always clear on the long-term direction. What the review and revision should not mean is that legislative deadlines, (for example the date to complete the primary long-term target), are being moved back or constantly changed, as this would only cause further instability and prevent the delivery of long-term goals. If a future government does believe a change to a legislative deadline is required, this should only happen where there is a serious case to be made and where due process has occurred.

## Legal basis

26. **The National Water Strategy should have a statutory underpinning in England and in Wales.** The English Strategy should be led by Defra and the Welsh Strategy led by the Welsh Government department for Climate Change and Environmental Sustainability. However, they should provide a whole government vision for water - its contents and priorities should therefore be endorsed by all relevant government departments. The Defra Secretary of State and Welsh ministers should have a legal requirement to produce and maintain the strategy in line with certain statutory criteria or principles. This would support the strategy's longevity for future government. Each iteration of the report should be laid before parliament and the Senedd.
27. **In England, the Strategy should look to the broad model of the EIP, as provided for in the Environment Act 2021.** The EIP is a plan for significantly improving the natural environment over a period of at least 15 years. It must be produced and published by the Secretary of State, reviewed at least every 5 years, and progress reports must be published annually. The EIP brings together a suite of long-term and short-term targets focused on improving the natural environment. The long-term targets are set in secondary legislation under the Environment Act, while interim targets are set through reviews of the EIP. Changes to the long-term targets are possible, but conditions have to be met to avoid 'goalposts' constantly shifting.
28. **As recommended in Chapter 3, a review and rationalisation exercise of the legislative framework for water should include a review of all water statutory targets across existing requirements and legislation.** Government should assess the costs and benefits and consider which overarching outcomes may particularly benefit from the additional backing

for investment, and the long-term certainty across political cycles, which statutory targets provide. The National Water Strategy would then bring together all requirements for the sector in one strategic, cross-sectoral document. It would set out delivery targets to meet overall statutory targets, as set out in legislation.

29. **There should also be a legal requirement to regularly report on progress achieved by various sectors against the targets and objectives set in the National Water Strategy.** This would require coordination with water regulators and other government departments. Where necessary progress is not being achieved, government should provide a clear response. The government may wish to consider how to make reporting information accessible for the public to support transparency and engagement.

### Box 2 – Case Study: The UK's Net Zero strategy

The UK Net Zero Strategy is rooted in the Climate Change Act 2008, which was amended in 2019 to commit the UK to achieving net zero greenhouse gas emissions by 2050.<sup>57</sup> Under this Act, the Secretary of State must lay before Parliament a report setting out proposals and policies for meeting the carbon budgets for current and future budgetary periods. This must be done as soon as is reasonably practicable after setting the carbon budget for a budgetary period.

The legislation requires that the report must set out (a) the Secretary of State's current proposals and relevant policies, (b) the time-scales over which those proposals and policies are expected to take effect, (c) how the proposals and policies affect different sectors of the economy, and (d) the implications of the proposals and policies for the net UK carbon account for each budgetary period covered by the report. No existing water strategy matches the level of detail, the measurability of delivery, or the cross-sectoral approach taken by net zero.

The most recent Net Zero report as required under the Climate Change Act 2008 was the 2023 Carbon Budget Delivery Plan published under the previous Government.<sup>58</sup> There will be an updated Carbon Budget and Growth Delivery Plan published later this year in order to fulfil the 2024 High Court judgment.<sup>59</sup> This publication will set out in detail an update to the existing strategies, policies and proposals to reach Net Zero.

<sup>57</sup> [Climate Change Act 2008](#)

<sup>58</sup> Department for Energy Security & Net Zero, '[Powering Up Britain: Net Zero Growth Plan](#)', 2023

<sup>59</sup> Courts and Tribunals Judiciary, '[Friends of the Earth and others -v- Secretary of State for Energy Security and Net Zero](#)', 2024

## Principles

30. **Government should develop a set of high-level guiding principles that government must give consideration to when developing the National Water Strategy and the Ministerial Statement of Water Industry Priorities** (discussed in section 1.2). A set of agreed principles could guide the development of these documents every 5 years, functioning as backstops to ensure the quality of them. It is recommended that government further refine the suggested principles below – they may choose to adjust wording or add additional principles where they think necessary. Government should ensure any principles set work alongside existing legislation, including, in Wales, the Well-being of Future Generations (Wales) Act 2015. These principles should be included in legislation.

### Box 3 – Proposed Principles for National Water Strategy and MSWIP

- **Resilient** – support the resilience of the country’s water assets (natural and water industry), facilitate future population and climate adaptation and mitigation needs, by using long-term forecasts of at least 25 years.
- **Long-term** – long-term targets and goals, as set out in legislation and through the National Water Strategy, should be reflected in the Strategy and MSWIP
- **Targets for the environment and nature** – the needs of the environment should be reflected in the Strategy and MSWIP, and consequently in both planning frameworks discussed in Chapter 2.
- **Secure water supply** – the fundamental objective of ensuring sufficient clean drinking water supplies for now and the future.
- **Coherent** – other frameworks and targets and goals industry and regulators may be subject to, such as net zero, should be reflected in the Strategy and MSWIP
- **Appraisal** – Government should conduct appraisal of economic, environmental and other costs and benefits, including using natural capital approaches. This assessment should include impact on other sectors and should consider the demands of individual policies and their cumulative impact.
- **Affordable and deliverable** – Government should use the appraisal to ensure its requirements meet reasonable expectations of affordability and deliverability.
- **Transparent** – Government should provide a clear explanatory annex, demonstrating how its short-term targets/priorities and framework for trade-offs support delivery trajectories of long-term goals and targets.
- **Informed** – Government should engage early with regulators and other key groups (such as water industry, agriculture relevant sector representatives,

eNGOs and consumer bodies,) to support creating the targets, priorities and trade-offs.

## Consultation

31. **The National Water Strategy should be subject to formal public consultation.** Objectives are most likely to be delivered if those who implement them have had input in how they are designed. Alongside consultation, when developing the strategy, government should build on engagement with catchment, local and regional levels to help determine national priorities. Particularly after the first cycle, each strategy should iterate feedback and escalation of issues from the catchment and regional levels, including the systems planners (see Chapter 2), local government, catchment groups, experts, community voices, and the public.

## Robust assessment

32. **A new National Water Strategy should be subject to assessment. This should include assessing costs and benefits for individual asks and for the strategy as a total.** It should include the cumulative impact on consumers, impact on supply chains and contributions to natural capital. It should also include impact on other sectors, such as agriculture, and impact on other strategic goals, such as net zero or development. Government should work with regulators, industry and other delivery bodies to support this assessment and use the support of other bodies, such as the National Infrastructure and Service Transformation Authority, where necessary. Ministers should use this information to support decision making on targets and priorities set.

## 1.2: Setting direction for the water industry

### Background

33. **Strategic Policy Statements (SPSs) were introduced through the Water Act 2014 (amending the Water Industry Act 1991) with the aim of supporting a more resilient, long-term water industry, in line with government direction.** Both the UK and Welsh government use SPSs to provide strategic direction for Ofwat every 5 years, exclusively for the water industry, ahead of each Price Review. There is no direct equivalent to the SPSs for the other water regulators. Instead, ministers have powers to direct EA and NE (in England) and NRW (in Wales) as to the specific exercise of their functions – which they do on an ad-hoc, issue-by-issue basis. The Secretary of State has a duty to consult the EA, Ofwat, Welsh ministers, relevant undertakers, and anyone else they consider appropriate.

Welsh ministers must also consult NRW and the Secretary of State.<sup>60</sup> The most recent SPSs were published in 2022 by the UK and Welsh government to support Price Review 2024.<sup>61</sup>

#### **Box 4 – What does strategic guidance for other utility sectors look like?**

**Strategy and Policy Statement for Energy** – Under the Energy Act 2013, the Secretary of State may issue a statement setting out the strategic priorities of government for energy; the particular outcomes to be achieved to implement this policy; and the roles and responsibilities of those in implementing the policy, or who have functions affected by it.<sup>62</sup> Unlike for water, the energy statement applies to multiple regulators and bodies - the National Energy Systems Operator (NESO) as well as Ofgem - and sets out core roles and responsibilities for their operation. Also, unlike the water SPS, the Secretary of State is required by legislation to review the statement within a set period - no more than 5 years since the last review should elapse, though the statement can be reviewed before that under certain conditions, such as if there has been a general election or significant change in energy policy. The legislation also sets requirements for who must be consulted. The legislation underlying the energy statement also differs to water in two other key ways: firstly, Ofgem has a requirement to report on its work in relation to the statement each financial year. Secondly, Ofgem and NESO must raise with the Secretary of State if the statement becomes not realistic to achieve at any time. The Water Industry Act 1991 does not provide equivalent requirements for Ofwat.

The most recent energy statement was published in 2024. At 38 pages it set out fifteen strategic priorities with multiple policy outcomes related to these.<sup>63</sup> The statement also made reference to longer term 2035 objectives for the electricity system and net zero 2050 goals.

**Scottish Water Directions** – Under the Water Industry (Scotland) Act 2002, Scottish ministers must give Scottish Water directions as to how to exercise its powers under section 25 and Schedule 3; requiring it to promote water conservation and water-use efficiency; and otherwise how its affairs are to be managed and conducted.<sup>64</sup> Scottish Water is the sole water company in Scotland, and is nationalised. Ministers set these 'Directions' every 6 years, covering a 6-year period. Under legislation, ministers must consult Scottish Water and Consumer Scotland in creating the Directions. The legislation also requires Scottish Water to report in its activities each financial year.

<sup>60</sup> [Water Industry Act 1991](#)

<sup>61</sup> Defra, '[Strategic Policy Statement for Ofwat](#)', 2022; Llywodraeth Cymru Welsh Government, '[Written Statement: Strategic Priorities and Objectives Statement for Ofwat \(SPS\)](#)', 2022

<sup>62</sup> [Energy Act, 2013](#)

<sup>63</sup> Department for Energy Security & Net Zero, '[Strategy and Policy Statement for Energy](#)', 2024

<sup>64</sup> [Water Industry \(Scotland\) Act, 2002](#)



The most recent Directions were published in 2020. At 5 pages it was much more succinct than the UK and Welsh SPS.<sup>65</sup> It set 40 requirements across 11 sub-sections, which include drinking water, circular economy, and asset maintenance. The Directions have clear links to wider strategies, such as climate change, Net Zero 2040 and the circular economy.

## Issues

34. **The Commission has identified 5 main issues in relation to the government direction for the water industry provided by the SPSs:**
- Failure to support water regulators to work together
  - Does not support long-term targets
  - Failure to respond to emerging priorities
  - Difficulties in holding stakeholders to account for delivery
  - Provides no detailed guidance to help manage trade-offs
35. **The Commission has heard that the SPS fails to support water regulators to work together towards the same set of priorities.** Currently the SPS only sets Ofwat's priorities and objectives for England and Wales, while ministers direct the EA and NRW on an ad-hoc basis – this means there is no single set of priorities towards which all water industry regulators are working consistently. This contributes to a confused and sometimes conflicting regulatory environment, making it difficult for regulators to agree on how to manage trade-offs. The Corry Review (2025) has criticised the UK government's siloed approach, recommending SPSs for each regulator.<sup>66</sup> Ofwat has also specifically called for an SPS that applies to all regulators, which would clearly articulate what is expected of the water industry for all regulators.”<sup>67</sup> The Drinking Water Inspectorate has suggested that they should be a statutory consultee on the SPS.<sup>68</sup>
36. **The Commission has heard that the SPS does not support long-term targets.**<sup>69</sup> Where requirements do link to long-term targets, they are often vague on what exactly is expected in the next 5 years to support the long-term goal. Respondents to the Commission's Call for Evidence have argued that this lack of clarity with regard to the longer-term risks incremental delivery of long-term goals falling between the cracks.<sup>70</sup> For example, neither the 2017 nor 2022 SPSs were specific on what was needed by the water industry to deliver against the WFD. This has contributed to issues, such as

<sup>65</sup> Scottish Government, '[Scottish Water Directions](#)', 2020

<sup>66</sup> Defra, '[An Independent Review of Defra's regulatory landscape](#)', 2025

<sup>67</sup> [Ofwat response to the Call for Evidence](#), 2025

<sup>68</sup> [Drinking Water Inspectorate response to the Call for Evidence](#), 2025

<sup>69</sup> Defra, '[Strategic policy statement for Ofwat](#)', 2022

<sup>70</sup> Responses to the Commission's Call for Evidence, 2025

the backloading of delivery by the water industry to achieve targets under the WFD. Water industry spending on WFD associated projects doubled every Asset Management Period (AMP) from AMPs 6 to 8 (AMP6, 2015 to 2020 - £2.9 billion; AMP7, 2020 to 2025 – between £4.1 - £5.2 billion; AMP8, 2025 to 2030 - £9.8 billion).<sup>71</sup>

37. **The Commission has heard that the SPS has also been challenged for failing to respond to emerging priorities.** For example, the UK 2022 SPS was not updated to respond to the Levelling Up and Regeneration Act 2023 and Storm Overflows Discharge Reduction Plan, which came into effect after the SPS was published.<sup>72</sup> This meant regulators were left to understand for themselves how they should balance new requirements against those set in the UK 2022 SPS – this contributed to issues of affordability and deliverability in Price Review 2024.<sup>73</sup>
38. **The Commission has heard that it is difficult to effectively measure progress and hold stakeholders to account to deliver against the SPS.** Both the UK and Welsh SPSs have been criticised for not providing SMART objectives.<sup>74</sup> The Corry Review (2025) has recommended measurable objectives in any future SPSs. The Call for Evidence set out that stakeholders’ struggle to assess how regulators have delivered against the stated priorities. Ofwat has said it would like clear guidance on how to report in a way that is seriously engaged with by Defra.<sup>75</sup> Water UK has requested that the SPS is precise about measures of success to help with accountability.<sup>76</sup> Water UK noted, “Ofwat has faced far too little accountability for its decisions .... UK and Welsh ministers have communicated their priorities through [the SPS] and then trusted that Ofwat would align its activities to their priorities. There has been too little evidence of this happening, and too little challenge when it has not.”<sup>77</sup>
39. **As with government water strategy documents more generally, the SPS has been criticised for lacking a clear hierarchy of priorities, and providing no detailed guidance to help Ofwat balance its objectives and manage trade-offs.** The 2022 UK SPS set 4 high-level ‘strategic priorities’, which were broken down into around 50 specific requirements; the Welsh

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<sup>71</sup> Environment Agency and Ofwat engagement with the Commission, 2025. There is no simple way to calculate WFD expenditure due to not recording at a driver level during previous price control periods, and the overlap between WFD drivers and other WINEP drivers during the current price control period. Therefore, all values are considered to be approximate, and high level.

<sup>72</sup> Defra, ‘[Strategic Policy Statement for Ofwat](#)’, 2022

<sup>73</sup> Environment Agency and Ofwat engagement with the Commission, 2025

<sup>74</sup> Environment Agency, Ofwat, water company engagement with the Commission, 2025

<sup>75</sup> Ofwat engagement with the Commission, 2025

<sup>76</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>77</sup> [Water UK response to the Call for Evidence](#), 2025

SPS set 5 strategic priorities, covering 29 requirements.<sup>78</sup> Neither government provided clear detailed direction on how regulators should balance priorities or manage trade-offs.<sup>79</sup> There is no requirement for a robust assessment as part of the SPS, which means government guidance through the SPS could exacerbate trade-off challenges.<sup>80</sup> As noted above, the water regulators have been clear that their ability to exercise greater discretion requires clear articulation from government of their desired outcomes. Ofwat and Water UK have argued that it is for government to provide this direction as regulators lack the legitimacy and are also not empowered by the law to manage trade-offs in the way needed. Water UK has proposed that government should “provide a framework to prioritise the delivery of goals in how the regulator should make its decisions.”<sup>81</sup> Welsh Water has said there is “the need for the resolution of various trade-offs that arise... we think it is important that the government ... provides the strategic direction that defines the overall envelope of the price-service package ...”<sup>82</sup>

## Conclusions and recommendations

*Strategic guidance to the water industry needs to be strengthened and clarified.*

40. **The National Water Strategy recommended should address and balance the high-level priorities and set out the high-level objectives and targets for the management of water as a whole.** But beneath and subject to the National Water Strategy, there is a need for specific direction for the water industry regulators. This is necessary to provide them with the level of detailed direction they require to deliver government priorities. This level of detail would not be appropriate for the National Water Strategy, which is intended to be cross-sectoral and higher level.

**Recommendation 2: The UK and Welsh governments should revise the legal framework for the Strategic Policy Statement and replace this with a new Ministerial Statement of Water Industry Priorities (MSWIP), directing all water industry regulatory and systems planner functions.**

### Regulators in scope

41. **In line with recommendations elsewhere in this report, (see Chapter 2 and 4) in England and Wales, the MSWIP should be directed to the**

<sup>78</sup> Defra, ‘[Strategic Policy Statement for Ofwat](#)’, 2022; Llywodraeth Cymru Welsh Government, ‘[Written Statement: Strategic Priorities and Objectives Statement for Ofwat \(SPS\)](#)’, 2022

<sup>79</sup> Ofwat engagement with the Commission, 2025

<sup>80</sup> [Ofwat response to the Call for Evidence](#), 2025; [Water UK response to the Call for Evidence](#), 2025

<sup>81</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>82</sup> Dŵr Cymru Welsh Water response to the Call for Evidence, 2025

**regulators and systems planners, and apply to all relevant functions for the water industry.**

42. **This mirrors the approach of the energy sector, in which similar government guidance applies to Ofgem and NESO.<sup>83</sup>** It also reflects the Corry Review (2025) recommendation that Defra should provide SPSs to all regulators, ensuring regulators are able to work coherently together, to co-deliver to the same set of priorities for industry.<sup>84</sup>

### Time horizons and interactions with the National Water Strategy

43. **The MSWIP should be published every 5 years as part of the National Water Strategy review.** It should arrive early enough to guide water industry planning and allow regulators enough time to deliver their parts of the planning cycle effectively. The MSWIP targets and requirements should be dictated by the long-term goals and apportionment set in the National Water Strategy. Any targets set out in the MSWIP would likely reiterate those required by the National Water Strategy in the next 5 to 10 years to deliver the long-term legislative goals; however, the MSWIP should then provide the additional, more granular detail needed by the water industry. For example, the National Water Strategy would set out the number of pollution monitors to be installed in the next 5 years, but priority sites for the next round of monitor installations would be set in the MSWIP. Likewise, priority sites for a new round of requirements under the Industrial Emissions Directive would be set in the MSWIP, rather than, as at present, by Defra.
44. **The MSWIP should take a 5/10/25 year approach in line with the National Water Strategy and set this for planning** (discussed further in Chapter 2). The MSWIP should set out targets and requirements relevant for the next 5-year funding period, with these acting as 5-year milestones against longer-term delivery trajectories set out in the National Water Strategy. The MSWIP should also provide certainty on priorities over the medium-term, to support the system planning model set out further in Chapter 2. To do this, the MSWIP would also set detailed targets and requirements which cover a 10-year period. This would enable water companies to plan on an up-to-ten-year horizon, which in turn would allow for a more flexible approach to planning and delivery. The MSWIP may also set targets and requirements on a longer-term horizon, where appropriate.

### Trade-offs and prioritisation

45. **The government should set clear priorities and a framework to guide trade-off decisions for industry in the next funding period.** The MSWIP

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<sup>83</sup> Department for Energy Security and Net Zero, '[Strategy and policy statement for energy policy in Great Britain](#)', 2024

<sup>84</sup> Defra, '[An independent Review of Defra's regulatory landscape](#)', 2025

should provide detailed, industry-specific guidance where government direction is needed but the issues are too specific for the National Water Strategy. For example, if government requires a certain number of improvements on storm overflows, water quality monitors and bathing waters, and, during scoping, it is found that supply chains can't cope with the requirements - the MSWIP would help the systems planners and regulators decide how to prioritise. It could do this by setting a baseline for minimum delivery across the targets and requirements, with stretch targets to be achieved where possible. In some cases, it could guide regulators to prioritise certain locations or consider costs and delivery chains when installing monitors.

46. **As with the National Water Strategy, where unexpected trade-offs occur (or priorities become inappropriate), regulators should be able to seek guidance from government within period.** In this way, the MSWIP framework should support regulators to deliver an affordable and deliverable Price Review programme in line with government priorities.
47. **The direction given through the MSWIP could also set a more detailed framework for the Systems Planner to exercise constrained discretion** (see Chapter 2 on systems planning and Chapter 3 on constrained discretion for further detail). The MSWIP would set the 'what' of delivery. The systems planner would then identify 'how' to deliver within the structures and boundaries set by the MSWIP. The systems planner would use the clear prioritisation provided through the MSWIP to manage trade-offs between and within targets/requirements for industry.

## Targets and requirements

48. **In line with the National Water Strategy, the MSWIP should set out SMART targets, for national (and where relevant regional) water industry priorities.** Regulators would then set permit or licence conditions to support adherence to the targets and requirements by the water industry. As recommended by the Corry Review (2025), a SMART approach should better allow government and regulators to assess progress and hold companies accountable for delivery.<sup>85</sup> Where appropriate, targets should be outcome focused to better support innovation and allow systems planners to use their expertise to decide the 'how' of delivery.<sup>86</sup> However, given the detail of the MSWIP, outcomes focused targets may not be appropriate for every target; government should make a judgement call on a case-by-case basis regarding whether outcomes or output targets and requirements are needed. While we anticipate that most targets and requirements set out in the MSWIP should be national, ministers should be able to include targets and

<sup>85</sup> Defra, '[An independent Review of Defra's regulatory landscape](#)', 2025

<sup>86</sup> Further expanded in Chapter 2



requirements on select regional priorities, where they feel this is appropriate and in the national interest.

## Robust assessments

49. **Government should assess the costs and benefits of its MSWIP and take overall affordability into account when setting targets and requirements.** This analysis can be done as part of wider impact analysis of the National Water Strategy. Government should then use this information to support setting targets and requirements set out in the MSWIP – so that they can have confidence that the MSWIP delivers what is needed for our long-term goals, while supporting a deliverable and affordable Price Review.
50. **Government should set a new duty on the regulator to raise concerns if the MSWIP becomes undeliverable in period.** NESO and Ofgem have a duty to raise concerns if their equivalent to the SPS becomes undeliverable at any time.<sup>87</sup> We understand from the relevant departments that this duty has never been used but acts as an incentive for government to ensure their statement is a deliverable ask.

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<sup>87</sup> [Energy Act 2013](#)







## Chapter 2: Planning

### Background

#### Current planning frameworks

51. **There are several planning frameworks for water currently in place in England and Wales, operating at different spatial scales.** At the regional level, 11 River Basin Management Plans (RBMPs), produced by environmental regulators, set out how environmental objectives will be met in each river basin district. They are approved by the Secretary of State. These plans shape aspects of water regulation and planning. They describe the types of measures that water companies should take to fulfil environmental obligations, which then drive action through the water industry planning frameworks described below. Water companies have a duty, every 5 years, to produce Water Resource Management Plans (WRMPs) which set out how they will continue to supply water in their supply area over at least the next 25 years. Regionally planned water resource solutions feed through to the water company-scale plans that set out how public water supply needs will be met.<sup>88</sup> At a local level, the catchment-based approach (CaBA), launched by Defra in 2013, provides a framework for local, cross-sector action on water.<sup>89</sup> CaBa partnerships bring together civil society, local authorities, water companies and others to develop initiatives to improve the local water environment. They are currently active in all 100+ river catchments in England.
52. **Water companies currently develop 9 separate plans as part of business planning, covering aspects of their business ranging from long-term water resources management to short-term environmental protection and pollution incident reduction activities.**<sup>90</sup> In addition, water companies collectively are required to have regard to a further 18 plans which are not water industry-led, but which interact with their planning. These include, for example, RBMPs, flood risk planning, local growth and development plans, local nature recovery strategies in England, or in Wales the nature recovery action plan.<sup>91</sup>

<sup>88</sup> Environment Agency, '[A summary of England's revised draft regional and water resources management plans](#)', 2024

<sup>89</sup> See Box 2 of the [Commissions Call for Evidence](#), 2025

<sup>90</sup> The 9 plans water companies produce are: regional water resource management plans, WRMPs, Drought Plans, Drainage and Wastewater Management Plans, Pollution Incident Reduction Plans, Drinking Water Safety Plans, Water Industry National Environment Plans & National Environment Plans, Long-term Delivery Strategy, Business Plans

<sup>91</sup> The 18 wider plans water companies have regard to: Protected Site Strategies; Local Plans & the National Planning Policy Framework; National Development Management Policies; River Basin Management Plans; Storm Overflows Discharge Reduction Plan; Local Nature Recovery Strategies; Integrated catchment management (catchment plans); Water Resources National Framework; Plan

53. **These planning frameworks collectively inform the business planning process for each Asset Management Period (AMP).** Most of what goes into water companies' business plans sits outside these planning frameworks, especially base elements.<sup>92</sup>
54. **Planning frameworks for sectors outside of the water industry are sparser and vary.** There are no equivalent planning frameworks for agriculture, though the UK Government and Welsh Government have introduced regulatory measures to mitigate and manage the impact of agricultural pollution on water bodies. These are the Reduction and Prevention of Agricultural Diffuse Pollution (England) Regulations 2018 (known as the Farming Rules for Water) 2018, the Nitrate Pollution Prevention Regulations 2015 and Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations 2010 in England, and the Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 in Wales. Planning for the management of run-off from roads is split, with National Highways responsible for the 'strategic road network', also known as 'trunk roads', and local roads managed by local authorities. In addition to their responsibilities for roads in their areas, local authorities are responsible for flooding and elements of drainage policy, including the adoption of sustainable drainage solutions.<sup>93</sup>
55. **It is generally recognised that achieving outcomes and managing systems requires a 'systems planning' approach.** 'Systems planning' has been used in a number of other sectors, within the UK and beyond.

**Box 5 – Systems planning case studies: National Energy Systems Operator (NESO), Regional Flood and Coastal Committees (RFCCs), and Comités de Bassin**

**NESO was established in 2024 to support the UK's transition to net zero and sustain a reliable and secure energy system.** NESO's responsibilities combine long-term planning with real-time operation of the energy market. From 2025, NESO will be responsible for producing Regional Energy Strategic Plans (RESPs). RESPs will be informed by the current regional context, modelling of future supply and demand against current network capacity, and an assessment of investment need. NESO will deliver the RESP through a hub-and-spoke model, with 11 regional offices conducting place-based engagement. NESO will provide a

for Water; 25 Year Environment Plan; Environmental Improvement Plan; Local Flood Risk Management Plans; National Flood Risk Assessment; Nature Recovery Action Plan (NRAP) (Wales); Natural Resources Wales' Net Zero Plan; Net Zero 2030 Routemap (Water UK); Water Resources Strategy for Wales; Water Strategy for Wales; Local Well-being Plans (forthcoming Wales - not included in total)

<sup>92</sup> Water companies' Business Plans are broken down into 'enhancement' (generally new or upgraded assets), and 'base'. Ofwat defines base expenditure as the routine and ongoing costs required to maintain current service levels and asset performance, excluding any enhancements or upgrades.

<sup>93</sup> Cornwall Council, '[Flood Risk Management Responsibilities](#)', 2024

technical coordination function to ensure coherent planning within and between RESPs.<sup>94</sup>

**RFCCs, established by the Environment Agency in England, take a systems approach to preventing and managing flooding.** They consist of an independent chair appointed by the Minister, members appointed by Lead Local Flood Authorities (LLFAs), and independent members appointed by the EA. They bring together community members, farmers, water companies, and landowners, developing strategic flood partnerships which aim to manage all sources of flood risk in an integrated way. A notable element of the RFCCs' funding is a local levy raised on their behalf by the EA from LLFAs via council taxes. However, the RFCCs' influence in the floods management system largely comes from their role in approving the EAs investment programme for their region via the annual allocation cycle.<sup>95</sup> Since April 2021, RFCCs have delivered over 400 projects at a cost of £3.4 billion, of which £0.5 billion was partnership funding, to better protect 115,000 homes and businesses from flooding.<sup>96</sup>

**In France, the Comités de Bassin (river basin committees) are responsible for water quality, sustainability, and flood protection.** They are responsible for setting an overarching plan for water management in their hydrological region. They meet at least twice per year to set river basin plans and ensure that catchment-level plans align with them. 40% of the committee is made up of local authority representatives and 20% state representatives. The other 40% is comprised of users, including farmers and environmental non-governmental organisations (eNGOs). The committees are funded through a user charge. Each river basin committee also has a scientific committee which provides it with advice and offers interpretation of monitoring data.

## Timelines and assumptions in water planning

56. **The planning processes have developed over time.** As a result, each plan has different timelines and underpinning assumptions. RMBPs run to a 6-yearly cycle. The Water Industry National Environment Programme (WINEP) (England) and National Environment Programme (NEP) (Wales) operate on a 5-year cycle aligned with the price review. Natural Resources Wales's (NRW) Core Management Plans for Special Areas of Conservation (SAC) rivers are updated on an ad hoc basis, to feed into the NEP. WRMPs and the more recent Drainage and Wastewater Management Plans (DWMPs) in both England and Wales have 25-year time horizons, split into

<sup>94</sup> Ofgem, '[Decision on the Regional Energy Strategic Plan Policy Framework](#)', 2025

<sup>95</sup> Environment Agency submission to the Commission, 2025

<sup>96</sup> Commission engagement with the Environment Agency. Figures provided January 2025.



5-year installments to align with the Price Review period. Pollution Incident Reduction Plans have an annual cycle.

## How planning frameworks currently operate

57. **The level of engagement between regulators, stakeholders and the water industry during planning is complex and resource intensive.** The water industry estimates it submitted over 53,000 pages of data and narrative in business plans to Ofwat in the last Price Review.<sup>97</sup> The Environment Agency (EA) and NRW are responsible for assessing and agreeing if individual water company proposals will meet environmental requirements, the EA working collaboratively with Natural England (NE) where relevant. Before projects can be included in business plans, companies must gain the agreement of the environmental regulator that both environmental and underlying technical requirements will be met by the relevant permitting deadlines.

## Assumptions and economic appraisal in water planning

58. **Water companies create plans to meet future water needs using varying scenarios and assumptions.** They also develop their own forecasts for population growth and climate change to inform their WRMPs, sometimes with help from regional groups. These assumptions are often made separately by each company, meaning plans are often inconsistent.
59. **A cost-benefit assessment is undertaken by the EA to inform its water body objective setting through RBMPs.** This appraisal assesses a set of measures at catchment level to determine whether an objective of Good Ecological Status (GES) is both cost-beneficial and technically feasible to achieve. This process is repeated for each of the 335 catchment appraisals in England and Wales, where new information is available to set overall water body objectives at the start of each 6-year RBMP cycle.<sup>98</sup> Objectives are also set for ground water bodies, for instance to meet 'Good' chemical status (see Chapter 3).
60. **The quality of economic appraisal of schemes and projects varies across different elements of water industry business plans.** With respect to the WINEP and NEP, prior to Price Review 2024, projects to carry forward through business planning were selected using a 'least cost' approach. This is where companies identify the option that meets water company obligations for the least amount of investment. Price Review 2024 introduced a move to 'best value'. This approach encourages companies to choose options that deliver the greatest overall value to society, considering

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<sup>97</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>98</sup> Environment Agency, ['Investment requirements for England's river basin management plans'](#), 2022

public and environmental benefits. WRMPs and DWMPs are also based on a 'best value' framework, though elements of business planning which lie outside of these plans are not subject to any economic appraisal until submitted in business plans to Ofwat. Ofwat then scrutinises these proposals on the basis of cost efficiency to set allowances for water company expenditure.

## Consultation and engagement in planning

61. **The different plans in England each have their own consultation mechanisms, which differ widely.** For example, WRMPs are consulted on in full, after projects are developed, with customers and wider stakeholders. This follows informal consultation on regional water resource plans (to which WRMPs are linked), and pre-consultation with company boards, regulators, customers and interested parties, on strategic options and policies. For WINEP, on the other hand, consultation is only carried out on some elements and is done when the need for intervention is identified, for example, the government phosphorus removal targets. There is then no external consultation on project selection of any part of WINEP.
62. **In Wales, the Well-being of Future Generations (Wales) Act 2015 directly informs the way public bodies approach water policy and the water sector.** For example, public bodies have an emphasis on partnership (involvement and engagement), on integration (looking at water and land holistically) and on prevention (by tackling root causes). A key mechanism supporting this is the Price Review 2024 Forum, which includes Welsh Ministers, NRW, the Consumer Council for Water (CCW), and other stakeholders. The Forum aims to enable a collaborative approach to setting strategic steers that will guide and inform water companies' Long-Term Delivery Strategies (LTDSs) and business plans.

## Issues

63. **The Commission has identified 7 main issues in relation to current systems planning frameworks:**
  - The so-called 'missing middle' of regional governance in planning
  - Limitations in driving cross-sectoral action
  - Complexity of water industry planning processes
  - Lack of local engagement and poor consultation practices
  - Inconsistency in planning metrics and economic appraisal
  - Issues with the 5-year Price Review cycle
  - Uneven delivery profiles within asset management periods.

## ‘Missing middle’

64. **While some water environment planning occurs at the regional level in the current water system, the Commission has heard that it is largely failing to drive necessary action.** The Rivers Trust’s ‘State of the Rivers’ report contends that the current system of environmental management is inefficient, with a lack of focus on the regional scale which limits coordination between national and local activities. Several eNGOs and water companies have called for improved planning at a regional level.<sup>99</sup> This common governance gap has been referred to as the ‘missing middle’.<sup>100</sup>
65. **Where regional planning frameworks exist, the Commission has heard that they are achieving mixed success.** RBMPs do not appear to be sufficiently driving action in other sectors beyond the water industry that rely and impact upon the water system, particularly agriculture.<sup>101</sup> Responses to the Call for Evidence highlighted that key players, such as local authorities, are not sufficiently engaged in the determination of water system priorities at the regional or catchment level.<sup>102</sup> This lack of alignment has meant that the full set of pressures in an area may not be considered when developing plans, which could lead to missed opportunities to use land and resources more effectively. The Office for Environmental Protection (OEP) has blamed the failure of RBMPs to deliver outcomes on a range of issues, including the absence of clear governance arrangements across sectors to implement and enforce them.<sup>103</sup>
66. **While regional water resources groups have received some positive feedback, the Commission has heard that they lack a holistic approach.** The introduction of the regional water resources groups, which published their first plans in 2022, is intended to ensure that, for the first time since the water industry was privatised, the WRMPs of all water companies operating in England and on the border with Wales are aligned within 5 regional plans. The 5 plans have been brought together to present a joined-up national picture of the challenge facing the country’s water supplies and how it should be addressed.<sup>104</sup> However, each of these water resource groups has a different governance structure, and they have no standardised planning methodology, statutory underpinning, or security of funding. Their work also only covers water resources. There is no equivalent regional structure for drainage and wastewater, meaning that there is no holistic plan for

<sup>99</sup> Anglian Water, South East Water, and Water UK responses to the Call for Evidence, 2025; Angling Trust Submission to the Independent Water Commission, 2025

<sup>100</sup> The Rivers Trust, [‘State of Our Rivers Report’](#), 2024

<sup>101</sup> Thames Water response to the Call for Evidence, 2025

<sup>102</sup> Commission engagement with Local Authority Representatives, 2025

<sup>103</sup> Office for Environmental Protection, [‘A review of implementation of the Water Framework Directive Regulations and River Basin Management Planning in England’](#), 2024

<sup>104</sup> Environment Agency, [‘The National Framework for Water Resources 2025’](#), 2025

catchments or river basins.<sup>105</sup> This may lead to lost opportunities to target action where there are co-benefits, such as dealing with over-abstraction to support both supply resilience and environmental health.<sup>106</sup>

67. **Greater Manchester Combined Authority (GMCA) provides an example of how more regional water planning can be achieved through voluntary cross-sector engagement.** In this case, an integrated water management plan has been produced through a partnership between the EA, GMCA, and United Utilities, supported by funding from different sectors, such as transport, regeneration, and private sources. However, the partnership is voluntary and there are no formal structures supporting such a framework in Manchester or elsewhere.<sup>107</sup>

### Limitations in driving cross-sectoral action

68. **The Commission has heard that there is overreliance on the water industry to deliver environmental improvements.** The water industry is comprised of large companies with guaranteed revenue streams which can be directed towards improving water outcomes through the price control process. Other sectors that impact the water system are more diverse and do not have equivalent funding mechanisms available for addressing water quality issues. For example, projects in the agricultural sector, such as Environmental Land Management or the Slurry Infrastructure Grant, are voluntary and only provide payments for specific environmental actions. Similarly, there is a lack of funded plans for remediation of impacts on the water environment from road run-off.<sup>108</sup>
69. **The Commission has also heard that there is a lack of engagement and alignment between water system planning and other forms of spatial planning.** While water companies develop their own forecasts for population growth, the Commission has heard that there is limited input into water system planning at the local authority level. The Commission has heard that Local Plans are not updated regularly, that water companies are not always closely involved in their development, and that non-household growth is generally underestimated in Local Plans (see Chapter 7).
70. **A lack of integrated planning across the water system means that local communities are often dealing with the impacts of decisions they have not had an opportunity to influence.** For example, in north Sussex, over-abstraction has led to a requirement from NE for 'water neutrality,' in which

<sup>105</sup> Affinity Water response to the Call for Evidence, 2025

<sup>106</sup> Regulator engagement with the Commission, 2025

<sup>107</sup> See Box 3 in the [Commission's interim report](#); Greater Manchester Combined Authority, 'Integrated Water Management Plan', (viewed 14 July 2025)

<sup>108</sup> [Water UK response to the Call for Evidence](#), 2025

new development cannot increase groundwater abstraction.<sup>109</sup> This has meant that local authorities have struggled to deliver critical new local infrastructure, such as schools and fire stations, which would require additional water.<sup>110</sup> Local authorities attribute these water resource issues to under-delivery by Southern Water and expressed frustration that it limits their ability to deliver on their statutory duties.<sup>111</sup>

## Complexity of water industry planning processes

71. **Water companies, eNGOs, and consumer groups have all commented to the Commission that they find current water industry planning processes over-complex, opaque, unmanageable and, in places, overwhelming to engage with.**<sup>112</sup> 47% of respondents to the relevant question in the Commission's Call for Evidence feel that change is needed to the planning frameworks for the water industry. Some of the key themes in these responses were that regulators were not adequately supporting effective planning (55% of respondents) and that regulatory requirements did not support sufficient long-term certainty or respond well to emerging issues (46% of respondents).<sup>113</sup>
72. **The Commission has received evidence that the link between the planning processes and permitting leads to unclear lines of accountability.**<sup>114</sup> Although water companies are formally responsible for the content of water resource and wastewater plans, the EA plays a significant role in shaping these plans. This influence is exercised through detailed engagement, and through the iterative permitting process.
73. **We have heard that current water industry planning is not comprehensive.** WINEP and NEP, at their core, are processes for tracking the water company interventions, identified in RBMPs, that are required for existing and new asset permits issued under the Environmental Permitting Regulations. As a result, they are used by the water companies to develop parts of their business plans. However, as the primary purpose is to inform permitting, the WINEP and NEP do not address the full breadth of needs or programmes of measures outlined in long-term plans, such as WRMPs and DWMPs. The Commission has heard that WRMPs, meanwhile, do not sufficiently drive solutions, as there is no legal requirement on water

<sup>109</sup> West Sussex County Council, '[Water Neutrality](#)', 2025

<sup>110</sup> Local Planning Authorities in north Sussex submission to the Commission, 2025

<sup>111</sup> Commission engagement with Local Planning Authorities in north Sussex, 2025

<sup>112</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>113</sup> Commission's analysis of responses to the Call for Evidence, 2025

<sup>114</sup> Water Industry and Environment Agency engagement with the Commission, 2025



companies to deliver these plans, while DWMPs and LTDSs have not been sufficiently linked to business plans to achieve their aims.<sup>115</sup>

74. **In their response to the Call for Evidence, the Drinking Water Inspectorate (DWI) specifically called for a role in the long-term planning frameworks which have an impact on drinking water quality and distribution.** While addressed in drinking water safety planning and DWI guidance on long term planning, drinking water quality and water distribution are not sufficiently recognised in the current strategic plans.<sup>116</sup> We have also heard that emerging environmental and public health risks, such as microplastics, antimicrobial resistance and so-called ‘forever chemicals’, need greater attention in planning frameworks.<sup>117</sup>
75. **The Commission has also heard that clearer delineation between base and enhancement spend is needed to inform the scope of long-term strategic plans.** Ofwat agree further clarity in base and enhancement definitions would reduce workload during assessment of business plans.<sup>118</sup> The Commission has received detailed submissions from some companies arguing that upgrades required due to increases in population, currently funded through base expenditure, require significant engineering works and increases to service provision, meaning they may better fit within current definitions of enhancement.<sup>119</sup>

### Lack of local engagement and poor consultation practices

76. **The Commission has heard that the catchment-based approach has been successful in driving local, cross-sector action on water.** For example, the Crane Valley Partnership, working across 5 west London boroughs, Heathrow airport, the EA and a range of community groups led to £20 million of third-party investment, in addition to the £3 million of funding provided by Thames Water.<sup>120</sup> The work of the partnership has resulted in improvements towards GES in the catchment area, with a focus on securing wider environmental and social benefits for local communities, including a proposed 35km riverside Crane Valley Trail to connect green spaces along the river.<sup>121</sup>
77. **However, catchment partnerships currently only receive up to £15,000 per year in funding to support their operation.** This rate has been

<sup>115</sup> The Commission understands the current ambition to place DWMPs on statutory footing is intended to address this for Price Review 2029; Environment Agency engagement with the Commission, 2025; [Water UK response to the Call for Evidence](#), 2025

<sup>116</sup> Drinking Water Inspectorate engagement with the Commission, 2025

<sup>117</sup> Environmental regulators engagement with the Commission, 2025

<sup>118</sup> Ofwat engagement with the Commission, 2025

<sup>119</sup> Water Industry engagement with the Commission, 2025

<sup>120</sup> Crane Valley Partnership, ‘[State of the Environment - River Crane Smarter Water](#)’, 2022

<sup>121</sup> Crane Valley Partnership, ‘[Crane Valley Trail](#)’ (viewed 16 July 2025)

unchanged in nominal terms since 2015-16.<sup>122</sup> This investment has been used to generate significant additional funding at a local level. During 2023-24, CaBA reports private funding ratios for partnerships resulting in around £3 of additional funding for every £1 directly invested in hosting and running the partnerships. This does not include wider government funding of the partnerships.<sup>123</sup> These non-government sources included water companies, businesses, lottery funds, non-government organisations, and community groups. In 2023-24 this funding totalled around £28 million. Government funding, which included Defra, EA and NE and local authority funding, remains the highest source of funding for the partnerships, totalling £38.5 million in 2023-24.<sup>124</sup> Some stakeholders have identified strengthening catchment-based governance as a key requirement to more effectively deliver priority outcomes in the water sector.<sup>125</sup>

78. **The Commission has heard that consultation and engagement activities are fragmented across multiple organisations, including government, regulators and water companies.** This has led to duplication, inefficiencies, and stakeholder fatigue.<sup>126</sup> We have heard from consumer groups that consultations do not provide opportunity to meaningfully influence decisions. Communication appears to be inconsistent, with the Commission hearing that stakeholders rarely receive feedback on how their input has shaped decisions, which undermines transparency and trust.<sup>127</sup> Furthermore, the Commission has heard that early consultation, while well-intentioned, is frequently too abstract to be meaningful.<sup>128</sup> Trade-offs between competing objectives, such as affordability, environmental outcomes and resilience, are not possible to understand at the time consultations are carried out. The complexity of the planning system, and/or the subject matter of the consultation also means that it can be difficult for non-experts to be ‘intelligent customers’. The Commission has also heard that these consultations, such as for WRMPs, are often not tailored to local needs.<sup>129</sup>

<sup>122</sup> For Catchment Partnerships outside of London. In nominal terms. Environment Agency, Catchment Based Approach, The Rivers Trust, [‘Water Resources Communication and Engagement Fund’](#), 2019; UK Parliament, [‘Catchment Partnerships: Funding’](#), 2024

<sup>123</sup> Comparison of CaBA funding which includes Environment Agency Water Environment Funds and additional host funding, the majority of which is funded by water companies. This ratio does not include other Government funding such as Environment Agency, Natural England or Defra funds. From: Catchment Based Approach, [‘CaBA Monitoring & Evaluation’](#), 2025

<sup>124</sup> Catchment Based Approach, [‘CaBA Monitoring & Evaluation’](#), 2025

<sup>125</sup> Water UK response to the Commission’s interim report, 2025

<sup>126</sup> eNGO engagement with the Commission, 2025

<sup>127</sup> Consumer NGO engagement with the Commission, 2025

<sup>128</sup> Regulator and industry expert engagement with the Commission, 2025

<sup>129</sup> eNGO engagement with the Commission, 2025

## Lack of common planning metrics

79. **The Commission understands that planning assumptions are inconsistent across frameworks and could benefit from standardisation.** This includes those related to climate change, population growth, water demand, leakage and storm overflows.<sup>130</sup> We have heard from regulators that consistency in scenarios, assumptions, and metrics across planning frameworks is essential, and evidence sharing across sectors and between companies should be improved.<sup>131</sup> Water companies suggest Defra should do more to collate and disseminate data, for instance catchment-based data at a regional level.<sup>132</sup> On environmental data, the Catchment Systems Thinking Cooperative suggested integrating diverse data sources to a unified approach to help close current spatial and temporal gaps in water quality data – this is addressed further in Chapter 3.<sup>133</sup>

## Inconsistent approach to economic appraisal

80. **Regulators and planning bodies appear to have a poor understanding of the overall value for money of interventions and trade-offs.** The Commission has heard that there is no consistent mechanism for assessing costs and benefits across different areas of water planning.<sup>134</sup> The EA and NRW work with companies to identify actions needed to meet statutory requirements, however they do not consider the overall value for money of projects.<sup>135</sup> Ofwat scrutinises costs once the strategic planning process has already identified necessary actions, focusing on achieving efficient costs of delivery.<sup>136</sup> This means that estimates of costs and benefits are not considered in parallel by the regulators. In Price Review 2024, full economic appraisal of multiple options was rarely carried out before any decision on inclusion in WINEP. Further detail of how this process works for England is set out in Box 6.

### Box 6 – Economic appraisal in RBMP, WINEP and business planning for Price Review 2024 (England Only)<sup>137</sup>

#### Phase 1: catchment-level economic appraisals in River Basin Management Plans

<sup>130</sup> Water industry and regulators responses to the Call for Evidence, 2025

<sup>131</sup> [Environment Agency](#) response to the Call for Evidence, 2025

<sup>132</sup> Water industry responses to the Call for Evidence, 2025

<sup>133</sup> Catchment Systems Thinking Cooperative [response](#) to the Call for Evidence, 2025

<sup>134</sup> Frontier Economics, '[Reforming Water Sector Strategic Planning](#)', 2025

<sup>135</sup> Commission engagement with Environment Agency and Cyfoeth Naturiol Cymru Natural Resources Wales, 2025

<sup>136</sup> Commission engagement with Ofwat, 2025

<sup>137</sup> Regulator engagement with the Commission, 2025

**The first phase involves economic appraisals at the operational catchment scale. These appraisals identify cost-effective and technically feasible measures to achieve GES in water bodies.** Measures from multiple sectors, including agriculture, are considered. The costs of these measures are compared with monetised benefits, using the National Water Environment Benefits Survey. This process determines whether setting an objective of ‘Good’ status is justified for each catchment. The outcomes inform the proportion of water bodies where achieving ‘Good’ status is both cost-beneficial and feasible, and contribute to the high-level programme of measures in each RBMP, coordinated by the Environment Agency.

#### **Phase 2: best value approach in water company planning**

**In the second phase, water companies use RBMP objectives to inform their WINEP option development.** At Price Review 2024, companies were expected to apply a ‘best value’ approach. This means proposing options that deliver the greatest overall benefit to customers, the environment, and society—not just the lowest cost. While the EA reviews these plans to ensure they meet environmental and policy expectations, it generally does not assess the financial costs of the proposed measures. Where some companies did carry out economic appraisal on options, then the non-cost-beneficial options were sometimes not presented to the EA at all. Where alternatives and their economic appraisals were presented, the EA did not perform full assurance on this appraisal.

#### **Phase 3: Ofwat’s cost efficiency assessment in Price Review 2024**

**The third phase is led by Ofwat through the Price Review 2024 process, where water company business plans are assessed for cost efficiency.** Ofwat uses benchmarking and econometric models to evaluate whether proposed costs are justified and efficient. Routine operational costs and enhancement investments are assessed separately, and companies may submit cost adjustment claims for unique circumstances. Ofwat does not assess the benefits of environmental or social outcomes—its focus is solely on cost efficiency.

As a result, no single regulator currently evaluates both the costs and benefits of environmental projects, especially at the project selection stage, in an integrated way.

81. **The Commission has heard that there is insufficient consideration given to alternative projects in developing water company business plans.** Of the 2,700 WINEP improvement actions in Price Review 2024 where there was some flexibility in meeting requirements, water companies put forward multiple options for only 22% of these actions and mostly

followed a 'least cost' approach.<sup>138</sup> Least cost options tend to be grey solutions, which give greater certainty on primary outcomes, but often with a higher carbon cost and fewer wider benefits for biodiversity or local communities.<sup>139</sup> This means that companies and regulators are prioritising single-outcome, single sector solutions over those with multiple benefits by multiple sectors that may be better value-for-money.<sup>140</sup>

## Issues with the 5-year price review cycle

82. **The Commission has found that the current 5-year price review cycle in the water industry creates significant challenges for long-term planning and investment.** This short-term focus, reinforced by rigid funding mechanisms and delivery deadlines, discourages investment in large-scale, long-term projects due to uncertainty around returns and high upfront costs.<sup>141</sup> While some progress has been made to provide more certainty for major projects, these efforts remain limited and inconsistent. The planning cycle often prioritises short-term compliance over longer term asset lifecycle needs, leading to inefficient capital use over time, prioritising short term solutions when more expensive but longer lasting solutions may be better value in the long term.<sup>142</sup> Regulatory frameworks such as WINEP, DWMPs, and WRMPs look at different time horizons, further complicating long-term planning. Stakeholders argue that Ofwat's emphasis on keeping customer bills low has amplified this short-termism, undermining resilience and strategic investment (see Chapter 5 for further discussion).<sup>143</sup> The current system therefore lacks the flexibility and integration needed to support sustainable, long-term infrastructure development in the water sector.
83. **The Commission has also heard that the current planning system is too rigid to deal with emerging funding requirements, within AMPs.**<sup>144</sup> For example, the DWI highlighted that rigid planning structures reduce the ability to respond effectively to emerging risks and emphasised the need for more flexible funding and investment to support action outside of fixed AMP cycles.<sup>145</sup> While the Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licencees) Direction 2022 (as amended) (SEMD) provides a robust legal framework for managing known

<sup>138</sup> Environment Agency engagement with the Commission, 2025

<sup>139</sup> Environment Agency engagement with the Commission, 2025

<sup>140</sup> Wessex Water and Frontier Economics, '[Outcome based environmental regulation](#)', 2021

<sup>141</sup> Investor and water industry engagement with the Commission, 2025

<sup>142</sup> Water Industry engagement with the Commission, 2025

<sup>143</sup> Water Industry engagement with the Commission, 2025

<sup>144</sup> Water company engagement with the Commission, 2025

<sup>145</sup> [Drinking Water Inspectorate response to the Call for Evidence](#), 2025; A National Engineering Policy Centre submission to the Commission further stated that the 5-year funding cycle undermines the incentive to invest for resilience, give clarity to supply chains, and address complex challenges.



risks, its structured, milestone-based approach can be less agile when responding to rapidly evolving threats.<sup>146</sup>

84. **While there have been recent attempts to increase flexibility to take account of longer term projects in the price review cycle, currently the mechanisms are limited in scope and number.**<sup>147</sup> Ofwat have made attempts to address the need for agile funding across AMPs by introducing novel models such as Direct Procurement for Customers (DPC), the Regulators Alliance for Progressing Infrastructure Development (RAPID), the Accelerated Infrastructure Delivery schemes and multi-AMP delivery projects.<sup>148</sup> However, while well regarded,<sup>149</sup> these various options for flexibility in Price Review 2024 make up only 13% (£5.7 billion) of enhancement expenditure.<sup>150</sup> Ofwat have also introduced uncertainty mechanisms to manage significant market shocks or changes in circumstances. For example, Ofwat included an uncertainty mechanism in Price Review 2024 to apply to any significant increase in costs due to any new requirements on cyber security or changes in level of threat.

**Box 7 – Case Study: Insights from Price Review 2019 Final Determination on Supporting Long-Term Planning and Resilience Through Flexible Regulation.**

**The Havant Thicket Reservoir is a major new water resource being developed by Portsmouth Water.** The project was supported by Ofwat through a dedicated 10-year price control, introduced during the Price Review 2019 cycle. This longer regulatory period allowed for £124 million to be allocated over a timescale better suited to the planning and delivery of major infrastructure, outside of the standard 5-year cycle.<sup>151</sup> This structure has allowed for investment to be delivered more effectively over time, which is helping to manage personnel and resources, as well as peaks and troughs in delivery. Ofwat developed this approach alongside other new mechanisms, such as gated funding and direct procurement, as part of a broader strategy to improve regulatory flexibility. Committing to the funding envelope has enabled the reservoir project to proceed smoothly, and is planned for delivery by 2031.<sup>152</sup> Once it is operational it will

<sup>146</sup> [Drinking Water Inspectorate response to the Call for Evidence](#), 2025

<sup>147</sup> Water Industry engagement with the Commission, 2025

<sup>148</sup> Ofwat, '[Price Review 2024 final determinations: Expenditure allowances](#)', 2025

<sup>149</sup> Industry engagement with the Commission Secretariat, 2025

<sup>150</sup> Ofwat analysis of multi-AMP scheme spend in AMP8 and the associated spend for future AMPs, including: accelerated and transition spend, supply interconnectors, supply, Southern Water multi-AMP, United Utilities A-WINEP, Severn Trent advanced SO, phosphorus & sanitary determinants, growth at sewage treatment works, Direct Procurement for Customers, in-house, and Specified Infrastructure Projects Regulations. This totals £5.7 billion, which is c.13% of c.£44 billion of enhancement cost allowance. Prices are in 2022/23 base year.

<sup>151</sup> Ofwat, '[Overview: Price Review 2019 final determinations](#)', 2025; Portsmouth Water, '[Reservoir construction timeline](#)' (viewed 14 July 2025)

<sup>152</sup> Ofwat, '[Guidance on Havant Thicket](#)' (viewed 18 July 2025)

relieve pressure on abstraction from the Rivers Test and Itchen, two of England's most precious chalk streams.

## Uneven delivery profile within AMPs

85. **The Commission's interim report identified that a 'feast and famine' pattern in environmental investment is a systematic flaw in the current approach to strategic direction by government and regulators.**  
Spending is heavily concentrated in the later years of the AMP (detailed in Figure 4) with key investment programmes, such as under the WFD Regulations, in large part deferred over successive price controls.<sup>153</sup>
86. **The Commission has heard that deadlines for delivery are typically set for the end of the 5-year period (AMP), unless there is a legal deadline requiring delivery before the end of that AMP.** For example, 93% of storm overflow improvements<sup>154</sup> and phosphorus removal<sup>155</sup> projects in Price Review 2024 have delivery dates set at the end of the AMP. Even with time incentives to deliver earlier, Ofwat predict little delivery in the first 2 years of AMP8 (2025-2030), as seen in Table 1. We have heard that this time is used for specific design of interventions. Where design is either not necessary or is more straightforward, delivery profiles can be flatter. This reflects the lower amount of engineering work required in programmes such as metering or mains renewal.

**Table 1 - predicted spend profile of selected programmes in Price Review 2024**

	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8 Allowances
<b>Storm overflows</b>	0%	5%	35%	60%	100%	£10.2 billion
<b>P-removal</b>	0%	0%	25%	60%	100%	£4.8 billion
<b>Water supply</b>	18%	24%	46%	47%	100%	£1.3 billion
<b>Interconnectors</b>	0%	0%	40%	40%	100%	£1.3 billion
<b>Metering</b>	14%	33%	54%	77%	100%	£2.9 billion
<b>Mains renewals</b>	15%	35%	60%	80%	100%	£2.7 billion

<sup>153</sup> Independent Water Commission [Interim Report](#), 2025

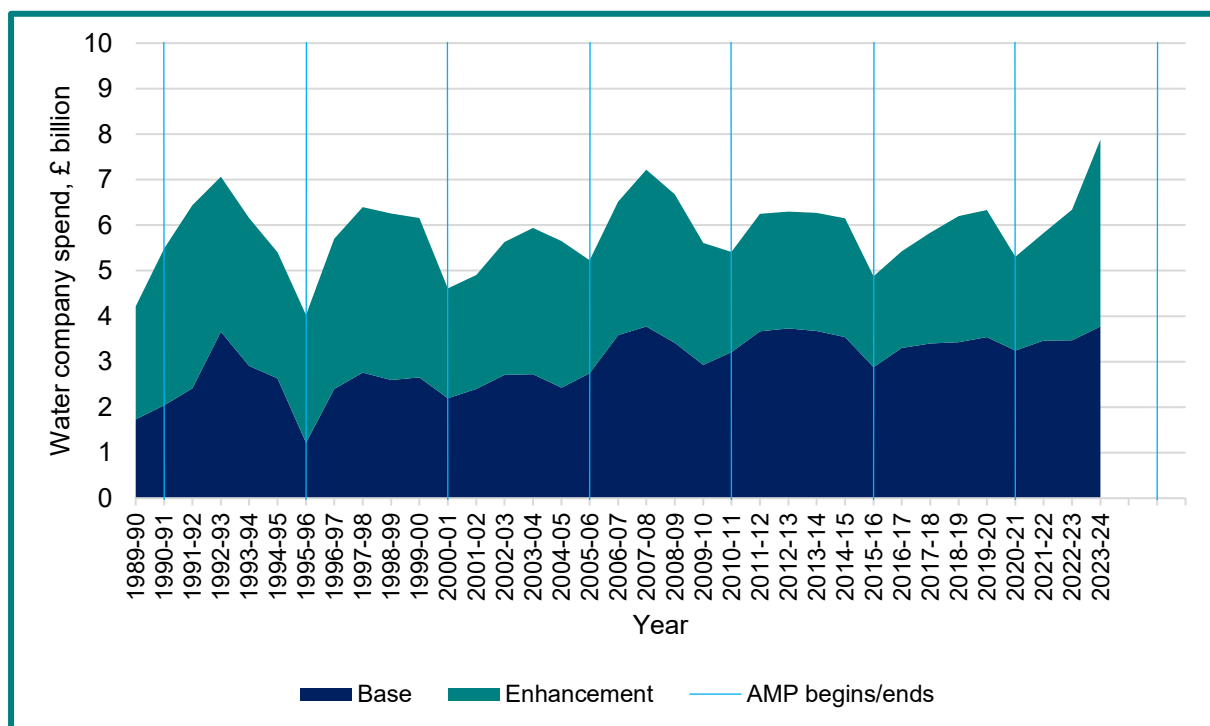
<sup>154</sup> Defra, '[PRICE REVIEW2024Price Review2024 Water Industry National Environment Programme](#)', 2025 – Storm overflows improvement projects are assumed to be all projects with primary driver codes: BW\_IMP1, BW\_IMP2, BW\_IMP3, BW\_IMP4, EnvAct\_IMP2, EnvAct\_IMP3, EnvAct\_IMP4, EnvAct\_IMP5, SW\_IMP, SW\_ND, BW\_ND

<sup>155</sup> Defra, '[PRICE REVIEW2024Price Review2024 Water Industry National Environment Programme](#)', 2025 – Phosphorus removal projects are assumed to be all projects with primary driver codes: EnvAct\_IMP1, HD\_IMP, HD\_ND, HD\_IMP\_NN, SSSI\_IMP, SSSI\_ND, U\_IMP2, WFD\_IMP\_MOD, WFD\_IMP\_WRHMB, WFD\_IMPg, WFD\_IMPg, WFD\_IMPm, WFD\_ND, WFD\_ND\_WRHMB. Not all WFD or HD actions are phosphorus removal. These may include projects to manage other sanitary determinands, such as ammonia removal and biochemical oxygen demand (BOD) projects.

Source: Ofwat<sup>156</sup>

87. **We have heard that the absence of medium-term certainty in planning means that companies are unable and unwilling to invest fully in project design until funding is guaranteed.**<sup>157</sup> As design can often take 12 to 24 months, this means that the early years of each 5-year cycle contain comparatively little actual delivery. As Figure 4 demonstrates, this creates peaks and troughs in delivery within the 5-year cycle, which companies and their supply chains have told us that they can struggle to meet. It also creates inefficiencies as personnel are stood up and down every 2 to 3 years, creating reliance on consultancies for design and project support, whereas it may be more efficient to bring some of these services in-house.<sup>158</sup> It also causes significant pressures on other connected processes, such as town planning, as the peaks require companies to make many planning applications at similar points in the cycle rather than in a more steady flow.<sup>159</sup>

**Figure 4 - Water company spend by year in England and Wales, between 1989-90 and 2024-25, in 2022-23 prices, £ billion**



Source: Ofwat<sup>160</sup>

<sup>156</sup> Ofwat data provided directly to the Commission, 2025

<sup>157</sup> Water industry engagement with the Commission, 2025

<sup>158</sup> Water industry engagement with the Commission, 2025; Commission secretariat engagement with devolved administrations, 2025

<sup>159</sup> Water industry engagement with the Commission, 2025

<sup>160</sup> Ofwat data provided directly to the Commission, 2025

## Conclusions and recommendations

88. **To improve planning, there are 4 key areas where reform is needed:**

- the introduction of a systems planning framework in England and Wales
- increased flexibility in the 5-year Price Review cycle
- streamlining of water industry business planning
- an improved approach to setting assumptions and delivering economic appraisal.

### Systems planning

***Better planning is needed to deliver what people want where they live***

89. **The current water system planning frameworks have developed piecemeal, without rationalisation, and are failing to deliver much of what society and the economy demands and expects.** Decision-making across the water system is fragmented, with bodies planning for different needs based on different timescales and geographies. Key stakeholders, such as local authorities, are not sufficiently involved in decisions which can constrain their ability to deliver key priorities. The misalignment between sectors, timelines, and geographical scales limits opportunities for cross-sector working. The complexity of water industry business planning frameworks, meanwhile, is undermining investor confidence and making it harder for regulators to hold water companies to account for delivery.
90. **Water must be managed as a system in order to meet the growing challenges across sectors which impact and rely on water.** For water systems, effective systems planning involves the coordinated development and management of water by bringing together hydrological, socio-economic, administrative, and legislative interests. An example is tackling pollution from storm overflows. This cannot be done effectively or efficiently without also considering ‘pre-pipe’ issues such as rainwater, drainage, and consumer behaviour.<sup>161</sup>
91. **A systems planning approach would address the ‘missing middle’ in the current system and give greater decision-making responsibility over water investment planning to people, organisations and authorities with a stake in their local water systems.** Such an approach would consider the needs of current and future generations in planning for the delivery of water system outcomes, including water quality and supply. While some water system planning functions already exist, including regional

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<sup>161</sup> CIWEM Response to the Call for Evidence, 2025

planning for water resources and some environmental outcomes, they are dispersed across different organisations, operating at different spatial scales, and often lacking clear accountability.

**Recommendation 3: A comprehensive systems planning framework should be introduced for England and Wales, with responsibility for integrated and holistic water system planning. In England, the systems planners should be regional – or ‘regional water authorities’. In Wales, the systems planner should be a national authority.**

92. This recommendation outlines the systems planners’:

- functions
- geographic scale
- responsibilities for convening and consultation
- levers to drive action by other sectors
- national coordination arrangements
- composition – for instance, their chairs, strategic boards
- organisational independence

93. The step-by-step process for developing regional systems plans is outlined at the end of this chapter.

## Functions

94. **Systems planners should be responsible for planning, funding, setting water body objectives, and monitoring delivery of plans.** They should also act as a convener across the water system.

## Planning

95. **The primary function of the systems planner, in England and Wales, should be to produce strategic, cross-sectoral spatial plans, based on regional and national objectives, to ensure that the water system delivers outcomes that benefit society, both now and in the future.** They should consider the spatial development priorities for their area and account for other relevant regionally or nationally specific characteristics, including economic, climate, or land-use factors. These plans should be implemented in place of current RMBPs.

96. **Plans should sit under and deliver against requirements set by the UK and Welsh Governments through their respective National Water Strategies and Ministerial Statements of Water Industry Priorities.** As described in Chapter 1, a new approach to government strategic direction would be cross-sectoral, incorporating requirements for all organisations



impacting on or interacting with the water system. Governments would provide guidance to the systems planner on managing trade-offs, and principles that a systems planner should have regard to, such as appropriate phasing of improvements over time or the use of nature-based and catchment-based solutions.

97. **In line with the scope of the National Water Strategy, systems plans should cover both the water environment and water supply.** As described in greater detail below, regional system planners in England should consider regional priorities, assess current conditions, and put forward a set of regional objectives. The national systems planner for Wales should consider national and regional priorities, assess current conditions, and put forward a set of national and regional objectives. This would replace the current roles of the EA and NRW in creating RBMPs. As described in Chapter 3, the Commission believes a broader review of the WFD Regulations is needed. However, the Commission considers that replacing the requirement in the WFD Regulations to produce RBMPs with a systems planning framework could begin sooner. System planners should ensure that water supply is sufficient to meet the current and future needs of the region (and nation in Wales) and is robust to future water system stress. System planners would take on the water resource planning that is currently conducted by regional water resource groups in England.
98. **Plans should consider the region or nation's spatial development priorities, particularly those which are likely to have a significant impact on the water system, such as housing development or Net Zero.** They should take account of broader, non-water environmental requirements that impact on the water environment, such as Local Nature Recovery Strategies, and other tools such as the Land Use Framework<sup>162</sup> in England and Future Wales: the National Plan 2040<sup>163</sup> in Wales, which could guide spatial targeting of water-related actions.
99. **The water systems planner should also ensure that its plans are aligned with flood planning.** The Terms of Reference for the Commission set out that it should only consider floods where they currently interact with strategic planning for the water system.<sup>164</sup> It has become apparent as the Commission has progressed, that it may be sub-optimal to introduce a systems planning function for the water system without integrating floods planning, particularly in the case of interactions between surface-level flooding and sewage discharges. While the Commission will not make specific recommendations about flood policy, there are areas in which we

<sup>162</sup> Defra, '[Land use in England](#)', 2025

<sup>163</sup> Llywodraeth Cymru Welsh Government, '[Future Wales: the National Plan 2040](#)', 2025

<sup>164</sup> Independent Water Commission, '[Independent commission on the water sector regulatory system: terms of reference](#)', 2024

suggest further alignment would be beneficial. In Wales, the national scale would already align with the Flood and Coastal Erosion Committee (FCEC) but other aspects of alignment could be considered.<sup>165</sup> For example, government may wish to consider coordinating flood risk reduction planning cycles and water industry Price Review cycles. In the longer term, government may wish to consider integrating floods planning into the systems planner. RFCC chairs have recently raised the importance of better alignment between flooding and water planning, due to the overlaps between these areas and the potential for improved outcomes.<sup>166</sup>

100. **The plans produced by the water industry in response to the objectives of the systems planner would form the basis of the Price Review.** More detail on how this process would work is described at the end of this chapter.

## Funding

101. **The systems planner should map funding sources for water available within their region or nation, and direct funding towards regional or national objectives.** Where possible, the systems planner should have a role in directing, blending, and distributing funding for water. Systems planners should be consultees for funding with a significant impact on water to ensure that it has a role in directing funding towards specific interventions. This could include funding streams, such as the Water Restoration Fund, or funding for water-related projects within Environmental Land Management Schemes.
102. **Water industry funding would be in line with regional or national systems objectives.** Systems planners should be given direction over water company enhancement expenditure, and as discussed below, elements of company base expenditure. Water industry funding is the most significant funding stream in the water system. This would represent a significant change, and ensure that local voices, customers and experts have stronger authority over companies' boards' decisions on investment priorities. System planners should ensure that the objectives that they set are deliverable, that they can be financed and are affordable for billpayers.
103. **In addition, the regional systems planner in England should have some control over government funding in the water system.** Any grant-in-aid funding, from Defra or the regulators for water system outcomes planned for a region, should seek the direction of the regional system planner to ensure it aligns with regional objectives. This would follow the example set by RFCCs, in which they approve the EA's investment programme for their region via the annual allocation cycle. Any grant-in-aid funding from the

<sup>165</sup> Llywodraeth Cymru Welsh Government, '[Flood and Coastal Erosion Committee \(Wales\)](#)', 2023

<sup>166</sup> Environment Agency submission to the Commission, 2025

Welsh Government, NRW or other public bodies in Wales for water system outcomes, should seek the direction of the system planner to ensure it aligns with national and regional water objectives.

104. **A local levy, as for RFCCs, could also be used to provide a pot of funding over which the regional planner would have full discretion.** This could help to address issues that are the responsibility of no particular sector. This levy could be raised through local government council taxes and be distributed to the regional planner(s) covering the local authority's area.
105. **A system planner could also have a role in leveraging private finance from other sectors.** One of the benefits of a regional approach to water system planning is that water system improvements are at a sufficient scale to attract private sector funding. This is an important area in which a system planner may be able to add significant value to help reduce reliance on water industry funding to deliver benefits. Integrating catchment partnerships into systems planning will also help to leverage smaller scale private funding and prevent existing smaller scale funding partnerships being crowded out.

### Setting water objectives

106. **The systems planners should be responsible for setting water objectives.** Objectives are currently set through the RBMP process by environmental regulators. They are subject to a detailed cost-benefit and technical feasibility assessment on a 6-year cycle. These plans describe current water body conditions, set local environmental objectives for water bodies and protected areas, and put forward a programme of measures to meet these objectives. Moving forward, the systems planner should be in control of deciding, within the framework of national law and government strategy, where interventions are needed. Systems planners would set objectives, and who should deliver them, by carrying out apportionment of those objectives to different sectors, in line with the National Water Strategy and the polluter pays principle. System planners would commission delivery bodies (such as water companies, catchment groups, local authorities and other actors) to develop and present options to meet those objectives, from which it would select the options which represent the best value for money, including wider benefits, to meet those objectives.
107. **Systems planners will require full access to monitoring and assessment data on water bodies to make effective plans and decisions.** While the monitoring and assessment functions should be retained within the environmental regulators, there would need to be clear information sharing agreements in place. This will allow the systems planner to provide an assessment of the condition of water bodies, and the pressures affecting them, when setting objectives.

## Monitoring delivery of plans

108. **The systems planners should maintain high level monitoring of delivery of their plans and assess whether progress is being made.** The strategic board could meet at regular intervals to discuss progress on plan delivery, including deciding whether corrective action is needed to meet objectives. Where sectors are off-track, there should be clear escalation routes to regulators. This could take the form of an 'alert mechanism' to trigger action by regulators. This data would also be used to inform and monitor progress against the National Water Strategy.
109. **Plans should be subject to periodic evaluation of the effectiveness of measures, with some assessment of how expected costs and benefits have manifested in practice.** This evaluation should be proportionate and designed to inform future decision making. This could include building the evidence base on specific and novel interventions, including innovative nature-based and cross-sector solutions, and informing knowledge sharing across catchments and regional system planners.
110. **The responsibility for monitoring water industry plans should remain with regulators.** It is crucially linked to enforcement and compliance functions. However, it is important that systems planners have sight of these plans, along with a route for members of the strategic board of the system planner – such as local authorities – to be able to escalate concerns to, and receive information from, the regulator. See Chapter 7 for further discussion of regulator assurance of water company delivery.

## Interactions with regulators

111. **The regulators in England and Wales would have an advisory role to the strategic boards of systems planners in the objective-setting stage.** This would help to ensure alignment between objectives and legal requirements. Regulators would also need to confirm that any interventions agreed by the systems planner would be eligible for permits and licences, where these are required. Where the regulators believe that objective setting does not align with legal or permitting requirements, they would have a right to object. There would be an escalation route to resolve any dispute on this, and other issues, if needed. Applications for permits would continue to be made to regulators, who would consider the systems plan when making decisions on whether to grant them.
112. **If an independent systems planner were established, some of the regulators' functions would move into the new system planning bodies.** Those teams which conduct planning, including for RBMPs and water resources, would move into regional systems planners. These functions are

currently divided between national and local EA and NRW teams. However, other functions related to compliance, including permitting, monitoring, and enforcement, would remain within the regulator. This would allow them to ensure that proposed plans meet legal requirements and can be enforced.

## Geographic scale - England

113. **Existing River Basin Districts should largely form the basis of the geographic scale of regional planning in England.** River Basin Districts are geographical areas encompassing one or more river basins, their associated groundwater, and coastal waters (out to one nautical mile).<sup>167</sup> The use of existing River Basin Districts, where practical, would help to minimise disruption to current water environment planning processes and monitoring. It is also likely to be an appropriate scale for managing water supply, as stakeholders have reported that the current scale of regional water resources groups is too large. The boundaries of river basin districts would have to be altered slightly to account for cross-border differences. This would include sections of the current Dee and Solway Tweed River Basin Districts moving within the remit of the north west regional water systems planner, which would require close collaboration with Welsh and Scottish planning bodies, respectively.<sup>168</sup>
114. **The Commission considered different scales of spatial planning and recommends the regional scale as the most effective choice in England.** There is no perfect geographic scale for water system planning, and each option comes with its own set of strengths and challenges.<sup>169</sup> The Commission considered using the move towards increased local devolution as an opportunity to consolidate water system planning in strategic authorities.<sup>170</sup> However, environmental stakeholders have strongly emphasised the importance of managing the water system according to hydrological boundaries.<sup>171</sup> Additionally, there could be more than 35 strategic authorities post-devolution, which would likely be too small to deliver the benefits of regional planning.<sup>172</sup> Planning in catchments, of which there are over 100 in England, was also discounted on this basis.<sup>173</sup> Water

<sup>167</sup> Environment Agency, '[River basin management plans, updated 2022: introduction](#)', 2022

<sup>168</sup> This would, for example, follow a similar approach to the 'English Severn and Wye' RFCC, which covers the English side of the border. Environment Agency, '[Regional Flood and Coastal Committees](#)', 2025 (viewed 17 July 2025)

<sup>169</sup> eNGO engagement with the Commission, 2025

<sup>170</sup> House of Commons Library, '[English devolution: Mayoral strategic authorities](#)', 2025 (viewed 17 July 2025); Ministry of Housing, Communities and Local Government, '[English Devolution White Paper](#)', 2025

<sup>171</sup> eNGO engagement with the Commission, 2025

<sup>172</sup> Based on recommended minimum population threshold of 1.5 million, as set out in the English Devolution White Paper

<sup>173</sup> There are over 100 management catchments, used by the EA as a scale for planning, and 420 operational catchments, used in the economic analysis process. Environment Agency, '[Classifications](#)



company boundaries were also considered as a possible scale of planning, but they do not align with hydrological boundaries, vary in size, and are sometimes fragmented geographically. The Commission recognises that not planning around water company boundaries means that some companies will have to deal with more than one planner. The Commission also considered whether water resources groups could be expanded to perform a wider range of water system planning functions. However, these groups cover areas that are too large to effectively integrate local planning, with only five groups covering the country (although the existing water company expertise supporting these groups, and ongoing efforts to better engage other sectors in planning for water resources, should be retained at the new regional scale). Planning at the river basin scale helps to balance this need for locally specific planning with a drive towards simplicity.

## Geographic scale – Wales

115. **All of Wales should be treated as a single district for the purposes of water systems planning, to allow flexibility in the Welsh context.** The national systems planner approach would take into account Wales's devolved status and national identity, the geographic scale and population size of Wales, and align with the Welsh Government's centralised governance approach to water management. This would follow the example set by the Flood and Coastal Erosion Committee (FCEC).<sup>174</sup>
116. **Establishing a single river basin district for Wales would involve splitting responsibility for the Severn River Basin District along the border, with the creation of a Severn district in England and the Welsh side moving under the remit of a Welsh systems planner.** It could also require moving the part of the current Dee River Basin District that is in England into the north-west region. The Commission acknowledges that there are likely to be cross-border issues associated with dividing river basins along national borders, such as those which already exist in the Wye. Ongoing discussion between governments will be needed to manage them, but we would make the following observations about how issues could be prevented and resolved. There would need to be a robust set of protocols in place for managing cross-border water systems. This could include developing a shared set of principles for how they should be managed, for example: a duty to cooperate; an agreement to share monitoring data; or a duty to consult on planned measures that could have cross-border impacts. Where disputes do arise, existing mechanisms, such as the Inter-Ministerial Group for Environment, Food, and Rural Affairs, could be a forum to resolve

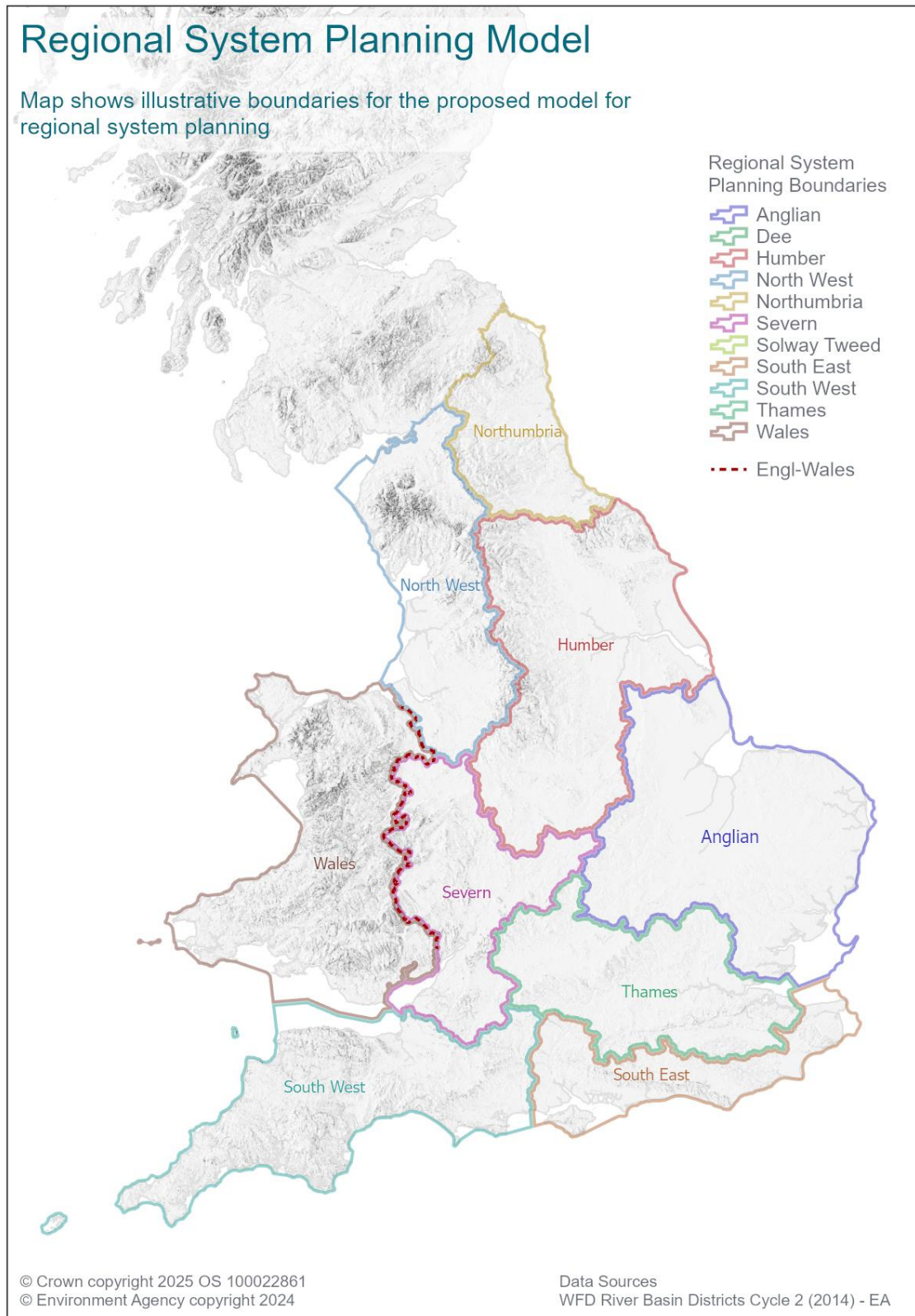
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[data for England](#)' (viewed 11 July 2025); Environment Agency, '[Catchment Data Explorer](#)' (viewed 17 July 2025)

<sup>174</sup> Llywodraeth Cymru Welsh Government, '[Flood and Coastal Erosion Committee \(Wales\)](#)', 2023

them. The challenges in addressing pollution in the River Wye (which runs along the border in places and also crosses it several times) demonstrate the difficulty of securing cross-border action on water. However, the introduction of systems planners in both England and Wales should help to streamline and support the joined-up spatial planning that is needed on both sides of the border.

**Figure 5 - Proposed Regional Systems Planning Illustrative Boundaries**



Source: Defra Analysis produced for Commission<sup>175</sup>

<sup>175</sup> Illustrative boundaries using [WFD River Basin Districts Cycle 2](#) for England with North West river basin extended to England-Wales and England-Scotland border.

## Convening

117. **Systems planners should play a wider role than just developing regional plans.** They should also provide a regular forum for discussing water system issues. In England, this means building on the existing catchment-based approach and making it a formal part of systems planning. This would help ensure local voices are heard.
118. **Funding should be increased to strengthen catchment- based planning in England and Wales.** In England, funding should be increased to support a full-time catchment lead in each of the more than 100 catchment partnerships. This role would lead catchment planning, take part in systems planning through catchment working groups, and oversee delivery of catchment plans. The UK government should assess the full cost of employing full-time Catchment Leads, including any extra costs for setting up partnerships where they do not yet exist. This investment could improve the consistency and quality of catchment plans and strengthen their role in systems planning. Government may also wish to link this funding to greater accountability for delivering high-quality plans, following examples such as France's River Basin Committees. In Wales, where there is currently less coverage of catchment partnerships, the government should consider how it can best support catchment-based planning.
119. **Working groups should be created which could advise the systems planner on specific areas of water system planning.** This approach follows precedents in plans for the forthcoming RESPs, which will have regional working groups to provide input and oversight of plan development and formally advise the Strategic Board.<sup>176</sup> These groups will be for the UK and Welsh Governments and the systems planners to set out, and may vary by region. They may be different in Wales, for example, given there are many more local authorities in the systems planner's area; there may also be a need to establish a specific group dedicated to managing the impacts of metal mines.
120. **These groups would be tasked to come to the strategic board with proposals for interventions that could be part of the Regional Plan.** Similarly, they could be commissioned by the strategic board to develop pathways to meeting targets in their areas of expertise. These groups could include (a) local catchment groups, with the chair of this group representing it at the strategic board; (b) other local authority representatives in the region, to inform views of the local authority representatives on the strategic board; (c) water resources stakeholders, in place of the current water resources groups under the National Framework for Water Resources; (d)

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<sup>176</sup> Ofgem, '[Regional Energy Strategic Plan policy framework decision](#)', 2025

agricultural stakeholders, who could identify how to reduce the impact of diffuse pollution from agriculture and integrate this into the plan; (e) sustainable drainage, drawing together local authorities, Highways England or Welsh government transport, water companies and others; and (f) water and nature, to ensure that plans take account of Local Nature Recovery Strategies, the needs of protected sites and Special Areas of Conservation.

## Consultation

121. **The systems planner should take on the responsibility to be a single point of contact for water planning consultations.** In carrying out this function, the system planner could coordinate consumer, eNGO and other stakeholder input into planning processes, and ensure compliance with regulatory requirements (for example, that any statutory consultation deadlines are met). To improve accessibility, systems planners could create and own an online hub for all relevant water consultations, including those owned by the water industry. This system would be similar to the Defra Citizen space tool - [Defra - Citizen Space](#) or Transport for London's engagement tool - [Have Your Say Transport for London](#). This approach would enable clear channels of communication and streamline interactions with stakeholders. This would enhance the effectiveness of public and regulatory engagement to build trust with stakeholders. Consultation activities should clearly demonstrate how feedback has been used in the decision-making process. This could be achieved through transparent feedback reports hosted on the hub.

## Influence over non water industry sectors

122. **The levers to achieve water system objectives across all sectors should be strengthened, with a particular focus on agriculture.** While agriculture's impact on the water system is regulated through the Farming Rules for Water in England and the Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 in Wales, low compliance rates demonstrate that they are not achieving their intended purpose.<sup>177</sup> Increased enforcement activity has helped to identify and resolve non-compliance and should be further expanded. The UK and Welsh governments should, as part of their National Water Strategies (as described in Chapter 1), set out what existing levers and additional mechanisms are needed to mitigate the impact of key sectors, including agriculture on water quality. This could be supported by a gap analysis between current diffuse pollution from agriculture and an

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<sup>177</sup> In 2023, EA inspections in England identified at least one area of noncompliance with the Farming Rules for Water 2018 in over 50% of inspected farms ([Working with farmers to protect our future land – Creating a better place](#)). In Wales, NRW inspected 203 farms between November 2023 and March 2024 and found 63% to be non-compliant with one or more of the regulations on the first visit ([Natural Resources Wales / Performance report 2023/24](#)).



assessment of what is required to reach the sector targets outlined in the National Water Strategy.

123. **Systems planners should have a role in directing Environmental Land Management funding towards water system priorities to maximise its impact.** Voluntary action, such as through the Catchment Sensitive Farming Scheme, has also had measurable benefits for water quality and should continue to be supported.<sup>178</sup>
124. **Systems planners should also engage with National Highways, Welsh Government and local authorities on the actions required to address pollution arising from road run-off.** This could include identifying the actions required to meet objectives and being consulted on any plans to mitigate issues identified.
125. **Where new national strategies and targets are likely to have a significant impact on water resources or the water environment, the national systems planning coordination function (see below), in coordination with the National Infrastructure and Service Transformation Authority (where appropriate), should be consulted on how they could be accommodated.** An example of this could be in the development of more data centres for the projected increase in Artificial Intelligence use, which have a high-water need.<sup>179</sup> The regional water systems plans, overseen by the national coordination function, would in effect be the sectoral spatial plans set out in the 10 Year Infrastructure Strategy.<sup>180</sup>
126. **Planning for the water system should be closely aligned with other spatial planning.** Alignment would be supported by systems planners having a formal role in the planning system, for example through being statutory consultees on Spatial Development Strategies and Local Plans, to align plans to enable growth. This would focus on strategic planning only rather than specific planning applications, which could remain subject to scrutiny by the environmental regulator, with an escalation mechanism to the systems planner for any applications of strategic importance. The UK and Welsh Governments should consider how to take this forward alongside changes to the regulators and, in England, implementing the Corry Review, particularly which body should be the 'lead regulator'.<sup>181</sup> The role of water companies in planning is covered in Chapter 7.

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<sup>178</sup> Natural England, '[Catchment Sensitive Farming Evaluation Report – Water Quality Phases 1 to 4 \(2006-2018\) - NE731](#)', 2019

<sup>179</sup> Oxford University, '[The true cost of water-guzzling data centres](#)'

<sup>180</sup> National Infrastructure & Service Transformation Authority and HM Treasury, '[UK Infrastructure: A 10 Year Strategy](#)', 2025

<sup>181</sup> Defra, '[An independent review of Defra's regulatory landscape](#)', 2025

## Composition

127. **Each systems planner should have a strategic board with an independent chair appointed by the Secretary of State in England and the Welsh Ministers in Wales.** The appointment of an independent chair would follow the model of RFCCs and the FCEC, in which the Secretary of State or Welsh Ministers appoint appropriate individuals in line with the Governance Code for Public Appointments.<sup>182</sup> Independence will be important to enable the chair to make challenging trade-offs between conflicting regional priorities and bolster the board's credibility in making contentious decisions. The Commission considered whether the chair should be a representative from a local authority within the region in England but has concluded that local government representation would be best achieved through the membership rather than leadership of the strategic board. With River Basin Districts spanning multiple local authority boundaries, it is important that the chair is not biased towards a particular city or area in the region. Appointing an independent chair also offers the opportunity to bring in leaders with expertise in water system or regional planning.
128. **The Commission also recognises the importance of local devolution in England, and of giving elected mayors the opportunities to influence, inform and be informed by plans for the water system in pursuit of sustainable growth.** For this reason, a political leader within the region should be appointed to a Deputy Chair role, alongside other local government representation on the board. Choosing representatives which reflect the entire geographic remit of the systems planner will likely be challenging, particularly in Wales, where there will be a single systems planner for the nation. The Local Government Associations in England and Wales may be able to support the process of choosing appropriate representatives or setting principles for this decision. This will allow them to champion local priorities in the planning process, alongside a non-political chair. The deputy chair should be nominated by the local authorities in the region to represent them and appointed by the Secretary of State or Welsh Ministers.
129. **The rest of the strategic board should be composed of independent experts, representatives from local authorities and a range of other representatives who impact and rely upon the water system.** The board should be composed of between 9 and 12 people, to ensure high-quality engagement from all participants and effective decision-making. There will be opportunities for others to feed into the planning process without sitting

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<sup>182</sup> Cabinet Office, '[Governance Code on Public Appointments](#)', 2024

on the board, such as through working groups or by responding to consultations.

130. **Some sectors may require additional support to engage with systems planning.** For example, to ensure local authorities can effectively participate in the regional committees, government may need to provide them with additional funding to increase their capacity to input into the development of regional systems plans. Under the New Burdens doctrine in England, departments are required to allocate funding for the costs associated with new duties from government. This is to prevent unfunded requirements from straining local authority budgets.<sup>183</sup> If capacity funding is provided to local authorities to engage with systems planning, it should be ringfenced to ensure that it is solely used for its intended purpose.

#### **Box 8 – Composition of the systems planner strategic board**

The Commission recommends that the strategic board is composed of an:

- Independent chair
- Deputy chair who represents local government interests
- Catchment partnerships representative
- Consumer representative, nominated by a consumer representative;
- Environmental expert
- Public health expert<sup>184</sup> (these could draw from the pool of local authorities' Directors of Public Health in England or be nominated by Public Health Wales in Wales)
- Engineering expert
- Second local government representative (where possible chosen to ensure balance – for example, if the deputy chair is from an urban authority, the second representative could be from a rural authority)
- Transport representative nominated by the Department for Transport or Welsh Government
- Agricultural representative

All appointments should be made by the Secretary of State or Welsh Ministers, even if members are nominated by other bodies, and should be aligned with public appointment rules<sup>185</sup>. This will support alignment with national priorities and ensure that members have status and authority.

<sup>183</sup> Ministry of Housing Communities & Local Government, '[New burdens doctrine: guidance for government departments](#)', 2025

<sup>184</sup> Recommended to the Commission by the UK Government's Chief Medical Officer, 2025

<sup>185</sup> Cabinet Office, '[Governance Code on Public Appointments](#)', 2024

131. **Each systems planner should be staffed with a secretariat.** We propose that these staff are employed by transferring the planning functions from the existing regulators to the new systems planner, to ensure that expertise is retained within the ecosystem. However, they would be directed by the objectives and independent leadership of the systems planner, which we expect would necessitate cultural change in the new organisation. Resourcing for the system planner is estimated to require 20 to 50 Full Time Equivalent staff (FTE) per system planner, some of whom would be transferred from existing functions in the regulators. Staffing requirements will depend on the interaction with regulators and will vary between system planners depending on size of river basin district and structure.<sup>186</sup> The Welsh systems planner is likely to require a higher number of staff than regional systems planners in England, given that it would operate at a national scale spanning three existing river basin districts. There may also be a need for additional skills to be recruited to ensure that systems planners have sufficient cross-sector expertise. This could include expertise in local planning and transport, or other areas in which current regulators have a limited role.

## National coordination - England

132. **In England, a light national water systems planning coordinating function would sit above the regional water system planners.** The purpose of this would be to ensure that regional plans add up to national targets, are of the appropriate standard, and are interoperable. They would also have a role in advising central government on national water priorities. The national coordinator would establish a single methodology for the regional planners to follow when developing their plans. There could be an escalation route to the Secretary of State in the case of disputes between national coordinators and regional water systems planners. The national coordinator would also support on monitoring the delivery of systems plans to ensure consistency of approach and effective use of digital tools and information sharing. Operational decisions, such as around water transfers, may also take place at this level. It may be appropriate to situate RAPID within the systems planner, or to ensure it is directed by the national coordinator if it remains separate. The Commission believes that this national coordination function may not require a separate body but could sit within Defra, given that the Defra Ministers and officials will be the principal authors of the National Water Strategy and Ministerial Statement of Water Industry Priorities (MSWIP).

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<sup>186</sup> For example, the Commission understands that there is around a 3x variation between the smallest and largest local RBMP teams in the EA currently.

133. **Accountability mechanisms for the regional planners will depend on the structural option chosen for their establishment** (see ‘independence’ section). An independent systems planner would be accountable directly to ministers with a duty to take advice from the regulators about environmental compliance and value for money. In the ‘integrated’ option, the systems planner would be regulated by the regulator in which it is housed, who would be responsible for ensuring that the systems planner operates in accordance with its duties and responsibilities day-to-day. In both cases there would be an escalation or ‘comply or explain’ route in the case of a conflict between the systems planner and the regulator. See Box 9 for further detail on the ‘comply or explain’ approach.

#### Box 9 – Comply or Explain

The ‘comply or explain’ approach is a regulatory framework used primarily in corporate governance. Instead of enforcing rigid rules, it allows organisations to either comply with a set of recommended principles or provisions or explain why they have chosen not to comply. It recognises that one-size-fits-all governance may not suit every organisation and allows flexibility where there is a suitable justification for it.<sup>187</sup> The Financial Policy Committee, a committee within the Bank of England, is tasked with identifying and reducing risks to the UK financial system. The FPC can issue recommendations to the Prudential Regulation Authority or the Financial Conduct Authority. It makes these recommendations on a ‘comply or explain’ basis. For example, if the FPC recommends restricting the proportion of risky mortgages banks take on, regulators may choose not to comply but must publicly explain their decision. This approach ensures that institutions remain accountable while allowing for contextual flexibility.<sup>188</sup> See Chapter 6 for further discussion of corporate governance.

### National coordination - Wales

134. **There would be no need for a separate national coordination function in Wales, given that a single cross-sectoral systems planner could operate across the whole of Wales.** In Wales, that single systems planner would be accountable to the Senedd.
135. **The Welsh systems planner should have the same core objectives and remit as set out above.** However, in Wales the model would need to reflect the distinct environmental landscape and legislative frameworks. This could include differences such as the impact of abandoned metal mines, and the ways of working towards the sustainable development principle in the Well-

<sup>187</sup> The Corporate Governance Institute, ‘[What is comply or explain?](#)’ (viewed 18 July 2025)

<sup>188</sup> Bank of England, ‘[Financial Policy Committee](#)’ (viewed 18 July 2025)



being of Future Generations (Wales) Act 2015. The plan should consider Welsh priorities, align with and deliver against legal requirements set by the Welsh Government.

136. **Given it would operate across the whole of Wales, the Welsh systems planner would need to ensure sufficient engagement at a regional and local scale.** For example, there could be an opportunity for the Welsh systems planner to use Welsh Area Statements as a mechanism to develop integrated planning at a regional level in Wales. Area Statements are plans that coordinate efforts in a region to sustainably manage natural resources.<sup>189</sup> NRW produce Area Statements in collaboration with local stakeholders. Some stakeholders have voiced concerns that the statements are too high level, that they contain no clear mechanism for how to resource delivery of their objectives, and that they lack a consistent approach.<sup>190</sup> The Welsh systems planner could play a role in supporting improvements to the application of Area Statements across Wales. The Welsh systems planner could have a formal function in co-developing or leading on the water component of the statements. The Welsh systems planner could also oversee greater development of catchment partnerships in Wales, building on the ‘opportunity catchments’ which already exist.<sup>191</sup> As noted above, there would need to be formal cooperation agreements between the Welsh systems planner and the English regional systems planners where the river catchments cross the border.

## Independence

137. **There is an important choice to be made on whether the system planners should be an independent function, outside the water regulators or integrated within them.** Alongside an independent chair, the Commission believes systems planners in England and Wales should be independent, with their own secretariats, drawing on the advice of the water regulators but not part of them. This will enable them to be better placed to take a cross-sector view and to draw on expertise across different organisations to support joined-up planning. This will include making challenging trade-offs, often between different organisations and their objectives. Establishing an independent systems planner would involve the separation of regulation and water planning functions. This could free up the regulators’ capacity to focus on compliance and enforcement work, creating

<sup>189</sup> The legal framework for Area Statements is established under the Environment (Wales) Act 2016

<sup>190</sup> The [Chartered Institute of Ecology and Environmental Management wrote to NRW](#) to voice their concerns on the Area Statements, 2023

<sup>191</sup> Cyfoeth Naturiol Cymru Natural Resources Wales, [‘Area Statements and opportunity catchments’](#) (viewed 18 July 2025)

a clearer vision and mission for both the regulators and for the systems planners.

138. **The regulator(s) would retain an important role alongside an independent systems planner**, including through interaction with the planners to avoid being non-compliant and ensure that environmental and economic regulatory expertise is factored in throughout plan development. Regulators would continue to regulate delivery of water industry and other schemes and projects within the plan, through the permitting and licensing regime, and through the economic regulators' oversight of business plan delivery (see Chapter 7). Regulators would retain their discretion over permitting and licencing, but would need to comply with the regional plan or explain why they had not done so, as set out in paragraph 83.
139. **There may also be a role for government in signing off the overall level of ambition of a regional plan, and any particularly sensitive trade-offs within it.** While the National Water Strategy should provide guidance in this regard, there are likely to be areas in which a specific, more granular government view is needed.
140. **In England independent system planners could be established as a single body with eight regional systems planners, overseen by a national coordinating function.** This national coordination function could be independent and be part of the same body as the regional planners, or it could sit within Defra. The independent model would align with the precedent set by the NESO and its forthcoming RESPs in energy. However, the coordinating function in water would be much 'thinner' given that unlike energy there is no need for a central operating function. In either case, however, a new public body would be required, which would involve transitional and ongoing administrative costs.
141. **It is envisaged that the regional system planners would be staffed by the transfer of staff who currently carry out the planning functions in the regulators. However, there would be some financial costs associated with establishing a systems planner.** These could include aligning terms and conditions and pensions. The creation of new systems planning bodies will also likely require some overall increase in staff headcount to ensure necessary expertise is present in all regions. While the strategic board will not be comprised of full-time employees, the Commission proposes that board members and the independent chair receive remuneration for their time commitment, as well as for reasonable expenses for travel and subsistence.
142. **However, the Commission is aware of the current government reluctance to establish additional public bodies.** We have therefore

considered an alternative model of systems planning that could be established within the existing regulatory structure. The Commission's view is that a viable alternative option would be to establish regional systems planning boards within the water regulator(s) or the Welsh Government in Wales.

143. **In England, under this option, regional system planners would still have strategic boards, led by independent chairs appointed by the Defra Secretary of State.** This model would improve on the current system by bringing all the relevant sectors and actors, particularly local authorities and catchments, into the planning system. It could build on local catchment partnerships and develop working groups in much the same way as the independent planner. It would also make access to the regulators' technical expertise and coordination with their permitting and licencing functions easier if they were within the same organisation. However, a key motivation for regional system planning is to put decisions on regional water systems in the hands of regional actors and the communities that live by and depend on those systems. This is likely to be more challenging if the system planners are integrated into national regulators.
144. **The Commission's view is that, if this option is adopted, there would need to be strong mechanisms to bolster the independence of the system planning boards within the regulatory bodies.** This is likely to include establishing the regional planning boards and their duties and functions in statute, ensuring that membership is independent of the regulator, and giving the boards 'comply or explain' powers, including in relation to the organisation in which they are housed. The policy committees that sit within the Bank of England have been set up in this way (see Box 9). However, given the importance of the regional and local connection, and the greater variation of objectives within the bodies represented on the board, regional water system planning boards would need more independent chairmanship and membership than the committees within the Bank of England.
145. **There is a risk that operating within the water regulator would undermine the systems planner's cross-sectoral view.** In England, the merged water regulator would have certain sectors key to systems planning outside of its direct regulation, with floods, for example, remaining within the remit of the EA. The secretariat of the systems planner in England would need to work closely with the remaining environmental regulator to ensure cross-sector engagement. In future, it may make it more challenging to integrate flood and water planning, if they sit within different regulators.

## Wales

146. **In Wales, the systems planner could be independent, integrated within the regulator, or sit within Welsh Government.** The cases for the independent and ‘integrated’, regulator-housed options in Wales largely mirror those in England. However, given that there will be a single systems planner in Wales, it may be more appropriate to integrate it into NRW, rather than creating an entirely new structure for a single organisation. Unlike in England, situating the systems planner for Wales within the Welsh Government may also be an appropriate option to consider. Having a single systems planner for Wales would mean that there is no division between the national coordinator and the systems planner. The Welsh Government also already convenes the existing Price Review Forum in Wales, which coordinates between certain water stakeholders and determines priorities.
147. **NRW would retain key functions that would not be present in a merged water regulator in England, allowing it to take a more cross-sector view.** NRW would continue to cover the current EA functions, including flooding, as well as the water functions which sit within NE in England. An integrated system planner within NRW would be able to draw on this wide range of internal expertise to take a more holistic view of the water system when making decisions.
148. **In assessing the best option for systems planners, the UK and Welsh Government may wish to consult further.** Following considered assessment of the options, the Commission judges that independence is preferable to integration of the systems planner into a regulator. However, there are merits to both options, and areas in which more information would support a decision. For example, decisions in this area will be affected by decisions on the structure of the regulators which are covered in Chapter 4. And the governments may wish to consider the resourcing needs of both options in greater detail than the Commission has been able to in its limited timeframe.

## The 5-year planning cycle

### *Planners need to facilitate projects designed to deliver over the long term and provide more certainty on future investment needs*

149. **In our Interim Report, the Commission determined that the current 5-year period for setting water company bills is broadly appropriate.** A shorter period would lead to greater volatility and uncertainty, while a longer period would very likely require more in-period adjustments as circumstances change. Retaining the 5-year cycle helps give billpayers stability. It also helps guide water companies on their budgets, performance goals, and investment plans, which supports both customer and investor

confidence. Keeping this system also limits the additional work water companies, planners and the regulator will face when adjusting to the new framework.

150. **Nonetheless, the Commission has determined that there is a need to move away from the concept of an AMP as a rigid 5-year delivery window, with its start and end bounded by price reviews.** The Commission feels there is a need to give investors, companies, regulators and government greater certainty about new and upgraded infrastructure which is planned in the medium and longer term. Change is needed to enable projects that achieve long-term outcomes to be brought forward, to address funding requirements over the full lifecycle of those projects. Such a change would reflect the complexity of infrastructure programs and help flatten the peaks and troughs in investment and delivery, by planning for projects to be planned and deliver across AMP boundaries. This will provide greater certainty for supply chains, improving delivery efficiency and supporting more stable long-term employment and capability development.
151. **The systems planner therefore should aim to establish clear and realistic timelines based, not on arbitrary AMP boundaries, but on the time projects need to deliver.** If implemented, the Commission feels this would improve understanding of the sector's trajectory and provide companies and investors with confidence in long-term planning and investment.

#### **Box 10 – Ofgem experience of RIIO-1**

The Commission heard evidence on the length of price controls from Ofgem, who extended the energy sector's price control cycle from 5 to 8 years to support long-term planning, reduce regulatory uncertainty, and facilitate large-scale infrastructure investment.

The shift from 5 to 8 year price controls under RIIO-1 (2013-2021) partly led to higher-than-expected returns for network companies, due to overly generous cost allowances and insufficient flexibility to adjust them mid-period. The National Audit Office estimated that customer costs rose by £800 million over the price control period as Ofgem set allowances too generously.<sup>192</sup>

As a result, Ofgem has reverted to a 5-year cycle to improve regulatory responsiveness and oversight.<sup>193</sup> With this in mind, the Commission has decided to recommend retaining the 5-year Price Review cycle, with no change to the length of the regulatory period.

<sup>192</sup> National Audit Office, '[Electricity networks](#)', 2020

<sup>193</sup> Cambridge Economic Policy Associates Ltd. '[Review of RIIO Framework and RIIO-1 Performance](#)', 2018



**Recommendation 4: The 5-year Price Review cycle should be retained for setting water bills and company revenues over a 5- year period but water industry investment planning should be conducted on a 5/10/25 year basis with the greater certainty and granularity for the first 5 years, more indicative plans for the following 5 years and higher level indication for the longer term.**

152. **A 5/10/25-year planning model would involve the first 5 years of a project being fully funded, with the expectation that projects for the 10-year horizon will proceed as planned.** For the 10 to 25-year period, projects would be outlined at a high level, with further detailed planning and review taking place at the next 5-year planning update. Giving certainty beyond a 10-year horizon is difficult due to the changing nature of climate, the environment and population demands. For example, 2022-based projections were for the UK's population to grow by 6.6% (4.4 million people in absolute terms) from 2021 to 2036.<sup>194</sup> However, the UK's population is now projected to grow by 9.9% (6.6 million people in absolute terms).<sup>195</sup> Projects in the 5 to 10 year window should therefore be planned with a commitment to fund projects, yet it should remain open to redesign projects and finalise the specific amount of funding as projects move from the 5 to 10 year window into the 0 to 5 year. This is particularly relevant where investigations are required prior to confirming that investment is necessary. This approach gives greater certainty to investors for full project lifecycles and a clear understanding of what investment commitments are likely to arise on a medium-term horizon of 10 years, rather than confining funding certainty to just the next 5-year period, with little consideration of anything beyond this for all but the very largest of schemes. This option is recommended for both England and Wales.
153. **The 5/10/25 model takes inspiration from that in Scotland, described in Box 11, though has been tailored for the English and Welsh water sector.**

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<sup>194</sup> Office for National Statistics, '[Population projections](#)' (viewed 14 July 2025)

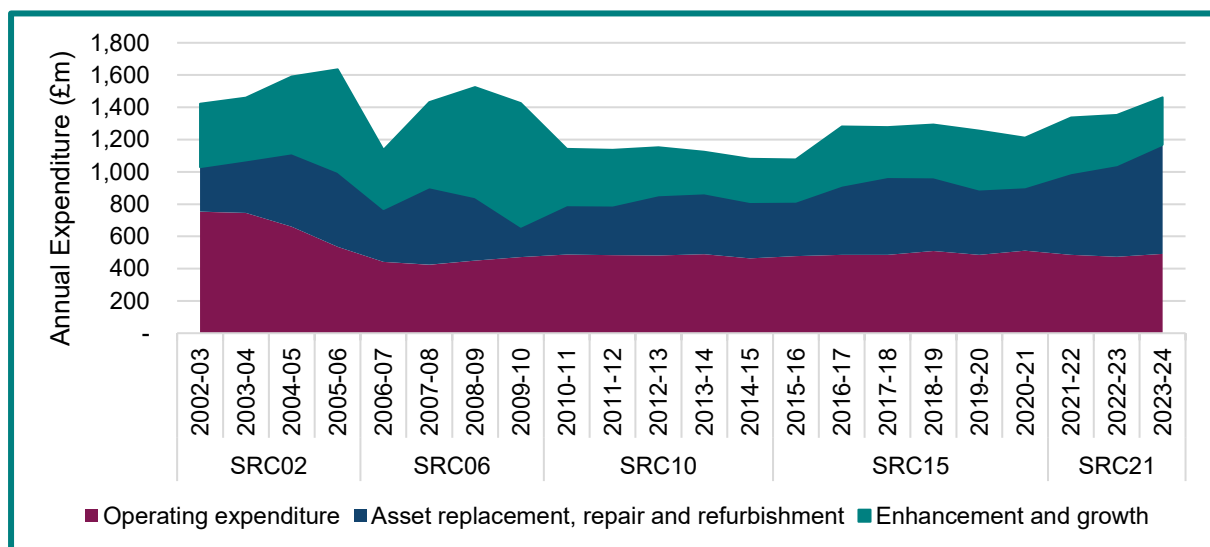
<sup>195</sup> Office for National Statistics, '[National population projections](#)' (viewed 14 July 2025)

**Box 11 – Approach taken in Scotland**

**The Scottish Government, Water Industry Commission for Scotland (WICS), and Scottish Water operate under a framework they term a ‘rolling programme of investment’, through which there is much closer working between the company and regulators throughout delivery.**

Scotland moved away from a rigid, prescriptive list of projects tied to the fixed 6-year cycles and now allocates funding to broader categories of investment and confirms funding when projects are ready to be stood up. Funding is confirmed for the length of the projects, irrespective of AMP boundaries. The ability to carry over funds and begin planning for future periods enhances responsiveness and smooths the delivery profile (see Figure 6). Although this model relies on trust and transparency among stakeholders, it enables a more agile approach to investment, where projects can be re-prioritised as long as overarching ministerial objectives are met.<sup>196</sup>

**Figure 6 - Annual spending profile of Scottish Water 2002-03 to 2023-24, 2022-23 prices, £ million**



Source: Water Industry Commission for Scotland<sup>197</sup>

154. **The implications of this new model are significant.** At present, when making determinations, the regulators specify what projects should go ahead and be completed in the next 5 years, and the economic regulator assesses and provides funding for the same period. The new proposed model will

<sup>196</sup> Scottish Government and Water Industry Commission for Scotland engagement with the Commission, 2025

<sup>197</sup> Does not include data on the wastewater capital expenditure of PFI contractors or operating expenditure of the annual fees Scottish Water pays to PFI contractors. Data shared with the Commission by WICS

mean that AMPs should no longer be seen as fixed delivery windows, with hard starts and endings bounded by Price Reviews, but rather that Price Reviews should be funding check-in points in the context of a long-term plan.

155. **In order to give sufficient certainty on investments for a 10-year horizon, or to effectively plan 2 AMPs ahead, government and the systems planners would also need to set objectives 10 years into the future.** This in turn will require the National Water Strategy and MSWIP to also be set in line with this model (set out in Chapter 1). Given this change, there will need to be a transition period to allow for the volume of modelling and planning required to align to the new model.
156. **The Commission supports greater use of staggered project completion deadlines within the structured 5-year cycle.** For example, broadening the use of existing Ofwat mechanisms like the Accelerated Infrastructure Delivery Scheme would smooth delivery by standing up projects later in the cycle. This would enable them to be completed earlier in the next AMP and reduce the concentration of delivery.
157. **With greater flexibility, strong governance will be crucial to maintain investor trust and ensure projects are delivered effectively.** The systems planner would play a key role in choosing which projects can be sequenced to be delivered across AMP boundaries, working with the economic regulator to ensure stability and efficient funding. The systems planner would also make sure the process stays within the agreed rules and does not introduce major new programmes unexpectedly. It will be important to clearly define early-on which types of projects can be fast-tracked and how they should be selected from already planned projects, through strong governance.
158. **There should be greater transparency around the circumstances in which funding can be re-opened between Price Reviews.** Water companies can currently request that Ofwat reset their price limits between the 5-yearly reviews, but only in specific cases, typically where there are significant and unexpected changes in revenue or costs that meet materiality thresholds. To meet these thresholds, companies may combine multiple cost items, each of which must also pass a separate triviality test.<sup>198</sup> However, the criteria for triggering this flexibility are not clearly defined, creating uncertainty for both companies and investors.
159. **Improved clarity at the outset of the Price Review planning period would help all parties better understand the risks involved.** For example, it should be confirmed in Price Review methodology, that where there is an obvious need for funding to remain responsive to novel threats,

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<sup>198</sup> Ofwat, '[Interim determinations](#)', 2025

this will be subject to a reopener if certain conditions are met. This would continue to support a flexible approach within the 5-year cycle, while maintaining transparency of process and a robust threshold for changes.

## Streamlining water industry plans

### *Water industry plans need to be more focused and processes more efficient.*

160. **In the Commission's view, there is considerable scope to improve and rationalise the processes for the planning and funding of water industry investment.** The inefficiency in water industry planning is largely due to the evolution of multiple parallel processes designed to meet diverse and often prescriptive legislative requirements. Some of these processes also lack effective strategic guidance or clear development and oversight.

**Recommendation 5: Water industry planning should be rationalised down from 9 plans into 2 core planning frameworks – 'Water Environment' and 'Water Supply.' This applies to England and Wales.**

161. **The 2 core planning frameworks should broadly cover the 2 water systems- the sewer networks and the water supply networks - and issues connected to them, which can be used by the systems planner to plan non-water company actions** (see Figure 7). We have heard from organisations, including the National Engineering Policy Centre, there is a strong case for the separation of water supply and wastewater planning due to the different asset needs.<sup>199</sup> These 2 core areas build on and retain the elements that make up DWMPs, WINEP and WRMPs, but should also be more comprehensive and require all enhancement and some specified capital maintenance (including some asset renewal) to fit within them. There will be issues that do not fit neatly into just one plan, and therefore plans will need to be interoperable, with decisions made at the right time for corresponding actions in other plans, and should undergo assurance to ensure they add up to a coherent whole.
162. **Operational spend (such as energy prices, vehicle fleet maintenance and labour costs) and day-to-day, regular and reactive maintenance (such as responding to asset failures like sewer collapses) should be outside the systems planning framework.** The Commission's view is that this spend would not benefit from inclusion in systems plans in the same way as those elements described above, given that it is closely tied to companies' operations and staff – areas where a systems planner's involvement would not be appropriate. This is particularly true of day-to-day regular and reactive maintenance, including emergency response, where decisions must be made quickly with detailed asset knowledge. This spend will remain subject

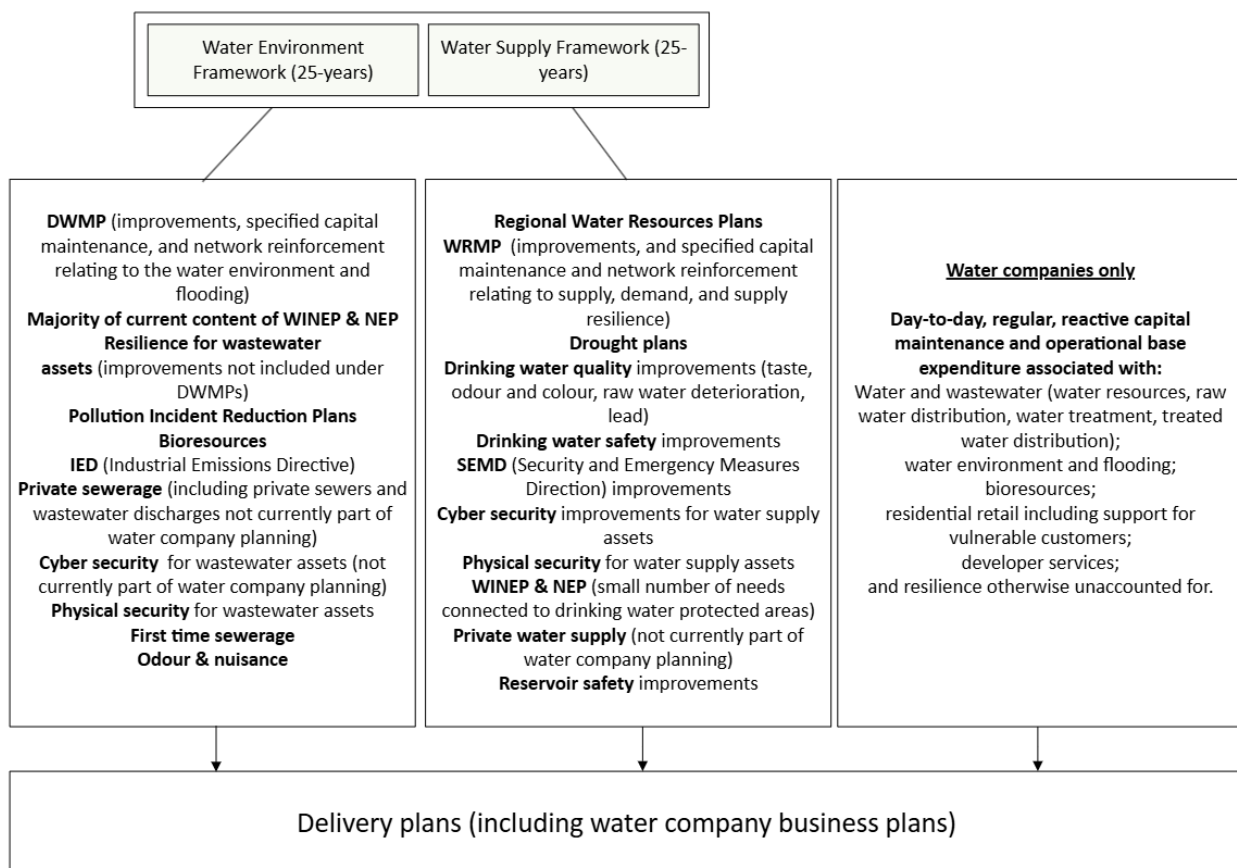
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<sup>199</sup> National Engineering Policy Centre submission to the Commission, 2025

to targets and standards, like those on minimum service levels and asset downtime. It should continue to be planned for by water companies in their delivery plans and assessed by the economic regulator at Price Reviews.<sup>200</sup>

163. **A cross-sector view and planning framework could be applied, however, to capital expenditure elements of base spend, including specified capital maintenance and asset renewal.** For example, DWMPs are founded on the premise that designing interventions on end-of-pipe problems are best considered in the context of the catchment and sewer network as a whole. We consider that this premise holds under the new system planner model. Significant elements of DWMP delivery will be defined as base capital maintenance expenditure, and could be moved into the purview of the systems planner to allow necessary cross-sector planning.

**Figure 7 - Proposed contents of long-term plans**



Source: Independent Water Commission

164. **There will remain issues which do not exclusively map onto one framework or the other.** For example, abstraction is an issue that will be relevant for both 'water environment' and 'water supply' plans. This is currently managed between WRMP and WINEP by ensuring a common

<sup>200</sup> Water company delivery plans will likely continue to be referred to as 'business plans', though there will be delivery plans for other sectors for which that term may be less suitable.



priority framework- that is, a core principle of WRMP is to ensure that there is sufficient water flow for healthy rivers. These common priorities should continue in the new model.

165. **The core function of WINEP and NEP is to set out the interventions that are necessary to meet water body objectives so that they can then be tracked into permits. This core function will still be necessary in the new framework.** The iterative permitting process will continue to interact with the planning framework so interventions can be agreed and defined, then added to delivery plans. This means that there should remain a common working document tracking these interventions, to which water companies should have open access, as happens currently. Water companies should therefore still be able to use the output of this process as a basis on which to develop their business plans and will continue to have direct readthrough to tracking and permitting, though this would be nested within the framework of the 5/10/25 model.

### Improved approach to economic appraisal

*Better and more consistent methods are needed to make reliable decisions.*

**Recommendation 6: The national coordinator of the systems planner in England, and the national systems planner in Wales, should take on responsibility for ensuring consistency in scenarios, assumptions, and metrics for water industry planning across the new planning framework.**

166. **Introducing a consistent standard method for forecasting various assumptions including population growth and climate change could significantly enhance the consistency and reliability of planning across sectors.** Similarly, the development of shared scenarios for climate change, population growth and market dynamics (such as the sludge market) would provide a common foundation for stress-testing plans. Setting common assumptions and standardising metrics for specific uncertainties could enhance transparency, facilitate benchmarking, and support more informed decision-making across the sector. This will require engagement with local authorities on population data, and with water companies, land managers and government on the impacts and risks associated with different climate change scenarios.

**Recommendation 7: The systems planner, with the support of the economic regulator, should require, support, and scrutinise a strengthened approach to option development and cost-benefit analysis across water industry planning frameworks. This applies to England and Wales.**

167. **The systems planners will need to make decisions based on information submitted in water company delivery proposals with regard**

**to affordability and value for money over the long term.** Information on costs and benefits should be used to compare against different options in order to navigate trade-offs. As in the case of regulatory compliance, if the systems planner faces trade-offs between different priorities which it cannot resolve, there should be an escalation route to the Secretary of State or Welsh Ministers.

168. **The systems planner should promote better project development by challenging cases where too few options have been considered.** This should help to ensure a number of different options are considered by sectors for achieving requirements and actions set out in the regional plan. This is important to ensure that alternatives are sufficiently considered and the option that provides best value for money can be identified. This may also help to encourage alternative or innovative solutions, such as nature-based solutions, and help to discourage sectors putting forward standard 'least cost' options only.

### How the new approach to systems planning will work in practice

**This section sets out a step-by-step process of how a new approach to water systems planning could work.**

#### Proposed process

##### Step 1 – Strategic Direction

- Governments publish their National Water Strategy, setting out long-term objectives for the water sector with interim milestones.
- Nested underneath the Strategy, the MSWIP sets out additional technical detail to support the water industry.
- These documents are accompanied by an assessment setting out the government's broad understanding of the costs and impacts that government policies will incur.

##### Step 2 – Objectives and commissioning

- Each water system planner publishes its objectives for its area and commissions plans from relevant sectors to deliver against these. This would be in line with the National Water Strategy and MSWIP.
- The systems planners' objectives should provide regional apportionment against national targets, and set out any additional, localised priorities that need to be taken into account, including local growth projections, spatial mapping and targeting information, or any particularly high-profile water issues within their region that need to be addressed.

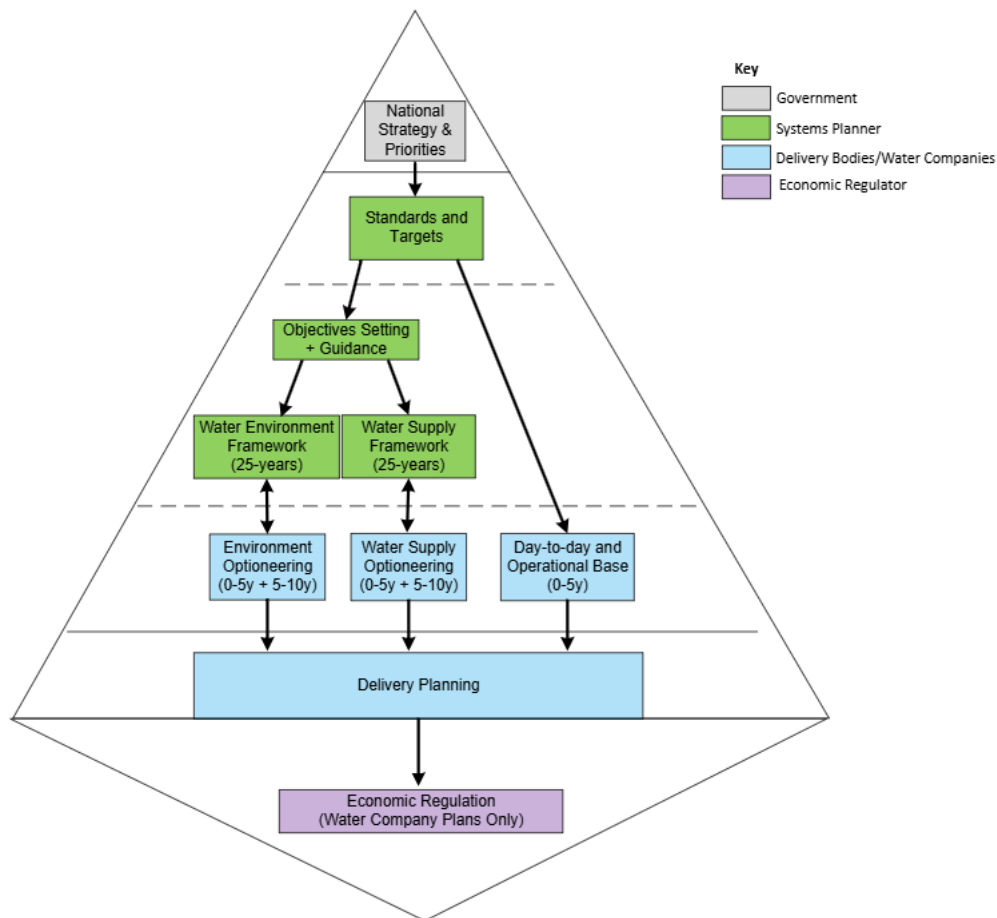
- The objectives would be accompanied by guidance on relevant assumptions to support the development of plans. This could include assumptions agreed by the national coordinator and regulators for all regional planners to use, such as climate change scenarios, and regional assumptions in line with national methodologies, such as local growth projections provided by the local authority, and water resources modelling provided by water companies.
- The systems planner would ask sectors to develop plans to deliver against these priorities, split into two categories: water supply and water environment.

### **Step 3 – Sectors develop plans and return these to the systems planner for sign-off**

- Relevant sectors, including the water industry, would develop detailed plans to deliver against the regional systems planner's objectives. Utilising the convening mechanisms organised by the systems planner, delivery bodies (for example, farmers and water companies) would test options with regulators and other interested parties and would be encouraged to collaborate to identify the most cost-beneficial option to address a certain problem, particularly partnership solutions where appropriate.
- Before returning their plans to the systems planner, delivery bodies would be required to seek approval from the regulators to ensure options meet environmental and other requirements. Iterative engagement with regulators during the option development process would help make this process smoother.
- Systems planners would review plans and select the preferred options based on criteria set by government. Systems planners would have 'constrained discretion' to make trade-off decisions in line with guidance provided by government through the National Water Strategy. How this would work is set out in further detail in Chapter 3.

### **Step 4 – Government and regulator sign off**

- Systems planners would submit their preferred plans to government for information. The government may raise objections to any elements of the plan which are not in line with its direction.
- Water industry plans would be submitted to the regulator for cost-efficiency challenge and to determine what companies can charge customers for the next Price Review period. Plans are thereby agreed to be delivered for the forthcoming period.

**Figure 8 - Simplified model of new systems planning process**

Source: Independent Water Commission

169. **The Commission's view is that this is a vastly more effective approach to water planning than is currently in place.** By design, it supports effective local engagement, encourages the delivery of innovative and collaborative solutions, and ensures effective cost-benefit analysis and decision-making on trade-offs. By retaining the 5-year Price Review period, and ensuring collective buy-in to delivery plans from regulators, government and wider society, this approach should provide a significant boost to investor confidence.
170. **The proposed approach is also simpler as it will streamline planning, engagement and regulation.** As set out in Table 2, instead of having 9 separate water company plans, there would be 2 coherent frameworks. All regional planning would happen at the same spatial scale and on the same timelines, supporting efficiency and improved co-benefits across the water system, as well as cross-sector coordination. Harmonising assumptions and methodologies across planning would facilitate greater consistency. Establishing systems planners as a single point of contact for water consultation would improve and simplify consumer engagement in the water system, creating more opportunities to integrate consumer voices into

decision-making. Importantly, regional systems planners offer a mechanism to ensure that economic growth and a sustainable water system are mutually reinforcing, and particularly that tensions between housing and water system objectives do not reach a crisis point.

**Table 2 - Comparison of current and proposed systems**

	<b>Current approach</b>	<b>New approach</b>
<b>Govt strategy</b>	Numerous disparate strategy documents and policy statements in England (for example, Plan for Water; EIP; SODRP etc.)	One National Water Strategy.
<b>Plans</b>	9 core plans (water industry led, not comprehensive) 18 additional plans (not water industry led, but adjacent and influential).	2 comprehensive planning frameworks – water supply and water environment.
<b>Spatial boundaries</b>	Different spatial boundaries for planning: water company boundaries for DWMPs, WRMPs, WINEP and NEP, 5 regional water resources groups in England, hydrological boundaries for RBMPs, 100+ catchment plans in England.	All planning at same spatial scale (8 river basins in England, plus system planner for Wales).
<b>Customer and public engagement</b>	Inconsistently timed and scoped consultations by 16 water companies and 3 regulators. Even engaged customers do not know where to look.	A single point of contact for engagement, with fewer but more meaningful consultations. Local stakeholders input directly into plans through catchment partnerships and LA representation.
<b>Assumptions and methodology</b>	Each company sets their own climate change, local growth and other forward scenarios which can vary from plan to plan with inconsistent involvement of the regulators.	A single set of assumptions, nationally agreed, with local input, and coordinated by the systems planner.
<b>Accountability</b>	Neither companies nor regulators fully accountable for their choices.	Clear lines of accountability for option choice and delivery.
<b>Options</b>	Few options considered in England- water companies put forward multiple options for only 22% of eligible Price Review 2024 WINEP actions and mostly followed a 'least cost' approach.	Requires multiple options and encourages delivery of innovative and collaborative solutions, for example, NbS.
<b>Growth and housing</b>	No one decision maker responsible for growth and water - leading to blocked housing (Cambridge, Oxford, Sussex, nutrients etc).	Single decision maker to ensure economic growth and water are mutually reinforcing, especially that tensions between housing and water do not reach a crisis point.



	Current approach	New approach
<b>Economic appraisal</b>	Inconsistent and poorly done economic appraisal- at least £15 billion in WINEP for which either economic appraisal was insufficient or not fully considered. <sup>201</sup>	More rigorous, thorough and consistent approach to economic appraisal, with economic regulator bringing expertise earlier in the process to raise standards.

171. **The act of option selection in this model is similar to the current WINEP and WRMP approvals work in practice, however it places greater accountability on the shoulders of the systems planner on which priorities should be pursued.** This will help to avoid the current situation where delivery bodies may be penalised for decisions over which they effectively had little say. By contrast, responsibility for planning and delivery at a project level will remain with delivery bodies. Water companies would continue to have responsibility for their own assets, and therefore responsibility for all OPEX base activities. Water companies will hold full accountability for delivery and meeting permits.
172. **The process above would enable input and feedback from delivery bodies and regulators to the system planner during options development and selection.** The development of detailed delivery options by water companies can take several years, and is regularly done in parallel with environmental monitoring, modelling and scoping work. The time needed to develop options, the processes of survey and monitoring of water bodies, and scoping work, may need to begin in parallel with the systems planner's commissioning process. However, greater certainty on the nature of required interventions will be provided by virtue of the long-term objectives set out in the national water strategy, which will help to enable companies to 'get-ahead' in some of this work.
173. **Other sectors would also undertake option development based on their sector-specific, apportioned objectives.** Their capacity to develop and deliver options will be different and generally weaker than that of the water industry. However, the systems planner would support all sectors in developing feasible options. Where needed, the systems planner would also play a coordinating role - for example, between multiple industrial users. The systems planner would further support catchment-level option development by commissioning catchment groups to scope, coordinate and help develop

<sup>201</sup> Figure reflects value of projects within WINEP where companies must reach requirements regardless of economic appraisal analysis outcomes. Estimating this figure precisely is challenging due to differences in how EA and Ofwat classify elements of WINEP. As a result, Ofwat's final determinations are not directly comparable with EA's classifications. This figure is drawn from Ofwat's PR24 final determination allowances for projects related to storm overflows, the Water Framework Directive (WFD), and adjacent WFD areas

solutions. This will better enable multiple stakeholders such as groups of agricultural land managers to coordinate.

174. **Part of the strength of the systems planner comes from its use of constrained discretion.** The systems planner would be able to react to any significant changes in costs or delivery at a programme level identified during detailed option development by delivery bodies. The systems planner would be able to view the overall scale of delivery across sectors and consider affordability issues or supply chain or deliverability challenges before determining which projects go into plans. Constrained discretion would be contingent on building exceptions into the legislative regime to provide discretion in appropriate cases (see Chapter 3). Constrained discretion by the systems planner would end the current burden on the economic regulator to challenge project scope during determinations. The economic regulator can focus on assessing cost efficiency.

## **Box 12 – Worked example of the proposed systems planner process – improved drainage outcomes in housing growth areas**

### **Stage 1 Government sets direction**

The government establishes the overarching vision for water system resilience through the National Water Strategy, supported by the Ministerial Statement of Water Industry Priorities. These frameworks set clear expectations for all sectors—housing, agriculture, industry, and the environment—to contribute to sustainable water outcomes.

### **Stage 2 Systems planner function**

The systems planner engages local planning authorities to align on growth forecasts by type and location. The planner works with catchment partnerships, water regulators, and land managers to co-develop objectives that reflect local hydrological realities and environmental priorities. These objectives have 5, 10 and 25 year horizons and align with the NWS. The systems planner leads and coordinates consultation. The systems planner then assigns shared responsibilities, including:

- developers and local authorities: domestic water efficiency and urban runoff reduction
- water companies: infrastructure for new water and wastewater connections
- catchment partnerships: nature-based solutions and integrated catchment management.

### **Stage 3 Option development**

Stakeholders collaboratively develop a suite of delivery options:

- Water companies propose infrastructure upgrades (for example,, storage, treatment).
- Developers suggest site-specific SuDS or decentralised treatment.
- Local authorities coordinate developer engagement and planning integration.
- Catchment partnerships and eNGOs offer habitat restoration and natural flood management to mitigate runoff and enhance biodiversity.

Each option includes cost estimates and environmental modelling. The regulator advises on legal compliance and economic appraisal. The systems planner selects a complementary package of actions aligned with regional objectives. Funding is allocated from multiple sources, including water company investment (regulated via the price review), developer contributions, and the Water Restoration Fund, which supports non-water company delivery partners such as catchment groups and NGOs, and any local levy funding.

**Stage 4 Price Review and on to delivery (water industry)**

The regulator reviews and approves water company business plans, ensuring value for money and alignment with strategic priorities. Once approved, companies begin delivery, with progress monitored by the regulator, with priority given for projects linked to housing growth.







## Chapter 3: Legislative framework

### 3.1 Legislative Framework and targets

#### Background

##### Legislative framework

175. **The current legislative and regulatory framework for the water system in England and Wales has developed in a piecemeal fashion over a long period.** Successive governments have introduced a large number of statutory requirements, duties, and powers in relation to water companies, the regulators and governments. The Commission has identified a list of over 100 pieces of legislation relevant to how water is regulated which apply in England and in Wales.<sup>202</sup>
176. **The Water Industry Act 1991 (WIA91) and the Water Resources Act 1991 (WRA1991) are the key statutory pillars of the privatised model.**<sup>203</sup> Other legislation implemented EU law requirements. The Bathing Waters (Classifications) Regulations 1991 implemented the EU Bathing Water Directive.<sup>204</sup> The Urban Wastewater Treatment (England and Wales) Regulations 1994 (UWWTR 1994) implemented the EU's Urban Wastewater Treatment Directive.<sup>205</sup> These respectively drove significant investment by water companies at the time in coastal and urban sewage treatment works.
177. **In the 2000s, further legislative changes, including the introduction of the Water Environment (Water Framework Directive) Regulations (WFD) in 2003 created a new framework for managing water quality.**<sup>206</sup> The 2010s saw more changes including the Flood and Water Management Act 2010, the Water Act 2014, updates to the bathing water regime through the Bathing Water Regulations 2013, the Water Supply (Water Quality) Regulations (2016 in England and 2018 in Wales), and the Network and Information Systems Regulations 2018.<sup>207</sup> Additional changes since 2020 in England include the Environment Act 2021, the Levelling-up and

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<sup>202</sup> This has increased from the around 80 referenced in the Call for Evidence, including based on further engagement with Welsh Government.

<sup>203</sup> [Water Industry Act 1991](#); [Water Resources Act 1991](#)

<sup>204</sup> [The Bathing Waters \(Classification\) Regulations 1991](#)

<sup>205</sup> [The Urban Waste Water Treatment \(England and Wales\) Regulations 1994](#)

<sup>206</sup> Updated by the [Water Environment \(Water Framework Directive\) Regulations 2017](#)

<sup>207</sup> [Flood and Water Management Act 2010](#); [Water Act 2014](#); [The Bathing Water Regulations 2013](#); [The Water Supply \(Water Quality\) Regulations 2016](#); [The Water Supply \(Water Quality\) Regulations 2018](#); [The Network and Information Systems Regulations 2018](#)

Regeneration Act 2023, and the Water (Special Measures) Act 2025, setting new and more stringent water targets.<sup>208</sup>

178. **In Wales, the Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 established key elements of the regulatory landscape for water and natural resource management in Wales.**<sup>209</sup> This includes making changes to the organisational purpose of Natural Resources Wales (NRW) as the sole environmental regulator for Wales and placing duties on public bodies to consider long-term sustainability and how their decisions affect water quality, availability, ecosystems, and biodiversity.

### **Box 13 – The Well-being of Future Generations (Wales) Act 2015**

**The Well-being of Future Generations (Wales) Act 2015 sets out a sustainable development principle and 7 wellbeing goals.** The sustainable development principle is defined as “acting in a manner that seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs”.

**The Act also sets out five ways of working that public bodies listed in the Act must demonstrate in their decision making, in order to show they are acting in accordance with the sustainable development principle.** These principles are (i) thinking for the long-term, (ii) prevention, (iii) integration, (iv) collaboration and (v) involvement.

**While the Well-being Act does not override specific regulatory obligations, it informs a statutory approach to the use of regulatory powers.**

## Targets

179. **There are a number of statutory targets for the water sector.** The WFD Regulations provide statutory objectives for water bodies, including to achieve good ecological status (GES). Regulations under the Environment Act 2021 set 4 long-term targets relating to reducing water demand, tackling nutrient pollution from wastewater and agriculture, and reducing pollution from abandoned metal mines.<sup>210</sup> 5-year interim targets towards these long term goals are set on a non-statutory basis through the Environmental Improvement Plan (EIP).<sup>211</sup> In Wales, the Welsh Government has recently

<sup>208</sup> [Environment Act 2021](#); [Levelling-up and Regeneration Act 2023](#); [Water \(Special Measures\) Act 2025](#)

<sup>209</sup> [Environment Act 2021](#); [Levelling-up and Regeneration Act 2023](#); [Water \(Special Measures\) Act 2025](#)

<sup>210</sup> [The Environmental Targets \(Water\) \(England\) Regulations 2023](#)

<sup>211</sup> Defra, ‘[Environmental Improvement Plan 2023](#)’, 2023

introduced the Environment (Principles, Governance and Biodiversity Targets) (Wales) Bill 2025.<sup>212</sup> If enacted, it will enable Welsh Ministers to set statutory biodiversity targets, to which water companies would be required to contribute.<sup>213</sup>

180. **Government and regulators have also set a range of non-statutory requirements.** In England, these include the targets in the Storm Overflows Discharge Reduction Plan (SODRP) and the Environment Agency's (EA) National Framework for Water Resources.<sup>214</sup> In Wales, there are storm overflow targets for the water industry through the Better River Quality Taskforce Action Plans, and phosphorus reduction targets for Special Areas of Conservation (SAC) rivers.

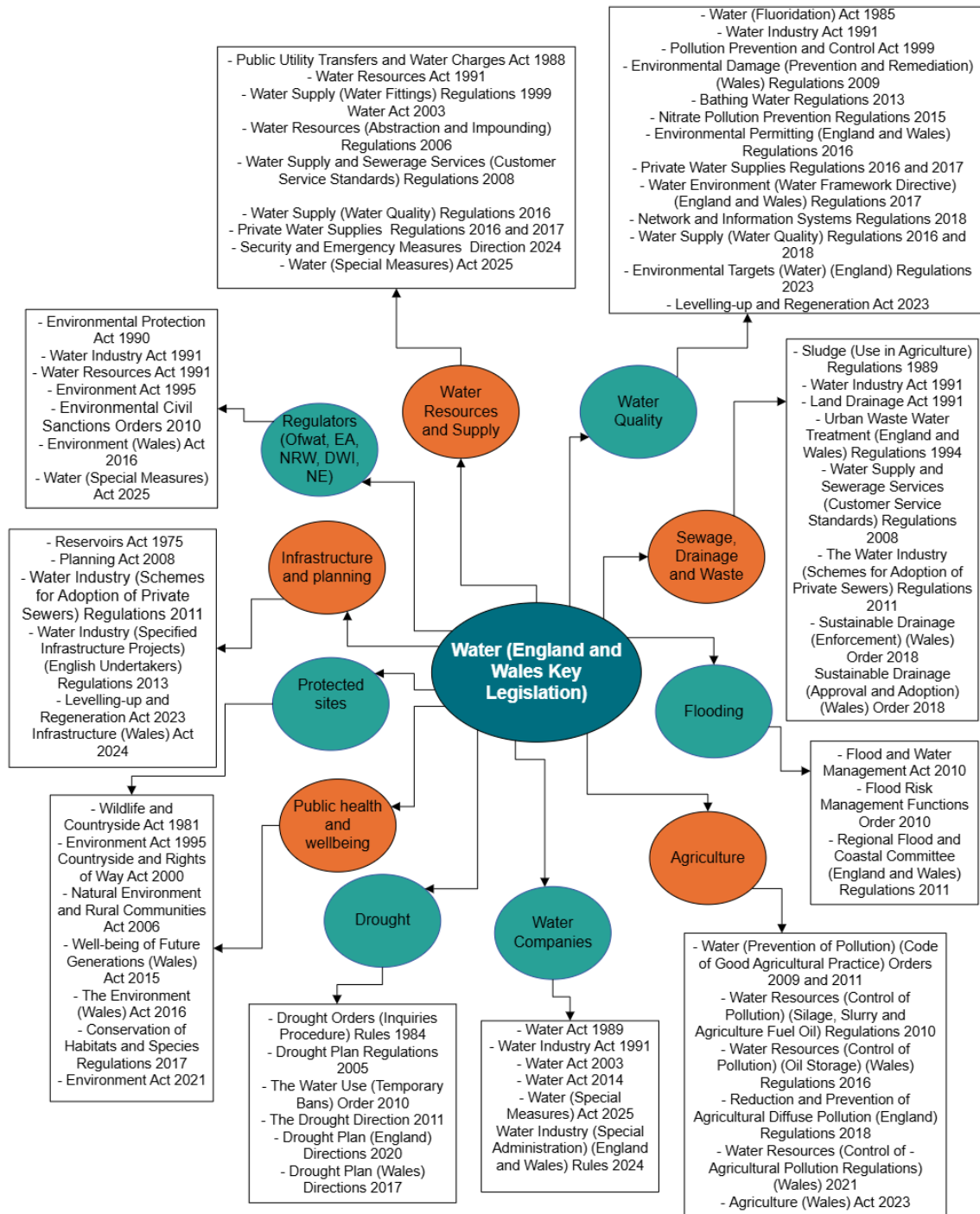
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<sup>212</sup> [Environment \(Principles, Governance and Biodiversity Targets\) \(Wales\) Bill](#)

<sup>213</sup> Senedd Cymru Welsh Parliament, '[Environment \(Principles, Governance and Biodiversity Targets\) \(Wales\) Bill](#)', 2025

<sup>214</sup> Environment Agency, '[National Framework for Water Resources 2025: water for growth, nature and a resilient future](#)', 2025

**Figure 9 - Key legislation relevant to how water is regulated, applying in England and Wales<sup>215</sup>**



Source: Independent Water Commission

<sup>215</sup> This figure contains key legislation relevant to how water is regulated in England and Wales, and it is not an exhaustive list.

## Issues

181. **The Commission has identified 3 main issues in relation to the legislative framework and water targets:**
- an overly complex regime
  - an overly prescriptive approach which limits innovative solutions
  - outdated legislation

## Legislative framework

182. **The incremental development of the legislative framework for water appears to have created an overly complex regime.** The Office for Environmental Protection's (OEP) view is that the "framework of water law and policy is complex and lacks coherence, which may create barriers to achieving wider environmental outcomes".<sup>216</sup> The recent Corry Review ('Delivering economic growth and nature recovery: an independent review of Defra's regulatory landscape', 2025) identified similar issues in its review of Defra's regulations.<sup>217</sup> The EA commented that the legislative landscape is "complex and layered with inconsistencies between the protections, powers, duties, requirements and charging frameworks".<sup>218</sup>
183. **The Commission has also heard that the current legislative framework does not support an outcomes-focused approach.** For example, Blueprint for Water pointed towards nutrients targets in the Levelling-up and Regeneration Act 2023 favouring traditional 'grey' solutions, despite encouragement from government to increase use of nature and catchment-based solutions. They argue that a "more outcomes-focused approach to regulation would help address these contradictions".<sup>219</sup>
184. **The Commission has heard of outdated legislation which may not accurately reflect the latest scientific understanding or public priorities.** NRW noted that "much of the existing legal framework has not seen significant reviews, and in some cases has become outdated... with the legal landscape contradicting the aspiration for a sustainable future".<sup>220</sup> Several stakeholders noted areas where legislation has not kept pace with scientific evidence and insufficiently reflects public health priorities. The Campaign for National Parks noted that much of the legislation "has not kept pace with new scientific evidence and innovation", suggesting "this is exemplified by the UWWTR 1994", while the Royal Society of Chemistry commented that the WFD Regulations are "not currently adequate for

<sup>216</sup> [Office for Environmental Protection response to the Call for Evidence](#), 2025

<sup>217</sup> [Defra, 'An independent review of Defra's regulatory landscape'](#), 2025

<sup>218</sup> Environment Agency response to the Call for Evidence, 2025

<sup>219</sup> [Wildlife and Countryside Link/Blueprint for Water response to the Call for Evidence](#), 2025

<sup>220</sup> Cyfoeth Naturiol Cymru Natural Resources Wales response to the Call for Evidence, 2025



tackling emerging chemical threats” (covered later in this chapter).<sup>221</sup> Blueprint for Water also suggested that “the Sludge (Use in Agriculture) Regulations 1989 do not take into account the most up-to-date knowledge” and should be updated (covered in Chapter 5).<sup>222</sup>

## Water targets

185. **While many support the general ambition of existing targets, the Commission has heard that there may be gaps, misalignment, and inconsistencies between statutory and non-statutory targets and key outcomes for the water system as a whole.**<sup>223</sup> While the existing Environment Act 2021 water targets in England were subject to an impact assessment, they were not developed as part of a broader strategy for the water system as a whole. Wildlife and Countryside Link argued that a reappraisal of the Environment Act 2021 water targets presented an “opportunity to emphasise holistic outcomes rather than narrow targets and processes”.<sup>224</sup> Several stakeholders have referred to gaps relating to public health and amenity.<sup>225</sup> The OEP also suggested there is room for improvement in areas such as climate change and emerging chemicals in relation to water.<sup>226</sup>
186. **Stakeholders have expressed support for continuing to have an ‘overarching’ target for the health of the water environment, to clarify the uncertainty left by the approaching deadline for achieving GES.**<sup>227</sup> As described in Section 3.3, the WFD requires government to aim to achieve GES for all surface water bodies by 2027 but does not provide for a scenario beyond 2027. A new overarching statutory target could be brought in, in line with the legal targets frameworks established since GES was introduced. In England, stakeholders such as Water UK and the OEP were generally supportive of the potential to use the Environment Act 2021 target-setting framework for a new water environment target and any other future targets for water.<sup>228</sup> In Wales, NRW noted the Welsh Government’s ongoing work to introduce statutory biodiversity targets in Wales, saying that “any work on developing a new apex target should be cognisant of this, avoid duplication, and effectively integrate with the proposals”.<sup>229</sup>

<sup>221</sup> [Campaign for National Parks response to the Call for Evidence](#), 2025; Royal Society of Chemistry response to the Call for Evidence, 2025

<sup>222</sup> [Wildlife and Countryside Link/Blueprint for Water response to the Call for Evidence](#), 2025; [The Sludge \(Use in Agriculture\) Regulations 1989](#)

<sup>223</sup> [Office for Environmental Protection response to the Call for Evidence](#), 2025

<sup>224</sup> Wildlife and Countryside Link, ‘[The Future of Water Policy](#)’, 2025

<sup>225</sup> [Clean Water Sports Alliance letter to the Commission](#), 2025

<sup>226</sup> [Office for Environmental Protection response to the Call for Evidence](#), 2025

<sup>227</sup> [Wildlife and Countryside Link/Blueprint for Water response to the Call for Evidence](#), 2025

<sup>228</sup> [Water UK response to the Call for Evidence](#), 2025; Office for Environmental Protection letter in response to the Call for Evidence, 2025

<sup>229</sup> Cyfoeth Naturiol Cymru Natural Resources Wales response to the Call for Evidence, 2025

## Conclusions and recommendations

*A review and rationalisation exercise of the legislative framework for water is necessary to fix the current problems.*

187. **The Commission recognises the role that standards in environmental legislation have played in driving improvement and the importance of maintaining ambition.** Drinking water and sanitation standards are now world-leading.<sup>230</sup> Environmental monitoring and transparency in England and Wales have increased. The quality of treated wastewater and bathing water has improved. Between 1995 and 2020, ammonia and phosphorus loads to rivers from water company sewage treatment works were reduced by an estimated 80% and 68%, respectively.<sup>231</sup> In 2024, 91.8% of bathing waters in England met the minimum standard of sufficient, with 85% meeting the highest standards of ‘good’ and ‘excellent’. By comparison, only 46% of bathing waters met minimum standards in 1995.<sup>232</sup> The legislative framework has played an important function in enabling government and regulators to hold water companies and others to account in improving standards. The Commission does not see a review and rationalisation exercise as a way to lower these standards.
188. **However, there is scope for reform to better align the legislative framework with the outcomes being sought and the government’s aims.** Many of the Corry Review conclusions regarding the broader Defra regulatory landscape are relevant to water, for example, a disconnect between the regulations being applied - which too often target symptoms or ‘micro’ site-specific outcomes - and the outcomes being sought. As a result, the framework overall is not fully aligned with the government’s ambition for the water sector, including its Environment Act 2021 targets and those set out in the EIP – and which will similarly need rationalisation to align with the vision set through the National Water Strategy.
189. **Similarly, in Wales, the framework needs review.** This concurs with the findings of a 2017 review commissioned by the Welsh Government into the legal framework for sewerage and drainage, which found the “current legal landscape is causing friction and unsatisfactory outcomes for consumers, businesses, and the environment, and contradicts the aspiration for a sustainable future”, and that “barriers are overcome in spite of legislation, not because of it”.<sup>233</sup> Welsh Water made the case “for a fresh ‘in the round’ look

<sup>230</sup> Environmental Performance Index, ‘[Unsafe Drinking Water](#)’ (viewed 14 July 2025)

<sup>231</sup> Environment Agency, ‘[State of the water environment 2024](#)’, 2025

<sup>232</sup> Defra, ‘[Bathing water quality statistics](#)’, 2024; Environment Agency, ‘[Bathing Waters Annual Classifications](#)’, 2023

<sup>233</sup> Cyfoeth Naturiol Cymru Natural Resources Wales response to the Call for Evidence, 2025; Atkins, Ciria, Arup on behalf of Welsh Government, Practitioner Review of the Legal Framework Governing Sewerage and Drainage Assets in Wales, 2017 (via correspondence)

at all the requirements placed on undertakers”, with a possible view to streamlining and rationalising them.<sup>234</sup>

**Recommendation 8: The UK and Welsh governments should review the current water legislative framework and amend it accordingly.**

190. **Review and rationalisation of the extensive legislative framework would be a major exercise requiring public consultation and considerable scientific and technical expertise.** It is not a task for this Commission. However, the Commission has identified several areas where legislative reform is needed.

**Priority areas for review**

191. **A review exercise should bring legislation up to date and in line with current ambition and desired outcomes.** In terms of priorities, the Commission has heard clear evidence that the WFD Regulations 2017 and the UWWTR 1994 should be a priority for review, as discussed later in this chapter.<sup>235</sup> A review should also target reforming overly prescriptive legislation to provide greater ‘constrained discretion’ for regulators as a priority, as outlined in Section 3.5. The Commission’s final report has also highlighted the need for legislative reform in other areas, including drinking water, abstraction and sludge regulation, set out in more detail in Chapter 5. The UK and Welsh governments should consider further priority areas for reform to align with their public policy priorities and any other legislative changes taken forward.

**How a review could be carried out**

192. **Alongside policy reform, a rationalisation exercise should also take place, streamlining current laws and regulations to address inconsistencies and clarify ambiguities.** For example, following policy review, new legislation should be drafted with a clear, single set of targets and objectives for each jurisdiction, rationalising the requirements currently set through the UWWTR 1994, the SODRP in England and the Welsh storm overflows strategy (outlined in further detail below).
193. **A review and rationalisation exercise should be underpinned by the objectives of improving consistency, coherence, and making the framework easier to navigate.** The objective of this exercise would not be to reduce protections or ambition for customers and the environment, but to ensure the framework has a greater focus on outcomes. This should make it both simpler for regulators and delivery bodies to navigate how to comply

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<sup>234</sup> Dŵr Cymru Welsh Water response to the Call for Evidence, 2025

<sup>235</sup> Defra, ‘[An independent review of Defra's regulatory landscape](#)’, 2025; Environment Agency response to the Call for Evidence, 2025

with their relevant obligations to contribute towards outcomes, and for regulators and others to hold them to account. As described in Section 3.5, it should give regulators greater discretion in how outcomes should be achieved, alongside clear and non-negotiable ‘constraints’ in the form of legal requirements to achieve those outcomes. Alongside these objectives, this exercise should also be underpinned by key statutory environmental principles.<sup>236</sup>

194. **Finally, a rationalisation exercise could be followed by a pure consolidation exercise to be undertaken by the Law Commission if required, to address redundancies and make the legislation easier to navigate.** This could involve bringing some or all water legislation into a single statute, without changing the substance of the law. A consolidation exercise could assist with making the law easier to navigate but would not negate the need for substantive changes.
195. **Water is a devolved matter in Wales and review of legislation that applies to Wales would be the responsibility of the Welsh government and the Senedd.** The Commission recognises the need for the legislative framework to better align with the Welsh government’s ambitions for long-term collaborative approaches to sustainability, as set out in the Well-being of Future Generations (Wales) Act 2015, and the sustainable use of natural resources, as set out in the Environment (Wales) Act 2016. Where respective legislative reviews lead to further policy divergence in England and Wales, the UK Government and Welsh Government should give careful consideration to how transboundary waters would be clearly and effectively managed.

## Interaction with statutory targets

196. **This exercise should include a review of all water statutory targets to inform the new National Water Strategy.** This is necessary to ensure that intended outcomes are aligned across legislative requirements, statutory targets, and other objectives set through a National Water Strategy.

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<sup>236</sup> Section 17(5) of the Environment Act 2021 sets out five core environmental principles that when making policy in England, and where relevant, ministers should consider. These principles are the (i) integration principle, (ii) prevention principle, (iii) rectification at source principle, (iv) polluter pays principle and (v) precautionary principle. Section 4 of The Environment (Wales) Act 2016 outlines nine principle of sustainable management of natural resources in Section 4, which guide public authorities and NRW. These are: manage adaptively, by planning, monitoring, reviewing and, where appropriate, changing action; consider the appropriate spatial scale for action; promote and engage in collaboration and co-operation; make appropriate arrangements for public participation in decision-making; take account of all relevant evidence and gather evidence in respect of uncertainties; take account of the benefits and intrinsic value of natural resources and ecosystems; take account of the short, medium and long term consequences of actions; take action to prevent significant damage to ecosystems; take account of the resilience of ecosystems.

197. **In England and Wales, a new, overarching long-term target is needed for water body health, to replace the current GES target (described further in Section 3.3).** Any other statutory targets affecting water quality, including targets set through the Environment Act 2021 framework in England, and any forthcoming targets through the Environment (Principles, Governance and Biodiversity Targets) Bill 2025 in Wales, should support and/or align with this target and with the principles of sustainable management of natural resources as set out in the Environment (Wales) Act 2016. Particular areas of focus should include public health – as described in greater detail below – and other possible gaps and inconsistencies. For example, this includes any necessary changes to support a more outcome-focused, whole-system approach to drainage and wastewater management.
198. **Government should clearly set out long-term statutory priorities for public water supply and managing demand.** As described in Chapter 5, this could build on the non-statutory precedents set through the national framework for water resources in England, including its 1 in 500 year drought resilience target. It could, for example, consider a peak demand target to ensure that water companies have adequate water supply infrastructure in place to meet modelled peak demand requirements. See Chapter 7 for discussion of statutory system resilience standards.
199. **Setting and amending statutory targets is not an exercise to be taken lightly.** As outlined in the Commission’s Call for Evidence, while statutory targets can secure investment and pace of delivery, time-bound targets which are too narrow or fast can lead to unintended consequences, such as stifling of innovation and of nature-based solutions.<sup>237</sup> Government should assess the costs, benefits and feasibility of any changes, and consider which overarching outcomes may particularly benefit from the additional backing for investment, and the long-term certainty across political cycles, which statutory targets provide.

## 3.2 Wastewater and drainage

### Background

200. **The regulations and requirements on storm overflows, wastewater and drainage management have expanded significantly over time.** There are multiple pieces of legislation relating to wastewater treatment and phosphorus, including the UWWTR 1994.<sup>238</sup> Separate to this legislation, there is also a Storm Overflows Discharge Reduction Plan for England. This

<sup>237</sup> Independent Water Commission, ‘[Call for Evidence](#)’, 2025

<sup>238</sup> Legislation includes the UWWTR 1994, Conservation of Habitats and Species Regulations 2017 (HDR) and WFD Regulations 2003 apply to England and Wales. The Environment Targets (Water) Regulations (ETR) 2023 and Levelling-up and Regeneration Act (LURA) 2023 apply just to England



was published in August 2022 (and later expanded), with numeric targets on storm overflow discharges, including reducing all overflows in England to a maximum of 10 spills per year by 2050.<sup>239</sup> The Environment (Wales) Act 2016 takes a different approach for Wales, targeting overflows that are most harmful to the environment.

201. **The legislative framework requires wastewater treatment works (WWTWs) in England and Wales to undertake primary and secondary treatment, with more advanced tertiary treatment (for example, for nutrient removal such as nitrates and phosphorus) in certain areas.** As of 2022, 60% of wastewater treated in England was treated to tertiary level and about 40% received primary and secondary treatment. The percentages treated to tertiary level will increase throughout the next 5 years as the phosphorus reduction programme funded through Price Review 2024 is delivered.<sup>240</sup>
202. **Current wastewater treatment standards do not account for emerging pollutants such as poly- and perfluoroalkyl substances (PFAS) (often referred to as ‘forever chemicals’), microplastics and micropollutants, which are becoming increasingly present across the water system.**<sup>241</sup> While toxicity data is lacking for many PFAS compounds, some, such as PFOA and PFOS<sup>242</sup>, have been linked to adverse health effects in both animal and human studies when exposure levels are sufficiently high.<sup>243</sup> Micropollutants such as pharmaceuticals, personal care products, pesticides and insecticides can enter the water system through sources such as flushed medications, agricultural runoff, and household waste. WWTWs are not currently designed to remove micropollutants.<sup>244</sup>
203. **In recent years, the issue of raw sewage discharges into the UK’s waterways from storm overflows has gained significant public and political attention.** Storm overflows have been used as part of the combined sewage system for many years (in line with original Victorian design). However, the prevalence of their use has increasingly come to light as a result of new monitoring technologies.<sup>245</sup> This has attracted significant public criticism, both relating to the harm that raw sewage discharges can have on the environment as well as public health risks for swimmers and

<sup>239</sup> Defra, ‘[Storm Overflows Discharge Reduction Plan](#)’, 2023

<sup>240</sup> This is about 40% as a very small percentage (<<1% but cannot be said to be zero) undertakes only preliminary treatment. Environment Agency engagement with the Commission, 2025

<sup>241</sup> P.S. Nishmitha and others, ‘[Understanding emerging contaminants in water and wastewater: A comprehensive review on detection, impacts, and solutions](#)’, 2025

<sup>242</sup> Perfluorooctanoic acid and perfluorooctane sulfonic acid

<sup>243</sup> Drinking Water Inspectorate, ‘[PFAS and Forever Chemicals](#)’ (viewed 14 July 2025)

<sup>244</sup> J Rogowska and others, ‘[Micropollutants in treated wastewater](#)’, 2019; The Institutions of Engineering and Technology, ‘[Microplastics evade wastewater treatment, raising health and environmental concerns](#)’, 2025

<sup>245</sup> Environment Agency, ‘[Storm overflow spill data shows performance is totally unacceptable](#)’, 2023

other recreational water users. Concerns have been raised that water companies have failed to fulfil their duties to limit pollution from storm overflows.<sup>246</sup>

## Issues

### 204. **The Commission has identified 4 main issues in relation to the regulatory regime for wastewater and drainage:**

- Complexity and overlapping requirements
- The lack of a systems-approach to tackling wastewater issues
- Inconsistent use of sustainable drainage solutions
- Increasing concerns about emerging contaminants including PFAs

## Complexity of the legislative and regulatory framework for wastewater

205. **A key driver of complexity in the legislative framework appears to be the misalignment between statutory requirements, guidance and other elements of the regulatory framework.** For example, water companies in England are now subject to two regulatory regimes for storm overflows – compliance both with legal duties under the UWWTR 1994 and the Water Industry Act 1991 and with non-statutory requirements under the SODRP. This has created confusion around which requirements should be prioritised and how the regimes interlink. The UWWTR 1994 require the so-called ‘BTKNEEC test’ (Best Technical Knowledge Not Entailing Excessive Cost) for assessing storm overflow improvement requirements. How this test should be applied has been debated in policy and legal settings. Many argue the test makes it difficult to interpret quickly and easily whether a storm overflow discharge is legal or illegal. It also has led to a focus on improvements to individual assets (for example, a specific storm overflow or wastewater treatment works) rather than considering wider solutions such as nature-based, catchment level and pre-pipe options such as sustainable drainage systems.<sup>247</sup> The majority (80%<sup>248</sup>) of respondents to the Call for Evidence were in favour of the need to consolidate and review legal and regulatory requirements, with specific reference within answers to the UWWTR 1994 being out of kilter with new scientific evidence and innovation.<sup>249</sup>

### 206. **The EA has noted that the “layers of legislation introduced has complicated the regulation of WWTWs in relation to permitting and**

<sup>246</sup> eNGO engagement with the Commission, 2025

<sup>247</sup> Water company engagement with the Commission, 2025; Wessex Water, ‘[Why the UK needs a National Rainwater Management Strategy](#)’, 2025

<sup>248</sup> Engagement with the Commission

<sup>249</sup> Independent Water Commission Call for Evidence response analysis (Q52)

**compliance for phosphorus”.**<sup>250</sup> The EA suggested that permits may now require up to 4 different phosphorus limits to meet the range of legislative requirements, increasing the complexity of water quality planning and regulation.

## Concerns about the legislative framework for managing drainage and wastewater

207. **There is ever growing pressure on the sewerage system as a result of climate change, population growth and urban development.**<sup>251</sup> More impermeable surfaces like concrete and tarmac in towns and cities results in more rainwater entering the sewerage system, rather than soaking into permeable surfaces, such as grass and soil. This leads to reduced sewer capacity, contributing to discharges from storm overflows and increased surface water flood risk. There are currently no statutory requirements in force to support sustainable drainage in England, which leads to a lack of ownership and coordination between different organisations.
208. **There is an inconsistent use of Sustainable Drainage Systems (SuDS) in new developments.** SuDS are designed to reduce the impact of rainfall on the sewerage network by using features such as soakaways and grassed areas. They have proven to be highly effective; the percentage of rainwater entering the sewage system from a home with sustainable drainage can be as little as 13%, compared to 100% from a home without SuDS.<sup>252</sup> However, SuDS are still not a legislative requirement in England. Schedule 3 to the Flood and Water Management Act 2010 – which would make SuDS mandatory for new developments – has not been implemented. There are wider legislative challenges, including the “right to connect” to the public sewer network, regardless of existing pressures on the system. This allows new developments to add disproportionate and unexpected pressure to sewerage systems.<sup>253</sup>
209. **Consumer activity such as the flushing of wet wipes, sanitary products and pouring fats, oils and greases down the sink also adds significant pressures to sewerage capacity.** EA data shows 40% of all pollution incidents in England in 2019-20 were caused by blockages and 60% of these were caused by wet wipes.<sup>254</sup>

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<sup>250</sup> Environment Agency response to the Call for Evidence, 2025

<sup>251</sup> Stantec, '[Storm Overflow Evidence Project Final Report](#)', 2021

<sup>252</sup> Southern Water, '[Sandown Pathfinder summary](#)', 2022 (page 2)

<sup>253</sup> House of Lords Industry & Regulators Committee, '[The affluent and the effluent: Cleaning up failures in water and sewage regulation](#)', 2023 (Chapter 5)

<sup>254</sup> Environment Agency, '[Water and Sewerage Companies in England: Environmental Performance for 2020](#)', 2021

## PFAS, microplastics, and micropollutants in wastewater

210. **Public calls for action are growing regarding PFAS, microplastics, and micropollutants in water due to their widespread presence, persistence, and potential health and environmental impacts.**<sup>255</sup> The Commission has heard that these pollutants are particularly concerning because they persist in the environment, accumulate in living organisms, and are difficult to remove with conventional water treatment methods.<sup>256</sup>
211. **In 2024, the European Union adopted a revised Urban Wastewater Treatment Directive (UWWTD), with a strong focus on addressing micropollutants in urban wastewater.** Article 9 of the Directive introduces an Extended Producer Responsibility (EPR) scheme, placing financial and administrative obligations on producers of human medicines and cosmetic products (micropollutants).<sup>257</sup> Producers will be required to cover at least 80% of the costs associated with the advanced ‘fourth stage’ – quaternary – sewage treatment upgrades necessary for removing these substances from wastewater, including capital and operational expenses, and 100% of data collection and administrative activities related to the scheme. The EU acknowledges that more work is needed to understand the sources and impact before implementing similar reforms in relation to PFAS and microplastics. In a number of Call for Evidence responses, stakeholders such as Water UK, the Royal Society of Chemistry, and the Country Land and Business Association (CLA) have called for the introduction of an EPR scheme to fund quaternary treatment.<sup>258</sup>

## Conclusions and Recommendations

### *Legislative reform should include the Urban Waste Water Treatment Regulations*

**Recommendation 9: The UK and Welsh governments should update and reform the UWWTR 1994 to deliver better outcomes and a more sustainable approach to drainage and wastewater management. This should involve reporting on whether an Extended Producer Responsibility scheme is needed for the water sector to fund necessary improvements.**

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<sup>255</sup> S Albaseer and others, ‘[Microplastics in water resources: Global pollution circle, possible technological solutions, legislations, and future horizon](#)’, 2024

<sup>256</sup> J Rogowska and others, ‘[Micropollutants in treated wastewater](#)’, 2019; The Institutions of Engineering and Technology, ‘[Microplastics evade wastewater treatment, raising health and environmental concerns](#)’, 2025

<sup>257</sup> [Directive \(EU\) 2024/3019 of the European Parliament and of the Council of 27 November 2024 concerning urban wastewater treatment \(recast\) \(Text with EEA relevance\)](#)

<sup>258</sup> Water UK, the Country Land and Business Association (CLA), and the Royal Society of Chemistry responses to the Call for Evidence, 2025

212. **A review of the UWWTR 1994 should look at how it can better align with the SODRP in England and the Welsh storm overflows strategy.** The objective should be a clear, single set of targets and objectives for each jurisdiction. This should be done alongside considerations of other regulatory drivers on storm overflows, including the Environment Act 2021 and Water Environment (Water Framework Directive) Regulations 2017. As part of this, there should be a clearer framework to support regulators in approving more innovative and nature-based solutions.
213. **In light of the growing evidence on the impact of emerging pollutants, a review should consider and report on whether there is a need for stricter treatment requirements to protect public health and the environment.** This should include looking at the suitability of the EU reforms for an England and Wales context.<sup>259</sup> To inform this, the UK and Welsh governments should invest in further research on the impact of emerging pollutants, PFAS, microplastics and micropollutants on environmental and human health. This would also need to consider the effectiveness of treatment methods for PFAS and micropollutants.
214. **Subject to the evidence and an assessment of the costs and benefits, the UK and Welsh governments should consider interventions to strengthen action on these pollutants and report on their findings.** These could include:
- Enhanced treatment practices (for example, quaternary treatment) at wastewater treatment works.
  - Developing a monitoring framework requiring wastewater treatment plants to regularly test and report concentrations of PFAS, microplastics, and other priority pollutants.
  - Enabling cost-sharing for the additional treatments required through implementing EPR schemes for products and sectors that are major sources of pollutants.

**Recommendation 10: Government should consider legislative changes to drive a more coherent approach to ‘pre-pipe’ solutions to stop pollutants and rainwater entering the system.**

215. **A greater focus is needed on what is ‘put in’ to the water system – as we see in other areas such as air quality – to improve drainage and wastewater management.** This requires strong partnership working between the different bodies responsible, such as local authorities, property developers and highway authorities, to support a proper systematic approach. The UK government could consider amending the statutory roles

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<sup>259</sup> EU Commission, ‘[New rules for more thorough and cost-effective urban wastewater management enter into force](#)’, 2024



and responsibilities of these groups in England ensuring they are legally required to consider sustainable drainage, encouraging them to work together to co-fund and co-deliver projects that support sustainable drainage. Targeted financial incentives should also make it easier for organisations to ‘do the right thing’ and deliver more pre-pipe solutions.

216. **SuDS in new developments in England should be a mandatory requirement and should be built and maintained to a consistent standard.** The UK Government could achieve this through commencing Schedule 3 to the Flood and Water Management Act 2010, noting this has already happened in Wales, or by amending existing planning policy. This would build on the government’s recently announced national standards for SuDS.<sup>260</sup> As well as future developments, consideration should be given to retrofitting SuDs in existing properties (commercial and residential) and more widely (in public spaces). Box 14 highlights a successful case study in Sheffield which has significantly reduced pollution in the River Don.<sup>261</sup> The government could also consider further legislative change to the existing ‘right to connect’ to ensure developers take measures to mitigate the impacts of their development on the sewerage network before connecting to the sewer system. This is covered in Chapter 7 which looks at further issues around network capacity.
217. **Both UK and Welsh governments should explore further measures to support consumer behaviour change, particularly for wet wipes. The UK Government should legislate swiftly, in line with its commitment, to ban wet wipes containing plastic.** The UK government committed to legally banning wet wipes containing plastic and should legislate swiftly to this end; in Wales legislation to ban plastic wet wipes has already been passed by the Senedd.<sup>262</sup> Given the environmental impact of all wet wipes (not just plastic) and other ‘unflushables’, further work is needed, including on behaviour change campaigns with support from government, the water industry, eNGOs and other relevant bodies.<sup>263</sup> The Commission notes that some targeted campaigns have already proven effective, such as the initial roll-out of the ‘Bin the Wipe’ campaign by Northumbrian Water, estimated to reduce blockages by 52% in targeted areas its first 3 years.<sup>264</sup>

<sup>260</sup> Defra, ‘[National standards for sustainable drainage systems](#)’, 2025

<sup>261</sup> Grey to Green Sheffield, ‘[Innovation, flood prevention and placemaking](#)’ (viewed 14 July 2025)

<sup>262</sup> Nation Cymru, ‘[Senedd passes wet wipe ban](#)’, 2025

<sup>263</sup> Briain and others, ‘[The role of wet wipes and sanitary towels as a source of white microplastic fibres in the marine environment](#)’, 2020

<sup>264</sup> Northumbrian Water ‘[Country follows North East’s lead on good flushing habits](#)’, 2023

**Box 14 – Case study: ‘Grey to Green’ Sheffield**

**A sustainable drainage system in Sheffield (‘Grey to Green’) has created the UK’s longest ‘green street’ corridor and largest retrofit sustainable urban drainage scheme.** It is built in the Castlegate Quarter in the city centre, one of the oldest areas of Sheffield.

**Large planting beds have been installed to capture and hold large volumes of rainwater.** This water is then released slowly towards the river, rather than allowing it to flow into public drains and the combined sewage system. This means less pressure on the drainage system, fewer blockages and less pollution.

**Sheffield Council reports that 24,000 bathtubs’ worth of water is prevented from entering Sheffield’s sewage treatment works each year as a result.** It has also changed a grey, tarmacked area into a green public space.<sup>265</sup>

### 3.3 The Water Framework Directive (WFD)

#### Background

218. **In England and in Wales, the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (‘WFD regulations’) provide the overarching statutory framework for the water environment.** These regulations transposed the European Union Water Framework Directive (EU WFD) 2000 into law in England and Wales and were retained after EU exit.<sup>266</sup>
219. **The WFD regulations set out requirements for analysing characteristics of river basins and dividing large surface waters (rivers, lakes, estuaries, and coastal waters) and groundwaters into distinct ‘water bodies’.** In England, there are 4,658 surface water bodies and 271 groundwater bodies,<sup>267</sup> In Wales, there are 933 water bodies, including lakes, rivers, groundwater, transitional waters (estuaries) and coastal waters. There are 38 groundwater bodies.<sup>268</sup> The WFD takes a bottom-up approach, where the quality of the water environment is assessed at the water body level (for example at a lake site or river section, or for a specific aquifer), which is then used to inform river basin planning. In this way, the framework

<sup>265</sup> Grey to Green Sheffield, [‘Innovation, flood prevention and placemaking’](#) (viewed 14 July 2025)

<sup>266</sup> Defra, [‘Surface water status’](#), 2025

<sup>267</sup> Surface water bodies are then combined into 420 operational catchments and 100 management catchments; Environment Agency, [‘Classifications data for England’](#) (viewed 11 July 2025)

<sup>268</sup> Cyfoeth Naturiol Cymru Natural Resources Wales, [‘Assessment of Water Quality in Wales’](#) (viewed 11 July 2025)

was designed to provide flexibility so that EU member states have discretion to set location-specific objectives and measures.<sup>269</sup>

220. **The WFD regulations set a requirement for surface water bodies to achieve Good Ecological Status (GES) and Good Chemical Status (GCS).** Surface water bodies that are artificial or heavily modified are required to meet ‘good ecological potential’ (GEP) alongside GCS, which takes into account that these water bodies function differently to natural surface water bodies and will not meet GES.<sup>270</sup> GEP includes an assessment of whether measures are properly in place to mitigate the impacts of any modification on the ecology of the water body. Groundwater bodies are also subject to different objectives.<sup>271</sup> Water bodies in protected sites must go further than GES to reach ‘favourable condition’.<sup>272</sup> The regulations also provide objectives for shellfish waters, and objectives in relation to water supply - requiring the balancing of abstraction and recharge of groundwater bodies.
221. **A variety of ‘elements’ are assessed and combined to produce the overall ecological status of a water body.** The GES metric assesses the ecological impacts of pollution rather than only focusing on the amount of pollution itself, intended to reflect that aquatic ecosystems vary in resilience and sensitivity to pollution.<sup>273</sup> Chemical evidence includes the presence of specific pollutants and chemical elements.<sup>274</sup> Within each water body, every element which is assessed has a specific objective.<sup>275</sup> The WFD regulations require Defra and Welsh Government to meet water body objectives, while also preventing deterioration of status. ‘Less stringent objectives’ can be set for specific water bodies when the achievement of the environmental objectives would be infeasible or disproportionately expensive.<sup>276</sup>
222. **WFD objectives are set out in river basin management plans (RBMPs), which also contain a summary of the ‘programme of measures’ to achieve those objectives.** The EA and NRW are required to produce and

<sup>269</sup> European Commission, ‘[Fitness Check of the WFD](#)’, working document, 2019

<sup>270</sup> Defra, ‘[Plan for Water: our integrated plan for delivering clean and plentiful water](#)’, 2023

<sup>271</sup> For groundwater, objectives are set for quantitative and chemical status. Environment Agency, ‘[River basin management plans, updated 2022: current condition and environmental objectives](#)’, 2022

<sup>272</sup> Water bodies in European protected sites are in scope of the WFD, including Special Protection Areas for birds (SPAs) and Special Areas of Conservation (SACs). However, this does not include Sites of Special Scientific Interest (SSSIs). Commission engagement with Natural England, 2025

<sup>273</sup> European Commission, ‘[Fitness Check of the WFD](#)’, working document, 2019

<sup>274</sup> Defra, ‘[Plan for Water: Annex A](#)’, 2023

<sup>275</sup> Meaning that in England, there are 166,360 objectives within water bodies that are designed for catchment planning, and over 21,340 in Wales, which are set by the set by EA and NRW area teams, Environment Agency, ‘[Objectives data for England](#)’ (viewed 11 July 2025); Cyfoeth Naturiol Cymru Natural Resources Wales, ‘[RBMP Measures and Objectives data](#)’, 2022

<sup>276</sup> The test is whether the water body is so affected by human activity, or its natural condition is such, that achievement would be infeasible or disproportionately expensive. WFD regulation 17

consult on RBMPs every 6 years.<sup>277</sup> As well as RBMPs, the EA and NRW must prepare a ‘programme of measures’ to achieve the WFD objectives for each individual water body. This requirement was recently clarified by the High Court and upheld by the High Court of Appeal in a case relating to the Costa Beck (“the Pickering case”).<sup>278</sup> Defra has set out that it will work with the EA to deliver plans consistent with the Court’s conclusions, alongside any reforms made to implement the recommendations set out in the Commission’s final report.<sup>279</sup> Government, regulators and other public authorities must have ‘due regard’ to RBMPs when exercising their functions, including making planning decisions and updating environmental permits.

## Targets and objectives

223. **The WFD requires governments to aim to achieve GES for all surface water bodies by 2027.** Some chemicals used to assess Good Chemical Status have extended deadlines, in the 2030s.<sup>280</sup> While the WFD regulations will not stop applying after 2027, currently, there is no statutory provision or published plan in place for these objectives beyond the current deadlines. The Court of Appeal in the Pickering case clarified that the purpose of setting objectives is to achieve good status, rather than just aiming to achieve it. 77% of water bodies in England and 94% of water bodies in Wales have been assessed as technically being able to achieve either GES or GEP.<sup>281</sup> However, at the last classification cycle, only 16% of water bodies assessed in England, and 40% in Wales, reached this standard or better.<sup>282</sup> As outlined in Chapter 1, the primary sector impacting water bodies is agriculture in both England and Wales, followed closely by wastewater, while physical modification of water bodies remains a significant challenge for achieving good status.<sup>283</sup> Given current progress, the 2027 objectives will be missed.

<sup>277</sup> The EA manage the 7 river basin districts in England. NRW manage the Western Wales river basin district. Natural Resources Wales and the EA jointly manage the Dee and Severn river basin districts.

<sup>278</sup> The challenge was brought by the Pickering Fishery Association and Fish Legal on the application of the WFD in the Costa Beck, England; Courts and Tribunals Judiciary, ‘[Secretary of State for Environment, Food and Rural Affairs -v- Pickering Fishery Association](#)’, 2025

<sup>279</sup> UK Parliament, ‘[Government Statement on Court of Appeal Judgement on RBMPs](#)’, 2025

<sup>280</sup> Achieving GCS in relation to substances 2, 5, 15, 20, 22, 23 and 28 in the table of priority substances under the WFD may be extended until December 2033, while substances 34 to 45 can be extended until December 2039, Regulation 16 in the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

<sup>281</sup> This is once the ‘less stringent objectives’ have been applied; OEP, [A review of implementation of the Water Framework Directive Regulations and River Basin Management Planning in England](#), 2024; ENDS Report, ‘[Progress on Welsh waterways target stalls over chemical pollution](#)’, 2025 (subscription required)

<sup>282</sup> Environment Agency, ‘[State of the water environment](#)’, 2018; Cyfoeth Naturiol Cymru Natural Resource Wales, ‘[River basin management plans 2015-2021](#)’ and ‘[Assessment of water quality in Wales 2024](#)’, 2024

<sup>283</sup> Environment Agency, ‘[State of the water environment](#)’, 2023; Cyfoeth Naturiol Cymru Natural Resources Wales, ‘[The Second State of Natural Resources Report](#)’, 2020

## Classification system

224. **The EA and NRW are required to review and update classification data on water bodies at least once every 6 years.**<sup>284</sup> Each water body is classified as high, good, moderate, bad or poor for GES, as shown in Table 3; up to 'good' for GEP, and 'good' or 'fail' for GCS. The last full classification of water bodies in England was for 2019 and the next will be for 2025. The last full classification in Wales was published in 2021, with interim results now available for 2024.<sup>285</sup>

**Table 3 - Classification classes for ecological status and percent reaching each class, England, 2019, and Wales, 2024 interim results**

Classification	Description	Percentage in status, England (2019)	Percentage in status, Wales (2024 interim results)
High	Natural or almost natural state with no, or only minor evidence of distortion.	Less than 1%	0.2%
Good	Slight change from natural state as a result of human impact.	16%	39.7%
Moderate	Moderate change from natural state as a result of human impact.	63%	46.5%
Poor	Major change from natural state as a result of human activity.	17%	11.9%
Bad	Severe change from natural state as a result of human activity.	3%	1.7%

Source: EA, NRW<sup>286</sup>

225. **The classification approach has a 'one out, all out' rule in which a water body can only achieve 'good' if all elements are 'good'.**<sup>287</sup> The current classification approach for surface water bodies uses two lines of evidence - ecological and chemical - to determine the water body status.<sup>288</sup> This assessment approach was initially designed during development of the WFD in the 1990s, including judgement on the selection of ecological stressors

<sup>284</sup> [The Water Framework Directive \(Standards and Classification\) Directions \(England and Wales\) 2015](#) – Reviewing the classifications

<sup>285</sup> Environment Agency, '[Water body data update](#)', 2023

<sup>285</sup> Environment Agency, '[Water body data update](#)', 2023, Cyfoeth Naturiol Cymru Natural Resources Wales, '[Assessment of water quality in Wales 2024](#)', 2024

<sup>286</sup> Defra, '[Surface water status](#)', 2025; Cyfoeth Naturiol Cymru Natural Resources Wales, '[Assessment of water quality in Wales 2024](#)', 2024. To Note: Figures for England do not add up to 100% due to rounding.

<sup>287</sup> In Artificial or Heavily Modified Water Bodies, only the physico-chemical elements need to achieve good, rather than the biological elements; Defra, '[Plan for Water: Annex A](#)', 2023

<sup>288</sup> J Santos and others, '[Challenges to water quality assessment in Europe](#)', 2021



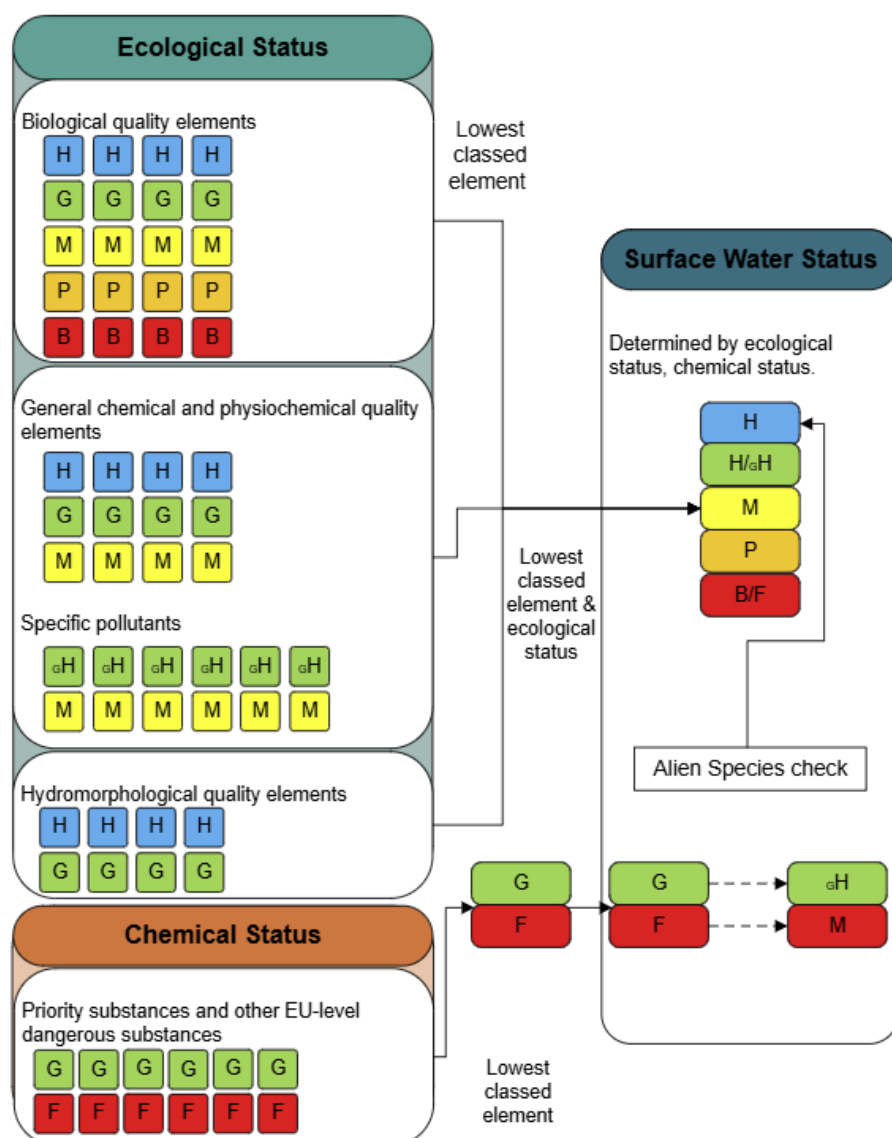
that should be used.<sup>289</sup> It uses data on a range of different 'elements' to reflect the components that a water body would require to be able to sustain aquatic wildlife (see Figures 10 and 11).<sup>290</sup> There are 126 elements, but not every element is used in every water body. This includes physico-chemical elements (such as pH and temperature), chemical (such as zinc), and biological (such as fish and macrophytes). The elements selected will depend on the character of the water, for example whether it is a coastal or river water body. The elements chosen for sampling will also be dependent on the problem being assessed. The standards for each element are specific to the sites and type of water bodies (for example, the geology, alkalinity, depth, width and velocity of a water body are different in upland rivers compared to lowland rivers). The classification is based on the deviation from a 'reference state', based on the natural state expected of water bodies as they were before significant industrialisation.<sup>291</sup> The reference states were developed looking across all water bodies in the EU.

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<sup>289</sup> A Johnson and others, '[Review of the Classification Framework for Ecological Status/Potential under the WFD Regulations](#)', 2024

<sup>290</sup> European Commission, '[Fitness Check of the WFD](#)', working document, 2019; Defra, '[Plan for Water: Annex A](#)', 2023

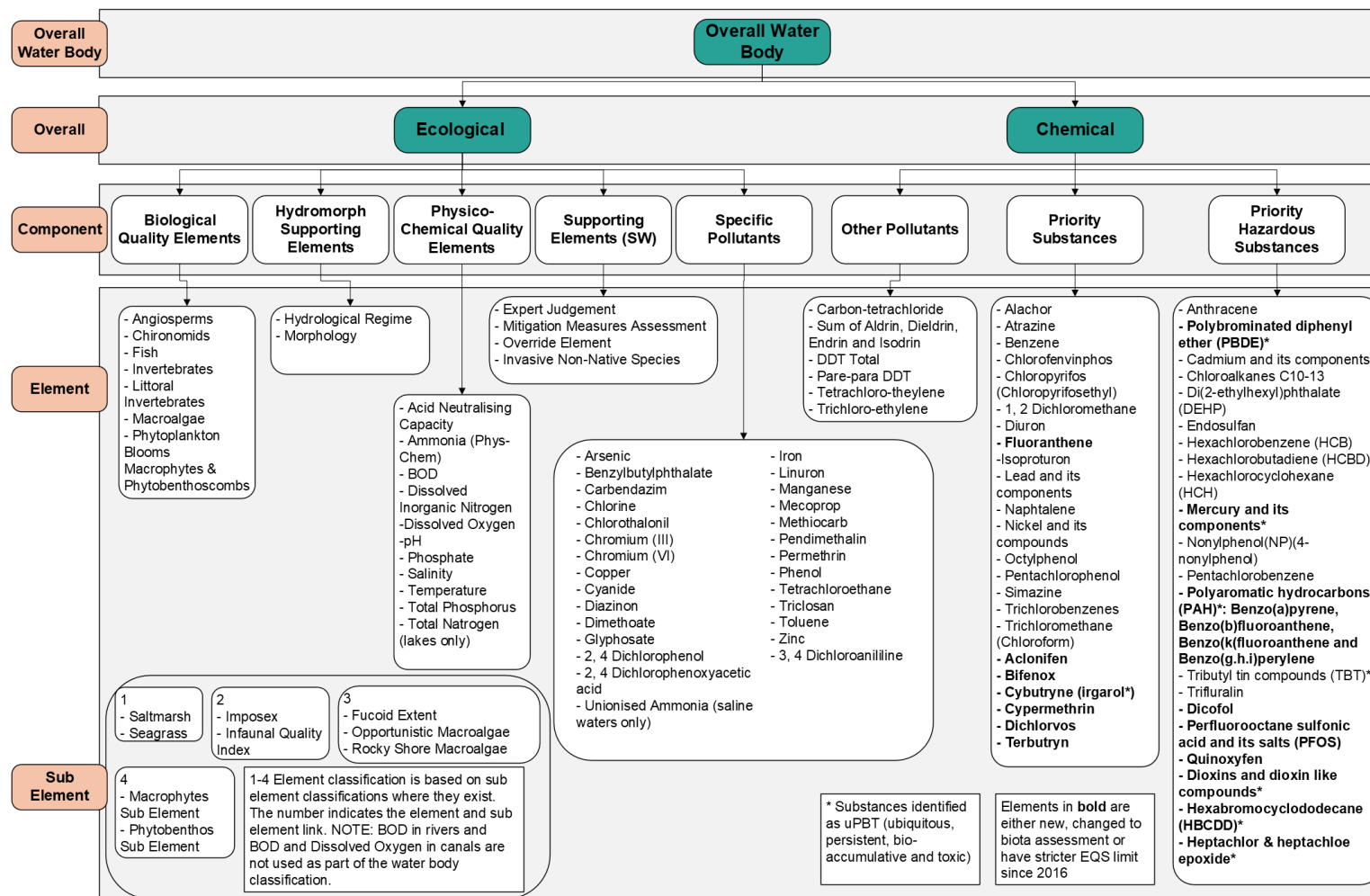
<sup>291</sup> This can be interpreted for Great Britain as a period circa 1850, European Commission, '[Common Implementation Strategy for the WFD, Guidance Document 10](#)' (viewed 17 July 2025)

**Figure 10 - The classification approach under the WFD**

Source: Modified from UK Technical Advisory Group on the WFD<sup>292</sup>

<sup>292</sup> UK Technical Advisory Group on WFD, '[Recommendations on surface water status classification schemes](#)', 2007

Figure 11 - Surface water classification

Source: Modified from diagram provided by the EA<sup>293</sup><sup>293</sup> Environment Agency, 'WFD Classification Status Cycle 2', 2025 (viewed 16 July 2025)

## Issues

**226. The Commission has identified 4 main issues in relation to the Water Framework Directive regulations in England and Wales:**

- limitations in its scope – particularly in relation to public health
- a lack of overall progress being made to achieve its targets and objectives
- challenges with its classification framework
- challenges with the design of its targets and objectives.

## Scope and public health

**227. Stakeholders have questioned whether the range of outcomes within the WFD framework are sufficiently broad, and robust to changing pressures on the water system.**<sup>294</sup> The EA has reflected that the WFD “no longer reflects the challenges facing the water environment and associated water management issues in England”.<sup>295</sup> NRW noted in their response to the Call for Evidence that only focusing on GES, or GEP, could “obscure other meaningful environmental benefits, or wider human health benefits within a catchment”.<sup>296</sup>

**228. The Commission has heard that not all public health risks are effectively managed in the current framework.**<sup>297</sup> While sewage in rivers is a pressing environmental concern, the current water reporting system only considers pathogens in water bodies that are designated as bathing or shellfish waters.<sup>298</sup> Pollution into waterways that contain pathogens from faeces can lead to gastrointestinal and systemic illnesses, while there can also be health risks associated with the presence of chemical pollutants, as well as emerging threats.<sup>299</sup> This pollution can be caused from multiple industries, such as the water sector, agriculture, transport and pharmaceuticals. Not all emerging threats are required to be assessed by either the WFD or other legislation (such as the Bathing Water Regulations), which can have wider impacts - for example, anti-microbial resistance is also a concern to the wider population, animal health, food security, and the

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<sup>294</sup> Natural England responses to the Call for Evidence, 2025; Wildlife and Countryside Link, [‘Blueprint for Water- WFD position paper’](#), 2024; Weisner O and others, [‘Three reasons why the WFD fails to identify pesticide risks’](#), 2022

<sup>295</sup> Environment Agency response to Call for Evidence, 2025

<sup>296</sup> Cyfoeth Naturiol Cymru Natural Resources Wales response to Call for Evidence, 2025

<sup>297</sup> Public health expert engagement with the Commission, 2025

<sup>298</sup> Commission engagement with the Environment Agency, 2025; Consumer Council for Water, [‘Awareness and perceptions of river water quality’](#), 2022; Environment Agency, [‘Faecal Contamination Pressure Narrative’](#), 2019

<sup>299</sup> National Engineering Policy Centre, Royal Academy of Engineering, [‘Testing the waters – Priorities for mitigating health risks from wastewater pollution’](#), 2024

economy.<sup>300</sup> However, the current WFD monitoring framework does not provide adequate data on pollutants of concern from a public health perspective, nor their sources. It also does not include any assessment of how people use the water, and therefore what their exposure might be, outside designated bathing or shellfish waters. The Commission has heard that this generates health risks for recreational water users interacting with waters outside of designated bathing waters.<sup>301</sup> The Commission has also heard of a gap in relation to the so-called ‘amenity’ value of a water body, which incorporates the social, aesthetic and recreational benefits that it provides to people and communities, such as mental health and access to blue spaces.<sup>302</sup>

229. **England and Wales have not yet decided on a replacement mechanism to monitor emerging threats since EU exit.** In 2013, the EU established a ‘Watch List’ mechanism for analysing emerging threats to water bodies or to human health through interaction with the water environment.<sup>303</sup> The latest version of the EU Watch List was published in March 2025, which adds another 12 substances identified as having potential risk to human health and the environment.<sup>304</sup> The substances on the EU Watch List can then be promoted on the priority substances list which form the GCS. The OEP have recommended that there needs to be a mechanism in place to replace the EU Watch List to monitor emerging contaminants of concern and set environmental quality standards.<sup>305</sup> The Commission has heard that this should be better aligned with EU REACH (which is a high standard for chemical regulation internationally).<sup>306</sup>
230. **The Commission has heard there may be opportunities to strengthen the WFD regulations to support progress towards biodiversity targets.** The WFD objectives to restore and protect water bodies have been identified as vital drivers to achieve biodiversity targets.<sup>307</sup> However, the Commission has heard that achieving these targets may be challenging without action on smaller water bodies, which are ecologically important for priority species and spawning grounds.<sup>308</sup> While the WFD Regulations 2017 do not restrict the size of water bodies that can be included, the costs and benefits of their

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<sup>300</sup> UK Government, ‘[Confronting antimicrobial resistance 2024 to 2029](#)’, 2024; European Parliament, ‘[Strategic approach to pharmaceuticals in the environment](#)’, 2020

<sup>301</sup> Clean Water Sport Alliance (CWSA) engagement with the Commission, 2025; CWSA letter to the Commission, 2025

<sup>302</sup> Wildlife and Countryside Link, ‘[Blueprint for Water- WFD position paper](#)’, 2024

<sup>303</sup> European Commission, ‘[Fitness Check of the WFD](#)’, working document, 2019

<sup>304</sup> European Commission, ‘[New substances added to the EU’s surface water watchlist](#)’, 2025

<sup>305</sup> Office for Environmental Protection, ‘[A review of implementation of WFD regulations and RMBPs in England](#)’, 2024 (page 116)

<sup>306</sup> Wildlife and Countryside Link, ‘[Blueprint for Water- WFD position paper](#)’, 2024

<sup>307</sup> Office for Environmental Protection, ‘[A review of implementation of WFD regulations and RMBPs in England](#)’, 2024; Natural England response to the Call for Evidence, 2025

<sup>308</sup> Wildlife and Countryside Link, ‘[The Charter for Small Waters](#)’, 2024



inclusion would need to be considered, including given the current challenges of monitoring all elements (further discussed below in Section 3.4). The Commission has also heard from EA and Natural England that requirements for protected sites could be streamlined to include a “single set of locally specific water environment objectives” and to reduce the number of overlapping designations for sites and species.<sup>309</sup>

## Lack of progress

231. **Given current progress (16% of water bodies in England achieving good status and 40% in Wales based on the latest classification), the 2027 Good Ecological Status target will be missed.** The Commission has heard the lack of progress towards the GES objective can be attributed to poor implementation of the regulations.<sup>310</sup> Inadequate and unclear governance, such as a failure to ensure that measures outlined in RBMPs are specific, time-bound, and adequately funded, has been presented as a cause of failure to drive improvements in water bodies, along with lack of investment and gaps in monitoring, including a lack of capacity and resources within key bodies such as the EA.<sup>311</sup> It is clear from the recent Pickering case, and from evidence provided by the OEP and other stakeholders that, at least in part, the regulations are not currently being implemented correctly.<sup>312</sup>
232. **If delivered, enhancement projects planned to be delivered during Price Review 2024, along with investments in previous Asset Management Periods (AMPs), will mean that water companies will have met a significant portion of their obligations towards achieving GES.** However, delays are expected given supply chain constraints and the major uptick in delivery required in the Price Review 2024 period, described further in Chapter 7.<sup>313</sup> As set out in Chapter 2, the levers to require and fund action are far more limited in relation to agriculture, transport, chemicals or pharmaceuticals sectors than they are in relation to the water industry.

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<sup>309</sup> “...for those waters which are both water bodies and water dependent nature sites, including Habitat Protected Areas and other water dependent Sites of Special Scientific Interest”. Environment Agency and Natural England responses to the Call for Evidence

<sup>310</sup> Office for Environmental Protection, ‘[A review of implementation of WFD regulations and RBMPs in England](#)’, 2024

<sup>311</sup> Wildlife and Countryside Link, ‘[Blueprint for Water- WFD position paper](#)’, 2024; Defra, ‘[Government response to OEP report](#)’, 2024; The Rivers Trust submission to the Commission, 2025; Angling Trust submission to the Commission, 2025

<sup>312</sup> Office for Environmental Protection submission to the Commission, 2025

<sup>313</sup> Commission engagement with Defra, 2025

## Classification framework

233. **The Commission has heard that the classification method of ‘one out, all out’ used to calculate GES and GCS masks progress.**<sup>314</sup> A review of the GES classification framework from UK Centre for Ecology and Hydrology concluded that the GES concept was flawed, noting that the pressures included in the metric are subjective, with “no analysis supporting the relative importance of the different stressors included”.<sup>315</sup> The ‘one out, all out’ principle for the GES and GCS objectives drives a high standard of improvement for the water environment but may mask its true condition, as a water body is classified according to its lowest scoring element, even if all other elements meet the required standard to be considered good.<sup>316</sup> This principle can make it difficult to reflect where interventions have led to progress on specific elements in water bodies and can damage the public’s perception of progress, such as where new elements are introduced, which can cause water bodies to fail to achieve good status and consequently mask previous progress. This is apparent, for example, in the case of the ubiquitous, persistent, bioaccumulative and toxic substances (uPBTs) elements, which were included in the classification of chemical status in the 2019 classification cycle when advanced monitoring was adopted in England. As a result, all surface water bodies in England failed to achieve good chemical status, whereas had uPBTs not been included, 94% of water bodies would have achieved good status.<sup>317</sup> It is not technologically possible to remove uPBTs – these substances will take decades to naturally deplete from the water environment. In Wales, a different approach was taken in 2021 - 63% of water bodies were not assessed for these substances resulting in a default ‘high’ chemical status classification for Welsh water bodies.<sup>318</sup>
234. **The Commission has heard that assessment frameworks in other jurisdictions, such as that used in the US, may provide an example of how to better reflect progress being achieved within, as well as challenges facing, specific water bodies.** While the ‘one-out, all-out’ approach was introduced in the EU, this rule is not used in legislation for water quality in the United States, Canada, Australia, New Zealand, China

<sup>314</sup> Engagement with the Commission through NGO roundtable; Call for evidence responses from Natural Resources Wales, Thames Water, Wessex Water, Yorkshire Water and Dwr Cymru Welsh Water

<sup>315</sup> A Johnson and others, ‘[Review of the Classification Framework for Ecological Status/Potential under the WFD](#)’, 2024

<sup>316</sup> Defra, ‘[Government response to OEP report](#)’, 2024

<sup>317</sup> Defra, ‘[Plan for Water: our integrated plan for delivering clean and plentiful water](#)’, 2023

<sup>318</sup> Afonydd Cymru, ‘[Water Framework Directive Chemical Assessments in Wales](#)’ (viewed 19 July 2025)

and Japan.<sup>319</sup> The US Environmental Protection Agency's Ecological Risk Assessment "evaluates the likelihood that adverse ecological effects may occur or are occurring as a result of exposure to one or more stressors".<sup>320</sup> It uses a 'tiered approach', where an initial tier is used to perform a primary risk assessment for a site, with more advanced risk assessments performed in later tiers if the initial assessment identifies a higher risk.<sup>321</sup>

235. **A range of environmental organisations support the retention of the GES classification framework.**<sup>322</sup> Blueprint for Water has remarked that the WFD Regulations provide a well-established, rigorous framework to assess the health of the water environment, which underpins much other planning and decision making.<sup>323</sup> Many support the GES classification approach and retention of the 'one-out, all-out' rule for determining the ecological and chemical status of water bodies as it takes a bottom-up approach to inform planning and reflects that multiple pressures on water bodies need to be addressed to reach a good ecological status.<sup>324</sup> Likewise, stakeholders have emphasised their support for the objective of preventing deterioration in status.<sup>325</sup>

## Targets and objectives

236. **The Commission has heard that while it is important for objectives to remain ambitious, they should also be achievable.** NRW has highlighted that the process for setting objectives under the WFD regulations 2017 is "overly complex, lengthy, process heavy and leads to unrealistic objectives being set", which can undermine public confidence and leave stakeholders frustrated.<sup>326</sup> While stakeholders have emphasised that it is important to be aspirational in setting measurable targets for progress in the water environment, evidence on how targets can be achieved should also be considered.<sup>327</sup>
237. **As set out in Tables 4 and 5, many comparator EU nations are also on track to miss the GES target.** EU Member States such as the Netherlands and Germany, which face similar water management challenges to England (for instance, high population density and intensive agricultural practices),

<sup>319</sup>A Johnson and others, '[Review of the Classification Framework for Ecological Status/Potential under the WFD Regulations](#)', 2024

<sup>320</sup> U.S. Environmental Protection Agency, '[Framework for Ecological Risk Assessment](#)', 1992 (page 2)

<sup>321</sup> J Santos and others, '[Challenges to water quality assessment in Europe](#)', 2021

<sup>322</sup> Wildlife and Countryside Link, '[Blueprint for Water- WFD position paper](#)', 2024

<sup>323</sup> Wildlife and Countryside Link, '[Blueprint for Water- WFD position paper](#)', 2024

<sup>324</sup> Environmental stakeholder engagement and responses to the Call for Evidence, 2025

<sup>325</sup> Environmental stakeholder responses to the Call for Evidence, 2025, Environment Agency response to the Call for Evidence, 2025

<sup>326</sup> Commission engagement with Cyfoeth Naturiol Cymru Natural Resources Wales, 2025

<sup>327</sup> Office for Environmental Protection letter in response to the Call for Evidence, 2025; Water All Party Parliamentary Group response to the Call for Evidence

also have a high proportion of water bodies failing to achieve GES.<sup>328</sup> Within Britain, Scotland has a greater number of water bodies achieving 'good' status compared to England and Wales. While Scotland's result is higher, they have considerably lower population density than in England and Wales, an important determinant of GES. They also have a considerably lower percentage of land used for agriculture compared to Wales (see Table 5).

**Table 4 - Comparison of water body ecological status classification (based on latest classification data available)**

	England	Wales	Ireland	Nether-lands	France	Germany	Scotland
Last Full Classification Year	2019	2024	2022	2010	2022	2022	2020
Water bodies at good status	16.1%	29.9%	53.4%	0.0%	43.6%	9.3%	66%
Water bodies at poor status	19.9%	13.6%	15.4%	35.3%	19.9%	52.7%	13.6%

Source: Defra, NRW, WISE<sup>329</sup>

**Table 5 - Comparison of population density and land used for agriculture**

	Population density (people/km <sup>2</sup> , 2022)	% of land used for agriculture approximately
England	438	67% (2024)
Wales	151	90% (2022)
Scotland	70	69% (2023)

Source: ONS, Defra, Welsh Parliament, Scottish Government<sup>330</sup>

<sup>328</sup> European Environment Agency, '[European waters getting cleaner, but big challenges remain](#)', 2018

<sup>329</sup> Defra, '[Surface water status](#)', 2025, Cyfoeth Naturiol Cymru Natural Resources Wales, [Natural Resources Wales / Assessment of water quality in Wales 2024](#) (viewed 11 July 2025); WISE Freshwater, '[Surface water bodies: ecological status or potential, by country](#)', 2024, [211222-final-rbmp3-scotland.pdf](#), Figures for Scotland were calculated using data from [SEPA's River Basin Management Plan Explorer \(2021–2027\)](#), based on the overall condition of classified surface and groundwater bodies in 2020. Percentages were derived by summing all water bodies and calculating the proportion at "good or better" and "poor or worse" status

<sup>330</sup> Office for National Statistics, '[Population estimates for the UK, England, Wales, Scotland, and Northern Ireland: mid-2022](#)', 2024; Defra, '[Agricultural land use in England at 1 June 2024](#)', 2024;

41. **The Commission has heard that the timeframe and milestones to achieve the GES objective could have been better designed to drive progress in water bodies.** In their response to the Call for Evidence, NRW noted that the GES objective was an appropriate goal to aim for, but was constrained by the ambitious timeframe to meet this objective in the regulations, and the costs required to achieve GES within the timeframe.<sup>331</sup> The Commission has also heard that failures to deliver WFD schemes in earlier Price Review cycles have been linked to objectives being too remote with no requirements for gradual progress, which can encourage backloading of delivery by water companies and regulators, particularly given the costs of the necessary investment.<sup>332</sup>

## Conclusions and recommendations

### *Reform is needed both to the WFD framework, and how it is implemented.*

238. **Given current progress, the 2027 Good Ecological Status target will be missed.** The regulation, implementation, governance and accountability under the WFD framework has significant shortcomings and has contributed to this failure. Improving delivery across all sectors, not just the water industry, through the introduction of water systems planners, will be key to driving progress and ensuring this is not repeated. As outlined in Chapter 2, the Commission believes the introduction of a systems planning framework should replace the requirement to produce RBMPs. This could begin sooner than a broader reform of the WFD, in order to urgently address the issues that have been raised with governance, delivery planning and accountability and to inform the next investment cycle in the water industry. It should include driving action by other sectors beyond the water industry.
239. **There is a need to revisit the fundamentals of the WFD regulations to ensure they are fit for the future.** The WFD regulations should be reformed to bring them up to date, make them more efficient and bring them in line with public and environmental expectations. The government should address increasingly high public expectations and scientific understanding of the need for environmental improvement. Ambition should not be watered down but, as set out below, the cost of the necessary investment should be identified and considered alongside the ambition. Smart targeting at the government level should prevent the backloading and under-delivery of actions in the water industry, and new governance – through a systems

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Senedd Research Welsh Parliament, [‘The Farming Sector in Wales’](#), 2022; Scottish Government, [‘Results from the Scottish Agricultural Census: June 2023’](#), 2023

<sup>331</sup> Cyfoeth Naturiol Cymru Natural Resources Wales response to the Call for Evidence, 2025

<sup>332</sup> Ofwat and Environment Agency engagement with the Commission, 2025



planning framework - should drive action for environmental improvement in other responsible sectors.

**Recommendation 11: The UK and Welsh governments should consult on reforms to the WFD Regulations, including broadening the scope to include public health outcomes.**

240. **Reform to the framework will require a robust, government-led assessment of costs, benefits and feasibility before any future framework can be implemented.** This will need to recognise that any increase in ambition will likely feed through to the whole of society, whether through increased water bills for new activity required by the water industry, or increased costs of goods and services for new requirements placed on other sectors, such as the food and pharmaceuticals industry. The future framework will need to be affordable through time, provide value for money, and be straightforward to navigate and implement. The framework should be adaptable to the uncertain but inevitable impacts of climate change on water bodies, and assessment of costs should take into account that the costs of achieving and sustaining future environmental targets will depend, in part, on the extent to which the climate continues to change. This reform of the WFD should be the responsibility of government, should take place as part of the rationalisation exercise, set out in Section 3.1, and should include public consultation.
241. In the Commission's view the following objectives should guide reform of the regulations:
- **A new long-term, legally binding target** for the water environment should be established. To solve problems of backloading, and poor delivery across sectors, it should be supported by SMART short-term targets (as described in Chapter 1), and clear and binding regional and sector-specific objectives set by water systems planners (as described in Chapter 2).
  - **The scope should be broadened to cover new priorities**, including public health, emerging threats, and to strengthen support for biodiversity targets, taking into consideration fuller assessment of the costs and benefits.
  - **The classification system should be reviewed and reformed** to ensure it presents a clear and objective assessment methodology, while driving continuous improvement and recognising progress towards overall goals.

## Targets

242. **A new long-term, legally binding target for the water environment should be established**, to provide certainty and direction for future investment, and drive progress through delivery across all sectors.
243. **Given the issues identified with the achievability of the current GES target, and to solve problems of backloading, SMART short-term targets should be introduced to set clear milestones and better track progress towards longer-term goals.** This conclusion is in line with the OEP recommendation for setting SMART interim targets to deliver against longer-term targets in their 'Taking Stock' report.<sup>333</sup> These targets should align with other targets for the water system, as outlined in Section 3.1, and be integrated with the 5-year review of the National Water Strategy and the price review cycle, outlined in Chapter 1. A future long-term target should maintain ambition, but the Commission believes it is crucial that it is achievable, affordable and implementable, so that progress can be demonstrated. A future target should therefore be subject to the principles and robust assessment of costs and benefits outlined in Chapter 1 as part of the National Water Strategy.
244. **These targets should also be supported by objectives set at a more local level, and apportioned to different sectors, by regional water systems planners in England and a national systems planner in Wales.** As set out in Chapter 2, the systems planners' objectives should provide regional apportionment against national targets, and set out any additional, localised priorities that need to be taken into account. Systems planners would apportion those objectives to different sectors, in line with the polluter pays principle, and commission plans from relevant sectors to deliver against these objectives.

## Public health and amenity value

245. **The Commission believes the current lack of emphasis on public health within the framework for the water environment is a major gap that needs to be addressed.** There is a strong case for the inclusion of outcomes for public health and amenity value in certain water bodies subject to frequent recreational use, alongside chemical and ecological quality. This would recognise the growth and importance of the recreational use of water in England and Wales and help to address associated public health risks.<sup>334</sup>

<sup>333</sup> Office for Environmental Protection '[Taking stock: protecting, restoring and improving the environment in England](#)', 2022

<sup>334</sup> Respondents to the Call for Evidence ranked water bodies being safe for swimming and other recreational uses as their third highest priority from the future water system (12% of respondents). River Action and Surfers Against Sewage, [Joint Submission to the Independent Water Commission](#), 2025, Clean Water Sports Alliance Letter to Commission, 2025

This would not mean that all water bodies are necessarily given the same protection as designated bathing waters, which could be highly costly. Instead, certain water bodies might require stronger outcomes depending on how people are using the waterway, such as for recreation or aesthetic value. Public health experts have emphasised that delivering a greater focus on public health in the water system will require improved monitoring techniques to identify and track harmful pollutants and their sources, alongside improved understanding of how people are using water and may be exposed to harm as a result. They have noted that current approaches to monitoring pathogens and pollutants is fragmented, and that there is a gap in the monitoring of certain chemicals, including pharmaceuticals in water courses.<sup>335</sup>

246. **In future, the proposed systems planning framework, described in Chapter 2, could help to identify appropriate water bodies where further public-health focused interventions, including monitoring and reporting may be appropriate.** In doing so, it would need to consider interventions from across the whole water system, recognising that public health risks are not just caused by water company sewage discharges.<sup>336</sup> Costs and benefits of increased monitoring and investment in infrastructure would need to be carefully assessed. In the short-term, a taskforce should be established to advise on legislative reform of the WFD.

**Recommendation 12: To facilitate a robust assessment of how public health can be effectively incorporated into a new water framework, the UK and Welsh governments should establish taskforces led by the Chief Medical Officers of England and Wales to review the incorporation of public health better into the legislative framework for water.**

247. **The integration of public health outcomes into a new water framework is a complex endeavour.** While the Commission has conducted extensive engagement with public health experts, it has not been able to consider public health in the round. A taskforce led by the Chief Medical Officers of England and Wales should be established, with the objective of developing proposals for how a future water framework can effectively incorporate public health requirements. This will require a holistic focus on where pollutants of concern enter the system and how they can be effectively managed, including through engineering solutions in relation to the water industry. A strong focus on monitoring and public engagement is also essential. This taskforce should consider the range of public health issues that the

<sup>335</sup> Public health expert engagement with the Commission, 2025

<sup>336</sup> Public health expert engagement with the Commission, 2025; Environment Agency, '[Faecal Contamination Pressure Narrative](#)', 2019; UK Government, '[Confronting antimicrobial resistance 2024 to 2029](#)', 2024; National Engineering Policy Centre, '[Testing the waters – Priorities for mitigating health risks from wastewater pollution](#)', 2024

Commission has identified in relation to the water system throughout this report, summarised in Box 15.

#### **Box 15 – Public Health Recommendations**

The Commission has identified a range of reforms to ensure public health risks are better managed in the water system, in this chapter of the report and beyond.

These recommendations apply to both England and Wales:

- **The National Water Strategy should incorporate public health objectives**, informed by the creation of a new Public Health Taskforce for Water. (Chapter 1)
- **There should be public health representation on the Boards of new systems planners in England and Wales.** The Commission recommends that this should be drawn from Directors of Public Health in England and nominees from Public Health Wales in Wales. Systems planners should ensure greater input from local groups on recreational priorities. (Chapter 2)
- **Government should reform the WFD Regulations** to broaden its scope to extend public health outcomes, setting stronger outcomes for certain water bodies depending on how people are using the waterway, subject to consideration of cost. (Chapter 3)
- **Legislative reform of UWWTR should strengthen action on sewage pollution**, as well as action against viable human faecal pathogens, and consider options for addressing emerging pollutants including PFAS, micropollutants and microplastics that can have public health impacts. The government should consider and report on an EPR scheme to fund necessary improvements, such as quaternary treatment at wastewater treatment works. (Chapter 3).
- **Improvements should be made to the monitoring of water bodies and water industry activity, across a broader range of parameters, including public health.** This will come at a cost and therefore needs to consider government as well as industry's contribution. (Chapter 3 and 5)
- **There should be a strengthened approach to drinking water regulation**, including in relation to emerging contaminants, and protecting the important status of DWI within a new regulator. The continued secure supply of clean drinking water is of fundamental public health importance, above all other interventions. (Chapter 5)
- **There should be tighter regulation of sludge spreading on farmland**, recognising that sludge may contain PFAS; pharmaceuticals and toxic metals, which have public health impacts. (Chapter 5)

## Emerging Threats

248. **Government should consider legal mechanisms to ensure ongoing surveillance and assessment of emerging threats present in the water environment.** This should include PFAS, microplastics, anti-microbial resistance (AMR) and other emerging contaminants of concern, alongside investing in further research on their impacts on environmental and human health and the effectiveness of treatment methods, as described in Section 3.2.<sup>337</sup> Ensuring a long-term surveillance system for emerging threats will be important to better understand the risk they pose to the environment and public health, which can have wider implications, such as for food security and the economy. Government will need to consider the available funding, resources and capacity to monitor and analyse emerging threats in the environment. Additionally, governments should consider how new elements potentially introduced would affect a future target and classification approach (for example, they may affect the achievability assessment described above). For example, in the case of persistent contaminants, they will take a long time to naturally drop to required levels, and there may not currently be feasible solutions to remove some contaminants.<sup>338</sup>

## Biodiversity and small water bodies

249. **It is also the Commission's view that the government should consider opportunities to support progress towards biodiversity targets.** The Corry Review, focusing on England, noted that the Conservation of Habitats and Species Regulations 2017 should be in scope of reform, in addition to the WFD regulations.<sup>339</sup> The Government should look for opportunities when reviewing both regulations to ensure they work together to better support a holistic approach towards improving biodiversity. This may include a review into whether relevant small water bodies should be in scope of the framework. It could also encompass whether water dependent sites should be brought under the same protected areas framework for water bodies to reduce complexity and provide objectives that are easier to navigate. For example, while protected sites in the WFD regulations cover European Special Protection Areas for birds (SPAs) and Special Areas of Conservation (SACs), they do not include Sites of Special Scientific Interest (SSSIs) in England, which support many rare and endangered species and habitats.<sup>340</sup> Additionally, given the importance of water environment health to support

<sup>337</sup> Stakeholders' response to the Call for Evidence, including some water companies and environmental groups, 2025

<sup>338</sup> Defra Press Office, '[Coverage on water targets and River Basin Management Plans](#)', 2022

<sup>339</sup> Defra, '[An independent review of Defra's regulatory landscape](#)', 2025

<sup>340</sup> SSSI are the finest sites for wildlife and natural features in England, supporting many characteristic, rare and endangered species, habitats and natural features. Natural England, '[Sites of Special Scientific Interest \(England\)](#)', 2017



biodiversity, the government should also consider how any changes to the monitoring framework and classification approach towards a future target could better support biodiversity reporting.

## Classification framework

250. **The Commission believes that the classification system should be reformed as part of establishing a new overarching target, including the use of GES as the metric to assess the health of the water environment and the ‘one-out, all-out’ rule.** A review should consider how the classification system can better recognise progress towards a new target. The ‘one-out, all-out’ rule for determining good status has been acknowledged to be a conservative approach for determining status and could be reformed to better reflect progress toward chemical and ecological health.<sup>341</sup> A review should consider a classification and reporting approach that provides greater transparency on progress over time in environmental improvement or deterioration of water bodies, to highlight where stakeholders need to focus interventions. Government should consider the recent review of the GES classification from the UK Centre for Ecology and Hydrology, alongside other evidence, and the Welsh Government should consider the extent to which the findings are applicable to Wales.
251. **Any future approach to reporting on the water environment should retain clear measurement of its overall health to support transparency and drive investment and action.** It should provide an objective assessment methodology and maintain high levels of protection for long-term targets, recognising important factors needed in the water environment to support wildlife. However, greater flexibility could be introduced in measuring and communicating progress against short-term targets and regional objectives. This would be one way to recognise progress on priorities for particular elements. For example, a systems planner could determine the order and location of priorities in its area, as outlined in Chapter 2, and be given flexibility to report on those elements within the overall reporting framework. This could mean, for instance, that in areas where phosphorus pollution may have a greater impact on the health of the water environment than the national average, the systems planner could decide it wants its reporting to show clearly, as well as an overall measure of health, whether progress has been made on phosphorus reduction.

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<sup>341</sup> J Santos and others, ‘[Challenges to water quality assessment in Europe](#)’, 2021; A Johnson and others, ‘[Review of the Classification Framework for Ecological Status/Potential under the WFD Regulations](#)’, 2024

## 3.4 Monitoring the Water Environment

### Background

252. **The monitoring of the water environment is a fundamental component of the WFD regulations, as it is essential for providing transparency on progress against environmental objectives.**<sup>342</sup> This in turn informs regulatory activities, such as permitting.<sup>343</sup> The monitoring framework under the WFD focuses on the water environment, to inform understanding of ecological and chemical health of water bodies. While related, this is separate to monitoring of water industry operations to understand their performance and impact on the water environment, including the issue of Operator Self Monitoring, which is considered in more detail in Chapter 5.
253. **The EA and NRW are required to establish monitoring programmes which** provide a comprehensive understanding of the ecological and chemical status of water bodies. The WFD requires 3 types of monitoring: surveillance, operational, and investigative.<sup>344</sup> The ecological classifications of water bodies need to be assessed every 6 years to provide a reflection on the state of the water environment. In Wales, NRW is also required to produce a State of Natural Resources report every 5 years.<sup>345</sup>
254. **A combination of government funding and chargeable activities from licences and permits enable the EA and NRW to monitor and classify water bodies.** Water company monitoring may also be used to inform understanding.<sup>346</sup> As monitoring informs progress on the WFD objectives, any reforms to the framework, including a new target, changes to the classification framework, or the inclusion of wider public health outcomes, will impact the monitoring programme, and the level of data and funding required.

<sup>342</sup> Office for Environmental Protection, '[A review of implementation of WFD regulations and RMBPs in England](#)', 2024 (page 105)

<sup>343</sup> Defra, '[Government response to OEP report](#)', 2024

<sup>344</sup> Surveillance monitoring looks to understand changes in water body classifications, which can be used to inform long-term trends in the state of the water environment. Operational monitoring looks to assess water bodies likely to fail their objectives and to inform the most appropriate intervention needed. Investigative monitoring looks to identify the reasons why water bodies have failed, when these are not known.

<sup>345</sup> Cyfoeth Naturiol Cymru Natural Resources Wales response to Call for Evidence, 2025

<sup>346</sup> Office for Environmental Protection, '[A review of implementation of WFD regulations and RMBPs in England](#)', 2024 (page 106)

## Issues

255. **The Commission has identified 2 main issues in relation to the approach to monitoring of the water environment:**
- a reduction in overall monitoring due to resource constraints
  - challenges with the efficiency of monitoring approaches and use of new technologies
256. **The Commission has heard that there have been reductions in monitoring of water bodies, which have had an adverse impact on the understanding on the state of the environment.**<sup>347</sup> This has led to monitoring data from a previous classification cycle being 'rolled over' to fill the monitoring gap in the current classification cycle.<sup>348</sup> This use of older data to fill monitoring gaps to classify water bodies is problematic because it does not provide an accurate, up-to-date reflection of the state of the water environment.
257. **This is important because classifications of water bodies are also used to inform investment and policy decisions, as well as ensure accountability towards national water targets.** When asked which areas of the WFD Regulations 2017 would benefit from change, 49% of respondents in the Call for Evidence who answered this question believed that the monitoring system was an area of the WFD that would benefit the most from change.<sup>349</sup>
258. **The approach to monitoring in the WFD Regulations sets resource-intensive requirements on the EA and NRW.** The framework requires that all individual elements in all water bodies must be monitored, with the classification data required to be reviewed and updated at least once every 6 years, meaning the approach is focused on higher granularity, rather than more frequent, less granular monitoring. This high granularity reporting has significant cost implications for the UK and Welsh governments.
259. **Environmental groups have highlighted that budget cuts to the EA to implement the monitoring programme have contributed to monitoring gaps.**<sup>350</sup> NRW also noted in its response to the Call for Evidence that monitoring resources had been reduced over the years. It noted that this has

<sup>347</sup> Angling Trust response to the Call for Evidence, 2025

<sup>348</sup> A Johnson and others, '[Review of the Classification Framework for Ecological Status/Potential under the WFD Regulations](#)', 2024

<sup>349</sup> Independent Water Commission, '[Annex A: Independent Water Commission's call for evidence – interim summary of responses](#) (Q17)

<sup>350</sup> Office for Environmental Protection, '[A review of implementation of WFD regulations and RBMPs in England](#)', 2024 (page 104); Wildlife and Countryside Link, '[Blueprint for Water- WFD position paper](#)', 2024; The Rivers Trust submission to the Commission on behalf of the CaSTCo Task Force, 2025; RSBP response to the Call for Evidence, 2025

changed the way it operates its monitoring network, including moving to a focus on areas where water quality is at greater risk.<sup>351</sup>

## Interactions with water industry monitoring programs

260. **The Commission has heard that while resources for WFD monitoring are constrained, information from water industry monitoring has the potential to improve understanding of the impact to water quality from sewage pollution.**<sup>352</sup> As discussed in Chapter 5, water companies have already rolled out event duration monitors to record the duration of sewage discharges from storm overflows in near real-time and are currently planning in Price Review 2024 to roll out continuous water quality monitors upstream and downstream from discharges at the most sensitive sites. However, the Commission has heard that the costs to roll out continuous water quality monitors (CWQM) to all sites is significantly more expensive than the EA's budget to monitor water quality. Additionally, these monitors measure limited parameters on water quality and are carbon intensive, less adaptable for potential future uses, and the focus of the monitoring is mainly based in urban areas, while other sectors and sources of pollution, such as agricultural run-off, remain largely unmonitored.<sup>353</sup>

## Alternative approaches

261. **The Commission has heard that other approaches to monitoring the water environment may allow for greater efficiency in resources.** Examples include centralising monitoring data from a range of sources and sectors, including regulators, academia and citizen scientists.<sup>354</sup> In its response to the Call for Evidence, the EA noted that the WFD Regulations 2017 could be improved by having a “more flexible approach to monitoring and reporting the state of the water environment, including the use of evidence provided by citizen science, businesses, and remote sensing”.<sup>355</sup> When asked what changes were needed to improve how the health of the water environment was monitored and reported on, 56% of responses to this question in the Call for Evidence identified ‘data sharing platforms for government and third-party evidence/data’.<sup>356</sup> Where other monitoring sources exist, such as companies’ continuous water quality monitors, they

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<sup>351</sup> “...focus on locations where water quality is particularly at risk or where our understanding of water quality is uncertain” Cyfoeth Naturiol Cymru Natural Resources Wales response to Call for Evidence, 2025

<sup>352</sup> Defra, ‘[Continuous Water Quality Monitoring Programme](#)’, 2023

<sup>353</sup> The River Trust submission to the Commission on behalf of the CaSTCo Task Force, 2025; Rivers Trust and CIWEM responses to the Call for Evidence, 2025

<sup>354</sup> The River Trust submission to the Commission on behalf of the CaSTCo Task Force, 2025; CIWEM, ‘[A Fresh Water Future](#)’, 2024

<sup>355</sup> Environment Agency response to the Call for Evidence, 2025

<sup>356</sup> Independent Water Commission, [Annex A: Independent Water Commission’s call for evidence – interim summary of responses](#) (Q19)

are not well integrated. As set out in Section 3.2, the Commission believes there is also a case to explore greater monitoring of emerging pollutants funded by water companies and other sectors that are major sources of pollutants.

262. **The Commission is aware that there are benefits to using citizen science for monitoring the water environment**, including the potential to extend the coverage of data collection at reduced cost, complementing evidence from other sources.<sup>357</sup> The ‘use of citizen science’ for monitoring the water environment was also identified by 47% of respondents as a needed change in the Call for Evidence.<sup>358</sup> However, as the NRW and others have commented, there can also be risks and challenges identified with the application of citizen science, including meeting the necessary standard for assessment, reliance on volunteer experience and potential for some areas to become more sampled than others, impacting the quality and representativeness of the monitoring data.<sup>359</sup>

## Conclusions and recommendations

### Monitoring needs to be adequately resourced

263. **The Commission believes that a comprehensive monitoring regime is necessary, with greater coverage across the whole water environment and the range of pollutants and pressures acting upon it.** This will better track progress towards water quality targets, as well as evaluate the effectiveness of interventions introduced to reduce pollution. The UK and Welsh governments should look at how greater resources can be provided for regulators to improve implementation of monitoring. The Commission acknowledges that the Corry Review similarly recommends that government should consider that regulators’ resources have been reduced as their responsibilities have increased, as well as look at how upfront investment, such as opportunities for new technological and digital approaches can be supported.<sup>360</sup> The Commission discusses the capacity and capability of the environmental regulator further in Chapter 5.

**Recommendation 13: Future water monitoring programs should be reviewed and adequately resourced, to accurately reflect the state of the environment.**

<sup>357</sup> The River Trust submission to the Commission on behalf of the CaSTCo Task Force, 2025; A Johnson and others, ‘[Review of the Classification Framework for Ecological Status/Potential under the WFD Regulations](#)’, 2024; Angling Trust response to the Call for Evidence, 2025

<sup>358</sup> Independent Water Commission, [Annex A: Independent Water Commission’s call for evidence – interim summary of responses](#) (Q19)

<sup>359</sup> Cyfoeth Naturiol Cymru Natural Resources Wales engagement with the Commission, 2025; NRW ‘[An assessment of the use and acceptability of citizen science data to support better water quality for Wales](#)’, (viewed 18 July 2024), A Johnson and others, ‘[Review of the Classification Framework for Ecological Status/Potential under the WFD Regulations](#)’, 2024

<sup>360</sup> Defra, ‘[An independent review of Defra’s regulatory landscape](#)’, 2025



264. **The current framework requirements for high granularity monitoring may be too-resource-intensive.** Government should review the monitoring framework, as part of its review of the legislative framework, to determine whether the methods currently required and information obtained are resource efficient. This should continue to ensure that useful and accurate information is obtained on the health of water bodies. Given the importance of monitoring to track progress towards future targets, this review should occur alongside reform of the WFD Regulations.
265. **As part of this, recognising constraints in grant-in-aid, government should look at how the monitoring programme can be funded in the long term.** For example, to increase alternative sources to government funding, and expand the existing chargeable activities from licences and permits or use other mechanisms to review the application of the polluter pays principle to funding monitoring programmes, so that those impacting the water environment would be responsible for contributing towards public monitoring of their impacts. If pursued, this approach could reduce – but not eliminate – the need for government funding. Government funding will always be needed where sources of some pollution cannot be determined – whether from the water industry, the agricultural sector, or elsewhere – or the polluter cannot be made to pay (for example abandoned metal mines where the companies responsible no longer exist and there is no legal mechanism to hold them accountable).<sup>361</sup> Governments could also review potential opportunities to make the programme more efficient, such as environmental DNA, remote sensing and environmental AI.<sup>362</sup> The Commission believes it is important to emphasise that this would need to be a long-term change rather than offering the potential for immediate or short-term savings. This is because any use of new technologies will require upfront investment and would take time to develop to a standard where they would be viable for regulatory purposes and sufficiently robust to drive environmental improvements, while switching to new ways of working will take time and there may be further challenges with digital capacity.<sup>363</sup>
266. **This could include better integration and greater flexibility to join up other monitoring sources.** Greater flexibility to join up data sources may provide an option to strengthen monitoring programmes, with more efficient use of resources, such as through the review of CWQM set out in Chapter 5. Other useful information sources include the Natural Capital and Ecosystem Assessment (NCEA) monitoring programme in England, which may be

<sup>361</sup> Environment Agency, '[Cleaning up rivers polluted by abandoned metal mines](#)', 2023 (viewed 16 July 2025)

<sup>362</sup> Cyfoeth Naturiol Cymru Natural Resources Wales engagement with the Commission, 2025; The River Trust submission to the Commission on behalf of the CaSTCo Task Force, 2025; A Johnson and others, '[Review of the Classification Framework for Ecological Status/Potential under the WFD Regulations](#)', 2024

<sup>363</sup> Cyfoeth Naturiol Cymru Natural Resources Wales engagement with the Commission, 2025

particularly helpful if a high number of smaller water bodies are brought into scope of the framework to reduce the monitoring burden. Government should also review the application of flexibility towards data collection used for specific areas or purposes where the potential for assessments to be based on less stringent evidence may be appropriate, including the use of citizen science.

267. **Given the existing pressures on the availability of monitoring resources, there is a case for greater flexibility in the monitoring framework to determine the parameters that should be monitored at each site.** This could, for example, explore a tiered approach for reporting against interim targets, which could be tailored to the most important issues in a regional context as part of a systems planning framework. NRW also noted in its response to the Call for Evidence that it would be “desirable to ensure that any future regime allows for an increase in monitoring flexibility, based on the level of risk.”<sup>364</sup> Any flexibility would need to be constrained, maintain transparency, and should be seen as the second-best option to having greater resources to implement the monitoring program fully, to avoid leading to reduced information to support the planning and assessment of interventions.

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<sup>364</sup> Cyfoeth Naturiol Cymru Natural Resources Wales response to the Call for Evidence, 2025

## 3.5 Constrained discretion

### Background

268. **The concept of ‘constrained discretion’ refers to a framework whereby regulators have greater flexibility to determine how best to deliver statutory outcomes in a local place or context, in line with a set of constraints or guardrails.**<sup>365</sup> In the water sector, the regulators currently have varying levels of discretion in how they carry out their duties.
269. **Legislation requires the regulators to exercise their functions for certain purposes or to meet certain objectives and it varies in its level of prescriptiveness.** Some elements of the legislative framework are highly prescriptive and allow the regulators little leeway for discretion. For example, regulation 3 of the WFD Regulations 2017 places a duty on the EA to exercise its relevant functions so as to secure compliance with the requirements of the WFD, which includes Good Ecological Status of waters by 2027. Such duties, with the risk of legal challenge if they are not complied with, may be given precedence over other EA functions. The EA has highlighted that this limits the scope for decisions on trade-offs to be made. For example, the EA noted that “currently new reservoirs will be designated as water bodies that need to meet ‘good’ status for water quality within the RBMP timeframe.”<sup>366</sup> The EA suggested that “the treatment costs of meeting ‘good’ may render the new reservoirs infeasible and could lead to non-reservoir options (for example, desalination), which have their own environmental risks and lack the multisector and wider environmental benefit potential of reservoirs, being progressed preferentially.”<sup>367</sup>
270. **Other legislation confers more discretion, enabling regulators to regulate in a more proportionate manner.** For example, the Environmental Permitting (England and Wales) Regulations 2016 provide for risk-based regulation with some activities excluded or exempt from the need for a permit, the option of standard rules or bespoke permits where needed, and provision for permits to be varied.<sup>368</sup> Defra and the Welsh Government recently published a consultation on reforms to the Environmental Permitting Regulations to improve the process by which the EA and NRW can create and amend exemptions for certain facilities from the need to hold an environmental permit.<sup>369</sup>

<sup>365</sup> Defra, ‘[An independent review of Defra's regulatory landscape](#)’, 2025

<sup>366</sup> [Environment Agency response to the Call for Evidence](#), 2025

<sup>367</sup> [Environment Agency response to the Call for Evidence](#), 2025

<sup>368</sup> [The Environmental Permitting \(England and Wales\) Regulations 2016](#)

<sup>369</sup> Defra and Llywodraeth Cymru Welsh Government, ‘[Exemptions Reform to the Environmental Permitting \(England and Wales\) Regulations 2016](#)’, 2025

271. **Regulators are also required to exercise their functions in a reasonable way.** They must make rational decisions, ensure proper decision-making processes are followed and avoid raising expectations that they will regulate in a certain way and then fail to do so.
272. **The regulators must often balance competing priorities when deciding how to carry out their statutory duties.** For example both Ofwat and EA are bound by the duty under section 108 of the Deregulation Act 2015 to have regard to the desirability of promoting economic growth (“the Growth Duty”).<sup>370</sup> The regulators must consider this but only to the extent it is consistent with their other statutory duties, such as to ‘protect or enhance the environment’ for the EA and ‘protect the interests of consumers’ for Ofwat.<sup>371</sup>
273. **The Secretary of State and Welsh Ministers can use policy statements, guidance and directions to influence how the regulators’ functions are carried out.** As set out in Chapter 1, Ofwat must comply with Strategic Policy Statements (SPS) issued by the UK and Welsh Governments. Under the Water Industry Act 1991, the SPS must set out the priorities and objectives for how Ofwat should exercise its functions for the water industry in England and Wales respectively. With respect to EA and NE, the Secretary of State has powers to issue guidance to the regulators and to direct them as to the specific exercise of their functions. With respect to NRW, Welsh Ministers have a power of direction under article 11 of the Natural Resources body for Wales (Establishment) Order 2012.
274. **The regulators currently are able to exercise constrained discretion to varying extents.** For example, Ofwat can make rules about charges and about water company managers’ remuneration and governance. They can also regulate through licence conditions, including setting price controls, setting out details of the accounts and financial information which companies are required to produce, and setting requirements for interactions with other appointees/ licensees.<sup>372</sup> Ofwat must execute these and other functions so as to meet their duties relating to consumer protection, water and sewerage supply, and company viability. As noted above, the EA has broad discretionary powers under the Environmental Permitting Regulations 2016. This includes setting and varying permit conditions, and issuing Regulatory Position Statements, which allow activities that would ordinarily require a permit to carry on without one under certain conditions. Both the EA and Ofwat also have a level of discretion in their enforcement duties.
275. **In Wales, a broad level of regulatory discretion exists to support delivery of the sustainable development principle and well-being goals**

<sup>370</sup> [Deregulation Act 2015; The Economic Growth \(Regulatory Functions\) \(Amendment\) Order 2024](#)

<sup>371</sup> S2 Water Industry Act 1991; Ofwat, ‘[Our duties](#)’ (viewed 14 July 2025); s4 Environment Act 1995; Environment Agency, ‘[Environment Agency Framework Document](#)’, 2025

<sup>372</sup> Ofwat, ‘[Licences and licensees](#)’ (viewed 14 July 2025)

**established by the Well-being of Future Generations (Wales) Act 2015 and the sustainable management of natural resources as set out in the Environment (Wales) Act 2016.** NRW can use the sustainable development principles and well-being goals to justify the flexible exercise of its discretion.<sup>373</sup> In so doing, it must articulate how its decision-making is in accordance with these goals. NRW also uses Regulatory Decisions in circumstances where it judges the likelihood of non-compliance is unavoidable and it will provide increased control over environmental risks or where the application of regulatory requirements appear disproportionate to the risks and complexity of the activity.<sup>374</sup> Regulatory Decisions are subject to time-limited review and can be withdrawn or amended at any time.

276. **The concept of discretion is a sensitive one, and the regulators and government may face judicial review if they act unlawfully.** In recent years, they have been subject to significant litigation in relation to their regulation of the water sector.<sup>375</sup>
277. **Frameworks for constrained discretion also exist in other regulated sectors, such as the banking sector, set out in Box 16.**

#### **Box 16 – Constrained discretion in the banking system**

The banking system in England and Wales is regulated by the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA). Both organisations have broad rule-making powers under the Financial Services and Markets Act 2000 and are able to impose requirements on entities and constrain entities from acting. These powers are subject to constraints. For example, the Financial Services and Markets Act 2000 includes a number of checks and balances on this discretion, including requiring the PRA to have regard to a list of factors when exercising its rule-making power and providing for consultation with the Treasury (HMT).<sup>376</sup>

The regulators are also able to exercise discretion regarding authorisation and enforcement. For example, the PRA is able to assess firms on a case-by-case basis to determine if they meet the conditions for authorisation, with each aspect of the assessment subject to supervisory judgement.<sup>377</sup> The FCA is able to focus their work on the key drivers of conduct likely to cause harm and can determine which regulatory tool to use depending on the potential scale and severity of the harm.<sup>378</sup> This discretion is also subject to constraints. For example, the FCA must

<sup>373</sup> Cyfoeth Naturiol Cymru Natural Resources Wales engagement with the Commission, 2025

<sup>374</sup> Cyfoeth Naturiol Cymru Natural Resources Wales, '[Regulatory Decisions](#)', 2025

<sup>375</sup> This includes the Marine Conservation Society's case against the Secretary of State in relation to the SODRP, River Action's 2024 case against the EA in relation to the River Wye, and Pickering Fishery's Association's 2024 case against the EA in relation to RBMPs.

<sup>376</sup> HM Government, '[Financial Services and Markets Act 2000](#)' (viewed 16 July 2025)

<sup>377</sup> Bank of England, '[Regulatory expectations](#)' (viewed 14 July 2025)

<sup>378</sup> Financial Conduct Authority, '[Our approach to supervision](#)' (viewed 14 July 2025)



act in accordance with their strategic objective to ensure financial services markets function well. They should also act in accordance with their secondary objective regarding international competitiveness and economic growth and their operational objectives.<sup>379</sup>

## Issues

278. **The Commission has identified 3 main issues limiting the exercise of constrained discretion in the current regulatory framework:**

- Inflexible legislation
- Cultural risk aversion
- Lack of government strategic direction

### Inflexible legislation

279. **The Commission has heard that, in parts, the legislative framework for water is too inflexible and overly prescriptive in nature.** This appears to have acted against the delivery of cost-effective solutions and created potential risks, such as limiting innovation. As discussed in Chapter 2, the 2027 deadline for Good Ecological Status under the WFD Regulations resulted in many water industry investment projects being taken forward in Price Review 2024 despite full economic appraisal not having been carried out. Blueprint for Water said “long-term planning in the water industry is constrained by a lack of outcomes-based regulation”, while Water UK commented that: “legislation and regulation are stifling innovation and failing to adequately address all the pressures on the water system”.<sup>380</sup> They highlight that “targets set under the Environment Act include a requirement to reduce phosphorus from wastewater discharges by 80%. Companies are required to upgrade wastewater treatment works even if there are alternative catchment-based interventions which could deliver the same or greater phosphorus reductions in the surrounding environment.”.<sup>381</sup>

280. **Ofwat, meanwhile has expressed support for ‘migrating to a more common system for the setting of rules or standards in the regulatory framework (and their subsequent enforcement)’.**<sup>382</sup> The Commission has heard that Ofwat’s powers to impose enforcement orders are currently limited to those actions needed to secure future compliance. Ofwat suggested it could be beneficial to expand the scope of these powers to

<sup>379</sup> Financial Conduct Authority, ‘[Our approach to supervision](#)’ (viewed 14 July 2025)

<sup>380</sup> [Wildlife and Countryside Link/Blueprint for Water response to the Call for Evidence](#), 2025; [Water UK response to Call for Evidence](#), 2025

<sup>381</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>382</sup> Ofwat engagement with the Commission, 2025

allow them to provide redress or remediation for the impact of company failures, in order to allow faster resolution of some cases and to give greater benefits to customers.

## Risk aversion

281. **The Commission has heard that cultural risk-aversion within regulators is a significant determinant of the extent to which regulators utilise tools for ‘constrained discretion’.** The Corry Review highlighted that Defra regulators focus ‘too much on ‘micro’ site specific outcomes rather than meaningful ‘macro’ outcomes that are right for the needs of a place and easy for people to understand’.<sup>383</sup> The Commission has heard arguments from some that the EA has been overly risk-averse in relation to decisions where water infrastructure affects housing growth, and that it has limited tools to take proportionate action when things have gone wrong, such as when agreed investment has not been delivered.<sup>384</sup> For example, in Oxford, the EA had objected to major planning applications that would add additional pressure to Oxford’s sewage treatment works, on the grounds of insufficient sewage capacity. Oxford City Council argued that this threatened ‘the delivery of more than 4,000 homes and over 500,000 square metres of commercial space’.<sup>385</sup> Following a process of negotiation between the EA, Oxford City Council, Thames Water and government, a solution was agreed with Thames Water, which can provide the capacity needed at the wastewater treatment works to allow for the occupation of development from 2027, in line with local plans.<sup>386</sup> However, in this case the process was lengthy, required government intervention, and the outcome ultimately agreed requires a shorter term solution in the initial phase, at additional cost, before a long-term solution can be put in place.<sup>387</sup>
282. **The Commission has also heard that an overly prescriptive regulatory approach has limited the use of nature-based solutions.** Stakeholders have highlighted the example of the EA’s decision to discontinue trials allowing Catchment Nutrient Balancing in Price Review 2024, a mechanism by which water companies can offset phosphorus pollution from their wastewater operations by paying another sector to reduce pollution on their behalf.<sup>388</sup> While this may be down, in part, to legislative rigidity, others have reported that this is due to a culture of risk aversion within the environmental

<sup>383</sup> Defra, [‘An independent review of Defra’s regulatory landscape’](#), 2025

<sup>384</sup> Defra, [‘An independent review of Defra’s regulatory landscape’](#), 2025

<sup>385</sup> Oxford City Council, [‘Statement on the state of Oxford’s sewage treatment system and related planning objections’](#), 2024

<sup>386</sup> Oxford City Council, [‘Environment Agency and Oxford City Council act on Government calls to unlock growth’](#), 2025; Environment Agency, [‘Environment Agency and Oxford City Council unlock growth’](#), 2025

<sup>387</sup> Commission engagement with Defra, 2025

<sup>388</sup> [Wildlife and Countryside Link/Blueprint for Water response to the Call for Evidence](#), 2025

regulator.<sup>389</sup> Despite the increased flexibility provided by the Wellbeing and Future Generations Act in Wales, environmental stakeholders have still argued for greater flexibility to support the deployment of nature-based solutions.<sup>390</sup>

## Lack of government strategic direction

283. **The Commission has heard that to effectively exercise constrained discretion, the regulators need clearer guidance from government on priorities and how trade-offs should be navigated.** This is discussed in detail in Chapter 1.
284. **In addition, the Commission has heard that the duties on the regulators may not sufficiently guide clear action.** As discussed in Chapter 4, there are 5 primary duties on Ofwat and several others they must have regard to.<sup>391</sup> EA, meanwhile, has several duties, some of which are subject to an overarching duty on sustainable development. The FCA, by comparison, has 3 core ‘strategic objectives’ and a single secondary objective.<sup>392</sup> While the Commission recognises that the wide remit of the water regulators may necessitate a range of objectives, the lack of clear hierarchy and prioritisation appears to make it difficult to know which should take priority in any given circumstance.

## Conclusions and recommendations

285. **The current legislative framework is overly prescriptive, inflexible, and regulators have become risk averse.** The Commission believes this needs to be addressed at the statutory level, as part of a UK and Welsh government review of water legislation. The Commission also believes that, building on the recommendations in Chapter 1 relating to strategic direction, the Government needs to better empower regulators to exercise discretion where it already exists in the regulatory framework, with appropriate guardrails, or ‘constraints’, in place. It will require cultural change from the regulator, as described in Chapter 5. The new water system planners should also be empowered with constrained discretion, as described in Chapter 2.
286. **Proportionate provision for constrained discretion should allow regulators to give greater focus to the outcomes that governments want to achieve while maintaining a high level of environmental ambition and safeguards.** Within necessary constraints, this approach should support greater innovation (see Chapter 7 for further discussion), better consideration of wider benefits (such as those offered by nature-based

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<sup>389</sup> [Wildlife and Countryside Link/Blueprint for Water response to the Call for Evidence](#), 2025

<sup>390</sup> Wales Environment Link response to the Call for Evidence, 2025

<sup>391</sup> Ofwat, ‘[Our duties](#)’ (viewed 14 July 2025)

<sup>392</sup> Financial Conduct Authority, ‘[About the FCA](#)’ (viewed 14 July 2025)

solutions) and unblocking opportunities for regional economic growth where there is significant public interest. The Commission considers that intelligence from supervisory teams, across environmental and economic regulation, could be used to support decisions on when discretion may be used in regulation of water companies, as well as appropriate constraints for its exercise.

287. **Recognising the different legislative context, the Commission is making two separate recommendations for England and Wales.**

## England

**Recommendation 14: In England, the review of the legislative framework should take forward the concept of ‘constrained discretion’ for the regulator.<sup>393</sup> This should also apply to the water systems planners, should they sit in an independent body (see Chapter 2).**

## Model

288. **Delivering a constrained discretion framework would require legislative reform.** As the Corry Review recognises, any constrained discretion must be “within the law”, and any flexibility must be built into the legal regime. As with the broader review and rationalisation of the legislative framework, this would require further consideration, including scientific and technical expertise. However, the Commission has identified three key elements of an approach to the establishment of a more robust constrained discretion framework in England. Government would need to consult on appropriate mechanisms and further explore precedents from other sectors, some of which have been outlined in this chapter.
289. **Firstly, the UK Government should provide, in primary legislation, a set of principles that the regulators and the systems planner should be able to draw on in making regulatory decisions.** The principles should broaden the aims, objectives and criteria that the regulator is able to take into account when making decisions, including the costs and overall impact of requirements. Recognising the issues the Commission has heard around housing development and the lack of consideration of solutions with co-benefits for nature, principles could include ‘supporting local growth’ and ‘delivering co-benefits for nature’ (further examples at Box 17), in addition to consumer and environmental protection.
290. **These principles would not remove the need to achieve long-term statutory objectives. Rather, they would enable the regulator and systems planners to take a wider array of factors into account when**

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<sup>393</sup> Defra, [‘An independent review of Defra’s regulatory landscape’](#), 2025

**determining how objectives should be achieved.** This would mean that regulatory decisions could be justified not only in terms of efficiency or compliance but also in terms of their contribution to the principles. This would be similar in practice to how, when utilising its rule-making powers, the FCA must act in accordance with their strategic objectives. It would also be similar to how the ‘sustainable development principle’ within the Welsh Wellbeing and Future Generations Act has enabled NRW to take a more risk-based approach to approval of projects such as marine renewable energy, in recognition of the wider environmental benefits it brings.

291. **To be effective, any new principles would need to be developed alongside rationalising and establishing new duties and objectives for the new water regulator, to ensure clarity and avoid duplication.** As set out in Chapter 4, a new integrated regulator will require a clear set of objectives to guide its work, including its exercise of constrained discretion. A key benefit in issuing the regulators with a fresh set of duties and accompanying principles to guide regulatory decision-making would be in signifying a break from the past, and a reset in ways of working. This could help to address the issues of cultural risk-aversion we have identified, while enabling government, and Parliament, to influence the ethos and approach of a new integrated water regulator for England.
292. **Secondly, to provide greater discretion for the regulators to take the principles into account, the government would need to reform legislation to make it less prescriptive about the means by which the regulators must achieve compliance with objectives.** The government should make this a core objective of the legislative review exercise described in Section 3.1. For example, as outlined above, the EA has trialled ‘Catchment Nutrient Balancing’ as a potential regulatory approach towards water companies’ discharge permit requirements for nutrients such as phosphorus. This would allow water companies to pay other sectors (for example, agriculture) to implement catchment measures to achieve equivalent reductions in phosphorus pollution to those that would otherwise be required from their wastewater operations. However, the approach the EA has taken has required including other sectors as part of the permits on water company assets. This approach has been complex, and they have acknowledged feedback that this may miss an opportunity to innovate how permitting is used to achieve the best environmental outcome. The EA took the decision to end the trial in April 2025.<sup>394</sup> Reforming the EPR legislation could more easily allow for these types of solution without being regulated through permits. For example, in a particular case it might be better not to impose a tough permit condition but instead, to vary it, or set out that certain

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<sup>394</sup> Environment Agency, ‘Catchment Nutrient Balancing Review: Final Decision Document’, 2025 (via correspondence)



activities will not trigger enforcement, so that a collaborative, nature-based solution can be used, which the regulator is satisfied can meet the long-term objective but do so in a way that will achieve greater overall environmental benefit, taking into account the principles.

293. **Thirdly, government should review legislation with a view to setting criteria whereby the regulator could depart from specific requirements, or allow water companies or other delivery bodies to do so.** This could involve, for example, ensuring that the concept of ‘technical infeasibility’ is consistently defined as an exemption from or defence for not meeting a long-term objective. With respect to the WFD or its successor, this could involve reviewing the framework for setting ‘less stringent objectives’. Government could broaden the criteria beyond ‘technical infeasibility’ to enable the regulator to take into account the principles, and also allow the regulator to reopen decisions on water body objectives as and when more evidence came to light. This would help to avoid a situation whereby stringent, unachievable objectives are required to be met, despite new evidence showing that they are infeasible to deliver or would undermine the broader principles. In relation to the EPR, government could add to the cases when permits aren’t needed, can be varied, or set out when they can be breached without it being an offence.
294. **The supervisory approach could be used to ensure that there is robust scrutiny of where discretion is needed for water companies, and how it is implemented.** For example, in any future cases similar to the blockage of housing in Oxford, supervisory teams could keep a closer eye on, and take action to prevent, non-delivery of schemes before they contribute to critical pressures on the environment and development capacity. The Commission believes many of its other recommendations, including on strategic direction (Chapter 1), planning (Chapter 2), and infrastructure and asset health (Chapter 7) will also prevent situations such as the one in Oxford arising in future. However, these changes may take time to be realised, and not all obstacles may be able to be foreseen in advance. Should similar situations arise in future, the Commission believes a constrained discretion framework should provide better tools to resolve them. For example, supervisory teams would also be able to provide a robust assessment of when discretion is legitimately needed – such as verifying that a particular solution is genuinely technically infeasible - and supervise companies to find and deliver a workable solution. Their judgement could also inform how long the discretion should apply, in cases where discretion is a temporary solution to ensure that the required long-term objective is still achieved.

**Box 17 – Examples of principles that could be used to inform a legislative framework for constrained discretion**

**Government would need to set out clear principles which regulators and systems planners should take into account when making decisions.**

- **Thinking for the long-term** – taking actions to avoid intergenerational inequality and support long-term sustainable development.
- **Achieving adequate water supply and ensuring drought preparedness** – to achieve sufficient clean drinking water for future generations in the long term.
- **Delivering co-benefits for nature** – taking actions that look across the whole system at overall environmental benefit and may achieve multiple benefits simultaneously – such as nature-based solutions.
- **Delivering wider government public policy objectives, including growth and net zero** – taking actions that support housing development in line with government targets and local priorities - subject to appropriate constraints – and drive action to achieve government’s net zero target.
- **Reflecting deliverability constraints** – allowing flexibility where new situations or barriers occur, or where technical and scientific understanding changes. This could be on a temporary basis.
- **Protecting consumer interests**

295. **For constrained discretion to be exercised effectively, there is a need for clear government steers and guidance.** As set out in Chapter 1, the Commission believes that improved strategic direction to regulators, via a new National Water Strategy for England, will be important to guide their use of discretion. The EA highlighted the importance of ensuring staff are well-equipped to exercise discretion effectively, with a clear understanding of the associated risks, competing priorities, and legal considerations involved in their decision-making.<sup>395</sup> The Commission believes a constrained discretion framework would also need to include mechanisms for escalation to government, for example for particularly sensitive decisions, or where government objectives set by different departments are in contradiction. The Fisheries Act 2020 may offer a helpful case-study here. Under the Act, the Fisheries Administrations are required to publish a joint fisheries statement setting out the policies which would achieve or contribute to the achievement of objectives set out within the Act. The Fisheries Administrations are then required to pursue the policies contained in the statements and plans unless

<sup>395</sup> Environment Agency engagement with the Commission, 2025

there is a relevant change in circumstances which would indicate a different approach is necessary.<sup>396</sup>

296. **Importantly, the use of constrained discretion should be transparent and accountable.** Regulators and systems planners should be required to report regularly on how they have exercised constrained discretion, and assess its effectiveness, as part of their reporting against the outcomes in the National Water Strategy and MSWIP. While there should be clear accountability within the regime, transparency should also support the building of adequate trust. For example, NRW emphasised that innovation always has an attendant risk of failure and involves regulators and government being ‘willing to fail’.<sup>397</sup> Government and regulators should be transparent about this.

### Constraints on discretion

297. **A discretion framework would need to be accompanied by clear constraints on when it can be used.** Constrained discretion should not, for example, be a means of weakening overall progress towards achieving long-term environmental objectives or reducing consumer protections. The EA’s engagement with the Commission on this subject emphasised that it needs to be made clear to stakeholders and technical staff that constrained discretion is not ‘watering down’ of environmental legislation or that legislation is not fit for purpose, and that the legislation in place will still be providing the constraints around decisions.<sup>398</sup> In making decisions about whether to allow for derogations from legal requirements in the short-term, regulators would continue to have regard to long-term objectives. This may mean that discretion can only be granted temporarily, with a view to ensuring long-term progress towards achieving objectives is not undermined.
298. **The UK Government will also need to ensure that any changes to increase discretion for regulators are in compliance with both domestic and international obligations.** This will include the non-regression clause in the UK-EU Trade and Cooperation Agreement (TCA). The UK Government will also need to consider the impact of greater regulatory discretion on other policies and targets, including the Environmental Improvement Plan goals, targets set under the Environment Act 2021, and climate change targets.

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<sup>396</sup> [Fisheries Act 2020](#)

<sup>397</sup> Cyfoeth Naturiol Cymru Natural Resources Wales engagement with the Commission, 2025

<sup>398</sup> Environment Agency engagement with the Commission, 2025

### **Box 18 – Case Study on how constrained discretion could be deployed to support reservoir delivery**

In this case, a new reservoir may be needed for the purpose of public water supply.

Currently new reservoirs will be designated Water Environment (Water Framework Directive) Regulations (WFD) water bodies and will need to meet ‘good’ status for water quality within the River Basin Management Plan cycle timeframe. The treatment costs of meeting ‘good’ may make the new reservoirs infeasible and could lead to non-reservoir options (for example, desalination), which have their own environmental risks and lack the cross-sector and wider environmental benefit potential of reservoirs, being progressed preferentially. For example, new reservoirs can reduce the need for abstraction which may be environmentally damaging.

In this case, subject to the necessary legislative reform, greater constrained discretion for the environmental regulator could allow lower objectives to be set, or new water supply reservoirs to be exempted from the WFD regime. This derogation from requirements would improve the financial viability of the reservoir and allow it to proceed, supporting local growth, environmental and water resources objectives.

While discretion would enable accepting a lower environmental standard in the new reservoir, this would still be constrained by a wider consideration of environmental needs. A ‘thinking for the long-term’ principle could enable the regulator to consider that a new reservoir would reduce the need for potentially damaging abstraction and present fewer environmental risks than alternative options such as desalination, when looking across the whole system at overall environmental benefit.

## **Wales**

**Recommendation 15: In Wales, a strengthened constrained discretion framework should build on the discretion already enabled by the sustainable development principle within the Well-being of Future Generations Act.**

299. **The Commission recognises that in Wales, a broad level of regulatory discretion already exists, largely by virtue of the Well-being of Future Generations Act.**
300. **There are some areas where this framework could go further, such as through clearer government steers and guidance.** As outlined in Chapter 2, Wales has established a statutory spatially devolved process, requiring the regulator to draw up place-based Area Statements (S11 Environment (Wales) Act 2016) that provide the context for the activities of the regulator and are steered by national policy statements by government (S9). NRW and

Welsh Government have suggested that this could be a useful framework for furthering the use of constrained discretion when articulating priorities or trade-offs for a particular locality”.<sup>399</sup>

301. **As in England, the Welsh Government should also review and rationalise the legislative framework, with a particular focus on reforming existing requirements that are overly prescriptive.** As outlined above, this should also include reviewing the legislation with a view to setting criteria allowing the regulator to apply exceptions or different requirements in regulations where necessary to allow for discretion. For example, stakeholders have fed back the importance of greater use of nature-based solutions in Wales, calling for “regulatory agreement to delay statutory obligation deadlines if this will maximise outcomes and allow innovative solutions to be developed.”.<sup>400</sup> The Commission has heard from both NRW and Welsh Government that there is scope for additional legislative provisions to be introduced to support the exercise of constrained discretion, noting for example that it is not always possible for NRW to interpret very specific regulatory obligations more broadly and exercise discretion where appropriate.<sup>401</sup>
302. **Application of constrained discretion in Wales will also require a cultural change as well as a legislative change.** NRW currently uses adaptive management for marine licensing in Wales, allowing NRW to grant marine development consent where the full impact is not yet understood. The Câr-y-Môr marine licensing appeal used the Well-being of Future Generations Act to challenge the limiting of the adaptive management approval to 5-years.<sup>402</sup> The appeal granted a 20-year approval, which highlights the ongoing need for cultural change away from a cautious, compliance driven culture which overlooked the long-term benefits the Well-being of Future Generations Act allows.

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<sup>399</sup> Cyfoeth Naturiol Cymru Natural Resources Wales and Llywodraeth Cymru Welsh Government engagement with the Commission, 2025

<sup>400</sup> Wales Environment Link letter to Commission, 2025

<sup>401</sup> Llywodraeth Cymru Welsh Government engagement with the Commission, 2025

<sup>402</sup> Comisiynydd Cenedlaethau'r Dyfodol Cymru Future Generations Commissioner for Wales, [‘Ten years since Wales Committed to the well-being of future generations’](#), 2025





## Chapter 4: Regulator reform

### 4.1 Structural reform of the regulatory landscape

#### Background

303. **Privatisation of the water industry in 1989 was accompanied by the establishment of a new regulatory model to oversee the newly privatised companies, with the UK and Welsh Governments responsible for setting policy priorities and the overall strategic framework.** Three core regulators were established under the Water Act 1989 and the Water Industry Act 1991 to oversee the companies<sup>403</sup>:
- The Director General of Water Services/ Office of Water Services (Ofwat) - the economic regulator (a non-ministerial government department)
  - The National Rivers Authority, which has been replaced by the Environment Agency (EA) in England and Natural Resources Wales (NRW) in Wales – the environmental regulators (a non-departmental public body and Welsh Government sponsored body respectively)
  - The Drinking Water Inspectorate (DWI) – the drinking water regulator (statutory office holders and a separate operational unit within Defra)
304. **The duties and functions of the water regulators have developed over time as the system has evolved and as the legislative framework has grown in both scale and complexity.**
305. **Ofwat is responsible for economic regulation of the water industry in England and Wales.**<sup>404</sup> Water companies are natural regional monopolies and the scope for competition is constrained. Economic regulation is required to protect consumers from the abuse of monopoly power, such as high costs and poor service, and to incentivise efficiency and the investment that the water system requires. Ofwat primarily seeks to achieve this through its price review process which sets price controls for the sector.<sup>405</sup> Ofwat also performs functions related to water company performance and oversight, ensuring companies comply with core statutory duties and licence conditions.
306. **Ofwat's role has expanded over time due to government and Parliament adding new duties.** In 2014, the UK Parliament legislated to provide Ofwat with a new primary duty related to resilience.<sup>406</sup> And in 2024,

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<sup>403</sup> NAO, [The economic regulation of the water sector](#) (viewed 17 July 2025)

<sup>404</sup> Ofwat, [‘How we regulate - Ofwat’](#) (viewed 17 July 2025)

<sup>405</sup> Ofwat, [‘How we regulate - Ofwat’](#) (viewed 17 July 2025)

<sup>406</sup> Water Act 2014, Chapter 3, Section 22, [Water Act 2014 - Explanatory Notes](#) (viewed 17 July 2025)



the UK Government extended the Growth Duty to Ofwat.<sup>407</sup> The Water (Special Measures) Act 2025 (WSMA 2025) also placed a new duty on Ofwat to have regard to climate change and environmental targets. As a result, Ofwat now has 5 general duties with respect to the water industry, plus a range of other objectives and duties, such as its general environmental and recreational duties, which it must balance in delivering its functions.<sup>408</sup>

307. **The environmental regulators, the EA in England and NRW in Wales, are responsible for protecting the environment from the impacts of damaging activities such as wastewater discharges and abstraction, through the issuance of environmental permits and licences.**<sup>409</sup> The EA has a statutory aim to protect or enhance the environment, contributing towards the objective of achieving sustainable development.<sup>410</sup> NRW's core purpose is to sustainably manage natural resources.<sup>411</sup> Both regulators also have responsibilities for planning for the water system, including the production of River Basin Management Plans (RBMPs), as well as a duty to secure compliance with environmental objectives set out in those plans.<sup>412</sup> Both regulators also have extensive non water responsibilities.
308. **Growing concern about wastewater pollution has resulted in an increased focus on monitoring and enforcement of water industry operations by the environmental regulators.**<sup>413</sup> This includes, for example, new responsibilities introduced by the Environment Act 2021 for the EA to publish annual summaries of storm overflow data.<sup>414</sup> Most recently, new enforcement levers granted through the WSMA 2025 have further expanded the powers of the environmental regulators. This includes powers for the EA and NRW to recoup enforcement costs from water companies, as well as to oversee the production of annual Pollution Incident Reduction Plans by water companies.<sup>415</sup>
309. **The DWI oversees water company drinking water quality on behalf of the Secretary of State and the Welsh ministers, to provide assurance that safe and acceptable drinking water is supplied to those receiving a**

<sup>407</sup> UK Government, [Growth duty - GOV.UK](#) (viewed 17 July 2025)

<sup>408</sup> Ofwat, [Our duties - Ofwat](#) (viewed 17 July 2025); Water Industry Act 1991, Section 2 (viewed 17 July 2025)

<sup>409</sup> [Environmental Permitting \(England and Wales\) Regulations 2016](#) (viewed 17 July 2025)

<sup>410</sup> Environment Act 1995, Chapter 1, Section 4, [Environment Act 1995](#) (viewed 15 July 2025)

<sup>411</sup> Natural Resources Wales, [Natural Resources Wales / Our roles and responsibilities](#) (viewed 17 July 2025)

<sup>412</sup> [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#) (viewed 10 July 2025)

<sup>413</sup> Environment Agency - [4000 inspections and counting: How we're driving water industry performance – Creating a better place](#) (viewed 10 July 2025)

<sup>414</sup> [Environment Act 2021](#), Section 141D (viewed 17 July 2025)

<sup>415</sup> [Water \(Special Measures\) Act 2025](#), Section 11 (viewed 17 July 2025); UK Government, [Water Special Measures Act Policy Statement](#) (viewed 17 July 2025)

**public water supply.**<sup>416</sup> The DWI, headed up by the Chief Inspector of Drinking Water, a statutory appointment by the Secretary of State and Welsh ministers, currently sits as a business unit within Defra. As with Ofwat, the DWI's responsibilities have also grown. For example, the Network and Information Systems Regulations 2018 (NIS) created a new framework for managing the cyber security of critical UK sectors – which eventually resulted in the DWI adopting new responsibilities for overseeing water infrastructure cyber security. The regulator also became responsible for the regulation of the Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licensees) Direction 2022 (as amended) (SEMD).<sup>417</sup> The Chief Inspector reports direct to ministers on matters relating to the enforcement of the provisions in the Water Industry Act and regulations related to drinking water quality. The DWI acts as a business unit in Defra's Flood and Water Directorate. DWI cover the costs of their operation through charge funding therefore are largely financially independent.

310. **Natural England (NE) is the UK's Government advisor on nature and works to ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development.**<sup>418</sup> NE has a role in water regulation through providing monitoring of freshwater and coastal wildlife sites, advising bodies such as government, planning authorities and landowners on regulation and policy, and by feeding into the development of plans such as RBMPs. NE is not a 'core' water industry regulator but rather interacts with the water industry through crossovers in regulation. NRW performs the equivalent role in Wales.
311. **While not a formal regulator, the Consumer Council for Water (CCW) plays an important role in managing customer complaints.** Originally part of Ofwat, it is now a separate non-departmental public body established to represent consumers of water and sewerage services in England and Wales.<sup>419</sup> CCW is discussed further in Chapter 5.5 – Consumers.

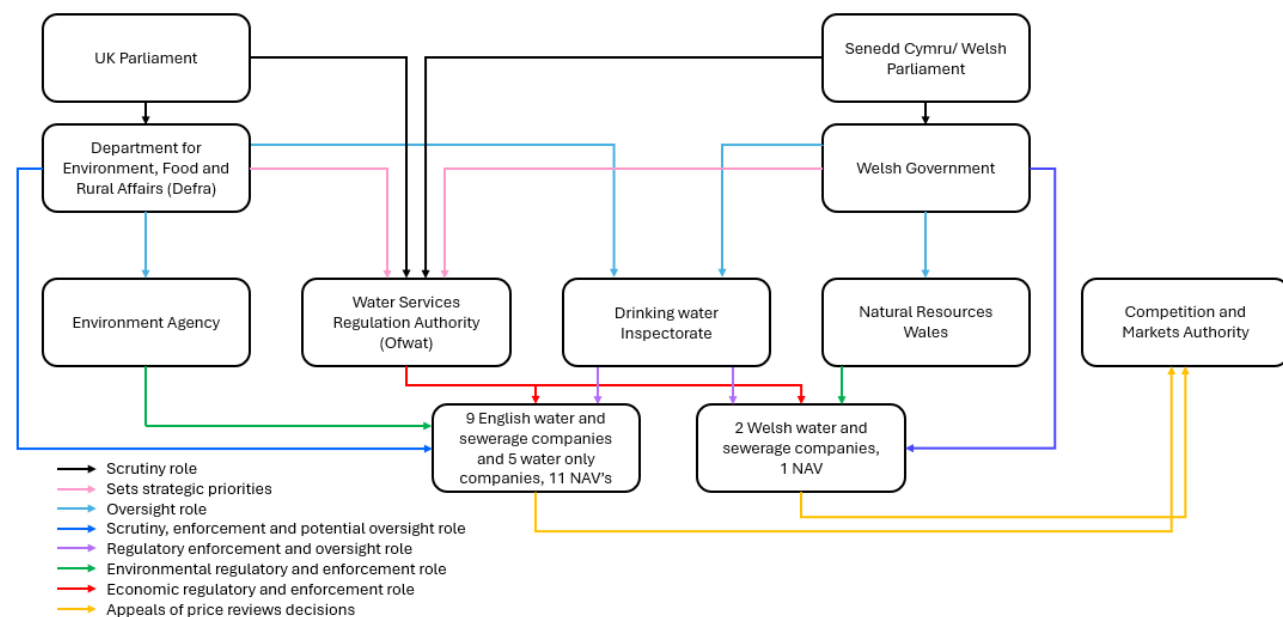
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<sup>416</sup> Water Industry Act 1991, Section 86, [Water Industry Act 1991](#) (viewed 17 July 2025)

<sup>417</sup> UK Government, [Security and Emergency Measures \(Water and Sewerage Undertakers and Water Supply Licensees\) Direction 2022](#) (viewed 17 July 2025)

<sup>418</sup> [Natural Environment and Rural Communities Act 2006](#), Chapter 1, Section 2

<sup>419</sup> HM Government, [Consumer Council for Water - GOV.UK](#), 2025

**Figure 12: Overview of the regulatory framework****Notes**

- 1 In addition, Defra and the Welsh government can provide guidance to Ofwat and have directional powers over the EA and NRW respectively. Defra is also Ofwat's sponsor department
- 2 Defra and Welsh ministers also hold some regulatory powers and duties as well as setting the overall strategic and policy framework
- 3 Ofwat also hold some environmental duties alongside their principal role as the economic regulator
- 4 The EA also regulate Welsh water companies' operations that are based in England, and NRW regulates English water companies' operations that are based in Wales.

**Source:** Modified from diagram provided by the National Audit Office <sup>420</sup>

<sup>420</sup> National Audit Office, 'The economic regulation of the water sector', 2015



## Issues

312. **The Commission has heard consistently and from a wide range of stakeholders, that trust in the regulatory framework for water has been eroded.**<sup>421</sup> This has included the regulators themselves, with Ofwat noting in their response to the Commission’s Call for Evidence, “if confidence is to be restored, not only must company performance be transformed but the planning and regulatory framework also needs to be reset”.<sup>422</sup> In response to a question in the Call for Evidence, 93% of the respondents rated the performance of the regulatory framework as poor or very poor.<sup>423</sup> The Commission has received considerable commentary on the way in which the regulators and their remits interact in the overall regulation of water companies. eNGOs, water companies, investors and the regulators themselves, have voiced concerns about the complexity of the regulatory landscape, which is perceived to have led, at times, to regulators pursuing different objectives and working against each other.<sup>424</sup> Some have argued that the inherent tension between the economic, environmental and public health remits of the regulators is not managed well in the current system.<sup>425</sup>
313. **The Commission has identified 4 main issues relating to the current structure and remit of the water sector regulators:**
- There is significant duplication in regulatory oversight
  - There are significant gaps in regulatory oversight which has led to questions about the accountability of regulators
  - There are challenges in managing trade-offs within the regulatory system
  - The economic regulatory framework is inadequately tailored to the Welsh context

## Duplication

314. **Duplication has emerged particularly with respect to reporting, enforcement and setting of regulatory requirements.** Regulators have overlapping duties and also place overlapping requirements on the water industry – this creates both complexity and confusion in the regulatory regime.<sup>426</sup> Water UK have outlined that “the reporting of storm overflows data requires companies to send over 30 different reports to Ofwat, Defra and the

<sup>421</sup> Industry and eNGO responses to the Call for Evidence, 2025; Engagement with the Commission

<sup>422</sup> [Ofwat response to the Call for Evidence](#), 2025

<sup>423</sup> [Annex A: Independent Water Commission’s call for evidence – interim summary of responses](#), Question 24

<sup>423</sup> [Annex A: Independent Water Commission’s call for evidence – interim summary of responses](#), Question 24

<sup>424</sup> Industry and eNGO response to Call for Evidence, 2025

<sup>425</sup> Industry response to Call for Evidence, 2025

<sup>426</sup> Regulator, eNGO and water company responses to Call for Evidence, 2025

Environment Agency in one year. This is particularly burdensome because many use their own very slightly different template or have subtly different requirements”.<sup>427</sup> The broader need for greater integration of monitoring and reporting requirements is something the current Chief Executive of the EA, Phil Duffy has also noted, setting out that “[he was] surprised, coming into this role [as CEO of the EA], that there was not the level of deep exchange of information and intelligence that we need to have”.<sup>428</sup>

315. **Additionally, the EA, NRW and Ofwat respectively have their own, independent performance assessments for the water industry: the Environmental Performance Assessment (EPA) for EA and NRW, and the Water Company Performance Report for Ofwat.**<sup>429</sup> DWI also reports on a stand-alone drinking water performance measure – the Compliance Risk Index.<sup>430</sup> This creates a challenge where the regulators review overlapping elements of company operations, making it harder for the public to clearly understand, in one place, the performance of the water industry.
316. **Similarly, on water resources, responsibility is split across the regulators, but there are areas where duties overlap.** The environmental regulator has duties to manage and conserve water resources, the economic regulator has duties to ensure that water companies make provision for water supply networks, and the drinking water regulator has duties to ensure sufficiency of drinking water supplies.
317. **Others have cited good examples of cooperation in areas of overlapping responsibility, such as through the RAPID programme - the Regulators’ Alliance for Progressing Infrastructure development is a partnership consisting of Ofwat, the EA and the DWI to facilitate the development and funding of large-scale strategic water supply options.**<sup>431</sup> This appears to have enabled better joint working to plan and finance long-term water supply projects in England – however its scope is limited to water resources projects above a certain size and complexity and does not include wastewater.
318. **On enforcement, stakeholders, and some of the regulators themselves, have noted that there are overlapping enforcement responsibilities.**<sup>432</sup>

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<sup>427</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>428</sup> Public Accounts Committee, [pdf](#) (viewed 11 July 2025)

<sup>429</sup> Environment Agency, [Environmental performance assessment \(EPA\) star ratings 2011 to 2023 - GOV.UK](#) (viewed 11 July 2025); Ofwat, [Water Company Performance Report 2023-24](#), (viewed 11 July 2025)

<sup>430</sup> Drinking Water Inspectorate, [Indicative Compliance Risk Index England and Wales](#) (viewed 17 July 2025)

<sup>431</sup> House of Lords Industry and Regulators Committee, [The affluent and the effluent: cleaning up failures in water and sewage regulation](#) (viewed 17 July 2025)

<sup>432</sup> [Ofwat response to the Call for Evidence](#), 2025

Some have argued that this creates confusion and risks ‘double jeopardy’.<sup>433</sup> For example, in respect of wastewater infrastructure, including storm overflows, the EA and NRW have responsibility for regulating the performance of individual storm overflows (of which there are over 14,000 in England and 2,000 in Wales<sup>434</sup>) while Ofwat is responsible for infrastructure through its operational resilience objective and through its duties under the Urban Waste Water Treatment Directive. This has resulted in two concurrent wastewater investigations, which some investors and water companies have argued are pursuing different standards.<sup>435</sup> Additionally, Outcome Delivery Incentives (ODIs) have been argued to duplicate the landscape, by overlapping with environmental standards set by the EA and NRW in permits and penalising companies who may already be subject to enforcement action for the same or related matters.<sup>436</sup>

## Gaps in regulatory oversight

319. **It has been noted that the division of responsibilities between the regulators has led to, in some circumstances, gaps in regulatory oversight.** For example, as set out in Chapter 7, the Commission has heard that responsibility for monitoring asset health and infrastructure resilience appears to be spread across regulators.<sup>437</sup> The EA and NRW undertake inspections of assets to verify environmental permit compliance only. The DWI take action in relation to the maintenance of drinking water supply systems, NIS regulations and security and emergencies, and Ofwat collect data on asset failure. However, no single body has a whole view of the state of infrastructure, and this has led to an effective gap in regulatory oversight.<sup>438</sup>
320. **Some have also noted that there may be a gap in regulators’ powers to hold companies to account for delivery of infrastructure projects.**<sup>439</sup> We understand that, currently, Ofwat uses performance commitments to incentivise companies to deliver actions committed to, in the price review, but does not routinely conduct inspections or detailed tracking of individual projects to assure that a company has delivered what they said they would.<sup>440</sup> The EA or NRW, meanwhile can take enforcement action if assets breach permit conditions. However, we have heard that there may be

<sup>433</sup> House of Lords Industry and Regulators Committee, [The affluent and the effluent: cleaning up failures in water and sewage regulation](#) (viewed 17 July 2025)

<sup>434</sup> EEA, [Storm overflows: policy and guidance - GOV.UK](#), NRW, [Natural Resources Wales / Storm Overflows](#)

<sup>435</sup> [Water UK response to the Call for Evidence](#), 2025 (viewed 17 July)

<sup>436</sup> [Water UK response to the Call for Evidence](#), 2025 (viewed 17 July)

<sup>437</sup> NAO, [Regulating for investment and outcomes in the water sector](#) (viewed 11 July 2025)

<sup>438</sup> NAO, [Regulating for investment and outcomes in the water sector](#) (viewed 11 July 2025)

<sup>439</sup> NAO, [Regulating for investment and outcomes in the water sector](#) (viewed 11 July 2025)

<sup>440</sup> NAO, [Regulating for investment and outcomes in the water sector](#) (viewed 11 July 2025)

inadequate mechanisms for regulators to act prior to the point of failure.<sup>441</sup> We understand that, to help address this issue, the regulators have committed in Price Review 2024 to expand reporting mechanisms to oversee delivery, including through the establishment of a new Delivery Monitoring Framework.<sup>442</sup> This issue is explored in further detail in Chapter 7.

321. **The gaps noted have led to a lack of clear accountability within the regulatory framework,**<sup>443</sup> which may prevent the public, government, Senedd and UK Parliament from understanding the performance of a company in the round. To understand, probe and challenge the performance of the water sector, parliamentary committees often take evidence from multiple Chief Executives, such as those from regulators and major water companies, on related aspects of the same system.<sup>444</sup> Additionally, some stakeholders have claimed that regulators have deflected accountability, portraying the water industry as solely responsible for the sector's shortcomings.<sup>445</sup> Others have argued that successive governments have "failed" to set necessary strategic long-term direction, leaving regulators "unchecked and unaccountable".<sup>446</sup>

## Managing trade-offs

322. **The Commission has heard that the division of policy and regulation between different regulators has caused tensions and made it harder to balance priorities.**<sup>447</sup> As discussed in Chapter 2, the EA and NRW set environmental requirements and focus on the benefits of projects. NE also helps set environmental goals (in England) but is not fully involved in economic regulation or planning. Ofwat reviews the costs of proposed projects – but only after decisions on whether, and which projects should proceed, have already been made. Because Ofwat isn't involved early on, it cannot use its cost expertise to help shape better, more cost-effective options. As a result, costs and benefits aren't fully considered together when options are being developed. For example, the EA told the Commission that of 2,700 of the projects in Price Review 2024 eligible to have several options considered for their costs and benefits, companies only presented multiple options in 22% of projects, meaning the EA were unable to review the benefits of alternative options on the other 78%.<sup>448</sup> The Commission also heard that many projects were required to go ahead in WINEP for Price

<sup>441</sup> NAO, [Regulating for investment and outcomes in the water sector](#) (viewed 11 July 2025)

<sup>442</sup> Ofwat, '[PR24-final-determinations-Expenditure-allowances-V2.pdf](#)', (viewed 17 July)

<sup>443</sup> Engagement with the Commission: Industry responses to the Call for Evidence, Public Accounts Committee; [Water sector regulation](#) (viewed 17 July)

<sup>444</sup> Public Accounts Committee, [Water sector regulation Inquiry](#) (viewed 17 July)

<sup>445</sup> Industry response to Call for Evidence

<sup>446</sup> Industry response to Call for Evidence

<sup>447</sup> Industry and water company responses to Call for Evidence

<sup>448</sup> EA engagement with Commission Secretariat

Review 2024 irrespective of whether the scheme selection was cost beneficial or not, due to legal requirements.<sup>449</sup> This represents over £15 billion (in 2022/23 prices) of investment in projects that were either not properly evaluated for their costs and benefits to customers, or the environment before being selected, or where such evaluations were carried out. The results had no bearing on whether the projects proceeded.<sup>450</sup>

## Economic Regulation and Wales

323. **With regards to Wales, there is also concern that Ofwat does not sufficiently take account of Welsh priorities in their regulatory approach.** Welsh Water's response to the Call for Evidence stated that "despite these differences [between jurisdictions], hitherto many of the policies, priorities and objectives in England have permeated into Wales".<sup>451</sup> For example, Ofwat continues to incentivize Welsh water companies towards reducing the overall number of Combined Storm Overflow spills in Wales in line with the government priority in England, rather than incentivising performance that prioritises reductions in overall harms in line with the Welsh Government and NRW's stated objective. The Commission has also heard there are tensions between Ofwat's regulation of competition initiatives (for example, New Appointments and Variations and the Business Retail Market) and the Welsh Government's scepticism about the benefits of competition (see Chapter 6 for more detail).<sup>452</sup> However, the Senedd and Welsh Ministers have the statutory power to provide Ofwat with direction as part of Ministerial functions devolved to Welsh Ministers.

## Drinking Water Inspectorate

324. **The Commission has heard that the organisational and financial structure of the DWI, due to its position within Defra, creates some difficulties.** For example, while the DWI fully recovers all of its costs, delivery of operations is significantly impacted by restrictions on civil service staff recruitment and pay. At a current headcount of 58 FTE, the DWI is responsible for providing independent assurance that the privatised water industry in England and Wales delivers safe, clean drinking water to consumers. The Commission has heard the DWI may need to increase its headcount, including of specialist staff, to meet the challenges of the future, but that this is made difficult by civil service pay controls.<sup>453</sup>

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<sup>449</sup> EA engagement with Commission Secretariat

<sup>450</sup> EA engagement with Commission Secretariat

<sup>451</sup> Dwr Cymru response to Call for Evidence, 2025

<sup>452</sup> Engagement with the Commission

<sup>453</sup> Response to Call for Evidence; Engagement with the Commission



## Conclusions and recommendations

325. **In a complex policy environment, it is rarely possible to design perfect organisational structures with ‘clean’ boundaries.** There will always be interfaces and tensions that need to be managed and trade-offs that need to be made. How a government chooses to organise itself or its regulatory frameworks, and the wider public sector, is determined by its priorities, where and how it wants to concentrate focus, expertise and levers, and whether inter-policy tensions and trade-offs are better internalised within a single organisation or managed externally between organisations.
326. **But organisational changes, especially mergers and demergers, should never be undertaken lightly.** They can generate focus, synergies and efficiencies to better achieve desired policy outcomes. However, these may come at the cost of disruption and generating new interfaces and boundaries that need to be managed. The costs of major organisational change are often high: these can be financial but there may well also be major costs in management time and organisational focus, in integrating systems and in the loss of internal expertise. Successful implementation is usually a challenging and lengthy exercise.
327. **These issues can be managed if the benefits for the longer-term outcomes of a sector or system are judged to outweigh the costs.** There are examples of such successful changes: in utilities regulation, 5 regulatory bodies with different functions were brought together in 2003 to create the Office of Communications, now commonly known as Ofcom, to provide a more integrated view and regulatory management of a sector.<sup>454</sup> Ofcom is responsible for regulating (amongst other things) personal services such as broadband and mobile services, the universal postal service and online services – with functions including providing advice to the public and investigating complaints.<sup>455</sup> Ofcom is able to see the communications sector from almost every angle and can design policies holistically.
328. **Structures of regulation in financial services have changed over time as the challenges have changed.** For example, in 2013, prudential supervision of banks and insurers was transferred from the Financial Services Agency (FSA) to the Bank of England’s Prudential Regulation Authority (PRA) following the lessons learned in the global financial crisis.<sup>456</sup> This was intended to create a much stronger focus on systemic financial stability and to integrate bank supervision and central banking more effectively. The FSA was abolished and its remaining conduct, consumer and

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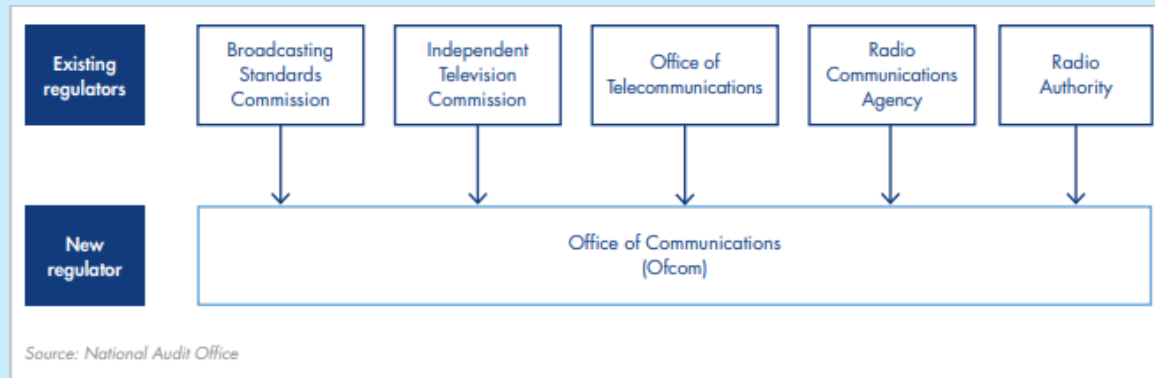
<sup>454</sup> Ofcom, [Regulator archives - Ofcom](#), 2010

<sup>455</sup> HM Government, [Ofcom - GOV.UK](#), 2025

<sup>456</sup> NAO, [Regulating Financial Services \(executive summary\)](#), 2014

market integrity functions taken on in a successor body, the Financial Conduct Authority (FCA). The FCA itself then took on the regulation of consumer credit from the Office of Fair Trading (OFT) in 2014, rationalising the structure of consumer conduct regulation.

### Box 19 – Establishment of Ofcom



Ofcom was established through combining five existing regulators into one. It was funded by a loan from the Department of Trade and Industry of £56.8 million, but the full cost of the merger is understood to be at least £80 million.

The government White Paper proposing the creation of Ofcom was published in December 2000, and Ofcom was formally established in December 2003. The end-to-end process took 3 years and required two Acts of Parliament – the Ofcom Act and the Communications Act.

The National Audit Office (NAO) assesses that the creation of Ofcom was ‘a significant achievement given the complexities involved in merging five different bodies’. They reported that ‘by approaching this merger as the creation of a new entity, rather than just the fusion of the five previous bodies, Ofcom has responded to the government’s ambition to create an entirely new style of regulator’.

**Source:** NAO report on ‘The creation of Ofcom: Wider lessons for public sector mergers of regulatory agencies’<sup>457</sup>

329. **The Commission is clear that the pressures and expectations on the water system in England and in Wales mean there is a need for a much stronger regulatory framework** - one that can respond both to existing challenges and to new ones that may arise and one that inspires confidence in both the public and those being regulated. The Commission’s Terms of Reference asked it to make recommendations to ‘ensure water industry regulators are effective, have a clear purpose and are empowered to hold

<sup>457</sup> NAO, ‘[The creation of Ofcom: Wider lessons for public sector mergers of regulatory agencies](#)’ (viewed 11 July 2025)

water companies to account' and to 'deliver an ambitious, long-term approach to resetting the water sector.' These have been the Commission's guiding principles in considering the case for structural reform of the institutional framework for regulation of the water sector in England and in Wales.

330. **The Commission has reached its conclusion by reflecting on the challenges that we heard with the existing regulatory framework.** The existing model of multiple water regulators makes it difficult for the regulatory system to come to an overall view of a firm's overall performance. Enforcement action has been described as duplicative. There are gaps in the oversight of asset health and monitoring water industry delivery. Furthermore, the current arrangements, in which the EA, NRW and the DWI set the requirements that determine much of water company costs, and the economic regulator subsequently determines the revenues companies can receive from water bills to cover those costs, can and does generate tension, complexity and can lead to sub-optimal outcomes. This appears to be seen, from the outside, as a model lacking transparency and accountability – which is contributing to a lack of public trust in the overall framework.
331. **The Commission has reflected carefully and engaged extensively on the case for such reform.** While there are some notable successes in the regulatory framework, notably the DWI's performance in overseeing the provision of high-quality drinking water in England and Wales, questions remain about whether the regulatory framework is fit for purpose.
332. **In its interim report, the Commission set out that it was considering options for a fundamental restructure of regulatory responsibilities.** The Commission has engaged with stakeholders, including the regulators, on these options extensively. The Commission has discussed and considered options spanning from full integration of the water regulators in England and in Wales, encompassing all environmental, economic and drinking water regulatory functions, through partial mergers to mechanisms which would generate more integrated regulatory assessment and outcomes through enhanced cooperation, maintaining existing regulatory bodies.
333. **The view of the regulators was that the issues identified by the Commission could be resolved through interventions short of a regulatory merger.** The Commission heard suggestions of alternative options to enhance cooperation including, for example, the establishment in statute of a new strategic committee sitting above the regulators to guide a coordinated approach to regulator operations, with a particular focus on monitoring, planning and compliance.

334. **The Commission has considered what is best for the long-term future of water, in line with its Terms of Reference.** The sector is a complex and highly integrated system, and is responsible for the second-largest infrastructure programme in the UK at a £104 billion over the next 5 years.<sup>458</sup> Component parts cannot be neatly separated out – economic objectives, for example, cannot be considered in isolation from the environmental management of water bodies, which cannot be separated from the infrastructure that maintains the water system.
335. **The Commission has concluded that the water system, including the water industry, is best overseen by a single new water regulator** The Commission's view is that water sector regulation has lost public trust. The Commission judges that the fundamental structural integration of Ofwat, DWI and water functions across the EA and NE into one regulator in England is required. In Wales, this would involve the integration of Ofwat's Welsh economic functions into NRW or the establishment of a separate independent economic regulator.

## England

**Recommendation 16:** The UK Government should establish a new integrated regulator in England. This should combine the functions of Ofwat, DWI, and water functions from the EA and NE.

336. **By integrating regulatory functions, water company oversight could be significantly strengthened.** A single regulator would be able to oversee all operations of a water company from all angles and come to a 'whole firm view' of performance issues and compliance failures – some of which may interrelate and may not have been adequately understood in the current model, where cooperation between regulators is limited. This could deliver greater accountability in the regulatory framework with one organisation and one board responsible and accountable for the outcomes of the sector. An integrated regulator would mean a single body interacting with a systems planner, as set out in Chapter 2, ensuring a joined-up and holistic approach to requirements on water companies.
337. **An integrated regulator should ensure a more joined-up approach to regulation overall.** A unified regulatory strategy and reduced number of decision-makers would enable faster and more effective tackling of issues, which in turn would lead to improved environmental and consumer outcomes. There would also be increased accountability for delivery, as well as reduced regulatory burden by simplifying water company and stakeholder interactions with regulatory bodies. From an organisational perspective, though there will be costs in implementation, there may also be cost savings

<sup>458</sup> HM Government, [Defra Secretary of State at Water UK Skills Summit - GOV.UK](https://www.gov.uk/government/news/defra-secretary-of-state-at-water-uk-skills-summit) (viewed 17 July)

and efficiencies (for example, adopting the same IT systems, and shared office spaces) in the longer term – as a point of comparison, Ofcom reduced staff costs by 8% (excluding one-off redundancy costs) in 2004/5, following their merger.<sup>459</sup>

338. **A more joined-up, coherent and streamlined approach to regulation should have benefits for investor confidence.** Although a merger inevitably presents uncertainty in the short-term, in the long-term it should create greater stability overall for the regulatory system – establishing the clear and objective conditions necessary to attract investment.

### Scope of the new regulator

339. **The new regulator would bring together Ofwat, the DWI and the water regulatory functions from the EA and NE to create an integrated water regulator for the entire water system in England.** NE would continue to manage and oversee nature and management of protected sites more broadly, but central water teams would be transferred to the new regulator. The government will need to consider the implications for (and functions of) the remaining aspects of the EA and NE, but it is likely the EA would continue to deliver broader environmental regulation, such as air quality and waste management.
340. **National water regulatory and compliance teams from NE, EA, Ofwat and DWI would be brought together into an integrated team that direct regulatory policy and strategy for water, including permitting, compliance and enforcement.** By bringing together these EA, NE, Ofwat, and DWI teams, the integrated team will be able to take a ‘whole firm’ view informed by an integrated supervision approach. Importantly, not just the EA water industry functions would be brought into the new regulator, but all water teams, to ensure integrated management of the water system. This will mean a more cohesive engagement with sectors across the regulatory functions, drawing on all the right expertise, minimising any duplication and ensuring there is a common, consistent set of supervisory priorities.
341. **Operational flood functions would remain in the EA.** Flooding is outside of the Commission’s Terms of Reference, other than where it currently interacts with strategic planning for the water system. The Commission has therefore not assessed how flooding functions are organised. The government should bear in mind the interaction between floods and other areas of water policy, as well as the substantial operational element of flooding work when considering how best to implement the Commission’s

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<sup>459</sup> NAO, [National Audit Office report \(HC 1175, 2005-06\): The creation of Ofcom: Wider lessons for public sector mergers of regulatory agencies](#) (Viewed 18 July 2025)



recommendations. Chapter 2 on systems planning contains some further consideration about aligning water and flooding.

- 342. **Operationally, teams on the ground would conduct inspections and audits building on the existing EA model.** Local teams on the ground, responsible for the water industry, would be commissioned and directed by central supervisory teams. They would report back to central supervisory teams who would come to a consolidated view of performance across the spectrum of activities. Other sectors impacting on water would be monitored by local teams directed by national compliance teams. This model requires new local operational teams to be built to deliver water regulation, utilising the experience and practices of the existing EA operational model from which it builds.
- 343. **Alongside this, national water planning teams across EA, NE, Ofwat and DWI would be brought together.** If an independent systems planner were established, as recommended in Chapter 2, some of these roles would move into the new regional system planning bodies whilst others would be maintained within the integrated regulator to advise on the delivery of regional systems plans.
- 344. **Ofwat's existing water industry economic functions, such as those relating to price control, markets and major projects would be brought across to the new regulator.**
- 345. **An integrated body would better equip regulators to manage current trade-offs in the system.** By integrating economic functions with water environment and water industry regulation within a single body, and this body working with the regional systems planners, the regulator would be able to take a holistic view both of day-to-day regulation and the development of water company plans, a key element of the regulator process. In practice, and as set out in Chapter 2 on systems planning, this would mean the regulator being able to provide a single view of both the environmental compliance of water companies as well as an economic appraisal of their plans, resulting in a much closer alignment of cost and benefit and ensuring that the setting of requirements on water companies is done in a clear and consistent manner.

### Implementation of a new regulator

- 346. **In implementing integration of the regulators, the Commission believes that ensuring governance, accountability and appropriate independence should be fundamental considerations.**
- 347. **A new regulator would need to be led by a board with the authority and expertise, including on engineering, finance and environmental science to command the respect of the public, government, investors, the water**

**industry and to oversee the creation of the new organisation itself.** The Board would need to oversee the creation of a new and complex organisation and to drive a new regulator culture. Board members would therefore need the seniority, capacity and time to take on a higher order of challenge than is currently the case for regulator boards.

348. **The economic regulatory function of a new regulator must maintain independence from government to ensure that the objectivity and stability of regulation that long term investors require is delivered.** Regulatory independence is a foundation stone for investor confidence.
349. **The drinking water function in the new regulator must also maintain independence within the new regulator in order to protect drinking water standards and public health.** The Chief Inspector should have equal seniority and status as the other senior leaders in the future regulator. The Chief Inspector should not be overruled on technical and legislative grounds when considering drinking water safety and security by a board decision. The Chief Inspector should have equivalent powers to recruit and retain staff of the calibre required as other regulatory domains with control of staff resources to deliver their critical regulatory function.
350. **The water regulator should ensure strong restrictions on new appointments are in place.** This should include appropriate notice or cooling off periods to ensure relevant staff are no longer exposed to sensitive information and the government should consider extending these restrictions across more of its senior staff. This should be grounded in aims to prevent regulatory capture. With mitigations in place this will still enable the appropriate skills and expertise to permeate into the regulator without creating risk of capture.
351. **Creating a new regulator will also require rationalising and establishing new duties and objectives, alongside a clear vision and mission for the new organisation.** As set out above, regulators are currently subject to a range of duties and objectives relating to the water industry but also wider priorities such as growth and climate change. A new integrated regulator will require a clear set of objectives to guide its work, including its exercise of constrained discretion as set out in Chapter 3. New, integrated objectives should bring together environmental protection and consumer protection with duties to ensure the regulator supports the investability of the sector, long-term infrastructure resilience and sustainability of the water system in England. There will inevitably be trade-offs of objectives in certain circumstances. The new regulator would be expected to follow strategic guidance outlined by the UK Government in its National Water Strategy and Ministerial Statement of Water Industry Priorities.

352. **As set out in Chapter 5, in order to enable the regulator to recruit and retain the necessary talent to performance its functions, it is the Commission's view that the regulator should be moved outside of public sector pay controls.** This may require establishing a new regulator as a non-departmental public body and ensuring it is fully self-sufficient in its funding. Pay scale flexibility may be particularly important to enable the regulators to recruit technical and specialist staff, such as engineers, financial experts and data scientists.

### The challenges of a merger

353. **As set out above, merger of regulatory functions is not without risks or operational challenges and the Commission has weighed the likely challenges in reaching its conclusion.** Removing water functions from the EA may have impacts on their wider operational response and flood functions, for example, as well as splitting the current Environmental Permitting Regulations across two organisations. It will be necessary to work closely with the EA and stakeholders to mitigate these risks while establishing a new regulator, for example putting in place mutual aid arrangements between a new regulator and relevant Defra arm's length bodies (ALBs) for managing flooding responses and ensuring effective data sharing arrangements between regulators.
354. **Additionally, any option requiring the merging of organisations will also carry costs, largely relating to merging staff and systems – for example, impacts on pension arrangements and reconciliation of organisational pay scales.** Disruption of crucial existing functions will need to be avoided, and essential expertise, capability and morale will need to be preserved through the process. This will require a very high order of board and management expertise and capability.
355. **A merger will take time to be implemented.** Structural change requires legislation. However, lessons from other structural reform shows it can be done. As set out above, Ofcom, the communications regulator was established over the course of 3 years through two acts of parliament, combining the duties of 5 different regulators. The Office for Environmental Protection, an environmental watchdog, was formally launched in July 2021 following the conclusion of the Environment Act 2021, a process which was started in July 2018.<sup>460</sup> The length of time required to establish and launch an integrated regulator (and interim arrangements) will be largely dependent on the length of time required for primary legislation to complete its parliamentary passage.

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<sup>460</sup> Office for Environmental Protection, [Interim Office for Environmental Protection launches on the 1st July 2021 | Office for Environmental Protection](#) (Viewed 18 July 2025)

## Wales

356. **As with England, the Commission concludes that water regulation in Wales would be best served by integrating water regulatory functions.** The public policy objectives relating to water are devolved and require regulators to take an approach which maximises contributions to the Well-Being Goals and embed the Sustainable Development principles.<sup>461</sup> The Commission's view is that it can be difficult for Ofwat, an organisation operating within two differing policy regimes (with one nation being much smaller) to adequately prioritise the needs of both regimes. Furthermore, the strategic needs in Wales are different to those of England. For example, Wales has considerably lower population density compared to England and a much higher proportion of its land is used for agriculture. Wales also has only two water companies, and as set out in Chapter 1, its water bodies face a different range of pressures to those in England. The Commission judges, therefore, that it would not be appropriate for an integrated water regulator in England to also be responsible for economic regulation in Wales.

**Recommendation 17: The Welsh Government should establish a new economic regulatory function in Wales that can align directly with the Welsh Government's strategic direction and guidance. The Commission's view is that the better course, subject to consultation, would be to embed this into NRW alongside the wider regulatory functions for water in Wales, though a small freestanding body, as in Scotland, might also be considered.**

357. **A tailored economic regulation function for Wales should ensure that all regulatory functions are actively working towards a coherent long-term vision for Wales and delivering actions in an aligned and cohesive manner.** It would also ensure that the economic regulation function was better subject to Welsh legislative requirements such as the sustainable management of natural resources duty within the Environment (Wales) Act.
358. **By integrating the economic and environmental regulatory functions in Wales into NRW, water company oversight would be strengthened.** It would provide a single voice on water sector regulation, strengthening accountability and simplifying water industry engagement with the regulatory system. It would also enable better management of the trade-offs associated with assessing costs and setting environmental requirements. This could help avoid the situation we have seen with environmental enhancement expenditure in Price Review 2024 increasing more than seven-fold

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<sup>461</sup> Welsh Government, [The Well-being of Future Generations | GOV.WALES](#) (viewed 17 July 2025); Environment (Wales) Act 2016 (viewed 17 July 2025)

compared to Price Review 2019.<sup>462</sup> Governance and accountability arrangements within NRW would need to be updated to reflect these new functions. For example, NRW would need to ensure there is adequate expertise on their board, including engineering, finance and economic regulation. Furthermore, NRW will need to give due consideration to attracting and retaining staff with the right skills.

359. **The Commission recognises, however, that NRW has a very broad range of functions including environmental regulation, flood defences and response, forestry regulation and nature protection.** Given this broad scope, integration may present challenges. An alternative would be to establish the economic regulatory function as a small freestanding body. This could be similar to Scotland where the Water Industry Commission for Scotland (WICS), the economic regulator for Scotland's water sector, has been established as a non-departmental public body with statutory duties, independent from Scottish ministers. WICS currently has 25 staff members, with expertise in economic regulation and finance.<sup>463</sup> Incorporation of the economic regulatory function into government would not, in the Commission's view, be appropriate given the need for independence. If established as a freestanding body, clear and effective coordination mechanisms with the environmental regulator would be crucial, which should be supported by the systems planning framework described in Chapter 2.
360. **The Commission recognises this recommendation may require new powers for Welsh ministers to establish a Welsh economic regulator.** The UK Government and Welsh Government should consider the need for any new powers and how these could be conferred as part of deciding how best to implement this recommendation.
361. **Economic regulatory expertise for the water industry does not currently exist in the Welsh system and access to adequate expertise would need to be assured.** In the short to medium term, while a suitable regulatory function in Wales is established, the Commission would recommend that the English regulator continues to provide regulation for Welsh companies. This will be needed to provide stability for Welsh companies and investors.
362. **The length of time required to establish and launch an integrated regulator (and interim arrangements) will be dependent on the length of time required for primary legislation to complete its parliamentary**

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<sup>462</sup> Ofwat, and our 2024 price review final determinations (viewed 17 July); Environmental enhancement expenditure in Wales in PR24 is at £1.7bn compared to £234m in PR19 ([PR24-final-determinations-Welsh-Government-priorities-and-our-2024-price-review-final-determinations.pdf](#))

<sup>463</sup> [Who We Are | WICS](#)



**passage in the Senedd.** Recent experience of establishing new bodies in Wales, suggests the Welsh Government is able to create new bodies at pace. For example, Medr, the Commission for Tertiary Education and Research, was launched on 1 August 2024 following the conclusion of the Tertiary Education and Research (Wales) Act on 9 September 2022.<sup>464</sup>

363. **The Commission recommends that drinking water regulation, currently provided by the DWI, continues to be provided on an England and Wales basis, despite sitting within the English regulator.** We judge that this is appropriate because drinking water regulation is not subject to political involvement in the same way as environmental regulation and therefore does not differ significantly from England to Wales. Drinking water regulation is based on a scientific and evidence-based approach to assessing water quality parameters and required improvements. Continuity of its functions and geographical remit should support ongoing public confidence in drinking water supplies. Design of the independent drinking water regulatory functions should be developed on an England and Wales basis. The Chief Inspector for Drinking Water should continue to be appointed by the Secretary of State and Welsh ministers.

## Alternatives

364. **The Commission's clear view is that if the paramount objective is a fundamental reset of the water sector, and to have the most effective regulatory framework to achieve that reset, integrated regulators for England and for Wales represent the best option.** As noted in the introduction to this chapter, however, organisational structures should in principle be designed to reflect priorities. It is, for example, possible to organise regulation around integrated natural environmental outcomes for air, land and water, which would lead to a different outcome than optimising the regulatory framework for the water sector.
365. **The Commission also recognises that every option it has considered for reforming the regulatory framework for water comes with both benefits and challenges.** There is unavoidably a large measure of judgement in the Commission's recommendation. It must in the end be for the government to assess against alternatives and decide what to pursue. Should the government wish to prioritise alternatives, the Commission has also considered how best to improve the coherence of the regulatory framework. There is a set of mechanisms that could be adopted to improve coordination and cooperation between the existing regulators.

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<sup>464</sup> [WLE 18 Commission for Tertiary Education and Research Medr Translation.pdf](#)

366. **The government could implement a statutory duty to cooperate in a similar model to the FCA/PRA (as set out above).** This would involve a legal requirement within legislation for regulators to cooperate with one another on matters relating to water and make them formally accountable to Parliament for doing so. For example, the FCA/PRA are required to share information and cooperate on supervision and enforcement, operating under the same powers (the Financial Services and Markets Act 2000) – a similar approach could be taken to regulating the water sector.
367. **To reinforce this, the government could set new requirements for integrated teams/functions in specific areas to drive coordination.** Specific areas where it has been highlighted that there is a need for better integration include monitoring, enforcement and planning. The regulators could create new joint units to undertake integrated monitoring of water company performance, enforcement in areas of overlapping responsibility and input into the systems planner. This could be supported by common priorities and ways of working established in an MoU and statutory duties or frameworks for cooperation. This would be supported by the new supervisory approach.
368. **This could be supported by an exercise to rationalise and streamline regulatory duties and responsibilities.** For example, in areas which have been identified as having duplication, such as reporting requirements for storm overflows. Overlapping duties on water resources could be reformed (and more clearly delineated) or narrowed down to a single regulator.
369. **In any scenario, the Commission would recommend that major reforms are needed to the economic regulatory function currently carried out by Ofwat.** Water industry and investor confidence in Ofwat is particularly low.<sup>465</sup> In the Commission's view a fundamental reconstitution of Ofwat is needed to deliver a break from the past and put economic regulation on a new footing. A clear set of duties and objectives, and a reformed, supervisory approach to regulation would help to address the criticisms it has faced in the past. This could involve a more company specific approach, strengthening the tools for financial resilience monitoring, as well as introducing new functions to better understand asset conditions and powers to support company turnaround and ensure senior managers are sufficiently accountable for promoting the right cultures and meeting regulatory requirements. It is also likely to involve a reconstituted Board, with representation and expertise that better reflect Ofwat's duties, including on engineering/infrastructure delivery (see Chapter 7), investment and the environment. Welsh Government representation on

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<sup>465</sup> Engagement with the Commission: Industry, eNGO and regulator responses to Call for Evidence

the Board could also help to address concerns that Ofwat does not adequately deliver for Wales.

370. **Additionally, the role of the DWI should be strengthened by providing a reporting line that is similar to those of other regulators, from the Chief Inspector for Drinking Water to the Defra Secretary of State and Welsh Ministers.** The DWI could also be re-graded to become an organisation which sits further from core Defra, for example as an Executive Agency.
371. **The Commission considered whether, in England, the functions of the economic regulator could be merged with the Environment Agency.** However, the Commission's view is that the Environment Agency as an organisation has struggled to effectively oversee and manage the water system. Given the scale of turnaround required for the water industry and water system the Commission's view is that this requires concentrated focus and leadership with could be constrained by a dilution of focus with other regulatory activities and not enable the change in culture and delivery that is required to reset the regulatory framework and rebuild public trust.
372. **The Commission has also considered the option of a partial merger of the regulators and the creation of coordinating bodies to sit above the regulators, as has been put forward as an option by some in the regulator community.** The Commission's view is that partial merger will bring many of the costs of full merger without commensurate benefits given the interaction of the environmental, drinking water quality regulation and economic regulation at all levels. The Commission has not developed options for new, coordinating bodies to sit above the current regulators and to set high level policy and resolve tensions. Our view is that this is likely to create more interfaces in what is already a crowded regulatory space, especially if government takes a more active and effective role in setting out the strategy and giving high level guidance.





## Chapter 5: Regulation reform

### 5.1 Economic Regulation

#### Background

373. **Economic regulation exists to protect consumers from the abuse of monopoly powers, such as high costs and poor service**, and to provide incentives to drive efficiency and company performance. The provision of water and wastewater services is a natural regional monopoly, and the scope for competition is very constrained.
374. **Under the Water Industry Act 1991, the independent economic regulator, Ofwat, has several duties** including protecting the interests of consumers, ensuring that water companies carry out their functions properly (for instance, can finance these), and can continue to do so over the long term. In doing so, Ofwat is funded from a levy on the industry.<sup>466</sup>
375. **The key process through which Ofwat regulates is the Price Review.** Ofwat's system of 5-yearly Price Reviews was put in place at privatisation to proxy market competition. It draws on the Littlechild model of RPI-X which underpinned the regulation of privatised utilities in the UK in the 1980s.<sup>467</sup> Since 2015, Ofwat's price controls set limits on revenues companies can receive over the 5-year Price Review period, and therefore bills customers pay, by setting cost allowances for the amount companies spend over the period. This incentivises companies to pursue efficiency-driven cost reductions. Ofwat also provides additional incentives for water companies to deliver broader outcomes. See Box 20 for further detail.

#### Box 20 – Ofwat's Price Review process

**Ofwat uses the Price Review to provide allowances for 'base' spending and 'enhancement' spending.** For base (operating and maintenance) expenditure, Ofwat primarily relies on modelling companies' past spending and benchmarking between companies. For enhancement (for instance, new scheme investment) expenditure, Ofwat considers companies' proposals for future spending and uses a mixture of econometric comparisons between companies and assumptions about the cost of particular investments.

**Since Price Review 2014, these allowances have been set on a total expenditure basis**, providing companies with flexibility to allocate expenditure between base and enhancement. Previously, Ofwat had set separate allowances

<sup>466</sup> s.2 and s.3 Water Industry Act 1991

<sup>467</sup> S Littlechild, '[Regulation of British Telecommunications' Profitability](#)', 1983; S Littlechild, '[Incentive Regulation from the Inside: Resetting 12 RPI-X Price Caps in 1993-95](#)', 2024



for capital expenditure (capex) and operating expenditure (opex). Ofwat introduced the totex (allowed total expenditure) system at Price Review 2014 to counteract the ‘capex bias’ which was considered to bias companies’ expenditure towards ‘pouring concrete’, for instance, favour capital-intensive over lower-cost operational solutions in order to add to their Regulatory Capital Value (RCV) and increase overall allowed return.<sup>468</sup> The totex system theoretically allows companies to pursue efficient costs (as flexibility over spending means efficiency savings in one area may be used to support investment in another and/or provide additional returns to attract further investment).

**Ofwat’s approach to cost assessment is primarily based on econometric modelling.** Ofwat reviews and benchmarks all companies in parallel and sets allowances top-down across companies. Ofwat can adjust this ‘one-size-fits-all’ approach using its company-specific assumptions – although, the bar for evidence from companies supplementing these via their own submissions is usually high. However, there are some mechanisms for allowing company-specific costs. For example, companies can submit cost adjustment claims for base allowances (these accounted for around 6.5% of base expenditure in Price Review 2024, and less than 1.0% in Price Review 2019).<sup>469</sup> In addition, Ofwat also assesses some base allowances outside its base cost models, for instance, unmodelled base costs, to account for company specific circumstances (these accounted for over 14% of base expenditure in Price Review 2024 and 10% of base in Price Review 2019).<sup>470</sup> Ofwat also uses a more qualitative approach for agreeing enhancement allowances for projects that are more unique or markedly different to other companies.

**Ofwat has developed and expanded its model of price regulation materially over time. Ofwat introduced Outcome Delivery Incentives (ODIs) in Price Review 2014,** intended to incentivise companies to achieve specific, more granular outcomes and to guard against companies delivering cost reductions by cutting service levels or damaging the environment. The Performance Commitments (PCs) were initially focused on factors closely related to customer service and investment in water company infrastructure, with only two mandatory PCs (the service incentive mechanism and leakage), while other PCs were bespoke, for instance, company-specific, and set according to customer feedback. ODIs have since been developed extensively, with companies now being rewarded and penalised for performance against a broader range of common PCs, with

<sup>468</sup> Ofwat, ‘[PR14 Review Paper](#)’, 2022

<sup>469</sup> Ofwat, ‘[Setting price controls for 2015-20. Final price control determination notice: policy chapter A3 – wholesale water and wastewater costs and revenues](#)’, 2014

<sup>470</sup> Ofwat, ‘[PR24 final determinations – expenditure allowances](#)’, 2024, page 361; Ofwat, ‘[PR19 final determinations – Securing cost efficiency technical appendix](#)’, 2019

more ambitious Performance Commitment Levels (PCLs) and with higher rewards and penalties.<sup>471</sup>

**Ofwat added Price Control Deliverables (PCDs) at Price Review 2024 to incentivise timely delivery of investment projects, and to return money to customers if the project is not delivered.**<sup>472</sup> PCDs are set against outputs whereby, if the output is not achieved, the funding for it is clawed back and returned to billpayers (further detail is outlined in Chapter 7).

**Ofwat also sets a Weighted Average Cost of Capital (WACC)**, an estimate of the cost of equity and debt that companies use to finance themselves. Like other economic regulators, Ofwat sets the WACC using estimates of cost of equity and debt for companies with similar risk levels, and a notional level of ‘gearing’. Ofwat estimates the WACC every 5 years. This means it is not very responsive to market changes (for example, cost shocks or broader macroeconomic conditions), although, Ofwat does index the cost of debt.

**Ofwat also sets company ‘RCV run-off’ and ‘Pay As You Go (PAYG)’ rates.** Together, these determine when companies are able to receive funding from allowances from customers. PAYG is the ratio of operating to capital expenditure over the Price Review period. Companies are allowed to recover operating expenditure in-period – whereas capital expenditure is ‘added’ to the Regulatory Capital Value (RCV). RCV run-off is therefore “a measure of the annual depreciation of the RCV”.<sup>473</sup> This enables the cost of capital spending to be spread across the lifetime of assets.<sup>474</sup> More detail on this is provided in Box 22.

**Companies may request redeterminations of Ofwat’s Price Review via the Competition and Markets Authority (CMA) if they do not think Ofwat has allowed sufficient funding.** The CMA is the appellate body for economic regulators’ decision-making across regulated sectors, including water.

376. **Ofwat’s primary statutory tool for setting requirements and standards is the water companies’ licences, and Price Reviews are given force through these.** These licences apply to all companies and can be tailored to individual circumstances. As currently framed, these licences contain a mixture of more high-level “principles based” conditions (such as the conditions for treatment of consumers) and very specific and granular conditions (such as the conditions for disposals of land). Provided the statutory conditions are met, Ofwat can change licences unilaterally in relation to water companies in England (subject to appeal to the CMA), but

<sup>471</sup> Ofwat, ‘[PR24 final determinations: Delivering outcomes for customers and the environment](#)’, 2025

<sup>472</sup> Ofwat, ‘[Price control deliverables](#)’ (viewed 30 May 2025)

<sup>473</sup> Ofwat, ‘[PR19 final determinations. Glossary](#)’, 2019

<sup>474</sup> Disputing companies, ‘[Disputing companies joint reply to Ofwat’s response](#)’, 2025, page 3

only with consent of the water company in Wales (or following a reference to the CMA on public interest grounds).

377. **The second statutory tool is Ofwat's enforcement powers.** The Statute *requires* Ofwat to intervene using its enforcement powers when it is satisfied that there *has been* a breach of the company's licence or of a statutory duty, or that it is *likely to* breach them. This 'enforcement' provision has a forward-looking ('likely to contravene'), as well as a backward-looking (where a breach already has occurred) test. It also gives Ofwat some flexibility in how it can respond – either by making a punitive final enforcement order, or by making provisional enforcement orders, or by accepting an undertaking from the company to remedy the situation (typically given force through inclusion in the company's licence). The process for proposing undertakings – who proposes, how these are agreed – is not specified in statute, although, we see that Ofwat has, in the past, consulted publicly on draft undertakings before finalising them.<sup>475</sup>
378. **Third, under provisions of the Water Industry Act 1991 (introduced by the Water (Special Measures) Act 2025), Ofwat has a rule-making power** which relates mainly to remuneration prohibition, the fitness and propriety of companies' senior managers, their governance, and involving consumers in their decisions (further commentary on these is provided in Chapter 6).<sup>476</sup> This is backed by Ofwat having the ability to give the company directions if it breaches the rules (and can then take enforcement action if it fails to comply with the direction). To make rules, Ofwat needs to consult publicly; but once the rules have been made, the only way they can be challenged is through judicial review (not via an appeal to the CMA).
379. **Ofwat can also issue guidance alongside these formal powers, which it expects companies to follow.** For example, they have published Principles for Board Leadership and Governance, against which it assesses companies (more detail on these can be found in Chapter 6).<sup>477</sup> Ofwat can request information from companies, as well as speak and engage less formally with companies, investors and the individuals who run them.
380. **Ofwat has begun to monitor companies more closely and regularly.** This has involved incremental and discrete steps over time, through strengthening oversight and monitoring of companies' performance across the sector, a new approach to company turnaround, proposals to better

<sup>475</sup> Ofwat, '[Ofwat's decision to accept undertakings from Thames Water Utilities Limited for the purposes of section 19 of the Water Industry Act 1991](#)', 2024; Ofwat, '[Notice of Ofwat's proposal to impose a financial penalty on Dŵr Cymru Cyfyngedig](#)', 2024

<sup>476</sup> Water (Special Measures) Act 2025, [Rules about remuneration and governance](#)

<sup>477</sup> Ofwat, '[Board leadership, transparency and governance – principles](#)', 2019

understand asset conditions, and financial monitoring (as set out in Chapter 6).<sup>478</sup>

## Issues

381. **The Commission has identified 8 main issues in relation to the current approach economic regulation:**

- the nature of the relationship between Ofwat and the industry, and the trade-off between costs and bills
- the regulator's reliance on economic modelling and industry wide benchmarking
- the regulatory approach to capital maintenance and asset renewal (covered in detail in Chapter 7)
- the level of assurance about whether water companies have used revenues for the purposes intended
- the impact of the performance incentive framework on the performance of the sector
- the regulatory approach to setting the return on investment
- instability in the regulatory framework and increase of risk to investors in the sector (covered in detail in Chapter 6)
- the CMA redetermination process

### The nature of the relationship between Ofwat and the industry, and trade-off between costs and bills

382. **The Commission has heard that Ofwat's overall approach and relationship with the industry and its investors has become adversarial, unpredictable and transactional.** Investors and water companies have outlined that Ofwat's approach is dominated by the emphasis it puts on modelling, data and industry-wide benchmarks. They argue that this has led to a relationship with companies and investors where Ofwat is at arms-length and insufficiently engaged in understanding companies' operating contexts, and adversarial when companies seek to engage on company specific issues.<sup>479</sup> An industry expert has told the Commission that the relationship between Ofwat and companies in between Price Reviews tends to be "transactional" and has not exposed the real issues companies face.<sup>480</sup> Some investors and companies have also told the Commission that this lack of detailed understanding, alongside a decrease in Ofwat's overall

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<sup>478</sup> Ofwat, '[Independent commission on the water sector regulatory system call for evidence – Ofwat response](#)', 2025

<sup>479</sup> Response to Call for Evidence and Commission engagement with water companies and investors.

<sup>480</sup> Water companies responses to Call for Evidence

engineering expertise, has contributed to a more unpredictable approach to economic regulation.<sup>481</sup>

383. **Stakeholders have highlighted that Ofwat’s approach requires large and disproportionate amounts of data from companies.** Some stakeholders have told the Commission that it is not always clear how data is used to support Ofwat’s objectives and whether all returns are used for regulatory purposes.<sup>482</sup> At Price Review 2024, Ofwat requested that WASCs’ submissions contained a maximum of 80 documents; these were supported by 12 table commentary documents and a long-term delivery strategy. For WOCs this was reduced to 50 documents.<sup>483</sup> The administrative burden to companies of conducting Price Reviews has increased over time. Water UK estimates the cost to companies at £250 million for Price Review 2024. Customers ultimately bear these costs.<sup>484</sup>
384. **The National Audit Office has also highlighted the need to “simplify the Price Review methodology.** This should include evaluating...the impact of cost benchmarking on company behaviours and financial resilience, [the impact of outcome incentives on company performance,] and the impact of price control deliverables on performance”.<sup>485</sup>
385. **The Commission has heard that Ofwat has focused too much on price scrutiny and keeping bills low** (see Box 26). This may have been at the expense of longer-term resilience.<sup>486</sup> Ofwat challenge this view and point out that, at Price Review 2019, they “did not reject a single scheme on the grounds of affordability”.<sup>487</sup> Though, as described below, companies argue that Ofwat’s incentives effectively deter them from bringing forward their true assessment of what is needed. Notwithstanding, stakeholders have highlighted in evidence to the Commission, for example, that “Ofwat’s priorities need to be reconsidered. Low bills have led to a lack of infrastructure investment and a significant rise this year to meet...environmental responsibilities. It would have been far better to increase bills steadily over the past 20 years, rather than the huge hike we have seen this year to restore or replace infrastructure that is not working.

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<sup>481</sup> Water companies and investors responses to Call for Evidence and engagement with the Commission

<sup>482</sup> Water company engagement with the Commission

<sup>483</sup> Ofwat, [‘IN 23/08 Submission of PR24 business plans and related information on 2 October 2023’](#), 2023

<sup>484</sup> Water UK, [‘A Reset for Water: Water UK’s response to the Independent Water Commission’s Call for Evidence’](#), 2025

<sup>485</sup> National Audit Office, [‘Regulating for Investment and Outcomes in the Water Sector’](#), 2025, page 12

<sup>486</sup> Ofwat and investors engagement with the Commission

<sup>487</sup> Industry and Regulators Committee, House of Lords, [‘Corrected oral evidence: The work of Ofwat’](#), 2022



The pain felt by customers this year would have been far less if there had been a gradual move towards the current position.”<sup>488</sup>

386. **The Commission has heard that there has also been an ‘invisible gap’ where companies have been deterred by Ofwat for submitting business plans on what they actually need to spend on infrastructure.** Ofwat’s Quality and Ambition Assessment (QAA) provides financial rewards and penalties to incentivise companies to submit business plans close to Ofwat’s view (see Box 21). Proposals for additional spend and/or projects beyond Ofwat’s criteria are disadvantaged under the QAA. This could have deterred companies from submitting plans for necessary spending on the capital maintenance and/or enhancement of assets in the first place, where this was not in line with Ofwat’s view, and even penalised them for simply making the case. Water company CMA redetermination submissions at Price Review 2024 have also criticised QAAs “for encouraging companies to submit undeliverable, low-cost plans”.<sup>489</sup> Ofwat assesses the stretch and efficiency, as well as affordability, of companies’ base and enhancement expenditure proposals as part of the assessment of ambition in companies’ business plans.<sup>490</sup>

**Box 21 – Thames Water’s QAA penalty for their business plan submission**

Thames Water was penalised to the level of £141 million, via a 0.3 percentage point reduction in allowed WACC at Price Review 2024, for submitting a business plan which sought an increase in allowance for the capital maintenance of its assets.<sup>491</sup> Ofwat cited insufficient evidence from Thames Water to justify its proposal and categorised the overall plan as ‘inadequate’.

This penalty was issued despite Thames Water being £16.8 billion in debt and having the worst performance on asset health according to Ofwat’s own metrics.<sup>492</sup>

Ofwat has provided Thames Water with opportunity to earn back these penalties during Price Review 29 should it demonstrate sufficient improvement.

**Ofwat’s reliance on economic modelling and industry wide benchmarking**

387. **The Commission has heard that, in setting allowances and targets for companies, Ofwat relies too heavily on econometric modelling based on (largely historic) sectoral benchmarking.** Ofwat uses the concept of a ‘notionally efficient company’ to assess what companies should be spending. Investors and water companies have said that ‘Ofwat’s ‘one-size-fits-all’

<sup>488</sup> NGO response to Call for Evidence

<sup>489</sup> Oxera, ‘[A new approach to performance and supervision in the England and Wales water sector](#)’, 2025, page 33

<sup>490</sup> Ofwat, ‘[PR24 final determinations. Quality and ambition assessment summary](#)’, 2024

<sup>491</sup> [PR24-draft-determinations-Thames-Water-Quality-and-ambition-assessment-appendix.pdf](#)

<sup>492</sup> [Annual Report 2024-25](#) – page 46

approach does not take sufficient account of company-specific conditions and challenges” (for example, current performance level, geography, hydrology, demography and history). The Commission has also heard that, in setting baselines, Ofwat has insufficiently taken into account the realistic level of progress companies can make in-period to support a different approach.<sup>493</sup> The Price Review does include various mechanisms for adjusting allowances based on company characteristics, for example, cost adjustment claims. However, stakeholders have questioned whether these adequately capture differences between the size or complexity of the areas that water companies serve”, leading to poorer-performing companies, in particular, considering that they do not receive sufficient funding to ‘catch up’ with the higher performers, for instance, a ‘doom loop’.<sup>494</sup>

388. **As noted in the Commission's Interim Report, there are fundamental limits to how precise and accurate a benchmarking framework and econometric tools can be.** Differences between water companies naturally limit the extent to which these can be relied upon when assessing whether individual company costs are reasonable, whether the company is improving efficiency, and whether the company’s performance overall is satisfactory.<sup>495</sup>
389. **The Commission has also heard that benchmarking has sometimes had the effect of holding companies back rather than enabling them to improve.** For example, base expenditure allowances are based on a historical ‘upper quartile’ performance benchmark. This is intended to increase efficiency and protect customers in the absence of a competitive market, but some water companies have noted that it can be very challenging for lower performing companies to catch up and ever reach the upper quartile.<sup>496</sup> This approach is also predicated on identifying the lower three quartiles of companies as ‘failing’.

## The regulatory approach to capital maintenance and asset renewal

390. **The Commission has heard that companies have not received enough funding to maintain their assets, and that this is partly due to Ofwat’s approach to the Price Review.** As discussed in the Commission’s Interim Report, some companies have publicly stated that Ofwat’s approach does not consider a bottom-up assessment of assets and that the drive to maximise cost efficiency has seen the industry prioritise ‘sweating assets’ rather than proactively maintaining them (see Chapter 7).<sup>497</sup>

<sup>493</sup> Industry expert / consultant engagement with the Commission

<sup>494</sup> Industry expert / consultant response to Call for Evidence, 2025; water company engagement with the Commission

<sup>495</sup> Stakeholders engagement with the Commission

<sup>496</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>497</sup> Thames Water, [‘TMS15 Asset Health Deficit’](#), 2023

391. **Stakeholders have also questioned whether Ofwat’s historical approach to setting base allowances may have contributed to resilience issues in the sector.** If past capital maintenance spending was below what was required, inaccuracies could be carried forward so that water companies face successive periods in which allowances are lower than required. At Price Review 2024, Ofwat included a forward-looking component in its base expenditure assessments, specifically, regarding capital maintenance.<sup>498</sup> This involved forecasted cost drivers, data about where more complex treatment might be required, and forecasted expenditure.<sup>499</sup>
392. **The Commission has also heard that Ofwat does not pay sufficient regard to either engineering expertise or wider (non-Ofwat) investment planning framework requirements** in its setting of allowances – meaning allowances do not properly take into account either asset condition or the scale of requirements (see Chapter 7). The Commission has heard that stronger and more transparent guidelines for investment, for example, based on investment and maintenance ratios observed in countries with the desired asset quality, would help to address underspending on capital maintenance.<sup>500</sup>
393. **The Commission is also aware that Ofwat’s approach to estimating the cost of assets’ depreciation has created uncertainty over whether companies have had sufficient cashflow to maintain their assets.** As covered in Box 20 RCV run-off is the rate at which RCV is depreciated. Ofwat has employed different approaches to estimating this rate historically. In the 2000s, Ofwat pursued an approach where RCV run-off was set with explicit reference to the age and valuation of company assets. After Price Review 2009, Ofwat has moved to a model where companies propose RCV run-off rates, and Ofwat assesses these with reference to, for example, financeability and affordability. Some stakeholders have been critical of this model, and questioned whether it has provided companies with sufficient cashflow to maintain assets, since RCV run-off is no longer explicitly linked to actual depreciation of assets. Ofwat have disputed this characterisation. They have argued that RCV run-off is not the same as depreciation the asset base; and noted that, where RCV run-off is lower than companies’ capital maintenance needs, resilient companies should be able to fund this shortfall through debt and equity.<sup>501</sup> Ofwat note an alternative approach would be burdensome. Box 22 sets out further detail.

<sup>498</sup> Ofwat, ‘[PR24 Final determinations - Expenditure allowances](#)’, 2024

<sup>499</sup> Ofwat, ‘[PR24 Final methodology](#)’, 2022

<sup>500</sup> Industry expert / consultant response to Call for Evidence, 2025

<sup>501</sup> Ofwat engagement with the Commission

**Box 22 – Funding depreciation costs**

**In 2008, to improve the understanding of the underlying asset base and inform depreciation charges, Ofwat required a full industry-wide asset revaluation across the value chain for water and wastewater.** Both the remaining life and condition of assets, and their gross Modern Equivalent Asset Valuation (MEAV) (for instance, the cost of replacing an asset if it were built today) were assessed.<sup>502</sup> This is the only full reevaluation since privatisation. Ofwat expected it would result in a decrease in depreciation costs – but it actually implied a significant increase in depreciation costs. After scrutinising the evidence submitted by companies, Ofwat made specific adjustments to depreciation charges for a number of companies, but did not increase depreciation charges across the board as they were not satisfied with the evidence presented.<sup>503</sup> Had Ofwat applied the revaluation, the significant increase in depreciation costs would have significantly increased customer bills in order to fund a higher level of asset renewal in Price Review 09.<sup>504</sup>

**After Price Review 2009, Ofwat moved to setting RCV run-off rates based on an assessment of, for example, affordability and financeability.** Companies were not required to assess asset lives or condition, or submit MEAV estimates at subsequent Price Reviews.<sup>505</sup> Ofwat instead sets RCV run-off with reference to company proposals. Some companies still use MEAV to propose RCV run-off rates to Ofwat (for example, United Utilities).<sup>506</sup> Ofwat considers these proposals but is not bound by them. Ofwat instead assesses RCV run-off rates based on consideration of intertemporal fairness, affordability, financeability, and upper limits.<sup>507</sup> From Price Review 2024, Ofwat has required companies to assess the age and life of certain assets (for example, water mains). However, this does not cover all assets, and Ofwat has not used this data to inform its assessment of RCV run-off.

**Some have questioned whether Ofwat’s approach to RCV creates a risk that companies do not receive sufficient cashflow to maintain assets.**<sup>508</sup> As RCV run-off is not explicitly set with reference to the age and value of companies’ assets, there is a risk that companies do not have sufficient revenue within a period for asset renewal. Ofwat has argued that RCV run-off is not the same as depreciation of the asset base, so there is no need for run-off to coincide with depreciation. Run-off is instead intended to spread the cost of capital investment over the lifetime of assets. Ofwat note that, where RCV run-off is lower than companies’ capital maintenance needs, resilient companies should be able to fund this shortfall through debt and equity. Ofwat have also argued MEAV reevaluation is burdensome for companies and that, since Price Review 09, depreciation charges have continued to grow alongside RCV growth.

**As discussed in Box 46 (Chapter 7), Scotland has shifted its approach to funding asset lives based on MEAV – finding that planned investment was previously meeting only 40% of that needed – to more directly link depreciation costs for asset renewal to customer bills.**<sup>509</sup> Many responses (on price controls) to the Commission’s Call for Evidence argue that customers would be willing to pay for bills that reflect the true cost of water services – even if that entails higher bills.<sup>510</sup>

## The level of assurance on whether water companies have used revenues for the purposes intended

394. **The Commission has heard that companies may have underspent on investing in and maintaining their assets.** It has been claimed this could, in part, be due to lack of clarity over what part of totex should be allocated as ‘base’ (for instance, a pipe being replaced) and what should be allocated as ‘enhancement’ (for instance, a pipe being replaced by one built from more robust material which decreases the likelihood of a burst).<sup>511</sup> As a result, companies can spend money that Ofwat has implicitly allocated as either base or enhancement elsewhere, for example, spending base on enhancement – which would add to their RCV and therefore returns – or on dividends, and not support investing in or maintaining their assets to the appropriate level.
395. **The Commission has also heard that there are gaps in the extent to which regulators check that water company plans are delivered, which could give companies the opportunity to underspend and retain some of their allowances.**<sup>512</sup> As set out later in this Chapter, Ofwat and the other water regulators do not routinely conduct inspections or detailed tracking of individual projects to assure that a company has delivered what they said they would.<sup>513</sup>
396. **Ofwat started to address this by introducing PCDs at Price Review 2024 to track delivery of projects through increased reporting and assurance, and through providing incentives to deliver in a timely manner.** However, as set out in the Commission’s Call for Evidence, these only cover around 38% of total expenditure – the majority of which is enhancement spend – meaning that a full view of capital expenditure and renewal of assets is not currently possible (see Chapter 7).<sup>514</sup>
397. **The Commission has heard that PCDs, as a mechanism for assuring company scheme delivery and spend, are complex and need simplification.** Companies have suggested they be replaced through closer and more transparent engagement between companies and the regulator: “Price Control Deliverables are a symptom of a regulatory system that lacks trust, with prescriptive requirements and a proliferation of penalties that duplicate the enforcement regimes of other regulators”.<sup>515</sup>

<sup>511</sup> Water companies engagement with the Commission

<sup>512</sup> Environment, Food and Rural Affairs Committee, ‘[Priorities for water sector reform](#)’, 2025

<sup>513</sup> National Audit Office, ‘[Regulating for investment and outcomes in the water sector](#)’, 2025

<sup>514</sup> Independent Water Commission, ‘[Call for Evidence](#)’, 2025

<sup>515</sup> [Water UK response to the Call for Evidence](#), 2025, page 130



398. **At the same time, Ofwat’s approach has not prevented some companies making imprudent financial decisions** that have damaged the company’s financial resilience, and Ofwat has had to develop additional tools, for example, its power to amend licenses without company agreement (in England), to deal with issues like financial resilience that cannot be easily addressed within an econometric approach. Ofwat has historically had more limited powers to intervene – until 2021, it did not have the power to amend licences without company agreement. It still does not have this power in relation to Wales. This is further discussed in Chapter 6.<sup>516</sup>
399. **More recently, Ofwat has taken steps to monitor companies more closely and more regularly.** This was discussed in the Commission’s Interim Report. Ofwat now has more tools to monitor financial resilience, for example, and has published proposals on how it can better understand asset conditions. This covered in greater detail in Chapter 6 and Chapter 7.<sup>517</sup>

### The impact of the performance incentive framework on the performance of the sector

400. **Stakeholders have expressed that benchmarking of companies’ ODI performance has had the effect of holding companies back rather than enabling them to improve.** This can also be considered as a ‘doom loop’ – where, exacerbated by a lack of regulatory flexibility (for example, in enforcement actions), companies which struggle in performance are benchmarked against higher performing companies, resulting in lower funding and limiting their ability to turn around performance.<sup>518</sup>
401. **The Commission has also heard that Ofwat’s approach to ODIs has put increasingly large amounts of capital at risk and made investor returns significantly more volatile.** Investors have outlined that assessment of the risks they bear in the water sector have become increasingly difficult to predict, as has the size of incentive rewards (or penalties) based on performance. Investors argue for the system “to be restored to a fair bet: efficient companies must have a fair shot at receiving a balanced profile of rewards and penalties”.<sup>519</sup> For example, that “[while] ODIs and similar incentives are in principle a reasonable mechanism for achieving regulatory goals...there needs to be (i) a ‘fair bet’ such that the likelihood and quantum of potential upside is equal to the...downside, for instance, symmetrical upside/downside risk; (ii) a recognition that greater variability of potential

<sup>516</sup> Ofwat, ‘[Monitoring Financial Resilience Report 2023-24](#)’, 2024

<sup>517</sup> Ofwat, ‘[Monitoring Financial Resilience Report 2023-24](#)’, 2024

<sup>518</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>519</sup> Investor response to Call for Evidence, 2025

outcomes by definition means greater risk at the enterprise level and therefore a higher cost of capital”.<sup>520</sup>

402. **Investors have been exposed to high levels of downside risk and high variability of returns**, with four companies having their entire allowed equity returns wiped out by ODIs in the first four years of the Price Review 2019 period.<sup>521</sup> Moreover, while in its Price Review 2024 Final Determination Ofwat sought to recalibrate targets and introduce additional protections to reduce downside risk and the overall level of risk exposure, it is not clear that this aim has been achieved”.<sup>522</sup>
403. **The Commission has also heard that more variable and uncertain returns is discouraging long-term investors from investing in the sector.** For example, investors have stated in evidence to the Commission that “incentive regulation must not be displaced [but] we endorse a review of ODI calibration to ensure narrower outcome ranges and less downside skew, reducing volatility and supporting long-term investment.”<sup>523</sup> Chapter 6 covers the effect of incentives on the attractiveness of the sector in more detail.
404. **The UK Parliament Environment, Food and Rural Affairs Committee (EFRA) notes that ODI incentives should create a “culture of improvement” and be “stretching but realistic”,** rewarding companies for “consistent improvement that is demonstrably attributable to the work of the company and only penalise regressions”. EFRA note that targets should match “public expectations and national targets for water and not set basic expectations”.<sup>524</sup>

### The regulatory approach to setting the return on investment

405. **As set out in our Call for Evidence – and as we have heard since – investors have stated that Ofwat’s WACC is significantly below those of comparable sectors nationally and internationally, making the sector less attractive to investment.** Investors in the regulated sectors (for example, water, energy, rail) find the ‘WACC landscape’ disjointed in England and Wales.<sup>525</sup> Different economic regulators apply different WACC estimates at different times, making assessment of investment opportunities more difficult.

<sup>520</sup> Investor response to Call for Evidence, 2025

<sup>521</sup> Ofwat, ‘[Monitoring Financial Resilience report 2023-24 charts and underlying data](#)’, 2024

<sup>522</sup> Industry expert / consultant response to Call for Evidence, 2025

<sup>523</sup> Investor group response to Call for Evidence, 2025

<sup>524</sup> Environment, Food and Rural Affairs Committee, ‘[Priorities for Water Sector Reform](#)’, 2025, page 30

<sup>525</sup> Investor engagement with the Commission

406. **The Commission has heard that a common methodology for estimating WACC across sectors would reduce inconsistencies and provide greater certainty for investors in UK infrastructure.** One investor group noted that, “There is little coherent rationale for the methodological divergence in WACC determinations across UK regulators... Greater consistency in the approach to calculating WACC components [is necessary]”.<sup>526</sup>
407. **Water companies have highlighted the need for the regulator to set the WACC at a level that enables them to compete with other sectors globally to attract (scarce) capital.**<sup>527</sup> Investors have highlighted that successive Price Reviews have resulted in WACCs that are increasingly insufficient to attract long-term investment.<sup>528</sup>
408. **However, the National Infrastructure Commission has outlined that ‘aiming up’ on WACC could risk eroding public confidence in the regulatory regime.**<sup>529</sup> The Commission has heard views supporting this assessment – as public trust in the water sector is already low.<sup>530</sup>
409. **Ofwat’s methodology is broadly in common with Ofgem’s. Nonetheless, lack of standardisation will necessarily mean cross-sector differences in estimates and outcomes.** This may be driven by regulators’ different selections of data inputs in calculating WACC, for example, to define the cost of debt. WACCs across the regulated sectors follow different profiles, even if they follow similar methodologies, because they are also updated at different times and are therefore set in different economic contexts. Investors have called for greater transparency around how specific WACC components (particularly cost of equity) are estimated, and for improving the responsiveness of the WACC to market fluctuations.<sup>531</sup>
410. **Ofwat’s WACC methodology may have incentivised companies to increase debt.**<sup>532</sup> Ofwat use a notional gearing ratio and since the costs of debt are typically cheaper than the costs of equity, companies may be incentivised to adopt a higher gearing ratio than Ofwat’s notional level so that they may take the difference between the WACC and the true cost of capital as profit. That Ofwat did not, or could not, intervene to address this is described further in Chapter 6.

<sup>526</sup> Investor group response to Call for Evidence, 2025

<sup>527</sup> Water company response to Call for Evidence, 2025

<sup>528</sup> Investor group, response to Call for Evidence, 2025

<sup>529</sup> National Infrastructure Commission, ‘[Strategic Investment and Public Confidence](#)’, 2019

<sup>530</sup> NGO response to Call for Evidence, 2025

<sup>531</sup> Water companies and investors responses to Call for Evidence, 2025

<sup>532</sup> [Water UK response to the Call for Evidence](#), 2025

## Instability in regulatory framework and increased risk to investors in the sector

411. **Investors have also raised concerns about the increase of Ofwat’s powers, and argue that those powers have been used in an overly prescriptive and punitive way those powers have been used**, as detailed in Chapter 6. Government is considered by many investors to have exacerbated the situation, with inconsistent policy and prioritisation decisions over regulatory requirements, and critical public messaging which has increased the perception of risk.<sup>533</sup>

## The CMA redetermination process

412. **The Commission has heard that the CMA dispute process in water is costly and burdensome – it requires complete redetermination of Ofwat’s determination for a company.** This process in essence seeks to redo Ofwat’s role and process, but on less favourable terms – mainly, less time, sector expertise and resources.<sup>534</sup> Ofwat, some investors and water companies, and the CMA agree. For example, Ofwat states that “the current appeals framework dates from 1989 and requires onerous costly and lengthy redeterminations by the CMA”.<sup>535</sup> Similarly, an investor considers that “as the complexity of the Price Review process has grown, so has the burden of a full redetermination on the CMA, Ofwat and the sector”.<sup>536</sup>
413. **A water company has likewise argued that “the ability for companies to appeal to the CMA is a critical element of the Price [Review] process because it provides a necessary check and balance to Ofwat’s Final Determinations.** However, the current redetermination framework is time consuming and expensive...changes to the current...redetermination process could be beneficial for customers and the environment”.<sup>537</sup> Other water industry stakeholders have noted that the CMA undertaking a full redetermination provides an important check and balance on the regulator, and maintains the coherence of Price Review decisions.<sup>538</sup>
414. **The CMA has highlighted to the Commission that they are insufficiently resourced to undertake the redetermination process currently required for water.** They note that “reforms to regulatory appeals are an opportunity to reduce the complexity and burden of regulation, and to provide a clearer framework for investors to navigate. We therefore recommend a consistent

<sup>533</sup>Investors engagement with the Commission

<sup>534</sup> [Competition and Markets Authority response to the Call for Evidence](#), 2025

<sup>535</sup> Ofwat, ‘[Independent commission on the water sector regulatory system call for evidence - Ofwat response](#)’, 2025, page 18

<sup>536</sup> Investor response to Call for Evidence, 2025

<sup>537</sup> Water company response to Call for Evidence, 2025

<sup>538</sup> [Water UK response to the Call for Evidence](#), 2025

appeal process, which would include making Ofwat's Price [Review] decisions subject to appeals, rather than a redetermination process. We recommend transferring these appellate functions from the CMA to an appropriately resourced judicial body, such as the Competition Appeal Tribunal".<sup>539</sup>

415. **The Commission has also heard that the redetermination process should be aligned to the type of appeal process followed in other regulated sectors** (for example, to appeal Ofcom's or Ofgem's determinations) to become more effective, less resource intensive, and provide greater predictability for all parties. For example, investors support alignment with the dispute process in the energy sector: "a merits-based standard [as used in energy] with specified grounds of appeal would help streamline the process, while ensuring an appropriate level of checks and balances in the regime".<sup>540</sup> Ofwat has likewise argued in evidence to the Commission that "align[ing] with the framework used in the energy sector...would also better enable the CMA to take a consistent approach to setting the cost of capital, increasing regulatory predictability and improving investor confidence."<sup>541</sup>
416. **The Commission is also aware that the redetermination process does not cover consumers' interests, as only water companies can request a redetermination**, which is inconsistent with appeal procedures in other regulated sectors.<sup>542</sup> By comparison, Citizens Advice "may bring an appeal in the capacity of representing consumers whose interests are materially affected by [Ofgem's] decision" in the energy sector, for example.<sup>543</sup>

### Box 23 – International approaches to economic regulation of water

**The Commission has engaged extensively with organisations outside England & Wales at all levels**, from government at state and municipal level to regulators and operators, across Northern Ireland, Scotland, France, Germany, Netherlands, European Union, Australia, Singapore, New Zealand and the USA. Other countries follow different price control approaches which offer lessons for the economic regulation of water in England and Wales.<sup>544</sup>

#### Price Cap Model

<sup>539</sup> [Competition and Markets Authority response to the Call for Evidence](#), 2025, page 8

<sup>540</sup> Investor response to Call for Evidence, 2025

<sup>541</sup> Ofwat, '[Independent commission on the water sector regulatory system call for evidence - Ofwat response](#)', 2025, page 18

<sup>542</sup> NGO response to Call for Evidence, 2025

<sup>543</sup> Competition and Markets Authority, '[Energy Licence Modification Appeals: Competition and Markets Authority Guide](#)', 2022, page 3

<sup>544</sup> [eprg-S.-Littlechild\\_Submission-to-CMA\\_June2020.pdf](#)



**Box 20 set out Ofwat’s Price Review process which is based on the ‘revenue cap’ model of economic regulation** to set limits on revenues. Other countries, including Denmark and some Australian states also employ this model, which is an evolution of the Littlechild ‘price cap’ model. Italy, the Netherlands, New Zealand and Norway also similarly employ that price cap model<sup>545</sup>, instead setting limits around customer bills – as do other UK regulators, for example, Ofgem for the energy sector.

### **Negotiated Settlement**

**Scotland has used variations of the ‘negotiated settlement’ approach – whereby the regulator, the Water Industry Commission for Scotland (WICS), sets out a framework and guidelines to facilitate Scottish Water closely negotiating and agreeing priorities, requirements and customer bills directly with its customer body.** This approach is based on building trust and fostering collaboration across parties.<sup>546</sup> US States, including Florida and Texas, also employ this approach. In Australia, in states including Victoria, water companies have used variations known as ‘citizen juries’. Alternatively, the ‘citizen regulator’ approach may instead (of Negotiated Settlement) be complemented by incorporating a ‘cost plus’ model, wherein Price Reviews are triggered when the regulator or the company raise a case for changing water customer bills, as a result of investment requirements (which sets the price control to limit the rate of return companies may earn, to incentivise companies to pursue investment in, and faster delivery of, infrastructure, (rather than cost-efficiency).

### **Citizen Regulator**

**In the US, this approach is complemented by the wider litigation environment, which is also an important driver of water company performance and delivery** (as well as the setting of policy and regulation). For example, in US States including California, Illinois and New York, customers and eNGOs can file lawsuits against companies and/or regulators where it is felt statutory requirements are not met. Alternatively, the ‘citizen regulator’ approach may instead (of Negotiated Settlement) be complemented by incorporating a ‘cost plus’ model, wherein Price Reviews are triggered when the regulator or the company raise a case for changing water customer bills, as a result of investment requirements (which sets the price control to limit the rate of return companies may earn, to incentivise companies to pursue investment in, and faster delivery of, infrastructure, (rather than cost-efficiency).

Both of these models tend to reflect evolution in regulatory rationale (from focus on improving companies’ cost-efficiency and attracting private investment) to now focus on supervising delivery and moderating revenues. In practice, regulators tend to

<sup>545</sup> Analysis from the Department for Business and Trade

<sup>546</sup> [https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/10/scotland-s-approach-to-regulating-water-charges\\_3700b551/fcc8c6df-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/10/scotland-s-approach-to-regulating-water-charges_3700b551/fcc8c6df-en.pdf)

apply hybrid models with elements from different models, according to the contexts in which they operate. WICS still uses econometric benchmarking of water companies in England and Wales to ensure Scottish Water is achieving comparable cost efficiencies.

### **Municipal Models**

**A model widely used in European countries (for example, France, Germany, Sweden and Switzerland) is municipal-level regulation**, whereby municipalities are directly responsible for regulating water and wastewater services. At such local levels, water and wastewater supply tends to be vertically integrated, with the economic regulator and procurer for water services and infrastructure often all within the same government body.

**In many cases, the operator – which is often under public ownership – is also incorporated within the same body.** These countries' water sectors have very different regulatory landscapes with an extreme degree of fragmentation. For example, there are over 5,000 companies supplying water in Germany alone.<sup>547</sup> This model is therefore less applicable to England and Wales.

## **Conclusions and recommendations**

417. **The Commission considers that Ofwat has relied too heavily on a data-driven, econometric approach, and has not taken sufficient account of company-specific conditions and challenges.** The Commission recognises that it is necessary to have objective, industry-wide benchmarking to protect customers from misuse of monopoly power in relation to price or service levels. However, the Commission judges that over-reliance on this approach, and its over-development, have over the years led to sub-optimal outcomes for the sector, for customers, for investors and for the environment. The increasing complexity of the challenges facing water companies – and of the challenges facing the regulator in regulating private monopoly utilities – require a broader, less monolithic and a less desk-based approach to economic regulation and to the oversight of companies' performance against their licences.
418. **The Commission also considers that, as a result, Ofwat's approach, over time has not provided sufficient oversight of water companies' delivery of infrastructure, management of their finances, or the health of the sector's infrastructure.** The Commission recognises that, until more recently, Ofwat was encouraged by the government to scale back its

<sup>547</sup> Association of Drinking Water from Reservoirs, and others, '[Profile of the German Water Sector](#)', 2020

oversight of the sector, that it has paid closer attention to these issues in recent years.<sup>548</sup>

419. **The Commission is clear, given the evidence of the actions and performance of some companies, in particular, that a tightening of regulation and stronger powers has been needed in recent years.** But it also judges that, in effecting that tightening and in the application of stronger powers, the regulatory lens has been too narrow and that the regulatory approach and culture have done damage.
420. **Companies must bear their share of the responsibility for the deterioration in the relationship and trust between the regulator and the sector.** Water company culture and the need for companies to align their private interest with the public interest is discussed further in Chapter 6 which also recommends additional powers for the regulator. But the Commission judges that, without a fundamental change of approach and culture in the economic regulator, the sector will also not achieve the standards the public demands and will not be enabled to meet the challenges of the future.

#### *A supervisory, more company-specific approach to regulation*

**Recommendation 18: The regulator should adopt a more ‘supervisory approach’ to regulating individual companies. This applies to England and Wales.**

421. **This would represent a fundamental shift in the way the regulator approaches its role.** It would focus on engagement, judgement and be forward-looking, within the regulatory framework.
422. **A supervisory approach should be used to inform Price Reviews and performance target setting, with the econometric benchmarked outputs balanced with company-specific and expert supervisory judgement.** The regulator should aim to give broadly equal weight in its judgments to the evidence and information it has gained through the supervisory engagement with firms and from objective econometric modelling.
423. **Supervisory teams should be structured around understanding and engaging with individual companies, drawing on central specialist expertise as required.** This would enable the regulator to maintain a comprehensive view of a company’s performance, risks and prospects, and to intervene earlier (if necessary).
424. **The supervisory approach should be forward-looking, judgement-based and proportionate, based on company circumstances and risks.**

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<sup>548</sup> Ofwat engagement with the Commission

The nature and volume of engagement would be flexible according to risk, such that the level of intensity of engagement and information flow with individual companies is proportionate to the risks they face and the risks they present. This should avoid adding unnecessary burden to companies, as should the reduction of burden due to integrating regulatory functions in a single body (see Chapter 4). The supervisory approach should be outcomes-focused and able to achieve the same regulatory outcomes and standards regardless of different corporate structures. Supervisory engagement and discretion would operate within the transparent regulatory framework of Appointment conditions, rules and guidance – it is not a substitute for those.

425. **The supervisory approach will require close engagement or integration with other parts of the regulatory system to ensure that it can take a comprehensive ‘whole firm’ view of a company.** This is discussed further in Chapter 4. The supervisory approach would also be key to implementing the turnaround regime outlined in Chapter 6 as well as ensuring the resilience and delivery of infrastructure as outlined in Chapter 7.

*There are several areas to consider which would help build a strong supervisory function*

*Approach to supervision statement*

426. **The Commission has observed that other regulators with a supervisory approach often have tools to ensure it is applied consistently and predictably** across all supervisory teams, and consistently over time. These tools can include a common approach document, manual, staff performing an oversight function and other mechanisms to ensure ‘best practice’ is followed by the supervisory teams. These measures to ensure consistency and adherence to a set approach can also help mitigate the risk of regulatory capture, and promote transparency, understanding and confidence.
427. **The regulator should consult publicly on and then publish a single overarching document describing its supervisory approach.** This should cover:
- the purpose of supervision
  - how it expects to supervise including how it uses information that it gathers
  - its guiding principles – including principles for engaging with companies and what it expects from companies
  - its tools and how it intends to use them

- main aspects of its staffing structure and how this supports the supervision approach
- its decision-making framework, and
- how its Board oversees the supervisory approach and its performance, including in relation to its efficiency and the 'burden' it places on companies.

### ***Company and supervisor roles***

428. **There is a risk that a more supervisory approach is viewed as the regulator taking responsibility for the company.**
429. **The regulator should make clear that compliance with the law, and Appointment licence conditions is the responsibility of the company, not the supervisor.** Supervision guides, prompts and intervenes with powers for the public good and the regulator would ensure there is effective accountability. But this does not supplant the obligations, responsibilities and freedoms of the company and its management to operate within those legal and regulatory parameters.
430. **For a supervisory approach to work, it would require more open conversations between the regulator and each company at various levels,** including the most senior levels, to foster trust based on understanding.<sup>549</sup> We have heard that there have been instances where the regulators have had difficulties in obtaining information and co-operation from companies which the regulators were entitled to request.<sup>550</sup>
431. **Water company Appointment licences should contain a single, unambiguous obligation to deal with the regulator in an open and cooperative way.** Some other regulatory regimes have a single, unambiguous duty on companies to deal with their regulator in an open and cooperative way, and to disclose to their regulator anything that their regulator would reasonably expect to be notified of, and a similar obligation should apply to water companies.<sup>551</sup> Over time, and where engagement and performance by companies builds regulatory trust, this should reduce the overall burden on companies, as the regulator would be able to place more

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<sup>549</sup> Industry expert / consultant, and water company responses to Call for Evidence, 2025

<sup>550</sup> Regulators engagement with the Commission

<sup>551</sup> This kind of provision is a feature of several regimes. In the Financial Reporting Council's [enforcement regime](#) there is a general duty on firms and individuals to co-operate. In Financial Services (see FCA Principles for Businesses and PRA Fundamental Rules), it is one of the [Principles](#) that Ofqual has consulted on introducing (introduction pending). Other regulators have duties of candour in relation to the underlying users of the regulated service – see [Care Quality Commission Duty of Candour](#)



reliance on the proactive flow of information from companies alongside its baseline information-gathering.

432. **The current divergence between the regulator having the power to change Appointment licences for companies in England but needing consent in Wales (or following reference to the CMA), should be closed.** The Water Industries Act 1991 should be amended so that the regulator is directly able to amend licences, subject to legal safeguards and appeals processes, for all companies it regulates.

### ***Consistency across supervisory teams***

433. **Given that supervisory judgement would be a key part of the regime, it is important that supervisors have clear guidance on how to act.**
434. **The regulator leadership should ensure best practice in supervision is shared, and a consistent view is taken.** This could include establishing a supervisory 'manual' for staff, setting a baseline level of activity and engagement, processes and options for flexing this to reflect the risk presented by a company, options around the use of formal tools, checklists of key issues for staff to consider, and clear internal governance which facilitates effective early intervention. It could involve establishing a small internal quality oversight function for supervision.

### ***Skilled staff***

435. **The regulator would need to develop strong, high calibre engineering and financial expertise to provide oversight of the infrastructure and funding sides of companies.**
436. **The regulator should be able to recruit and retain the right staff to carry out the supervisory approach effectively, including high-calibre engineering and financial expertise, as well as put in place measures to avoid regulatory capture.**
437. **Attracting skilled staff will require the regulator to offer suitable remuneration, outside of public sector pay controls (as set out in Chapter 4) and provide effective career paths so that expertise can be retained.** The regulator should draw on the expertise of individuals formerly active in the sector whose range of experience would bring sectoral perspective to supervision.
438. **Measures should be put in place and regularly reviewed to reduce the risk of regulatory capture.** This could include periodic circulation of staff from team to team, and controls and restrictions, particularly for senior staff departing to companies they supervise – for example, contracts could specify a cooling-off period following employment in which they cannot take

up external positions. These measures are typical as mitigants to the risk of regulatory capture with the financial services regulators. Chapter 4 on regulator reform set out principles for the regulator.

### ***Duty to supervise***

- 439. **This would go beyond Ofwat's current duty to 'review' and collect information.**
- 440. **Legislation should give the regulator a clear, ongoing duty to "maintain arrangements for supervising regulated firms", similar to that which applies to the financial services regulators.**
- 441. **This duty, which requires the regulator to maintain company-specific supervision, would sit alongside its other legal duties.** It would ensure that the supervisory approach is on a firm legal footing and that the balance with econometric modelling approaches is not eroded over time.

#### **Box 24 – A Supervisory Approach**

**Supervisors would engage with companies on the main aspects of their regulated business** – treatment of consumers, financial and environmental performance, and infrastructure quality and delivery.

**The supervisors – based in a team with the right skills and experience, and drawing on central or external regulator expertise if needed – would have a clear set of priorities for their engagement with the company.** This would be informed by the supervisors' views of the risks that the company presents, calibrated in line with the supervisory manual, bounded within the regulatory framework, and informed by a range of data sources: first, open engagement from the company, but also information gained from audits or external assurance exercises. The supervisors would engage formally at least once a year with the board of the company to set out their assessment and to discuss the company's strategy.

**With the right information in its hands, and a forward-looking perspective, the supervisors would be able to decide what, if any, interventions are needed.**

**For example, if the company is heading in a direction which would bring risk of public harm, supervisors would engage and challenge the company to take pre-emptive remedial action.** It could intervene to signal the need to strengthen the company's governance, appoint new expertise, or get a third-party specialist to examine, report, or provide assurance on asset quality.

**If financing arrangements are unclear or present unacceptable risks, the supervisor would intervene.** It could seek information from the ultimate controller

about the financial arrangements where these are not transparent and – provided it is consistent with legal safeguards - it could direct the company and the ultimate controller to take steps to de-risk the company, such as moving their financing arrangements to a more sustainable footing.

**If the company is in turnaround, supervisors would engage on the feasibility of turnaround plans.** They should take action to facilitate recovery, such as giving directions on the company and the ultimate controller to seek new equity; as well as providing regulatory space for the company to recover. This is detailed in Chapter 6.

**Where the supervisor has confidence in the company's compliance and ability to deliver, its supervisory cadence would – again in line with its approach – shift to reflect this.** The supervisory team's view of the company would balance any econometric modelling in an integrated Price Review process, reducing the need for extensive data requests, assessment, and validation in that process.

### *Proportionate supervision and burden on time*

- 442. **The Commission considers there is scope for significant efficiency gains in the data requirements that Ofwat places on firms.** It is expected that supervisory engagement reduces the regulator's need for certain types of data at certain firms, if it already has a clear picture.
- 443. **The regulator should operate efficiently and have regard to the burden on firms, subject to its overall statutory duties and objectives.**
- 444. **Technology to support supervision ('SupTech') should be investigated, used and continuously improved.** SupTech is used in other sectors to make data-gathering, monitoring and other regulatory processes as efficient as possible, and to generate new insights from datasets.<sup>552</sup> The regulator should ensure that it is seeking and taking opportunities to use similar technology to support its supervision.
- 445. **The regulator should draw on a range of information sources.** This could include data gathered by the regulator on its own initiative, periodic reports by companies, information gained from audit and assurance activities (including the company's own audit and assurance) and information from third parties or other regulators provided under gateways.

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<sup>552</sup> <sup>552</sup> For example in the Financial Sector, see a summary and example projects from the [Bank of International Settlements Innovation hub](#). For an earlier summary, see the Financial Stability Board's (2020) '[The Use of Supervisory and Regulatory Technology by Authorities and Regulated Institutions](#)'

### **Regulator's board**

446. **The Commission considers that – just as it is important that water companies have the right Board compositions, the regulator also needs the right mix of capabilities and knowledge on its Board.**
447. **To support its supervisory function in particular, the regulator should ensure that engineering and financial markets expertise is present on its Board.** (The Commission notes that, before the establishment of the current Ofwat Board structure, Ofwat had a Chief Engineer on the Board). This should be at Executive level (Chapter 7 discusses the need for engineering expertise further). Given that part of the aim of the Supervisory Approach is to facilitate greater trust in the regulatory regime, the regulator's Board should also oversee the regulator with this in mind. This complements the recommendations regarding the regulator's Board in Chapter 4.

#### **Box 25 – A Supervisory Approach taking company-specific circumstances into account: infrastructure**

**Thames Water faces some specific hydrological, environmental and engineering challenges, and the approach of the regulator when setting allowances needs to be sensitive to addressing company-specific circumstances.**

**Thames Water operates in an area of hard water** (like much of the south, centre and east of England; whereas soft water is prevalent in the north and south west of England, and Wales). All things being equal, hard and soft water corrode mains pipes at different speeds, with hard water tending to corrode pipes at slower speeds. Ofwat had historically taken that into account when setting allowances for mains upgrades, meaning lower allowances for Thames Water and other companies in hard water areas.

**However, two other specific factors to the Thames Water region mean that a more nuanced approach to setting allowances is needed.** Firstly, as the Commission's Interim Report set out, Thames Water has noted its average asset age is older than comparators. At the time of privatisation the company did not have any enhancement cases. Since then, Thames Water could have focused more on mains renewals. However, as the Commission's Interim Report set out; it now has a comparatively aged asset base. Secondly, much of Thames Water's piping is embedded in London Clay soil, which typically has a high sulphate content and tends to corrode pipes from the outside, adding an extra pressure on their resilience.<sup>553</sup>

<sup>553</sup> Commission engagement with Thames Water and Ofwat.

**A supervisory approach, sensitive to company-specific circumstances and drawing on engineering and environmental understanding, should ensure these kinds of factors are properly taken into account when setting allowances.**

***The Commission also considers that changes need to be made to the price control process***

448. **As noted in the Commission’s Terms of Reference, the Commission will not make recommendations to reopen the live Price Review 2024 process.** Therefore, all of the following recommendations are for the government or the regulator for future economic regulation
449. **The Commission believes changes are needed to specific elements of the Price Review methodology (detailed in the subsequent sections).**
450. **The regulator needs to ensure water infrastructure requirements are adequately and reliably funded over time.** This would avoid situations like Price Review 2024, where there had to be a substantial increase in customer bills in part to catch up on investment that had likely been limited in the past by a focus on constraining bill growth (see Box 26).
451. **The regulator also needs to ensure that water companies can attract the finance they need to fund investment.** This is covered in more detail in Chapter 6.
452. **As a general point, the new Price Review process should be clear and comprehensible, so that it can be easily understood** by companies, investors and interested parties. To achieve this, all regulator documentation – and especially that for Price Reviews – should be set out in a user-friendly way, and be easy to navigate.

**Box 26 – Were bills deliberately kept low from 2010 until 2025?**

**Customer bills declined by 15% in real terms since 2014-15.**<sup>554</sup> The Commission has heard many claims that this was the result of a concerted effort to keep bills low.<sup>555</sup> It has been argued that the substantial increase in investment, and thus bills, in Price Review 2024 was, in part, the result of putting off necessary investment in prior Price Reviews in order to keep bills low.

**Ofwat has responded to these claims in the past – “The outcome has been bills being held, but it is not the case that we have held back investment”.**<sup>556</sup>

<sup>554</sup> Ofwat bills data provided directly to the Independent Water Commission. The reduction is calculated between 2014-15 and 2022-23

<sup>555</sup> UK Parliament, ‘[Water \(Special Measures\) Bill \[HL\] – Volume 840](#)’, 2024

<sup>556</sup> Industry and Regulators Committee, House of Lords, ‘[Corrected oral evidence: The work of Ofwat](#)’, 2022



Ofwat points to other factors, such as a fall in the allowed return on capital across the same period, for keeping bills low.<sup>557</sup>

**Allowed investment from 2010 until 2024 was down compared to previous periods.** Totex for Price Reviews 09, 14 and 19 was also below that of Price Review 04. This was due in the main to lower investment on infrastructure compared to previous years.<sup>558</sup> This Box looks at the factors at play.

### **Pressure to reduce bills**

**There was consistent messaging about keeping bills low from Price Reviews 09 to 24.** During Price Review 09, the messaging was around keeping bills low to help ease cost of living issues following the Global Financial Crisis. This came from both the government and Ofwat.<sup>559</sup> This was followed up with action: for example, both government and the regulators rejected proposals for building new reservoirs.<sup>560</sup> The rejection of new reservoirs continued into Price Review 14.<sup>561</sup> Price Review 14's Strategic Policy Statement also made it clear that bills should remain low.<sup>562</sup> The headline message coming from Price Review 14 Final Determinations had a clear focus on bill levels.<sup>563</sup>

**The messaging prioritising lower bills became even clearer in the run up to Price Review 2019, from both the government and Ofwat.** In 2017, the Chair of Ofwat made their intentions clear on bills: "Ofwat's chair, Jonson Cox, has signalled that water customers could be at the start of "the decade of falling bills" as he suggested prices could fall in real terms until 2025 at least".<sup>564</sup> This was followed up in 2018 by then Defra Secretary of State, Michael Gove: "I want you to know that I will give Jonson and his team whatever powers are necessary, and back them in any action they need to take, to get the water companies, all of them, to up their game and further lower consumer bills".<sup>565</sup>

**This messaging on prioritising low bills seems to have had an impact on the way companies operate.** The Commission has heard that water companies would deliberately not put in certain projects into their plans as they knew these would not be accepted. They claim to have known that Ofwat wanted to keep bills low and would reject most non-statutory proposals, even if the scheme had clear

<sup>557</sup> Industry and Regulators Committee, House of Lords, '[Corrected oral evidence: The work of Ofwat](#)', 2022

<sup>558</sup> Ofwat, '[Long-term time series of company costs, V4.0](#)', 2024

<sup>559</sup> Ofwat, '[Price Review 2009 Final determinations](#)', 2009; Defra, '[Secretary of State for Environment, Food and Rural Affairs to all water company CEOs](#)', 2013

<sup>560</sup> BBC News, '[Abingdon £1bn reservoir plan rejected by government](#)', 2011

<sup>561</sup> Industry and Regulators Committee, House of Lords, '[The affluent and the effluent: cleaning up failures in water and sewage regulation](#)', 2023

<sup>562</sup> Defra, '[Defra's strategic policy statement to Ofwat \(incorporating social and environmental guidance\)](#)', 2012

<sup>563</sup> Ofwat, '[PN 09/14: Water bills held down](#)', 2014

<sup>564</sup> Ofwat, '[PN 17/17: Ofwat boss talks of the "decade of falling bills"](#)', 2017

<sup>565</sup> Defra, '[A water industry that works for everyone \(speech\)](#), Secretary of State', 2018

benefits.<sup>566</sup> Companies instead concentrated their efforts on ensuring that essential investment was approved. In addition, they argue that they were discouraged from putting forward more expansive forward-looking plans by Ofwat's mechanism for penalising companies (when they considered that they had put forward plans that were 'unambitious' in efficiency terms).<sup>567</sup>

Ofwat has pointed to the fact that totex was broadly in line with companies' business plan proposals. From Price Review 09 to Price Review 2019, the level of expenditure cut from business plans to Final Determinations fell in relative terms. At Price Review 09, Ofwat Final Determinations totex was 6.1% lower than company business plan submissions. For Price Review 14, the difference was a 0.4% cut and, for Price Review 2019, a 2.4% cut.<sup>568</sup>

### **Other factors in play**

**The WACC and allowed investment both fell over 2010-24, contributing to lower bill levels.**

#### The WACC

**As Ofwat has argued, the WACC also fell over 2010-24, contributing to lower bill levels seen over that period.** This influences bills, as the level of WACC determines how much money companies can raise through bills to pay their cost of capital (for instance, returns of creditors and shareholders). A higher WACC implies higher bills, all else equal. The jump in WACC from Price Review 2019 to Price Review 2024 (2.96% to 4.03%) results in a rise for the average bill of around £43 from 2024/25 to 2025/26, in real terms. This accounts for around a third of the projected rise in bills in 2025/26.<sup>569</sup>

#### Legal requirements

**The overall investment allowance at Price Review 2024 is around 71% higher than at Price Review 2019, with enhancement expenditure jumping by around 400%.<sup>570</sup>** The main driver of this increase in enhancement expenditure is legal requirements. Around 90% of enhancement expenditure at Price Review 2024 is driven by legal obligations.<sup>571</sup> Many of these projects required by legislation might have been brought forward sooner (for instance, the Environment Agency was able to delay some Water Framework Directive spend up until 2024

<sup>566</sup> Industry expert / consultant engagement with the Commission

<sup>567</sup> Industry expert / consultant engagement with the Commission

<sup>568</sup> Ofwat, data supplied to the Commission

<sup>569</sup> 2024/25 RCV = £103 billion (nominal prices) from Ofwat ([regulatory capital value updates](#)). WACC change from Price Reviews 2019 to 2024 = 1.07% (4.03% - 2.96%). £103 billion x 1.07% = £1.1 billion. Number of households in England and Wales 2025/26 = 26 million based on [ONS household projections for 2025](#). £1.1 billion / 26 million = £43. RCV will grow from 2024/25 to 2025/26. 2025/26 price in bills from Water UK ([annual average bill changes 2025 -2026](#))

<sup>570</sup> Ofwat, '[PR24 final determinations: Expenditure allowances](#)' 2025

<sup>571</sup> Ofwat, '[PR24 final determinations: Expenditure allowances](#)' 2025

with an exemption based on technological infeasibility or disproportionate expense). However, a significant part of the increase in enhancement is due to legislation that came into place after 2020 (for instance, after Price Review 2019 Final Determinations).<sup>572</sup> For example, around a quarter of the enhancement expenditure for Price Review 2024 relates to Storm Overflow projects and schemes, which have been driven by Environment Act 2021.<sup>573</sup> The government has outlined that storm overflows spend does not produce a positive cost-benefit ratio.<sup>574</sup>

### **Company reluctance to invest**

**Companies may also have been reluctant to invest during this period.** The Commission has heard in some instances that owners were unwilling or unable to invest the further equity that had become necessary for investment because gearing ratios were already high and restricted the scope for debt financing.<sup>575</sup> In principle, the RCV framework which offers an allowed return on regulated equity should work to incentivise equity investment but, in practice, some of the ownership vehicles may have made it difficult or unattractive to raise further equity to finance investment. These issues are discussed further in *Chapter 6* under financial resilience.

### **Conclusion**

**Overall, the Commission does see evidence that there was pressure from government and the regulator to keep bills low in Price Reviews between 2009 and 2024.** It is difficult to say, with certainty, how much of the huge expansion of investment in Price Review 2024 could and should have been foreseen by government or the regulators, or how much companies were discouraged by both from bringing forward investment in line with a forward-looking interpretation of their licence responsibilities. But, while there also appears to have been a range of other factors at play during this period, the Commission believes that government and regulator pressure on bills played an important role in what can now be seen as underinvestment over this period.

**Prioritising the objective of low water bills over other objectives is, of course, a strategic decision for government.** Other objectives need to take account of affordability and the impact on customers who, ultimately, pay for investment. And Ofwat has, among its duties, a duty to protect customers and encourage efficiency. However, as discussed in Chapter 1, strategic trade-offs and guidance need to be transparent and consistent, and take into account longer-term consequences.

<sup>572</sup> Defra, '[River basin planning guidance](#)', 2021

<sup>573</sup> Ofwat, '[Our final determinations for the 2024 price review. Sector summary](#)', 2024

<sup>574</sup> Defra, '[Storm overflows evidence project](#)', 2021; Defra, '[Storm overflows discharge reduction plan: Impact assessment](#)', 2022

<sup>575</sup> Industry expert / consultant engagement with the Commission

***There is a need to ensure that allowances provided for capital maintenance are used by companies to maintain assets***

453. **The totex system introduced in Price Review 2024 provides flexibility over spending but it also reduces transparency over how companies spend their allowances.** For example, companies may bid for and receive base allowance as part of their totex settlement to cover capital maintenance – but, by underspending against that allowance (which is counted as ‘efficiency savings’), spend the allowance on enhancement, other costs instead or distribute the unused allowance as dividends. In the absence of fully mapped asset health registries, assets might not be maintained to an adequate standard, as detailed in Chapter 7.

**Recommendation 19: The regulator should ensure funding directed appropriately to maintain assets by clearly defining and ring-fencing base capital expenditure (capital maintenance), base operational expenditure and enhancement capital expenditure allowances. This applies to England and Wales.**

454. **This would mean that separate allowances are provided** for base capital expenditure (such as replacing a pipe or pump), base operational expenditure (such as energy or labour costs) and enhancement expenditure (investments that improve services, such as upgrading a treatment plant or investing in a new reservoir, or on a smaller scale, replacing pipes with higher grade materials). Base capital expenditure is the allowance that is spent on like-for-like replacement and major expenditure to keep existing assets working effectively (for instance ‘capital maintenance’).<sup>576</sup>
455. **As a result, allowances awarded would be spent in line with the broad purpose (for example, capital maintenance) for which they were provided.** This would be supported by the other elements of the assurance framework, such as PCDs, ensuring appropriate investment is made to meet capital maintenance requirements as companies would not be able to take resources from capital maintenance assets in order that they could spend the (base capital expenditure) money elsewhere. This is important, especially given the age of much of infrastructure, the pressures upon it, the likelihood that renewal rates have been too slow and the impact of infrastructure failures on the environment and consumers.<sup>577</sup>

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<sup>576</sup> Chapter 7 sets out definitions of capital expenditure.

<sup>577</sup> Ofwat allocated £60 billion for base expenditure in Price Review 24. Although Ofwat does not explicitly set out how much will be spent on capital maintenance, in their initial capex / opex split model, Ofwat expects around £20 billion to be spent on base capex.

456. **This would be a major change from the current ‘totex’ approach, which Ofwat introduced in Price Review 2014.** However, it is not a reversion to the previous capex and opex regime. It will instead require a three-way categorisation split: base capex, base opex, and enhancement capex. Companies would no longer get enhancement opex; rather once an asset is operational, the cost of running it would form part of base opex.

#### Box 27 – Categorisation of funding allowances

The following table outlines how the categories against capital and operational expenditure have been set and defined by Ofwat since before Price Review 2014, compared to our recommendation for Price Review 2029 onwards.

Expenditure type	To Price Review 2014	Price Reviews 2014 to 2024	Price Review 2029 onwards (recommendation)
capex for enhancement	‘Capex’	‘Enhancement’	‘Enhancement capex’
capex for base		‘Base’	‘Base capex’
opex for base	‘Opex’		‘Base opex’
opex for enhancement		‘Enhancement opex’	n/a <sup>578</sup>

457. **The regulator will need to provide clear definitions**, for example, of capital maintenance. Defining the point at which capital maintenance becomes ‘enhancement’ capex rather than ‘base’ capex is highly complex for instance, the point at which the scale of improvement to a pipe is considered an ‘enhancement’ rather than maintenance. Ofwat already provides regulatory accounting guidelines (RAG) which define capital maintenance but this would need to be reviewed and standardised, with each regular capital maintenance activity defined to ensure companies follow standardised practice, and consulted upon with the sector.
458. **The Commission recognises that this will result in reduced flexibility for companies.** However, in the Commission’s view, the flexibility introduced by the totex approach, from Price Review 2014, has come at the cost of capital maintenance. Given the pressures on the existing infrastructure, the consequences of infrastructure failures for customers and the environment, and the lower tolerance for failure, the Commission believes a move back to a model that gives greater assurance that the existing infrastructure will be maintained and renewed is necessary.

<sup>578</sup> Note that ongoing expenditure previously set under opex for enhancement, for instance, to operate newly delivered enhancements, would instead be set under ‘Base opex’ for once enhancements are delivered (for instance, become part of base).



459. **Greater assurance in this area would be supported by the longer-term approach delivered through water industry planning reform (Chapter 2), and a more engineering and asset health-led approach** delivered by both the regulator's supervisory approach, the changes recommended to the PCD framework (see Chapter 7), and the recommendations on asset mapping and standards (Chapter 7). Together, these changes should mean that companies are sufficiently funded to face current and future pressures, and not under pressure to flex resources. In particular, a reformed PCD scheme would play an important role in this new assurance framework, by providing incentives for timely delivery across 'base capex' projects.
460. **Moreover, this would still incentivise companies to pursue cost efficiency** and provide the regulator with a price discovery process to reveal companies' efficient cost levels. This is because, within the new framework, if companies identify efficiencies (albeit now within base, base capex and enhancement allowances rather than totex overall), they are able to retain a portion of the difference as profit.

***PCDs should be reformed to embed flexibility***

461. **The recommendations for England and Wales detailed in Chapter 7 on PCDs would reinforce Recommendation 19 above**, by monitoring a larger amount of base expenditure and therefore ensuring that funding allocated to maintaining assets (base capital expenditure) is actually spent on maintaining assets. The recommendations also include a review of PCDs in time for Price Review 2029.
462. **In future years, when trust in the sector is higher and the regulator's supervisory approach is embedded, the regulator could consider reforming its overall approach to PCDs.** It may be possible for PCDs to move to a less granular approach to ensuring expenditure on base capital expenditure. The Commission would recommend reviewing whether Ofwat's current PCD design remains relevant. It may be appropriate for the regulator to consider realigning PCDs with the ODI framework (akin to the 'scheme-specific price commitments' measure originally used as part of the ODI framework when first introduced at Price Review 2019, see Chapter 7) set out Recommendation 22 below.<sup>579</sup>

***There is a need to ensure that asset renewal requirements are appropriately funded***

463. **The Commission recognises that there are different ways of calculating depreciation charges.** Ofwat's approach to depreciation charges has evolved since privatisation – notably, with the introduction of RCV run-off.

<sup>579</sup> Ofwat, '[Price control deliverables](#)' (viewed 30 May 2025) [NULL](#)

However, the Commission does believe there may be a case for revisiting the current RCV run-off approach, in light of the Commission's wider recommendations. The Commission acknowledges that part of the rationale for Ofwat previously rejecting a model of depreciation charges based on asset valuations was the concern around regulatory burden. However, Ofwat has at Price Review 2024 already moved back towards requiring companies to submit age and condition. As set out in Chapter 7, asset condition reporting should be further strengthened, following the example of Scotland, with a common methodology for gathering data on the condition of assets and a forward-looking assessment of spending needs. The Commission notes that this could provide a more robust framework for more closely linking RCV run-off to depreciation, and capital maintenance needs, of companies' assets.

**Recommendation 20: Following the establishment of a new methodology for assessing asset condition and expected life, the regulator should consider the merits of linking RCV run-off more closely to the economic depreciation of assets. This applies to England and Wales.**

464. **The regulator should consider whether the existing approach to RCV run-off provides too coarse a tool for spreading costs across the lifetime of assets.** An approach to RCV run-off which is more explicitly linked to a measure of asset condition and depreciation across the entire asset base would reduce the risk that companies are underfunded for asset renewal. This measure should be used consistently across the sector.
465. **A new methodology for assessing asset condition and expected life (see Chapter 7) would more accurately assess companies' depreciation and capital maintenance needs, alongside improving system resilience.** A new approach to RCV run-off, which takes this into account, may also provide stronger incentives for companies to accurately measure the condition of their assets – relative to the current framework in which RCV run-off is divorced from asset condition. The Commission notes this is a technical area and it will be for the regulator to explore the right approach with the industry in line with the principles above.

***It is important that companies are not incentivised to underestimate their expenditure needs, including capital maintenance***

466. **When companies submit their business plans for a Price Review, they are rewarded or penalised by Ofwat for the quality of their plans through the QAA.** Over time, Ofwat shifted from relying on ex-post discovery of companies' true costs (in line with the Littlechild model) to relying upon more ex-ante scrutiny of business plans and incentives, and rewarding or penalising companies for the level of 'ambition' in their plans

(for instance, the scale of efficiencies relative to past performance and benchmarks), to reveal their true costs. Ofwat introduced financial incentives to accompany business plans (the QAA mechanism at Price Review 2024 built upon the ‘Initial Assessment of Plans’ mechanism Ofwat introduced at Price Review 2019) to attempt to reveal companies’ cost efficiencies at the start of the Price Review process.<sup>580</sup> This was intended to allow Ofwat to estimate expenditure allowances more accurately in line with true costs. However, the QAA also appears to have introduced perverse incentives, with companies responding by proposing expenditure plans with lower costs to attempt to align with Ofwat’s ‘ambition’ criteria on outcomes, costs and affordability – rather than (potentially) what they actually need.<sup>581</sup>

**Recommendation 21: The regulator should withdraw the QAA. This applies to England and Wales**

467. **Removing the QAA would mean that companies are no longer rewarded or penalised based on whether their business plan contains efficiencies that match the regulator’s expectations.** This would remove the perverse incentive that companies face to introduce an ‘invisible gap’ – between what they bid for in business plans and what they judge they actually need to spend on maintaining and investing in their assets.
468. **The regulator will instead need to ensure companies produce good business plans through its supervisory approach, ensuring a more honest two-way conversation between the regulator and the company on requirements.** The Commission acknowledges that withdrawing the QAA could initially result in increased information asymmetry between the regulator and companies. However, this would significantly reduce as the supervisory approach builds a more transparent, trusting and collaborative relationship between the regulator and companies.

*There is a need to attract long-term, low-risk investors into the water sector model. One way of doing this is through reducing volatility of returns at risk from wider incentives.*

**Box 28 – Ofwat’s performance incentives since privatisation**

**In the years following privatisation, Ofwat has developed its economic regulation approach with more granular incentives to target specific outcomes** (for example, customer service). The initial regulatory approach following privatisation had concentrated on efficiency-driven cost reductions and incentivising

<sup>580</sup> Ofwat, ‘[IB 28/13: Change to Ofwat’s price review process](#)’, 2014

<sup>581</sup> Industry expert / consultant engagement with the Commission

investment to improve water quality and address England and Wales' label as "the dirty man of Europe".<sup>582</sup>

**Ofwat introduced its first incentive framework, the Overall Performance Assessment (OPA) at Price Review 99.**<sup>583</sup> Its purpose was to protect customers from standards falling below acceptable levels in areas including leakage, pollution incidents, sewer flooding and handling of telephone calls.<sup>584</sup> Companies' overall OPA performance was ranked in annual league tables. To incentivise competition, higher scores were factored into Price Reviews – so top performers could charge more to their customers than bottom performers.

**However, Ofwat replaced the OPA with the Service Incentive Mechanism (SIM) at Price Review 09.** While the OPA had delivered significant improvements and closing of performance gaps among companies, its scope to drive innovation and deliver further improvements had diminished by 2008, and its measures were no longer capturing consumers' changing expectations.<sup>585</sup> The 2009 independent Cave and Walker Reviews of water services and markets also both argued for new incentives emphasising customer experience.<sup>586</sup> While the SIM's financial incentives were similar to the OPA, its purpose was not to safeguard basic service levels, which would instead be covered by other mechanisms (for example, licence conditions and statutory obligations). The SIM instead focused on 2 customer experience ('C-Mex') output measures (number of complaints, and satisfaction with service quality) by "getting things right first time" and "resolving complaints quickly and effectively".<sup>587</sup>

**Ofwat's evolution of its incentives framework mirrored those of other sectors, for example, Ofgem in the energy sector.** Ofgem in 2010 modified its price controls to incentivise the transition to low-carbon energy, introducing RIIO-1 in 2013.<sup>588</sup> In 2021, RIIO-2 was introduced to make up for RIIO-1's shortcomings, to: give consumers a greater voice in shaping outputs and business plans; ensure companies earn fair returns (they had been higher than expected); simplify and shorten the price controls to 5 year; driving innovation, and; improve financeability.<sup>589</sup>

**However, Ofwat modified its approach again at Price Review 2014, introducing the ODI framework still used at Price Review 2024.** This followed the

<sup>582</sup> UK Parliament, '[Written submission from a group of UK water sector investors \(RWI0027\)](#)', 2018; National Audit Office, '[The economic regulation of the water sector](#)', 2015

<sup>583</sup> Ofwat, '[Updating the overall performance assessment \(OPA\) – Conclusions and methodology for 2004-05 onwards](#)', 2004

<sup>584</sup> Ofwat, '[Updating the overall performance assessment \(OPA\) – Conclusions and methodology for 2004-05 onwards](#)', 2004

<sup>585</sup> Ofwat, '[Putting water consumers first – the service incentive mechanism](#)', 2010, page 4

<sup>586</sup> Ofwat, '[Putting water consumers first – the service incentive mechanism](#)', 2010, page 5

<sup>587</sup> Ofwat, '[Putting water consumers first – the service incentive mechanism](#)', 2010, page 6

<sup>588</sup> National Audit Office, '[Electricity networks](#)', 2020

<sup>589</sup> Cambridge Economic Policy Associates, '[Review of the RIIO framework and RIIO-1 performance](#)', 2018; Ofgem, '[RIIO-2 Framework Decision](#)', 2018; T.Jamasb, '[Incentive regulation of electricity and gas networks in the UK: From RIIO-1 to RIIO-2](#)', 2020

recommendations of the 2011 Gray Review to pursue outcomes-based incentive regulation, giving flexibility to companies on how to achieve Performance Commitments (PCs).<sup>590</sup> The SIM had focused on outputs, resulted mostly in penalties and, while focused on C-Mex, did not include customers' views on what mattered the most to them.<sup>591</sup> Instead, Ofwat aimed to reflect in its framework what customers value, setting hundreds of company-specific PCs for the sector (see Box 20). In addition, ODI rewards and penalties are calculated separately from customer bills, as a percentage of Allowed Return on Notional Regulated Equity (RoRE), for instance, the WACC, to impact upon companies' allowed return.

**Ofwat largely continued this approach at Price Review 2019 – but introduced significantly greater granularity into the ODI framework. Ofwat subsequently took steps at Price Review 2024 towards consolidating the framework:** Ofwat reduced the number of PCs – from the 15 common and 400 bespoke PCs set at Price Review 2019 – to 2024 common PCs (covering customer service, asset health, and environmental outcomes) and 7 bespoke PCs (covering varied issues from low pressure, to greenhouse gas emissions).<sup>592</sup> Ofwat also introduced stronger emphasis at Price Review 2024 on: “stretching but achievable” Performance Commitment Levels (PCLs); higher incentive rates, which include reward- and penalty- sharing with customers, and; PCLs effectively becoming minimum standards.<sup>593</sup> While now more standardised, the ODI framework remains highly complex.

469. **The Commission accepts that there are trade-offs and judgements in developing the incentive framework.** However, as Ofwat has developed the incentives framework, the need for the following considerations have become apparent:

- **Specificity of the ODI framework.** Granularity through a large number of PCs permits the regulator to monitor and incentivise ‘key performance metrics’ over a great range of company performance issues. However, the simpler framework with a smaller number of PCs, which Ofwat has started to move towards at Price Review 2024, instead allows companies to focus on the key priorities set as well as more easily understand the incentives they face. Likewise, granularity through use of a large number of bespoke PCs allows the regulator to target particular companies to monitor and incentivise very specific areas they need to improve. Comparatively, emphasis on a small number of metrics instead allows companies to focus on the key

<sup>590</sup> Ofwat, ‘[PR14 final determinations. Policy chapter A2 – outcomes](#)’, 2014

<sup>591</sup> Severn Trent, ‘[Outcome Delivery Incentives. Successfully delivering improved performance](#)’, 2022

<sup>592</sup> Ofwat, ‘[PR24 final determinations performance commitment definitions](#)’ (viewed 30 May 2025); Ofwat, ‘[Reference of the PR19 final determinations: Outcomes – response to common issues in companies’ statements of case](#)’, 2020

<sup>593</sup> Ofwat, ‘[PR24 final methodology. Appendix 7 Performance commitments](#)’, 2022



priorities which all companies would need to deliver throughout the sector.

- **The calibration of PCLs and incentive rates.** Setting PCLs for companies relative to a benchmark of sector performance gives the regulator the ability to set incentives which focus poorer-performing companies on performing at the benchmarked sector level. This benchmarked level reflects the performance of higher-performing companies – but this does risk defining some companies as underperforming by default. Comparatively, setting a company's specific PCLs directly allows the regulator to set incentives which take into account the realistic level of progress a particular company can make. This would deliver a specific level of performance that the regulator wishes to see for that company and bring specific companies, and the sector as a whole, up relative to past performance. Likewise, high incentive rates provide strong rewards and penalties to focus companies on their performance; however, a narrower corridor for incentives overall reduces capital at risk which better attracts long-term, low risk investors.
- **The use of incentives for environmental and water quality performance.** Use of economic incentives on environmental and water quality performance risks overlap with any potential enforcement action over these areas through separate legal permit requirements – creating a potential for 'double jeopardy' (see Chapter 4). This can create a complicated landscape for companies which makes it harder for them to understand the key incentives they face. However, the regulator setting reward incentives, which go beyond permit requirements, may be helpful to drive ambition beyond minimum standards (however, any penalties for failing to meet minimum standards in permits would need to be solely in relation to the permits, rather than separate, more ambitious outcomes).

470. **The introduction of the ODI framework since Price Review 14 has placed significant variability and impact on, company returns.**

Underperformance risks now exceed those from potential for insufficient funding of totex allowances in Price Review settlements used to maintain and enhance companies' infrastructure which ultimately delivers these PCs (see Chapter 6).

471. **The incentive landscape is now overcomplicated – such that overall incentives and risks companies face are no longer clear to the companies, investors, the water regulators, or customers.** In part, this is due to the current ODI framework aggregating together individual ODIs' rewards and penalties. Ofwat has added further complexity at Price Review

2024, with an Aggregate Sharing Mechanism which aggregates ODIs' impacts (on top of, for example, different caps and collars applying for different individual ODIs, and 'deadbands' for certain ODIs where rewards or penalties do not apply across a performance range).<sup>594</sup> These add to the assessment of investment risks becoming increasingly more challenging.

472. **The incentive framework is increasingly placing capital at risk – and needs to provide a narrower corridor for returns at risk.** Questions have been raised around the aggressiveness of the ODI framework impacts and whether these need attenuating. The overall impact of ODIs during the Price Review 2019 period to date has been to reduce returns across the water sector and place it in 'net penalty' overall. Likewise, this average negative impact of ODIs upon companies' RoRE has also increased by 0.6 percentage points since the Price Review 14 period (see Figure 13).
473. **As with base and enhancement allowance issues, there is an over-reliance on benchmarking – and the ODI framework needs recalibration to be a 'fair bet'.** Baseline positions for setting stretching PCLs need to be realistic on the level of progress that can be made in-period by different companies (rather than relying, for example, upon upper quartile benchmarking). The sector has been in 'net penalty' on average across all common ODIs (see Figure 14). However, this cannot be attributed to underperformance alone. Lower-performing companies seem to be unable to 'catch up' on performance overall ('doom loop'), with some companies awarded ODI penalties and others rewards despite demonstrating similar levels of performance improvement (see Figure 15). The latter is exemplified by an NAO report which outlines 'the companies with the poorest performance on supply interruptions in 2019-20 had reduced the time consumers were without water by 26% by 2023-24 but were penalised £129 million over the period'.<sup>595</sup> Bespoke ODIs are the only ODIs against which companies have performed positively during Price Review 2019 (see Figure 14). These are currently designed by the companies and approved by Ofwat; however, it appears they overly favour companies' existing performance.
474. **The incentive framework instead needs to shift the balance of focus onto sector turnaround – improving all companies in line with the public interest.** The Commission's view is that Ofwat's framework has been driven too far and has increasingly generated a self-reinforcing dynamic in which high performing companies improve – but poor performing companies worsen – their performance. The Commission believes a move to a model

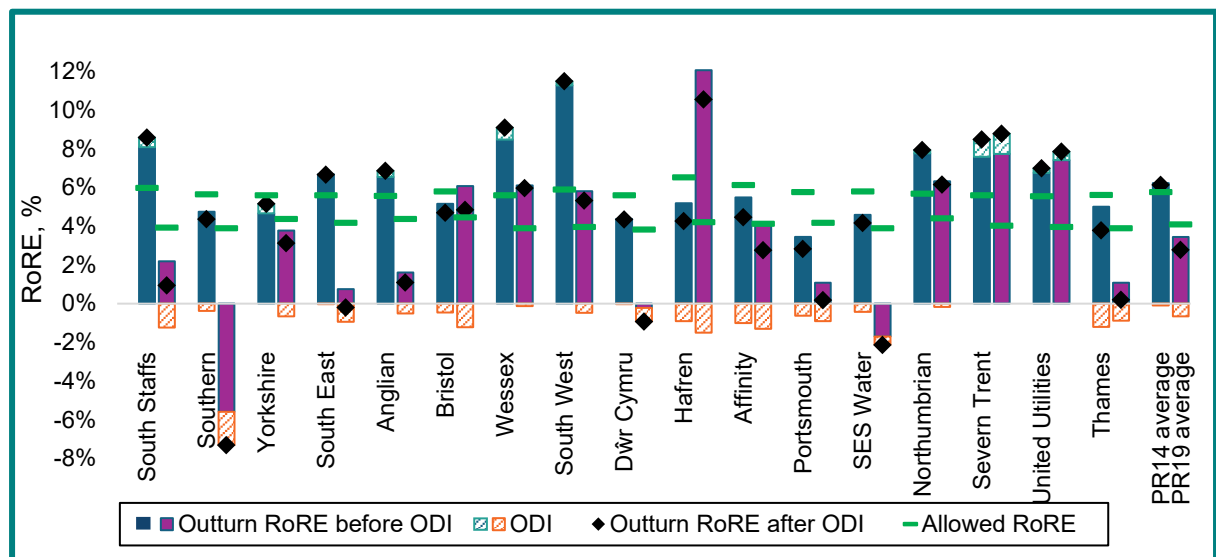
<sup>594</sup> Ofwat, '[PR24 final determinations: Delivering outcomes for customers and the environment](#)', 2025

<sup>595</sup> National Audit Office, '[Regulating for investment and outcomes in the water sector](#)', 2025

that gives greater assurance that whole-sector performance will be improved is necessary.

475. **The incentive framework has expanded beyond customer service to now include a range of ODIs covering environmental and water quality performance.** Ofwat's incentive framework therefore overlaps with EA and DWI functions and their permit requirements. The incentive framework, across environment and economic functions, should be more integrated. If a company were to receive a penalty for an ODI on the environment or water quality, this should take into account whether a fine has also been imposed on this issue to avoid double jeopardy.

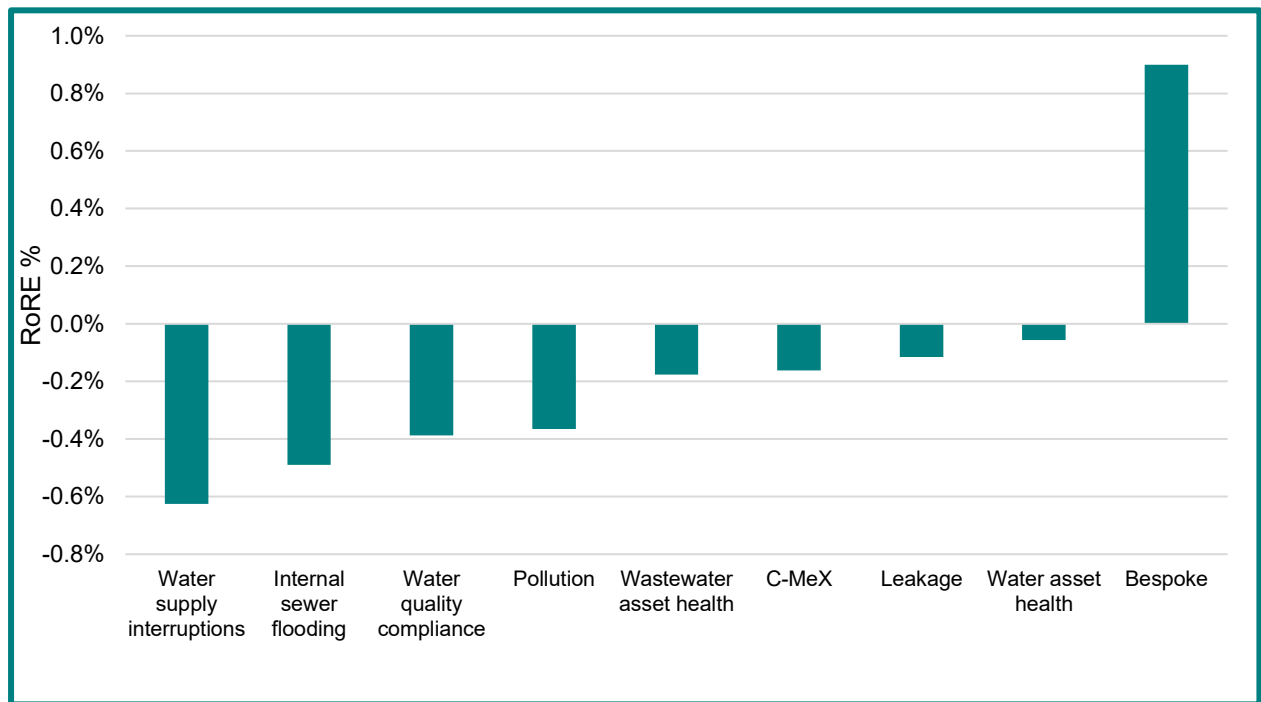
**Figure 13: Impact of ODI payments on outturn RoRE, Price Reviews 2014 and 2019 (2020-21 to 2023-24)**



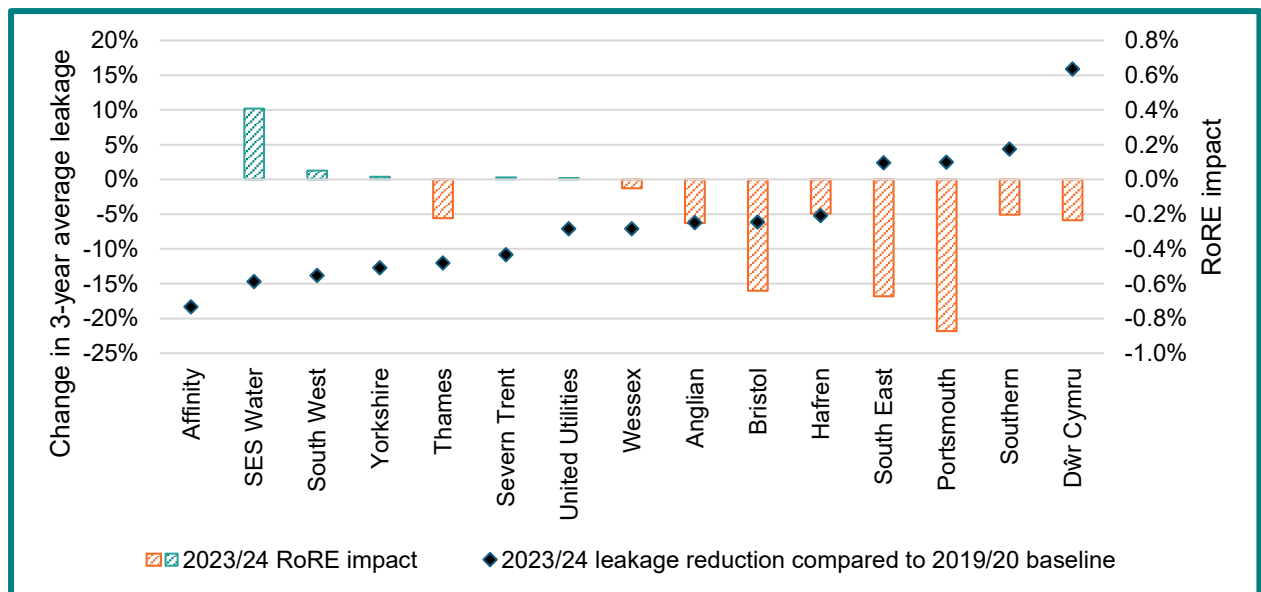
Source: Ofwat (2020 and 2024)<sup>596</sup>

*Note: Price Review 2014 is represented as dark blue; Price Review 2019 is represented as purple. Orange/light blue hatching represents ODIs impact on RoRE. Black diamonds represent companies' final outturn RoRE, taking into account ODIs (against green bars which represent the allowed RoRE Ofwat set companies).*

<sup>596</sup> Ofwat, [Monitoring financial resilience report 2019-20 - charts and underlying data - Ofwat, 2020](#) and [Monitoring Financial Resilience report 2023-24 charts and underlying data](#) 2024

**Figure 14: Average impact on RoRE by common and bespoke ODIs**

Source: Ofwat (2024) WCPR<sup>597</sup>, data for 2020-21 to 2023-24

**Figure 15: Leakage reduction performance by company and ODI impact on RoRE 2023/24**

Source: Ofwat (2024) WCPR<sup>598</sup>

<sup>597</sup> Ofwat, 'Water Company Performance Report 2023-24', 2024

<sup>598</sup> Ofwat, 'Water Company Performance Report 2023-24', 2024

*Note: companies ranked, left to right, from greatest decrease (for instance, improvement) to greatest increase (for instance, deterioration) in leakage (black diamond) during Price Review 2019.*

**Recommendation 22: The regulator should review the performance incentives framework, to rationalise the overall number of PCs and make their corresponding ODI rewards, penalties and returns at risk, clear. This applies to England and Wales.**

476. **The Commission acknowledges the motivations of Ofwat in developing the incentives framework since privatisation.** However, despite Ofwat's major pruning at Price Review 2024, it continues to overcomplicate the overall economic regulatory landscape, has led to unintended consequences in sector performance and overlaps with other regulators. ODIs have made investor returns significantly more volatile and assessment of capital at risk significantly more challenging.
477. **The Commission judges that an outcome-based regulatory framework of economic incentives remains appropriate given the need to incentivise the delivery of specific public goods.** Licence conditions, the Price Cap model (to drive cost-efficiency) and the EA / DWI (to provide inspection and enforcement) also drive public good outcomes – but the case for supporting these with specific economic incentives, both positive and negative, remains. However, the current framework is, in the Commission's view, attempting to do too much and has become overcomplicated and counterproductive. The regulator needs to make the framework simpler, less aggressive, more predictable, more realistic and easier for investors to understand and forecast.
478. **The regulator should review the ODI framework in time for Price Review 29.** The Commission believes the exact nature of the framework will need to be developed by the regulator in consultation with industry. But the Commission has set out objectives for this review with the following illustrative suggestions on how those might be achieved.
479. **A simpler framework of fewer PCs would provide a more focused overall framework of incentives for companies.** This will also make it more navigable to the regulator, investors and transparent to customers. An illustrative example would be around 10 in total.
480. **PCs should be common across companies.** While this provides less ability to granularly target performance in a company-specific area, it places companies' emphasis instead on the same small number of key PC metrics which they all need deliver. The regulator should therefore review bespoke PCs with a view to withdrawing these. A simpler framework of common PCs only would therefore force companies to focus across the key, common PC



metrics against which all companies should be delivering (not just those where they already perform well).

481. **PCLs should still be set at each Price Review to be challenging but achievable – on a company-specific basis which appropriately accounts for companies’ contexts.** A fair bet for companies requires the regulator’s supervisory approach to calibrate the level of challenge to be similar across companies, while acknowledging that they may be at different stages of performance. This would apply to all PCs, including experience-related PCs such as C-Mex (see Section 5.5).
482. **There is a need to dampen ODI reward and penalty rates to create a narrower corridor.** While this dampens incentives to perform above or below a certain level, it also reduces variability of overall returns at risk and sits within the broader objective of driving whole-sector performance upward by setting more realistic incentives for companies to improve relative to their previous performance (as opposed to in relation to industry wide benchmarks).
483. **ODI rewards and penalties should be clearly linked to returns.** With a framework of fewer PCs, each corresponding ODI can be individually and directly set as a fixed percentage of RoRE without need for aggregating impacts (for instance, impacts on a company’s returns from an ODI would not be affected by performance against its other PCs). This would provide transparent, ex-ante clarity and predictability on the rewards for success and penalties for failure over returns, to drive companies’ behaviour.

#### **Box 29 – Performance incentives in the energy sector**

Ofgem sets a small number – an average of 5 common and 3 bespoke – financial ‘Output Delivery Incentives’ across its electricity distribution and transmission, and gas distribution price controls, covering service performance.<sup>599</sup>

For electricity distribution, Ofgem sets these incentives within caps and collars (per individual ODI) clearly defined as % RoRE – and is aiming to replicate this across the other 2 price controls under its RIIO-3 Price Review.<sup>600</sup> Likewise, they are also aiming to consolidate their framework further – and consider new bespoke Incentives only in exceptional circumstances.<sup>601</sup>

484. **The regulator should also ensure there is minimal overlap between PCs and enforcement, which both cover environmental and water quality**

<sup>599</sup> Ofgem, ‘[RIIO-ED2 Final determinations overview document](#)’, 2022; Ofgem, ‘[RIIO-2 Final determinations – Core document](#)’, 2020; Ofgem, ‘[RIIO-2 Final Determinations – GD Sector Annex \(Revised\)](#)’, 2021

<sup>600</sup> Ofgem, ‘[RIIO-ED2 Final Determinations Overview document](#)’, 2022; Ofgem, ‘[RIIO-3 Sector Specific Methodology Decision – Overview Document](#)’, 2024, pages 43-44

<sup>601</sup> Ofgem, ‘[RIIO-3 Sector Specific Methodology Decision – Overview Document](#)’, 2024, pages 45-46

**performance.** This would remove duplication in the regulatory regime so that only one regulatory tool (for instance, penalties from ODIs or fines from enforcement action) is responsible for supporting an objective, so that the overall regulatory incentives for success and failure companies face is clear to understand. Box 30 sets out an example of how duplication would be removed.

### **Box 30 – Ofwat incentives and the other water regulators**

**Enforcement and incentives are both regulatory tools to achieve policy objectives. They can complement each other but, if improperly coordinated, there is a risk of creating an overly complex regulatory landscape.**

This Box sets out an example of one of the environmental PCs – ‘storm overflows’ – Ofwat set at Price Review 2024 to outline the current incentive landscape.

#### *Storm overflow permits and incentives*

The EA regulates storm overflow discharges by issuing permits for individual overflows and ensuring that operating conditions set in permits and the storm overflow assessment framework are met.<sup>602</sup> In the case of a breach in permits, the EA can undertake enforcement action, including fines and civil and criminal prosecution.<sup>603</sup>

Ofwat also has a ‘storm overflow’ ODI which penalises or rewards a company when their average number of spills per storm overflow exceed or fall short of a certain level specific to each company. The target of average spills per storm overflow is set to decrease each year over the Price Review 2024 period to incentivise companies to gradually improve their sewage infrastructure to meet the Defra target of average 10 storm overflow spills per year by 2050. The ODI target is less stringent than the 2050 target, and is both more and less stringent than the EA assessment framework targets, depending on specific circumstances.<sup>604</sup> Ofwat also further uses PCDs to support the timely delivery of investment in sewage infrastructure to reduce storm overflows, as set out in the WINEP.<sup>605</sup>

#### *Conclusion*

**Companies face a complex landscape of overlapping incentives and penalties for environmental performance.** Environmental ODI incentives are an

<sup>602</sup> Defra, ‘[Storm Overflows Discharge Reduction Plan](#)’, 2023; Environment Agency, ‘[Guidance – Storm overflow assessment framework 2025](#)’, 2025

<sup>603</sup> [Water companies and sewage pollution: Repairing damage using revenue from fines - House of Lords Library](#)

<sup>604</sup> Environment Agency, ‘[Guidance – Storm overflow assessment framework 2025](#)’, 2025

<sup>605</sup> Ofwat, ‘[PR24 final determinations - Price control deliverables appendix](#)’, 2024

important regulatory tool. However, a single regulatory framework over the incentives companies face would better drive their behaviour.

**The regulator should continue to set relevant minimum standards through permits, and its enforcement action would still impose fines for not meeting targets where appropriate.** However, where the regulator is targeting the same (environmental) performance outcome with additional targets (for instance, on top of the permit), underperformance should not be additionally penalised through an ODI. In this way, companies are not penalised for the same or similar matters (see Chapter 4).<sup>606</sup> The regulator could also continue to set broader ODIs for areas not already subject to permits (and which customers care about). This would include setting both rewards and penalties to drive behaviour.

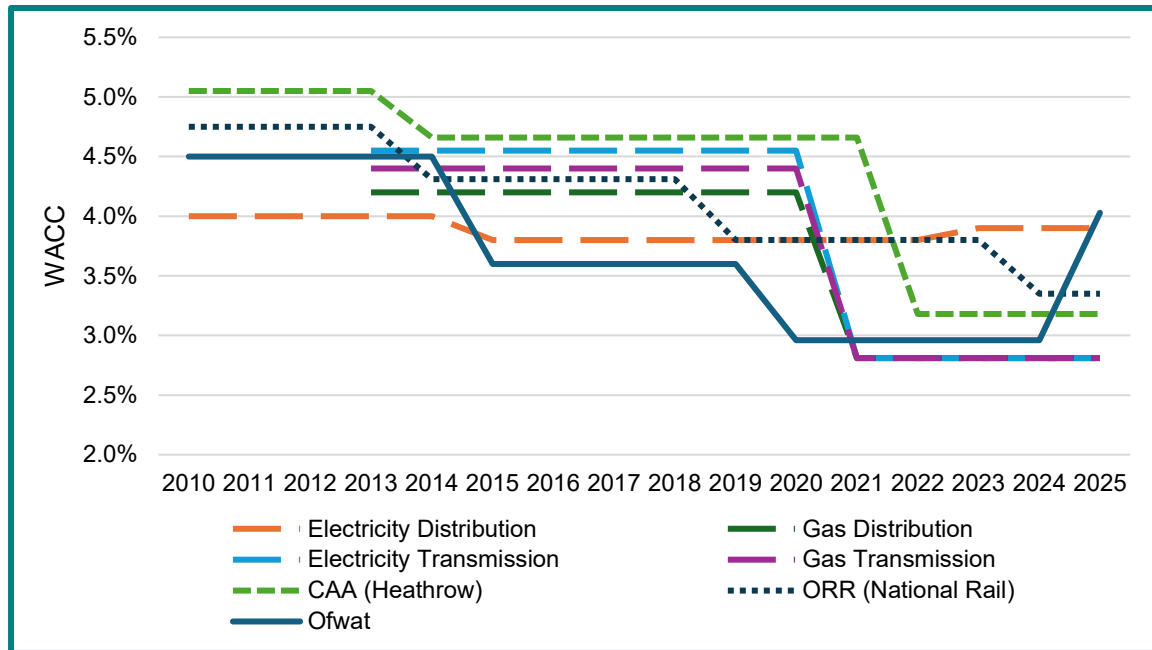
**The new single environmental and economic regulator would therefore be better placed to integrate these enforcement and incentive tools, providing a ‘whole-firm view’.**

***The WACC methodology for water should be consistent with other sectors to ensure the water industry is competitive in attracting investment***

485. **The WACC for the water industry has been relatively low compared to other sectors** (see Figure 16). This is partly related to methodological issues. The water industry WACC was below most other sectors in 2020-24, before being increased back to alignment at the first possible opportunity (Price Review 2024). Lack of indexation may have been restraining the water WACC in aligning with other sectors and economic conditions sooner. At Price Review 2019, the CMA increased the WACC for 4 companies that requested redeterminations, evidencing these issues with Ofwat’s WACC methodology.<sup>607</sup>

<sup>606</sup> Response to the Call for Evidence, Water UK

<sup>607</sup> Independent Water Commission, ‘[Call for Evidence. Independent Commission on the Water Sector Regulatory System](#)’, 2025

**Figure 16: Allowed (real, post-tax) WACC variation across UK regulated sectors**

Source: Ofcom<sup>608</sup>, Ofgem<sup>609</sup>, Ofwat<sup>610</sup>, CAA<sup>611</sup> and ORR<sup>612</sup>

486. **There has been a general decline in WACC across regulated sectors from 2010 to the early 2020s, largely due to the historic low risk-free rate experienced over this period.**<sup>613</sup> Since the risk-free rate began increasing in 2022-23, the WACC started rising across sectors.<sup>614</sup> Price Review 24 has shown this for the water sector and the draft determination for RIIO-3 (for electricity distribution) published by Ofgem also shows a rise in WACC.<sup>615</sup>
487. **There has been a general decline in WACC across regulated sectors from 2010 to the early 2020s, largely due to the historic low risk-free rate experienced over this period.**<sup>616</sup> Since the risk-free rate began

<sup>608</sup> Ofcom, 'Promoting Investment and Competition in Fibre Networks: Wholesale Fixed Telecoms Market Review 2021-26', 2021

<sup>609</sup> Ofgem, 'RIIO-2 Final determinations – Finance Annex (Revised)', 2021

<sup>610</sup> Ofwat, 'PR24 final determinations: Aligning risk and return – allowed return appendix', 2024

<sup>611</sup> Civil Aviation Authority, 'Economic regulation of Heathrow airport: H7 final issues – decision', 2024

<sup>612</sup> Office of Rail and Road, '2018 periodic review final determination. Supplementary document – financial framework', 2018; Office of Rail and Road, 'PR23 final determination. Policy position – financial framework', 2023

<sup>613</sup> UK Regulators' Network, 'Cost of capital – Annual update report: 2015-16', 2016; UK Regulators' Network, 'Cost of capital – Annual update report', 2020; UK Regulators' Network, 'Cost of capital – Annual update report', 2024

<sup>614</sup> Cambridge Economic Policy Associates, 'PR24 Cost of Equity. Ofwat', 2024

<sup>615</sup> Ofgem, 'RIIO-3 Draft Determinations for the Electricity Transmission, Gas Distribution and Gas Transmission sectors. Consultation', 2025

<sup>616</sup> <https://ukrn.org.uk/app/uploads/2018/06/2016MarCoCAnnulUpdateReport.pdf>, <https://ukrn.org.uk/app/uploads/2020/12/2020-UKRN-Annual-Cost-of-Capital-Report-Final-1.pdf>,

increasing in 2022-23, the WACC started rising across sectors.<sup>617</sup> Price Review 2024 has shown this for the water sector (see Figure 16) and the RIIO-3 draft determination (for electricity distribution) published by Ofgem also shows a rise in WACC.<sup>618</sup>

488. **The regulators have attempted to introduce standardisation in the setting of WACC through the UK Regulators Network (UKRN)**, an active and long-standing but informal working group which brings the regulators together with the aim of alignment on methodological issues. However, cross-sector differences in consistency remain, for example, in estimating the rate of return (cost of equity).<sup>619</sup>
489. **A truly common WACC methodology across sectors, to take effect at the start of each of their respective Price Review periods, should contribute to solving coordination issues in the setting of WACC across sectors.** Moreover, a common methodology which also allows for more frequent updating of respective WACCs during Price Review periods would see sectors reflecting prevailing market movements and economic conditions more closely. Cross-sector capability for considering WACC currently sits with the CMA.

**Recommendation 23: UK Government should consider providing the CMA with responsibility to set a common WACC methodology for all UK regulated sectors. This applies to England and Wales.**

490. **The CMA should set both the WACC methodology for all UK regulated sectors and the components of WACC which are not sector-specific.** In addition, the CMA should also: set standards for setting sector-specific components of WACC; specify regulators' discretion; issue new guidance (building on the positive efforts of UKRN); and monitor and enforce its application. The CMA methodology should be subject to public consultation. Individual sector regulators should then use the uniform methodology to estimate and implement WACCs for their Price Review periods.
491. **The advantage of the CMA being the relevant independent, legally competent authority is that capability for objectively considering WACC across sectors already sits with the CMA.** The WACC methodology being set independently of sector regulators – rather than by a committee of these

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<https://ukrn.org.uk/app/uploads/2024/10/UKRN-Annual-Cost-of-Capital-Report-2024-final-Oct-2024.pdf>

<sup>617</sup> Cambridge Economic Policy Associates, 'PR24 Cost of Equity. Ofwat', 2024

<sup>618</sup>Ofgem, 'RIIO-3 Draft Determinations for the Electricity Transmission, Gas Distribution and Gas Transmission sectors. Consultation', 2025

<sup>619</sup> UK Regulators' Network, 'Cost of capital – annual update report', 2020



(for instance, UKRN model) – will increase confidence in the quality of economic regulatory decision-making overall.

492. **Responsibility for setting the WACC would also mean CMA redeterminations would no longer need to consider this** as the methodology would already have been consulted upon – removing the present duplication of regulatory resource and potential for divergent WACCs within a sector (due to redetermination). This would also mitigate the potential for inconsistencies within the water sector (with appealing water companies currently subject ultimately to different, often more favourable decision-making).
493. **Having a common WACC methodology should better attract investment to the UK regulated infrastructure asset class** as a whole as well as increase the regulated sectors' competitiveness by providing certainty and comparability across these. This would require a whole-of-government approach – but aligns with the direction the government would need to explore as part of its 10-year Infrastructure Strategy, published in June 2025.<sup>620</sup>
494. **This approach is similar to that taken by New Zealand** where the Commerce Commission (the independent economic regulator across the aviation, electricity, gas and telecoms sectors) sets a single WACC methodology across sectors, and then applies this methodology to estimate a WACC for each sector at their price reset, for the duration of their 5- or 6-year price reset cycles.<sup>621</sup> By contrast, while input methodologies remain similar, different UK regulators' choice of input data across components that are not sector-specific (for example, across the average debt premium, risk-free rate and total market return) result in different WACCs for each sector.<sup>622</sup>
495. **The CMA should therefore set components of WACC which are not sector-specific** and do not require sector-specific knowledge, for example, the cost of new debt. Figure 17 suggests the areas that CMA could set.
496. **In practical terms, the information that the regulator obtains through supervision should mean that the sector-specific inputs the regulator uses when applying the CMA's methodology will be informed by actual company circumstances.** To facilitate this, the CMA would therefore also need to incorporate reasonable parameters within its guidance to ensure

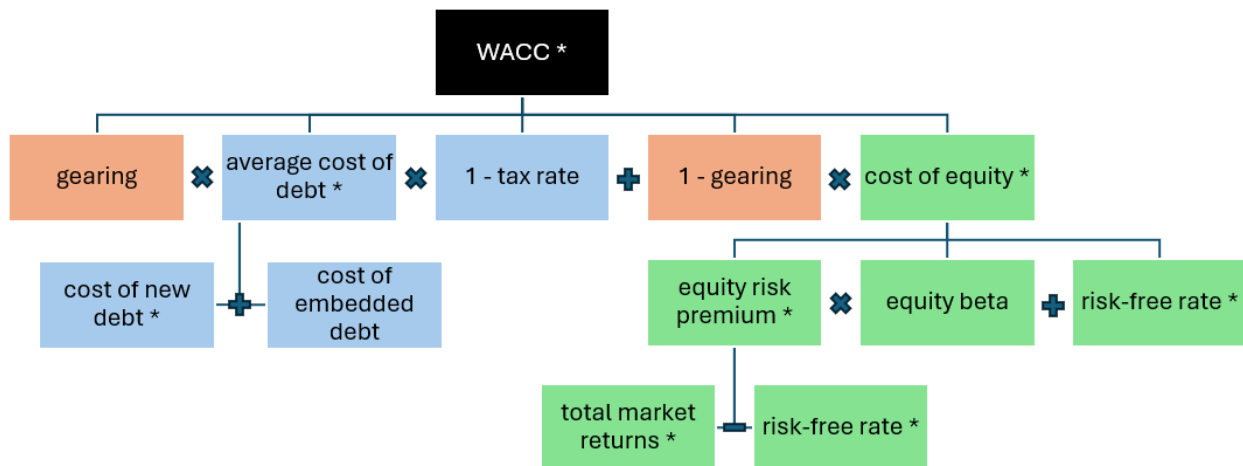
<sup>620</sup> HM Treasury, 'UK Infrastructure: A 10 Year Strategy', 2025

<sup>621</sup> Oxera, 'Aiming high in setting the WACC: framework or guesswork?', 2015

<sup>622</sup> The Commerce Commission also applies this methodology to update WACCs annually. However, this is to meet information disclosure requirements only. The Commerce Commission is currently considering whether to use this to update sectors' WACCs on a more frequent basis. The water sector is anticipated to be included within its single WACC methodology from 2026.

cross-sector consistency – with the water regulator needing to transparently set out and justify its decision-making in following (or deviating from) this. While it will be for sector regulators to independently set appropriate gearing levels to attract and remunerate investment – given levels of risk are different between sectors – the CMA should also give consideration to appropriate bounds in devising the methodology.

**Figure 17: Components of ‘vanilla’ WACC – with starred components determined by the CMA**



497. **The CMA should also consider annually updating relevant components of WACC.** In setting the WACC methodology across sectors, the CMA should index observable and time-varying components of WACC (such as the risk-free rate and the average cost of debt) across sectors on an annual basis. This would reduce variation between different sectors' WACCs by improving responsiveness to market movements and economic conditions, as well as mitigate any spurious WACC advantage which one sector might enjoy over another – arising simply from when its Price Review falls in the economic cycle. Price reviews could continue to happen to existing sector-specific timetables.
498. **This would follow Ofgem's approach in the energy sector**, where they have already moved towards updating the cost of debt and the risk-free rate on an annual basis.<sup>623</sup> Ofwat already updates the cost of debt annually, although, is yet to index relevant equity components.<sup>624</sup> By indexing the risk-free rate, this would mean that bills would need to increase or decrease based on the broader economic conditions of the time (for instance, lower customer bills if the risk-free rate is lower than predicted at the start of the Price Review and vice versa). This would provide more stability for investors

<sup>623</sup> Ofgem, 'RIIO-ET2 Price Control Financial Handbook', 2020

<sup>624</sup> PricewaterhouseCoopers, 'Cost of equity indexation: Evaluating the case for indexation at PR24 and beyond', 2021

since financing risks are reduced. To protect customers, reconciliation (of allowed and outturn risk-free rate) over a Price Review period would also ensure customers are not overly exposed to broader economic conditions as well as allow for smoother billing and providing more certainty in bill prices. This is the approach Ofwat already uses for cost of debt indexing.<sup>625</sup>

***There should be an efficient means of appealing a Price Review determination***

499. **The CMA is having to hear an increasing number of water company redetermination requests** – 1, 4 and 6 at Price Reviews 14, 19 and 24, respectively. The scope and complexity of these has also increased as Price Review determinations grow in complexity. The 6- (in practice 6- to 12-) month redetermination process is costly for the CMA, Ofwat and the water companies – with the taxpayer and customers ultimately bearing these costs; this redetermination administrative burden totalled £31.8 million at Price Review 2019.<sup>626</sup>
500. **The Commission considers that an appeal would be a more appropriate dispute process than a redetermination.** A redetermination requires the CMA to reconsider evidence and make a regulatory judgement across the regulator’s entire Price Review determination, whereas an appeal does not require a full determination but, rather, is limited to focusing on the specific issues being appealed only, deciding upon whether the regulator was wrong, and applying a fresh decision for these issues.<sup>627</sup>

**Recommendation 24: Defra should change the nature of the CMA dispute process for water companies from redeterminations to a standard appeal procedure, in line with other sectors. This applies to England and Wales.**

501. **A standard appeal procedure would be more efficient, faster and less costly than a redetermination** in holding the regulator accountable for its decision-making while ensuring continued right of appeal – as it is focused on correcting ‘errors’, rather than requiring a whole new determination exercise. It also does not make economic regulatory judgements across the regulator’s entire determination, for example, to assess trade-offs – and so does not duplicate the regulator’s role. This change would make the water sector consistent with other sectors, including energy, payment systems and telecoms sectors which are all subject to a standard appeal procedure, thereby increasing confidence and predictability for investors.<sup>628</sup>

<sup>625</sup> Ofwat, ‘[PR19 Reconciliation Rulebook: Guidance Document](#)’, 2023

<sup>626</sup> Competition and Markets Authority, ‘[CMA response to Independent Water Commission call for evidence](#)’, 2025

<sup>627</sup> Competition and Markets Authority, ‘[About us](#)’ (viewed 25 May 2025)

<sup>628</sup> Competition and Markets Authority, ‘[Response from the CMA to the Department for Business and Trade consultation](#)’, 2024

502. **This less costly route also opens up the possibility for appeals to be raised by others, such as customer and environmental groups** (rather than their only providing evidence in the context of redeterminations requested by water companies), as happens in other sectors. It also allows for a further route to address disputes – wherein scrutiny only of the way in which regulatory decisions are made is relevant.
503. **Defra would need to consider aligning (legislative) implementation with a whole-of-government approach.** The CMA is currently proposing to the government that it transfers its appellate function in regulatory appeals and redeterminations across all regulated sectors, including water, to the Competition Appeal Tribunal – on the basis that this is the more appropriate judicial body with the technical expertise to take on this role.<sup>629</sup> This is a decision for the whole of government. Notwithstanding, this recommendation applies regardless of ultimate appellate body.

### Box 31 – The standard appeal procedure in other UK regulated sectors

Since the 2000s, there has been a shift from redeterminations towards appeals.<sup>630</sup> Water continues to follow a more open-ended redetermination process – whereas most sectors are now subject to a standard appeal procedure.<sup>631</sup>

For example, in the energy sector, the CMA reviews appeals where Ofgem’s decisions are wrong as a result of: not appropriately regarding matters which they must as part of their objective and duties; being based on error of fact; not achieving, wholly or partly, the effect of the decision, and/or; being lawfully wrong.<sup>632</sup> If non-contentious errors, including calculation errors, are present, then the CMA would expect Ofgem to resolve these with the company before commencing an appeal process. In telecoms, the CMA reviews Price Review appeals following a judicial review approach, where “Ofcom’s decision was based on an error of fact or was wrong in law, or both; or...it was an erroneous exercise of discretion by Ofcom”.<sup>633</sup>

<sup>629</sup>Utility Week, ‘[CMA pleads to be relieved of redetermination role](#)’, 2025

<sup>630</sup> Competition and Markets Authority, ‘[Response from the CMA to the Department for Business and Trade consultation](#)’, 2024

<sup>631</sup>

Oxera, ‘[Regulatory appeals: do the UK’s appeal regimes stand up to critical review?](#)’, 2018  
<sup>632</sup> [assets.publishing.service.gov.uk/media/635946898fa8f557cfc22c4f/Energy\\_Guidance.pdf](#), 2022

<sup>633</sup> Competition and Markets Authority, ‘[CityFibre Infrastructure Holdings plc v Office of Communications. TalkTalk Telecom Group plc v Office of Communications. Final determination](#)’, 2017

## 5.2 Environmental Regulation

### Background

#### Regulatory framework

504. **The environmental regulators, the Environment Agency (EA) in England, and Natural Resources Wales (NRW) in Wales, are responsible for protecting the environment from harmful activities through the issuance of environmental permits and licences and then regulating compliance.** Water discharge activities, such as the discharge of sewage or trade effluents to surface or groundwaters require permits under Environmental Permitting (England and Wales) Regulations 2016 (“the Environmental Permitting Regulations” or “EPR”). These permits set conditions to reflect statutory and/or non-statutory requirements and therefore drive water industry investment. There are ~ 5,800 sewage treatment works (STW) and wastewater treatment works (WTW) permitted discharge outlets.<sup>634</sup> In Wales there are approximately 800 STW and WTW permitted discharge outlets.<sup>635</sup>
505. **Sewage sludge is primarily regulated by the EA and NRW through the Sludge (Use in Agriculture) Regulations (SUiAR) 1989.**<sup>636</sup> In England in 2020, 94% of sludge water companies produce is reused in agriculture as an organic fertiliser.<sup>637</sup> However, excessive nutrients running off into water ways can cause environmental damage including eutrophication. Sludge can also contain chemicals and pathogens which may be a risk to human health and the environment. There is also evidence it can contain contaminants including microplastics and forever chemicals (for example, PFAS).<sup>638</sup>
506. **Compliance monitoring of the water industry, like many other regulated sectors, relies heavily on a system of self-reporting against regulatory requirements, such as those set out in permits or licences.** Operator Self-Monitoring (OSM) is a regulatory mechanism introduced in 2009 to oversee compliance at wastewater treatment works. Under the OSM regime, companies are required to take water samples at wastewater treatment works throughout the year and then submit them to EA or NRW. This process enables environmental regulators to assess whether a company is complying with requirements. The required frequency of sampling varies

<sup>634</sup> EA internal data, 2025

<sup>635</sup> NRW internal data, 2023

<sup>636</sup> Residual soil from the treatment of wastewater to land, (often synonymously called biosolids or bioresources EA, ‘[Environment Agency strategy for safe and sustainable sludge use - GOV.UK](#)’, 2023; Legislation.gov.uk, ‘[The Sludge \(Use in Agriculture\) Regulations 1989](#)’, (viewed 17 July)

<sup>637</sup> Defra, ‘[Wastewater treatment in England: data for 2020 - GOV.UK](#)’, 2022

<sup>638</sup> CIWEM, ‘[PFAS risk and management in the water industry](#)’, 2024



according to the size of the wastewater treatment works.<sup>639</sup> The EA and NRW oversee OSM by requiring independent certification and auditing of monitors and lab analysis and by conducting ad-hoc on-site inspections.<sup>640</sup>

507. **In recent years, regulatory oversight of water industry operations has been tightened to gather more information about water company operations, including through greater use of digital and automated techniques.** 100% of storm overflows in England now have event duration monitors (“EDMs”) installed, which provide data on when a storm overflow discharge occurred and how long it lasted for.<sup>641</sup> Since January 2025 companies have been required to publish storm overflow data in near real time. These data have now become publicly available, including through Water UK’s ‘National Storm Overflows Hub’.<sup>642</sup> In Wales, the majority of EDMs were installed by 2020, with only a small number remaining, so coverage is over 99% across the network.<sup>643</sup>
508. **Building on this, the Environment Act 2021 introduced requirements in England for sewerage undertakers to continuously monitor water quality both upstream and downstream of their assets.** Although these requirements are not yet in force, in Price Review 2024, water companies in England are installing Continuous Water Quality Monitors (CWQM) at 25% of storm overflows and wastewater treatment works sites in England.<sup>644</sup> NRW has included actions in the Natural Environment Programme (NEP) to carry out trials to assess optimum types and scale of continuous water quality monitoring at a number of priority sites to inform strategy for PR29 onwards.
509. **For sludge, the regulatory regime also relies on self-reporting.** Sludge producers are required to prepare and maintain a register containing the total quantity of sludge produced in any year, as well as the quantity and composition of sludge provided for use in agriculture in any year.<sup>645</sup>

## Enforcement

510. **The EA and NRW have a range of enforcement levers for when water companies fail to comply with environmental permits or licences.** This includes using notices, civil sanctions, and criminal prosecutions via the courts to stop the offending, bring companies back into compliance, and

<sup>639</sup> EA, ‘[Water companies: operator self-monitoring \(OSM\) environmental permits - GOV.UK](#)’, 2018

<sup>640</sup> Sample collections and automatic monitors within OSM are independently assessed by external experts under the Monitoring Certification Scheme (MCERTS) and lab analysis is independently audited by the UK Analytical Service (UKAS). EA engagement with the Commission

<sup>641</sup> Defra and EA, ‘[Storm overflows monitoring hits 100% target - GOV.UK](#)’, 2023

<sup>642</sup> Water UK, ‘[The National Storm Overflow Hub](#)’, (viewed 10 July 2025)

<sup>643</sup> NRW, ‘[Storm overflow spill data report](#)’, 2022

<sup>644</sup> Defra, ‘[Draft information and guidance on storm overflows](#)’, 2024; Defra, ‘[Continuous Water Quality Monitoring Programme - provisional technical guidance for sewerage undertakers](#)’, 2023

<sup>645</sup> Legislation.gov.uk, ‘[The Sludge \(Use in Agriculture\) Regulations 1989](#)’, (viewed 16 July 2025)

support restoration and remediation. As an alternative to prosecution, the EA may accept enforcement undertakings, a form of civil sanction, from companies, which might include, for example, a commitment to put right the effects of their offending. NRW do not currently have the same civil sanction powers as the EA, for example NRW are unable to enforce via civil sanctions for the Environmental Permitting Regulations.

511. **In the past, concerns were raised that the severity of penalties on water companies may not have been sufficient to drive behaviour change.** In response, the previous UK government made variable monetary penalties available to the EA for more offences and removed the cap on penalties. The Water (Special Measures) Act (WSMA) 2025 further introduced two new enforcement provisions: allowing the standard of proof to be lowered to the civil standard (from the criminal standard) and automatic penalties to enable regulators to take quicker action against minor and moderate offending, which makes up a significant proportion of non-compliances.<sup>646</sup> The UK and Welsh Government have yet to implement the WSMA 2025 enforcement provisions. The Act also introduced greater sanctions for water and sewerage companies for impeding investigation offences, which have been commenced.<sup>647</sup>
512. **Ofwat is responsible for enforcing some environmental requirements, for example, relating to the principal duty to provide and maintain a system of public sewers, as well as regulation 4 of the Urban Waste Water Treatment Regulations 1994 (UWWTR).** Under the Water Industry Act 1991, Ofwat has a duty to impose an enforcement order if they are satisfied that a regulated company is contravening or is likely to contravene any licence condition or certain statutory requirements, unless one of the exceptions, such as a satisfactory undertaking being given, applies. Ofwat does not, however, perform a general inspection function, though it can require water companies to provide it with information.

## Capacity and capability

513. **The Environment Act 1995 grants the EA and NRW the power to create charging schemes to recover the costs of performing certain regulatory functions.** In 2024, the EA consulted on and updated their water quality charging scheme. These EA charges had not been revised since 2018. This increase in revenue enabled the expansion of regulatory activity in relation to wastewater assets. The UK Government has recently outlined that EA funding for water quality has increased by 64% since 2023/2024, with all of this increase coming from charges paid by water companies.<sup>648</sup> By contrast,

<sup>646</sup> Defra, '[Water \(Special Measures\) Act: policy statement - GOV.UK](#)', 2025

<sup>647</sup> Defra, '[Water \(Special Measures\) Act: policy statement - GOV.UK](#)', 2025

<sup>648</sup> Defra, '[Largest ever budget for water regulation - GOV.UK](#)', 2025

compliance activity relating to sludge is funded through governmental funding.

514. **In 2023 NRW conducted a strategic review of charges to ensure that the costs of delivering their regulatory approach are recovered from those they regulate to reduce subsidy through Grant in Aid.**<sup>649</sup> However, NRW has recently received additional funding from government for water enforcement activity.<sup>650</sup> This is expected to fund the establishment of an all-Wales Water Compliance Unit which will assess water company permit conditions under the EPR. Government funding in England and Wales is still used to fund certain activity that is not charged to permit operators. For example, certain digital and technology programmes that are used to support compliance and enforcement activity require up front capital investment.
515. **The EA and NRW's powers were expanded through the WSMA 2025 to enable recovery of enforcement costs in relation to the water industry.** Building on this, in April 2025, the EA consulted on a new enforcement levy for the water industry.<sup>651</sup>
516. **The environmental regulators recruit specialists including hydrologists, ecologists, flood modelers and geomorphologists.** As a public body, the EA must follow government recruitment and pay scales. The NRW has its own pay scales. The regulators compete with the wider water and environmental science sector to attract and retain talent.
517. **Through the Water Industry Regulation Transformation Programme (WIRTP), the EA has outlined measures to improve regulation of the water industry.**<sup>652</sup> Reforms introduced include increasing the volume of inspections and audit work to understand the scale of non-compliance, including the creation of new teams of environment officers, data analysts, enforcement specialists and technical experts; and enhanced enforcement action.<sup>653</sup> The UK Government recently reported that the number of criminal investigations launched against water companies by the EA has increased by 145% in May 2025 compared to July 2024 as a result of increased funding for inspections.<sup>654</sup> Starting in spring 2025, the EA began publishing Compliance Assessment Report (CAR) forms of water discharge activity for those regulated under the EPR to increase transparency.<sup>655</sup> In Wales CAR

<sup>649</sup> Welsh Government, '[Written Statement: Approval of Natural Resources Wales' \(NRW's\) Strategic Review of Charges \(SROc\)](#)', 2023

<sup>650</sup> Welsh Parliament, '[Natural Resources Wales, Annual Scrutiny 2024-25](#)', 2025

<sup>651</sup> EA, '[Environment Agency charges proposal: water industry enforcement levy - GOV.UK](#)', 2025

<sup>652</sup> EA, '[How we're bringing change to water industry performance – Creating a better place](#)', 2024

<sup>653</sup> EA, '[How we're bringing change to water industry performance – Creating a better place](#)', 2024

<sup>654</sup> Defra, EA and The Rt Hon Steve Reed OBE MP, '[Record 81 criminal investigations launched into water companies under Government crackdown](#)', 2025

<sup>655</sup> EA, '[What is changing with Compliance Assessment Report forms?](#)', 2025

forms have been published online by NRW since the launch of its online Public Register in 2019.<sup>656</sup>

## Issues

518. **The Commission has heard that the current regulatory regime has not sufficiently overseen the protection of the environment.** The call for evidence responses highlight that the majority of respondents (85%) believed the system of environmental regulation, monitoring and enforcement ensures water company compliance very little or not at all.
519. **The Commission has identified 5 main issues in relation to the implementation of environmental regulation:**
- Permitting
  - Oversight of wastewater compliance
  - Oversight of sludge
  - Enforcement powers
  - Capacity and capability

## Permitting

520. **The Commission has heard that the permitting and licensing system is inflexible and requires greater digitisation and automation.** The Corry review highlighted that further digitisation is necessary in respect of the EA's permitting system, recommending that 'digital champions' should be appointed to accelerate digital transformation of Defra and its regulators, and building progress to deliver a permitting portal which shows the progress of applications to increase transparency to accelerate this work.<sup>657</sup> The EA and NRW recently launched a consultation on plans to make the permitting regime more agile in managing environmental risk, while also providing greater business certainty and transparency.<sup>658</sup> More recently, the EA has set out their plans to improve environmental permitting, which includes expanding capacity, improving processing speed, and introducing AI and assistive technology.<sup>659</sup>

## Oversight of wastewater compliance

521. **The OSM regime for wastewater treatment works has been subject to extensive criticism.** In its response to the Call for Evidence, Wildfish call for

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<sup>656</sup> NRW engagement with the Commission

<sup>657</sup> Corry, D, '[Delivering economic growth and nature recovery: An independent review of Defra's regulatory landscape](#)', 2025

<sup>658</sup> Defra, EA, NRW, Welsh Government, Emma Hardy MP, '[Environmental permit reforms to empower regulators to slash business red tape - GOV.UK](#)', 2025

<sup>659</sup> EA, '[Improving our Environmental Permitting Service – Creating a better place](#)', 2025

an end to OSM, arguing companies have exploited the system.<sup>660</sup> Water UK also called for an end to OSM, and to replace it with a more robust system that includes third party verification in order to restore public trust and address concerns about data reliability in this space.<sup>661</sup> CIWEM have also argued that water companies OSM data should be more rigorous, for example through greater quality assurance.<sup>662</sup>

522. **Conversely, we have heard that OSM is commonplace across many regulated industries internationally.** A research project commissioned by the EA found that 17 of the 33 countries reviewed have comparable regulatory OSM processes to England for monitoring, sampling, sample analysis, use of international standards and accredited facilities, quality assurance (QA) and reporting.<sup>663</sup> These include Canada and 16 European countries. 7 of the 33 countries reviewed were considered to have stronger OSM regulation than England, including Poland and Japan, monitoring a wider range of parameters.<sup>664</sup> The environmental regulators have noted that OSM isn't the only mechanism to monitor water company compliance and have noted data verification, audits and inspections are also used to collect additional data on water industry operations. This has been considerably expanded in recent years. NRW have concluded that on balance, OSM is effective and to build confidence in self-monitoring, existing procedures are being optimised, as well as guidance, audit scrutiny and compliance inspections which are being increased.<sup>665</sup> The EA are exploring how additional assurance could be introduced including by utilising new technology.<sup>666</sup>
523. **We have also heard considerable concern about the approach to storm overflows policy and regulation as set out in Chapter 3.** In respect of compliance monitoring the Commission has heard mixed views on the current approach. Some stakeholders have called for volume monitors in order to understand the impact of sewage spills on water bodies.<sup>667</sup> However, we have heard that such monitors have significant cost implications and do not provide any insights on the impact of discharges on the receiving watercourse.<sup>668</sup>
524. **CWQM, which is beginning to be rolled out through Price Review 2024 will offer insights in the concentration of pollutants in receiving water.**

<sup>660</sup> [Wildfish response to the Call for Evidence](#), 2025

<sup>661</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>662</sup> CIWEM, '[Sewage effluent assurance: a new future? - CIWEM](#)', (viewed 16 July 2025)

<sup>663</sup> EA engagement with the Commission

<sup>664</sup> EA engagement with the Commission

<sup>665</sup> NRW response to the Call for Evidence

<sup>666</sup> EA engagement with the Commission

<sup>667</sup> Professor Peter Hammond, '[Written Evidence - Monitoring](#)', (viewed 16 July 2025)

<sup>668</sup> Engagement with the Commission



<sup>669</sup> However, some have argued that CWQM is not cost-effective and fails to make adequate use of modern technology.<sup>670</sup> The total CWQM allowance for Price Review 2024 was £651m.<sup>671</sup> The Catchment System Thinking Cooperative (CaSTCo) expressed concerns about the monitoring parameters and narrow scope of CWQM.<sup>672</sup> Others have pointed out that CWQM focuses on water industry discharges and does not provide holistic oversight of other pressure on water bodies, such as agriculture, road-run off and septic tanks.<sup>673</sup> As set out in Chapter 3, the Rivers Trust and the Angling Trust outline that there is a need for comprehensive, agile and collaborative catchment monitoring that brings together data from various stakeholders in an open and accessible way.<sup>674</sup>

525. **Stakeholders have also called for more transparency in monitoring approaches to enable the public to hold environmental regulators to account.**<sup>675</sup> They outline that greater public transparency drives improvements in water companies due to the reputational impacts.<sup>676</sup> Water UK has also called for transparency through open data. They argue this could build on tools such as Water UK's National Storm Overflows Hub and expand across other key areas of performance, for example once CWQM are installed. Water UK also outline that regulators should be required to open up their own data which is not currently available to the public or external stakeholders.<sup>677</sup>

## Sludge

526. **The Commission has heard concerns around the limits in regulatory frameworks to adequately oversee sludge activities.** The Sludge (Use in Agriculture) Regulations (SUiAR) 1989 were made at a time when pollutants from heavy industry were considered of most concern from the spreading of sludge.<sup>678</sup> Consequently, SUiAR only contains specific limits on heavy metal application to soils, while chemicals such as PFAS, pharmaceuticals and

<sup>669</sup> Defra, '[Water \(Special Measures\) Act: policy statement - GOV.UK](#)', 2025

<sup>670</sup> [Wildfish response to the Call for Evidence](#) 2025; [The Rivers Trust response to the Call for Evidence](#), 2025; CaSTCo [response to the Call for Evidence](#), 2025

<sup>671</sup> Ofwat, '[PR24 final determinations - Expenditure allowances](#)', 2024

<sup>672</sup> [The River Trust submission to the Commission on behalf of the CaSTCo Task Force, 2025](#)

<sup>673</sup> [The Rivers Trust response to the Call for Evidence](#), 2025

<sup>674</sup> The [Rivers Trust response to the Call for Evidence](#), 2025; Angling Trust response to the call for evidence, 2025

<sup>675</sup> House of Commons, '[Water Quality in Rivers](#), 2022; Water UK, '[Water UK response to the Call for Evidence](#)', 2025; Angling Trust response to the call for evidence, 2025

<sup>676</sup> Water UK, '[Water UK A Reset for Water - Response to the Independent Water Commission's Call for Evidence](#)', 2025; Angling Trust response to the call for evidence, 2025

<sup>677</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>678</sup> [Legislation.gov.uk, 'The Sludge \(Use in Agriculture\) Regulations 1989 No. 1263'](#), (viewed 17 July 2025); Defra engagement with the Commission

microplastics, are unmonitored.<sup>679</sup> Furthermore, current sludge regulation does not take into account modern risk-based regulation and the changes in management of sludge from its treatment through to final use when recycled to benefit land.<sup>680</sup>

527. **This is an issue that has started to attract public concern, with stakeholders expressing significant concern regarding the presence of modern contaminants within sludge.**<sup>681</sup> We have heard there is concern from water companies that if farmers were to start refusing sludge, on the grounds of sludge containing both contaminants and nutrients in excess of crop and soil need, this could lead to the sludge supply chain starting to break down.<sup>682</sup> Water and sewerage companies may have limited resilience to manage this with an average three months of self-storage across the sector.<sup>683</sup> Organisations including The Angling Trust and CIWEM have called for several reforms in this space, including new regulatory limits on contaminants and improved treatment solutions.<sup>684</sup>

## Enforcement

528. **The Commission has heard from various stakeholders that enforcement action is too weak.** Wildfish has argued that the EA's enforcement policy is "hamstrung" by the Regulators Code and Statutory growth duty.<sup>685</sup> Therefore, in their view, when enforcement action is taken, civil penalties are prioritised instead of taking more serious action. NRW, however, argue that while enforcement actions like fines, penalties, or prosecutions are sometimes necessary, they are not always the most effective or proportionate response – especially when the Welsh policy goal is to promote long-term compliance, prevent environmental harm, support improvement and seek remediation for environmental breaches. However, in their response to the Call for Evidence, NRW identified a need for improved enforcement capabilities highlighting that there is scope for strengthening

<sup>679</sup> EA, '[Environment Agency strategy for safe and sustainable sludge use - GOV.UK](#)', 2023; Marine Conservation Society, '[MCS sewage sludge paper](#)', 2023

<sup>680</sup> EA, '[Environment Agency strategy for safe and sustainable sludge use - GOV.UK](#)', 2023

<sup>681</sup> Fisher, J., '[Warning over 'dirty secret' of toxic chemicals on farmers fields - BBC News](#)', 2025; Monbiot, G, '[Microplastics in sewage: a toxic combination that is poisoning our land | George Monbiot | The Guardian](#)' 2022

<sup>682</sup> Fisher, J, '[Warning over 'dirty secret' of toxic chemicals on farmers fields - BBC News](#)', 2025; O'Donnell E, and Boren, Z, '[No Plan B': Water companies fear pollution crackdown will stop them spreading sewage sludge on farmland - Unearthed](#)', 2025

<sup>683</sup> O'Donnell E, and Boren, Z, '[No Plan B': Water companies fear pollution crackdown will stop them spreading sewage sludge on farmland - Unearthed](#)', 2025; and Defra engagement with the Commission

<sup>684</sup> CIWEM, '[PFAS risk and management](#), 2024; [Angling Trust response to Interim Report](#); 2025

<sup>685</sup> [Wildfish response to the Call for Evidence](#), 2025

enforcement powers in Wales, such as the use of civil sanctions which they state is limited compared to other UK regulators.<sup>686</sup>

529. **The Commission has also heard that, where enforcement action is taken, investigations and prosecutions are not timely and could be swifter.** We have heard that this is not solely due to the action or capacity of the regulator but due, in some instances, to the behaviour of companies and wider factors affecting the criminal justice system.<sup>687</sup> There is a significant backlog of water company enforcement cases in England, with the earliest enforcement case being investigated by the EA being from 2016. As of January 2025, there is a backlog of 86 cases.<sup>688</sup> Pennon Group has called for the greater use of variable monetary penalties and enforcement undertakings in preference to lengthy criminal prosecutions to impose penalties quickly and ensure non-compliance is penalised in a timescale which allows sanctions to follow within the same financial year as the failures.<sup>689</sup> Pennon Group argue that this can allow the EA's resources to be targeted towards activities with greater risk of environmental damage and deliberate offending. While some eNGOs are sceptical of the use of civil sanctions, concerned that criminal prosecution may be more appropriate in certain circumstances 82% of respondents to the Organise campaign in response to the Commission's Call for Evidence called for swifter enforcement.<sup>690</sup>
530. **The Commission has also heard that there is a financial disincentive for regulators to pursue enforcement action through the criminal justice system.**<sup>691</sup> The time and costs of carrying out an investigation and putting together an enforcement case can be high. Although costs can be recovered through the courts, regulators may not always recover the actual costs of these lengthy criminal investigations and prosecutions.<sup>692</sup> New provisions in the WSMA 2025 will enable regulators to recover their costs for enforcement activity from the water industry directly and when implemented these provisions will help to fund enforcement activity more generally and will allow the regulators an additional way of recovering costs outside of the Court system.<sup>693</sup>

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<sup>686</sup> NRW response to the Call for Evidence, 2025

<sup>687</sup> Engagement with the Commission

<sup>688</sup> EA Engagement with the Commission

<sup>689</sup> Pennon Group response to Call for Evidence; 2025

<sup>690</sup> UK Government, [Annex A: Independent Water Commission's call for evidence – interim summary of responses](#) (viewed 18 July 2025)

<sup>691</sup> Engagement with the Commission

<sup>692</sup> Engagement with the Commission

<sup>693</sup> Defra, '[Water \(Special Measures\) Act: policy statement - GOV.UK](#)' 2025; Environment Agency, Environment Agency charges consultation: water industry enforcement levy (viewed 18 July)

## Capacity and capability

531. **Stakeholders have argued that compliance activity has been hampered by historic capacity issues.** The EA's environmental protection budget was more than halved between 2009-10 and 2019-20, while NRW has recently had to conduct recruitment freezes and scaling back of certain services.<sup>694</sup> A Senedd Committee recently probed on NRW's enforcement budget, noting that "NRW's decision to adopt a 'higher tolerance of risk' in managing pollution incidents". They stated that "focusing on the areas that have the greatest environmental impact has a logic to it, but it remains unclear what the impact will be of the inevitable lack of enforcement in other areas, even if these incidents cause less environmental damage".<sup>695</sup>
532. **The Commission has also heard that the environmental regulators are limited by historic underinvestment into IT and digital infrastructure, which limits their ability to take advantage of new data streams coming online - such as data from real-time monitors at storm overflows and wastewater treatment works.**<sup>696</sup> We have heard how these data streams can be utilised to drive intelligence led inspections and audits of water industry assets. NRW has raised concerns about the need to strengthen its digital expertise, including to undertake water resources modelling to support future planning on the impact of climate change.<sup>697</sup>

## Conclusions and recommendations

*The Commission is clear that there has been a deterioration in public confidence in the ability of environmental regulators to deal with and enforce environmental non-compliance*

533. **The Commission has identified a range of reforms in other sections of this report which should help to improve environmental outcomes.** This includes:
- **A new National Water Strategy for Wales and England respectively** setting out a renewed, long-term vision for the water environment. A delivery-focused approach will put the environment firmly on track towards being restored and improved (Chapter 1).
  - **The creation of new system planners** should ensure priorities and ambitions are influenced at the local level, with all sectors who are

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<sup>694</sup> UK Parliament, '[Environment Agency: Enforcement Budget](#)', 2022; Cyfoeth Naturiol Cymru Natural Resource Wales, '[CCEI Committee, Natural Resources Wales - Annual Scrutiny 2023-24](#)', 2024

<sup>695</sup> Senedd Cymru Welsh Parliament Climate Change, Environment, and Infrastructure Committee, '[Natural Resources Wales: Annual scrutiny 2024-25](#)', 2025

<sup>696</sup> EA, '[A new approach to ensure regulators and regulations support growth](#)', 2025

<sup>697</sup> NRW response to the Call for Evidence, 2025

responsible for it playing their part to protect the water environment (Chapter 2).

- **Reforms to the Water Framework Directive** should maintain an overarching framework for environmental improvement, while ensuring that it is fit for the future, with greater transparency and a broader scope (Chapter 3).
- **Reform of UWWTR** should strengthen action on sewage pollution and consider options for addressing emerging pollutants including PFAS, micropollutants and microplastics. This will support co-benefits for nature through the use of sustainable drainage scheme and nature-based solutions (Chapter 3).
- **Legislative changes on drainage and wastewater** should help drive a more coherent approach to 'pre-pipe' solutions to stop pollutants and rainwater entering the system, including mandatory requirements for SuDS in new developments (Chapter 3).
- **Regulatory oversight of company performance should be strengthened through the creation of integrated water regulators in England and Wales.** This should improve accountability and thereby help to restore customers' trust that the regulators should hold companies to account for poor environmental performance (Chapter 4).
- **A transition to the EPR should strengthen abstraction regulation, helping to tackle unsustainable abstraction,** requiring the EA to periodically review all permits to ensure they are sustainable, protecting supplies and the environment. (Chapter 5)
- **Reforms to company governance** should ensure that water companies owners, senior managers and company governance arrangements are held accountable to deliver for the public good, including in relation to the environment (Chapter 6).
- **New system resilience standards, covering infrastructure and supply chains** should ensure all companies make forward-looking, long-term assessments of the environmental impact of their systems and assets and of their ability to recover from disruption to their network (Chapter 7).

534. **Alongside these cross-cutting reforms, the Commission is also proposing specific recommendations to rebuild trust in the implementation of environmental regulation.** The Commission believes that 4 key reforms are needed:

- Reforming monitoring practices, including ending operator self-monitoring
- Improving regulatory oversight of sludge



- Expanding the regulators' enforcement powers
- Expanding capacity and capability

***The approach to compliance monitoring in relation to wastewater and sludge should be tightened***

535. **The Commission has concluded that OSM is a significant contributing factor to a lack of confidence in the implementation of environmental regulation.** While we have seen significant evidence that OSM is a common regulatory approach across the world, we have also heard numerous suggestions for how the approach can be strengthened and tightened. This includes better use of modern digital technologies, improvements to ensure samples are more representative of effluent quality and the possibility of using automated final effluent monitoring. The Commission concludes that a new approach to compliance monitoring is needed.

**Recommendation 25: The regulator in England and in Wales should significantly reform the system of Operator Self-Monitoring. It should develop a strengthened approach to monitoring, using greater digitisation, automation, public transparency, third party assurance and intelligence-led inspections.**

536. **Reforming OSM should mark a clear departure from the past and presents an opportunity to re-build trust in the monitoring regime.** This will build on the existing expansion of real-time monitoring that has taken place over the last several years. Updated approaches to monitoring could include independent accreditation to increase reliability in data, as well as other reforms such as extending the sampling window of effluent reporting. This strengthened approach should be underpinned by expanded use of data and artificial intelligence - integration of various data streams to enable an overall assessment of compliance of wastewater assets is essential. Costs should be recovered from the industry as far as possible.
537. **Whilst some have called for monitoring to be completely brought back within the regulator, evidence provided by the EA suggests that this is costly.** For example, the EA outlined that the cost of laboratory services and analysis would be in the order of £23m for the set-up (>£15.5m) and running (>£7.5m) of a new laboratory and associated analytical staff. The total cost would be in the range of £33m to initiate this change, with an annual ongoing cost of £11.6-15.7m subject to inflation.<sup>698</sup>
538. **Alongside this, the Commission believes that the regulator and water companies should significantly expand their approaches to publishing compliance and monitoring data, in an easily accessible form.** This approach should embed transparency by making performance and

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<sup>698</sup> EA engagement with the Commission

compliance data more accessible and traceable through an expansion of publication requirements on companies and the regulator in England and Wales. This will increase accountability with the aim of driving changes in culture. The Commission welcomes recent efforts to increase transparency through the publication of Compliance Assessment Reports in England, allowing reports to be available for public inspection, noting this has been the case in Wales since 2019.<sup>699</sup>

539. **This expansion of monitoring will need to be done in a phased way to manage the burden on customer bills.** Initially it could be targeted to high priority, high risk assets and as required, there should be exemptions for high priority assets, such as Critical National Infrastructure.

**Recommendation 26: The UK Government should review the approach to Continuous Water Quality Monitoring. This review should evaluate the effectiveness and value for money of these monitors, with a view to enhancing cost-efficiency through the adoption of technological advancements.**

540. **With respect to CWQM, the Commission acknowledges that measuring the impact, rather than the volume of storm overflow discharges is the best approach to ensure that effect on the environment is understood.** However, this approach to monitoring fails to provide a holistic understanding of the various pressures affecting the water environment given its primary focus on storm overflow discharges. The Commission also appreciates concerns about the value for money and effectiveness of these monitors. The Commission therefore believes there is a case to review the efficiency and funding allocation of the CWQM programme for future Price Review cycles, given that it is significantly more expensive than the EA's budget to monitor water quality. As set out in Chapter 3, the Commission also supports a review of the wider water environment monitoring programme to support an improved understanding of wider sources of pollution.
541. **A review of CWQM could look at options to transform the programme into a more cost-effective and technologically advanced system for monitoring pollution.** The integration of technology such as AI and machine learning could enable CWQM to become more efficient in monitoring wider sources of pollution. Furthermore, as set out in Chapter 3, there may be opportunities for improved integration with other data sources, including EA-led monitoring and the Natural Capital and Ecosystem Assessment monitoring programme in England.

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<sup>699</sup> NRW engagement with the Commission

**Recommendation 27: The UK and Welsh governments should tighten regulatory oversight of sludge activity by moving the treatment, storage and use of sludge into the Environmental Permitting Regulations.**

542. **The Commission has concluded that the regulatory oversight of sludge practices needs to be tightened.** Introducing a permitting approach to sludge should enhance environmental protection and provide greater protection over the spread of modern contaminants contained within sludge by introducing a risk-based approach to regulation.<sup>700</sup> This should enhance trust both within the public and the farming community due to greater confidence that sludge use is being more tightly regulated and controlled. Moving sludge to the Environmental Permitting Regulations should also enable environmental regulators to recover costs for their regulatory activity to fund greater compliance activities.<sup>701</sup>
543. **However, an expansion of regulatory activity alone will not be sufficient.** The UK and Welsh Government should work water companies and regulators to develop a long-term strategy for managing sludge, including the trial and adoption of new sludge treatment approaches, such as pyrolysis.<sup>702</sup>

***An expanded enforcement toolkit will better support the environmental regulator to take enforcement action***

544. **The Commission welcomes the recent reforms introduced through the Water (Special Measures) Act 2025 in relation to civil penalties, which will expand the regulators' toolkit and enable swifter enforcement action.** The Commission believes that the UK and Welsh governments should implement these provisions as quickly as possible to provide respective water regulators with the enforcement powers they need to hold companies to account. It is the Commission's view that, where appropriate, swifter enforcement action is in the public interest.

**Recommendation 28: The UK and Welsh governments should implement the civil sanctions provisions in the Water (Special Measures) Act 2025 that will expand the regulator's toolkit to enable swifter enforcement.**

545. **Ultimately, the Commission believes the increased use of civil penalties will enable faster intervention, remediation and delivery of justice following breaches.** The regulator should pursue the course of action they consider proportionate to the offence balanced against the overall aim to improve a companies' environmental performance. However, the

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<sup>700</sup> EA engagement with the Commission

<sup>701</sup> EA, '[Environment Agency strategy for safe and sustainable sludge use - GOV.UK](#)', 2023

<sup>702</sup> Ofwat, '[Proving the concept of sewage sludge pyrolysis - Ofwat Innovation Fund](#)', (viewed 18 July 2025)

Commission believes the public interest will often lie in swifter enforcement rather than lengthy prosecutions and that the powers provided for through the WSMA 2025 will enable regulators to issue fixed monetary penalties and variable monetary penalties in respect of certain offences “on the balance of probabilities”, which is a lower burden of proof. This should help avoid, where appropriate, lengthy court prosecutions, which can give the impression that action is not being taken by the regulators, and lead to an enforcement backlog.<sup>703</sup>

**Recommendation 29: The EA should accelerate their efforts to bring resolutions to long-running enforcement cases in consideration of the public interest of delivering justice for any historic offences.**

546. **The Commission believes that clearing the enforcement backlog is a necessary step.** Where possible, the EA should accelerate their efforts to resolve long, outstanding enforcement cases. The Commission welcomes the current efforts to address historic cases. For example, the EAs expansion of capacity and capability through the appointment of dedicated officers, along with the provision of targeted training and guidance, has been a positive step. Tackling the backlog of enforcement action will help to deliver a reset in the sector, with a renewed focus on achieving compliance into the future.

*Central to rebuilding trust is making sure that the water regulator is equipped with the capacity and capability to effectively deliver their functions*

547. **The Commission recognises that historically the environmental regulators in England and Wales have been beset by capacity and capability challenges which has impacted their ability to oversee compliance in the industry.** The Commission concludes that capacity and capability should be expanded.

**Recommendation 30: The regulator should significantly accelerate the implementation of digital programmes to support intelligence-led and transparent enforcement and compliance activities.**

548. **Greater use of artificial intelligence, digitisation and automation can facilitate greater intelligence-led environmental regulation.** This will support on the ground inspections of assets. There is a strong case for ambitious action in this area, given the wide range of opportunities where data analytics can enhance regulatory effectiveness. These include automated monitoring of water company operations and environmental conditions, as well as the development of modern permitting systems and digital tools for enforcement and compliance. Greater digitisation can

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<sup>703</sup> Defra, ‘[Water \(Special Measures\) Act: policy statement - GOV.UK](#)’ 2025

address these issues by consolidating paper-based and legacy platforms and by enabling faster, more efficient compliance reviews through modern IT infrastructure. This transformation is essential for a more responsive and effective regulator.

549. **Some action is already in train to address this; but the regulator needs to keep accelerating their adoption and implementation of digital monitoring and permitting technologies to improve regulator capability and efficiency.** The EA's Water Industry Regulation Transformation Programme has been a step in the right direction, as well as NRW's development of a digital reform programme and the regulator in England and in Wales should build upon these.

**Recommendation 31: The UK and Welsh governments should take steps to ensure full cost recovery from the industry to ensure that the regulatory service is self-sufficient and in line with the polluter pays principle.**

550. **Regulators need adequate and stable funding.** The regulators are funded by a mix of government funding and charge funding. The Commission is of the view that cost recovery from industry should ensure that the regulatory service is self-sufficient and has a stable source of funding through time. The Commission welcomes recent changes in England and Wales including the NRW charge review, EA's recent announcement of their largest ever budget with a funding increase of 64% since 2023/2024,<sup>704</sup> EA's wastewater permitting charge uplift and EA's consultation on an enforcement levy. In line with Recommendation 20 from the Corry review, the Commission concludes that the UK and Welsh Government should work with the regulator in England and in Wales to explore where cost recovery for water industry regulator activities can be expanded to ensure the regulator service can be self-sufficient, implementing the polluter pays principle.<sup>705</sup>

**Recommendation 32: The UK and Welsh governments should ensure that their regulators are equipped with sufficient powers, operational flexibility, and the ability to recruit and retain high-quality technical staff. This should include establishing the new regulator outside of public sector pay controls.**

551. **To ensure the necessary capability to enable this change, recruit the right talent and implement the Commission's recommendations, the governments should also enable greater pay-scale flexibility within the regulator.** This is also in line with the recommendations of the recent Corry

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<sup>704</sup> UK Government, Largest ever budget for water regulation (viewed 17 July 2025); Environment Agency, [Environment Agency charges proposal: water industry enforcement levy - GOV.UK](#) (viewed 17 July 2025)

<sup>705</sup> Recommendation 20: A short review is needed to assess the current landscape of chargeable services and cost recovery across Defra, so it can go further in applying the polluter pays principle, to support the Department in providing faster and more transparent digital services to customers. Corry Review



Review. For example, Ofcom, who is funded by fees from the companies it regulates, have their own pay structure separate from the government's pay scale.<sup>706</sup> The Financial Conduct Authority is also funded by fees levied on the financial services firms it regulates and therefore have separate pay structures to government.<sup>707</sup> This may require establishing a new regulator as a non-departmental public body and ensuring it is fully self-sufficient in its funding. Pay scale flexibility may be particularly important to enable the regulators to recruit technical and specialist staff, such as engineers, financial experts and data scientists.

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<sup>706</sup> Ofcom, '[How is Ofcom funded? - Ofcom](#)', 2024

<sup>707</sup> FCA, '[Pay review 2025: Equality Impact Assessment | FCA](#)', 2025

## 5.3 Drinking Water Regulation

### Background

552. **Following privatisation, the Drinking Water Inspectorate (DWI) was formed to provide independent assurance that water supplies in England and Wales are safe and drinking water quality is acceptable to consumers.** The DWI has statutory duties to ensure the quality and sufficiency of public drinking water supplies. Inspectors (including the Chief Inspector of Drinking Water) are appointed to act on behalf of the Secretary of State and Welsh Ministers under section 86 of the Water Industry Act 1991 (WIA 1991) to achieve these objectives.
553. **Water companies must comply with the domestic supply duty, for example to provide household premises with a supply of water that is sufficient for domestic purposes.** Furthermore, water companies are under a duty to ensure that any water supplied to premises for domestic or food production purposes is wholesome. Private water supplies – those supplied by businesses not licenced under the WIA 1991 – are regulated by local authorities and are outside of the Terms of Reference of the Independent Water Commission.
554. **The DWI regulates the quality of public drinking water against a set of drinking water standards set out in legislation through the Water Supply (Water Quality) Regulations 2016 in the England and Water Supply (Water Quality) Regulations 2018 in Wales.** These regulations transpose requirements of the EU Drinking Water Directive and Council Directive 2013/51/Euratom.<sup>708</sup> A review provision within these regulations places an obligation on the Secretary of State to periodically review the regulations to ascertain their effectiveness. There is no corresponding review provision in the Welsh regulations. To help tackle emerging risks to the drinking water supply, the DWI formed an Independent Advisory Group in 2023 and has since made recent recommendations to ministers to update and revise drinking water standards, to protect public health.<sup>709</sup> The Advisory Group published their first report in December 2024 which includes, but is

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<sup>708</sup> Drinking Water Inspectorate, [Drinking Water Standards and Regulations - Drinking Water Inspectorate](#), (viewed 6 June 2025). These regulations transpose requirements of the EU Drinking Water Directive on the quality of water intended for human consumption and Council Directive 2013/51/Euratom laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption

<sup>709</sup> Drinking Water Inspectorate, [Recommendations-and-full-report-of-the-advisory-group-Dec-2024.pdf](#), 2024; Drinking Water Inspectorate response to the Call for Evidence, 2025. [Independent Water Commission: review of the water sector - DWI Summary Response - Drinking Water Inspectorate](#)

not limited to, recommendations on PFAS and lead - alongside supporting policies to reduce exposure to lead from drinking water.<sup>710</sup>

555. **Products used in the drinking water infrastructure require approval by the DWI, in line with Regulation 31 of the Water Supply Regulations.**<sup>711</sup>

Regulation 31 ensures the necessary approvals for any new products or approaches for use in sanitation and drinking water infrastructure are provided to avoid any negative impacts on water quality. The process involves carrying out independent testing of products to make sure they do not leach harmful substances into the water, followed by review and approval from the DWI. It is the water industry's responsibility to ensure it has access to the necessary laboratory testing services to fulfil this requirement.

556. **The drinking water regulator has a range of tools to ensure water companies comply with regulations and thereby ensure standards are met.** Under the Water Industry (Suppliers Information) Direction 2024, a water supplier must provide monthly analysis of drinking water samples to enable the DWI to assess compliance. Should there be any failures or breaches in meeting regulatory standards, the DWI must investigate.

557. **Where companies fail to comply with drinking water regulations, the DWI can use a range of enforcement tools to bring companies back into compliance.**<sup>712</sup> For minor breaches, they may make use of recommendations, warning letters and cautions. For more serious breaches, or if more minor breaches are not resolved, they may use notices, undertakings and enforcement orders. The DWI may also take forward formal criminal investigation and prosecutions, which involves bringing charges against a person or a company in court. Where a company carries a persistent risk with respect to drinking water quality, the Inspectorate may implement an improvement programme. In doing so, the Inspectorate's aim is to work with the company to develop a high standard of self-assurance and to enable the company to make better decisions and work towards full compliance, thereby reducing the need for regulatory action.<sup>713</sup> In contrast to the EA and Ofwat, the DWI currently has no power to impose civil financial penalties in relation to drinking water standards. If they wish to do so, they must make a recommendation to the Secretary of State or Welsh Ministers, who would impose the penalty.

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<sup>710</sup> Drinking Water Inspectorate, [Recommendations-and-full-report-of-the-advisory-group-Dec-2024.pdf](#), 2025

<sup>711</sup> Drinking Water Inspectorate, [What is Reg31? - Drinking Water Inspectorate](#), (viewed 11 June 2025)

<sup>712</sup> Drinking Water Inspectorate, [Enforcement Policies - Drinking Water Inspectorate](#), (viewed 11 June 2025)

<sup>713</sup> Drinking Water Inspectorate, [Enforcement Policy – Drinking Water Quality Regulation - Drinking Water Inspectorate](#), (viewed 11 June 2025)

558. **In the past five years, the DWI initiated four prosecutions and issued eight formal cautions to water companies for supplying water unfit for human consumption or for failing to comply with drinking water quality regulations.**<sup>714</sup> Most recently, Anglian Water was prosecuted in 2025, resulting in a record £1.42 million fine for drinking water failures affecting over a million consumers.<sup>715</sup>
559. **England and Wales have stringent drinking water standards, which water companies consistently meet.** In 2023, 99.97% of samples in England and 99.96% of samples in Wales were in compliance with regulatory standards.<sup>716</sup> Whilst water quality incidents are rare, when they do happen, they are rightly very concerning for those involved and receive considerable publicity. In May 2024, South West Water detected *Cryptosporidium* in the drinking water supply in the Brixham area in Devon. This was an isolated incident and was the first such event in nine years.<sup>717</sup>

### Box 32 – Unsafe Drinking Water across OECD Countries, 2024

The 2024 Environmental Performance Index (EPI) which includes a measure known as Unsafe Drinking Water (UWD) evaluates the proportion of a population exposed to unsafe drinking water, with a higher score indicating safer drinking water. In the 2024 EPI, the UK achieved a perfect score of 100, as did Ireland and Germany.<sup>718</sup> In contrast, the Netherlands scored 91.3, and France scored 87.6, suggesting that a small portion of their populations may still be exposed to unsafe water sources.<sup>719</sup> Together, these metrics provide a comprehensive picture of drinking water safety, reinforcing the UK's position as a global leader in drinking water quality.

<sup>714</sup> Drinking Water Inspectorate, [Prosecution and Caution Record - Drinking Water Inspectorate](#), (viewed 20 June 2025); Water Magazine, [Anglian Water fined a record £1.42 million for using unapproved materials in drinking water tanks that compromised water supply - Water Magazine](#), (viewed 11 July 2025)

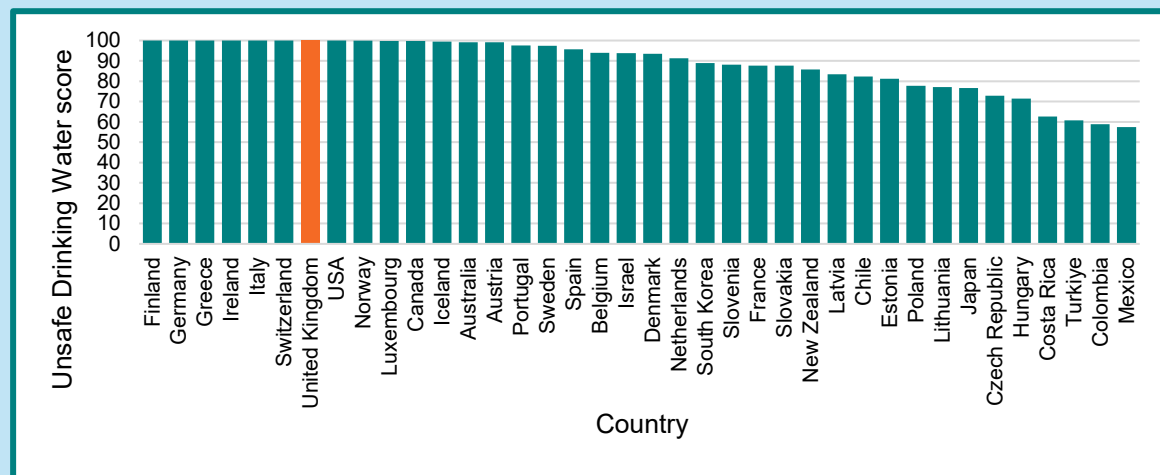
<sup>715</sup> BBC, [Anglian Water fined 'record' £1.42m for drinking water failures - BBC News](#) (viewed 11 July 2025)

<sup>716</sup> Drinking Water Inspectorate, [https://dwi-production-files.s3.eu-west-2.amazonaws.com/wp-content/uploads/2024/08/07103814/E03067866\\_DWI-Public-water-supplies-in-England-2023\\_Accessible\\_v2-1.pdf](https://dwi-production-files.s3.eu-west-2.amazonaws.com/wp-content/uploads/2024/08/07103814/E03067866_DWI-Public-water-supplies-in-England-2023_Accessible_v2-1.pdf); Drinking Water Inspectorate, [Drinking Water 2023: The Chief Inspectors report for drinking water in Wales](#), 2024 (viewed 11 July 2025)

<sup>717</sup> Drinking Water Inspectorate, [Statement from the Chief Inspector of Drinking Water - May 2024 - Drinking Water Inspectorate](#), (viewed 11 July 2025)

<sup>718</sup> Out of 100

<sup>719</sup> Environmental Performance Index, [2024 Environmental Performance Index - Unsafe drinking water](#), 2024 (viewed 11 July 2025)

**Figure 18: Unsafe Drinking Water Scores, OECD Countries, 2024**

Source: Environmental Performance Index<sup>720</sup>

## Issues

560. **Despite the success of the DWI in overseeing high quality drinking water standards in England and Wales, the Commission has heard of three issues:**
- Growing pressures and emerging risks
  - Limits to DWI's powers
  - A lack of innovation in the sector

### Growing pressures and emerging risks

561. **The Commission has heard that emerging risks, such as PFAS, and the challenge of dealing with legacy contaminants such as lead is impacting drinking water quality and presenting a risk to public health.**  
<sup>721</sup> As set out in Chapter 3, dealing with such contaminants may require additional treatment approaches or approaches to limit the source of such pollutants.
562. **There are indications that a minority of the population may be losing confidence in their drinking water supply, with concerns about wastewater pollution extending by false association to water companies supply of drinking water.** Consumer Council for Water's (CCW) 'Understanding Consumer Priorities' report analysed consumer conversations on social media platforms. It indicated that between August

<sup>720</sup> Environmental Performance Index, [2024 Environmental Performance Index - Unsafe drinking water](#), 2024

<sup>721</sup> Engagement with the Commission; Royal Society of Chemistry, [Cleaning up UK drinking water](#), (viewed 16 June 2025); Drinking Water Inspectorate, [Recommendations-and-full-report-of-the-advisory-group-Dec-2024.pdf](#), 2025



2023 and November 2024, the amount of times drinking water quality was mentioned rose by 17%, with concerns shifting from taste impurities to fears of contamination and safety.<sup>722</sup>

563. **There are concerns regarding delays to updating drinking water standards.** Whilst there is a review provision in the regulations in England it functions primarily to drive better regulation, rather than ascertaining whether updates are needed to ensure that they are in line with the most up to date scientific developments. DWI have therefore argued there is a 'governance gap' which may present a risk in that the stringent regulatory standards currently maintained in England and Wales, are not regularly updated in line with current threats, international best practice and scientific developments.<sup>723</sup>

### Limits to DWI's powers

564. **The Commission has also heard that there are some gaps in the DWI's powers to regulate for the quality of drinking water, specifically in relation to third party delivery bodies.**<sup>724</sup> Under a direct procurement for customers (DPC) regime, water or wastewater companies competitively tender for services in relation to the delivery of certain large scale infrastructure projects, resulting in the selection of a third-party operator, or Competitively Appointed Provider (CAP). DWI does not currently have any statutory powers to regulate CAPs unless they are involved in the supply of water that is unfit for human consumption. Therefore, any third-party operators associated with drinking water supply, would likely, currently fall outside of the regulatory regime in relation to drinking water standards, posing a potential risk to public health. Further information on the DPC regime is set out in Chapter 6.
565. **The DWI does not have the ability to impose civil financial penalties as an enforcement mechanism.** Currently, the Inspectorate must either recommend to the Secretary of State that a penalty is imposed, seek a court injunction or commence legal proceedings. These processes can take time, limiting DWI's ability to respond swiftly and secure timely action in light of breaches.<sup>725</sup>

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<sup>722</sup> Consumer Council for Water, [Consumer-priorities-2025.pdf](#), (viewed 9 June 2025)

<sup>723</sup> Drinking Water Inspectorate, [Recommendations-and-full-report-of-the-advisory-group-Dec-2024.pdf](#), (viewed 9 June 2025)

<sup>724</sup> Drinking Water Inspectorate response to the Call for Evidence, 2025. [Independent Water Commission: review of the water sector - DWI Summary Response - Drinking Water Inspectorate](#) (viewed 9 June 2025)

<sup>725</sup> Engagement with the Commission

**Box 33 – Application of penalty powers to improve outcomes**

DWI has provided an example where powers to impose financial penalties may be beneficial.

Severn Trent Water received two warning letters following investigations into two incidents at service reservoirs operated by the company. The first incident was associated with the detection of faecal indicator organisms in Mapperley service reservoir, Nottingham in July 2017, following an over-filling event. The second incident was associated with the detection of faecal indicator organisms in High Service Reservoir, Derby in December 2017 following a period of heavy rain when the roof membrane was defective. The Inspectorate subsequently identified evidence of livestock faeces on the roof of the reservoir. The Inspectorate concluded that the company was negligent in not preventing both these events and, in each case, failed to take adequate steps to protect public health. During an interview under caution, the company declined to admit the offence, which removed the option of issuing a caution to the company. As corrective action had since been taken, it was deemed not in the public interest to pursue a prosecution through court and the company were issued with a warning letter.

The ability to fine the company for these serious events may have sent a stronger regulatory message to the wider water industry.

## Innovation in the sector

566. **The Commission has heard that regulations for the approval of products related to drinking water is stifling innovation.**<sup>726</sup> Since 2018-19, private laboratories have gradually stopped carrying out Regulation 31 testing, with the final remaining laboratory ceasing testing in 2023 due to low commercial viability.<sup>727</sup> Since then, a backlog of products waiting for approval has built up. The Commission has heard that this is preventing companies from using new products for repairs and installation of new infrastructure.<sup>728</sup> We have heard that progress has been made in 2025 with 5 laboratories indicating interest in undertaking Regulation 31 services, 4 based in the UK and one in Europe.<sup>729</sup> However, these do not cover the full scope of testing. The Commission has heard that reforms to the Regulation 31 approach, for example to enable recognition of testing conducted in other, comparable countries, could help to overcome this issue.<sup>730</sup>

<sup>726</sup> Engagement with the Commission

<sup>727</sup> Engagement with the Commission; British Water, [WRc supporting innovative technologies through Regulation 31 - British Water](#), (viewed 16 June 2025)

<sup>728</sup> Engagement with the Commission

<sup>729</sup> Engagement with the Commission

<sup>730</sup> Engagement with the Commission

## Conclusions and recommendations

567. **The regulatory system for drinking water is delivering the required high-quality outcomes but this needs to be maintained into the future.** It is effective at ensuring licenced companies meet the stringent regulatory standards for drinking water, with England and Wales among the top countries in the world for safe drinking water. Outcomes on drinking water testify to an effective regulator with a clear remit. However, looking ahead, the challenge in maintaining this high-quality service provision will increase, and it is essential that the regulatory framework and regulatory capacity can keep up with the latest scientific developments on risks to public health and with international best practices.

*Changes to legislation are needed to safeguard the successful provision of quality drinking water for the future.*

**Recommendation 33: The UK and Welsh governments should ensure an effective process is in place for regularly reviewing and updating drinking water standards.**

568. **The Commission concludes that the UK and Welsh Government should update the current water quality standards.** The Commission notes that the DWI commissioned independent Advisory Group report, published in December 2024, highlighted areas of concern relating to quality parameters such as PFAS.<sup>731</sup> However, the drinking water quality standards have not been updated since 2018. The Commission understands that this is largely due to challenges associated with parliamentary time and capacity within Defra to take forward necessary secondary legislation.<sup>732</sup> The Commission recommends that the UK and Welsh Government work with the regulator to consider immediate updates to the drinking water standards.
569. **There should also be a clear statutory mechanism by which the drinking water quality standards can be regularly reviewed and if necessary, updated going forwards, to ensure protection of public health in light of emerging evidence.** The government should consider how best this might be achieved. One option is that provisions could be introduced to ensure that the UK Government must respond to regulator-led reviews, carried out on a regular basis, in both England and Wales. Ministers could be required to explain what decision they have taken in response to the review. Alternatively, the drinking water quality standards could be removed from legislation, and the regulator could be provided with the powers to set and amend those standards. Finally, an option is that the

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<sup>731</sup> Drinking Water Inspectorate, [Recommendations-and-full-report-of-the-advisory-group-Dec-2024.pdf](#), (viewed 9 July 2025)

<sup>732</sup> Engagement with the Commission

drinking water regulator could be given an authorisation function, with powers to set standards in conditions in licenses relating to drinking water standards.

**Recommendation 34: The UK and Welsh governments should introduce powers to strengthen the regulator’s toolkit in relation to drinking water, including an extension of its powers to cover all third-party operators, and powers to directly impose financial penalties.**

570. **It is the Commission’s view that the drinking water regulatory remit should be expanded to enable inspection, investigation, enforcement or prosecution against anyone who builds, installs, operates, connects or has any responsibility in the supply, control or maintenance and services of a water supply system.** As set out above, DWI does not currently have any statutory powers to regulate third-party providers unless they are involved in the supply of water that is unfit for human consumption. This change would allow the regulator to regulate third party operators in the same way they regulate water companies.

571. **The Commission also concludes that the regulator should have statutory powers to impose financial penalties on water companies in respect of failures to comply with drinking water quality obligations.** This would act as a deterrent against non-compliance and improve customer protection safeguards by closing the gap in the Inspectorate’s current enforcement powers. Such powers would be complementary to the existing enforcement options available to the Inspectorate and could help to reduce the burdens on the courts. Such powers would be consistent with the powers that Ofwat already has under section 22A of the WIA 1991, allowing regulators to impose financial penalties up to 10% of the turnover of the business, for frequent, minor to moderate offending.<sup>733</sup>

***Innovation in the drinking water sector should continue to be supported***

572. **The backlog of products waiting for Regulation 31 approval is stifling innovation and causing supply chain challenges.** The Commission understands that the DWI and the water industry have worked together to identify solutions to this problem and encourages this continued collaboration.

**Recommendation 35: The regulator, water industry and UK and Welsh governments should secure and expand Regulation 31 testing services for drinking water products.**

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<sup>733</sup> Engagement with the Commission, The National Archives, [Water Industry Act 1991](#), (viewed 16 July 2025)

573. **The Commission considers that the expansion of UK laboratory capacity to perform Regulation 31 testing would be welcomed and recommends that Water UK continues to explore options to identify a laboratory with the full suite of Regulation 31 testing capabilities.**

Alongside this, the DWI should explore opportunities for harmonisation with other jurisdictions, where they have similar regimes for approving products. This would only be acceptable if it could be shown to have equivalence with the safeguards embodied within Regulation 31 to ensure protection of public health. The regulator should explore harmonisation of testing requirements and accreditations with other jurisdictions whilst ensuring the full protection of public health.



## 5.4 Water resources

### Background

574. **Water supply in England and Wales is primarily the responsibility of 11 regional water and wastewater companies, and 5 water-only companies.**<sup>734</sup> The Water Industry Act 1991 (WIA 1991) requires companies to provide a sufficient and wholesome water supply to premises for domestic purposes.<sup>735</sup> Water companies primarily provide water by sourcing it from surface water (like rivers and lakes), groundwater (aquifers) and sometimes desalination plants. This water is treated and then distributed through a network of pipes to homes and businesses. To manage water resources, companies focus on provision of supply, demand management and asset maintenance, including tackling leakage.
575. **Water resources regulation is divided between the regulators.** The EA and NRW have a duty to manage and conserve water resources in England and Wales, protecting water sources for people and the environment. They regulate abstraction and impounding activities, and issue drought permits. Abstraction and impounding activities are regulated under the Water Resources Act 1991 (WRA 1991) to control how much water is taken from the environment using a system of licences. In 2021, the UK government consulted on changes to bring abstraction into the Environmental Permitting Regulations in England so that abstraction is regulated in line with other industrial activities.<sup>736</sup> However, there has not yet been a government response to this consultation. The EA and NRW use the Supply Demand Balance Index (SDBI)<sup>737</sup>, to assess how a water company is managing the balance between water available for supply and forecast.<sup>738</sup>
576. **Ofwat is responsible for ensuring water companies maintain secure water supplies, in England and in Wales, in line with their duties under the WIA 1991.** Ofwat assess a company's security of supply through outcome delivery incentives (ODIs) including resilience, environmental performance and leakage.

<sup>734</sup> Ofwat, [Contact details for your water company - Ofwat](#), (viewed 15 July 2025); In addition to the primary water companies there are also NAVs - [New Appointments and Variations \(NAVs\) - Ofwat](#)

<sup>735</sup> Water Industry Act 1991, Section 37, 52, 68

<sup>736</sup> UK Government, [Changes to the regulatory framework for abstraction and impounding licensing in England: Moving into the Environmental Permitting Regulations regime - Defra - Citizen Space](#) (viewed 17 July 2025)

<sup>737</sup> UK Government, [Water and sewerage companies in England: EPA metric guide for 2021 - GOV.UK](#), (viewed 9 June 2025). This metric assesses how the supply demand balance (water available for supply compared to forecast dry year demands) compares to what is set out in a water company's Water Resources Management Plan (WRMP)

<sup>738</sup> This is in addition to the WRMP annual review process

577. **DWI is responsible for ensuring water companies in England and Wales supply water that is safe to drink and meets the standards set out in the Water Supply (Water Quality) Regulations 2016 (England) and 2018 (Wales).** DWI exercises powers and duties on behalf of the Secretary of State under the WIA 1991 in respect of the quality and sufficiency of water supplies.
578. **Under the WIA 1991, water companies have a statutory duty to prepare, publish and maintain Water Resource Management Plans (WRMPs) setting out how they intend to achieve a secure supply of water in their area, over the next 25 years.** Within these plans, water companies must forecast supply and demand, set out options to fill any deficit and meet a 1 in 500 year drought resilience target. Further information on water industry business planning is set out within Chapter 2. The companies must prepare a plan every 5 years and review it annually. WRMPs are subject to sign-off by the Secretary of State in England and Welsh Ministers in Wales. The EA and NRW provide technical advice to Ministers in their execution of this function. The most recent iteration of WRMPs has led to planned investment of £8 billion in Price Review 2024 to progress projects including 10 new reservoirs, 1 reservoir enlargement, 9 water transfer schemes, 2 desalination schemes and 1 minewater treatment scheme.<sup>739</sup>
579. **In England, in 2020, in recognition of increasing water challenges, the EA established the National Framework for Water Resources.**<sup>740</sup> This marked a shift towards strategic regional planning, where regional groups made up of water companies and other sector water users form regional plans to build water resilience. This is under the framework of a national strategy produced by the EA, setting out the long-term water needs of the country. The second, and most recent national framework was published in 2025.<sup>741</sup> In Wales, there is no equivalent to the national framework, with water resources managed through Abstraction Licencing Strategies.<sup>742</sup>

## Leakage and demand management

580. **The WRMPs include assumptions and interventions relating to leakage.** Reducing leakage involves identifying and reducing water escaping from assets due to deterioration, poor installation, operational failures like pressure surges, third party damage and environmental factors. Leakage is regulated by Ofwat primarily through performance commitments and economic incentives.

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<sup>739</sup> Environment Agency, [The National Framework For Water Resources 2025](#), (viewed 17 July 2025)

<sup>740</sup> Environment Agency, [1. Introduction: National Framework for Water Resources 2025 - GOV.UK](#), (viewed 9 June 2025)

<sup>741</sup> Environment Agency, [National Framework for Water Resources 2025: water for growth, nature and a resilient future - GOV.UK](#), (viewed 17 July 2025)

<sup>742</sup> Cyfoeth Naturiol Cymru Natural Resources Wales, [Natural Resources Wales / Water available in our catchments](#), (viewed 17 July 2025)

581. **The WRMPs also include demand management interventions and assumptions to ensure sustainable and efficient use of water.** Demand interventions include reducing household and industrial water consumption through behavioural changes, metering and adopting water efficient technologies.
582. **Regarding consumption, governments, water companies and other sectors encourage water-saving practices through public awareness campaigns and incentives.** Building regulations set a minimum standard for water usage in new homes. Local authorities can require a water efficiency standard of 125 litres per person per day (l/p/d) or set an optional technical standard of 110 l/p/d, for instance in areas of water stress. The UK Government has committed to reviewing a tighter standard of 105 l/p/d and an optional standard of 100 l/p/d for all new homes.<sup>743</sup> In Wales, the standard is 110 l/p/d in Wales. Further to this, in 2022 the UK Government consulted on plans for new, mandatory water efficiency labelling scheme.<sup>744</sup>
583. **Water meters and smart water meters are an important mechanism for managing household consumption.** Most water meters in England and Wales are 'standard' meters that require manual reading and enable companies to charge customers based on their consumption. However, smart meters are increasingly being installed. These measure water usage and send data electronically, providing more information on water consumption to companies and customers, and can help in the timely identification of leaks.
584. **In 2023/24 a total of 63% of households in England and Wales have water meters, 13% are smart meters.**<sup>745</sup> Water companies have funding agreed for an accelerated rollout of 10 million smart meters over the next five years. Current plans in England would see 51% of households with smart meters by 2030, 75% by 2040 and 77% by 2050.<sup>746</sup> Welsh water aim to increase their level of metering to 79% by the end of March 2030 and to 96% by 2050; with smart meters starting to be installed consistently from 2025 onwards.<sup>747</sup>
585. **While customers with a water meter are generally charged a flat rate for the water they consume, companies are running trials to explore how different ways of structuring charges affect customer behaviour and**

<sup>743</sup> UK Government, [Sanitation, hot water safety and water efficiency: Approved Document G - GOV.UK](#), (viewed 18 July 2025)

<sup>744</sup> UK Government, [Summary of responses and government response - GOV.UK](#), (viewed 18 July 2025)

<sup>745</sup> Consumer Council for Water, [Water Mark 2024 - CCW](#), (viewed 2 July 2025). A total of 63% of households in England and Wales have water meters, 13% have smart meters. Data published on 13 November 2024

<sup>746</sup> Environment Agency, [Appendix A: Smart metering in revised draft water resources management plans](#), (viewed 18 July 2025).

<sup>747</sup> Dŵr Cymru Welsh Water, [FWRMP24 Full Document v30 \(1\).pdf](#), page 15, (viewed 18 July 2025)

therefore their consumption.<sup>748</sup> Variable charging structures are used across the utilities sector both to provide consumers more choice and to manage demand pressures. In the water sector, historically, there has been limited innovation in this area. However, five companies (South West Water, Affinity, Anglian, South Staffs and United Utilities) are running trials to explore different ways of structuring charges that may encourage efficient use of water and/or help make bills more affordable.<sup>749</sup>

586. **Non-household customers are served through the Business Retail Market.** Business consumption of water currently makes up roughly 30% of total use in England and in Wales (excluding leakage).<sup>750</sup> All businesses in England, and large users in Wales, purchase water and sewerage services through a separate Business Retail Market (BRM). Wholesalers have separate tariffs for businesses and the price that retailers charge is regulated by Ofwat. As a result, there are lot of different tariffs. Further information on the Business Retail Market is set out in Chapter 6. Many wholesalers' tariffs are structured as a 'falling block'; this means the marginal price of water falls as consumption increases.
587. **More than 90% of non-household customers have meters, although smart metering is rare.**<sup>751</sup> Only an estimated 4% of non-households have smart meters, although water companies plan to increase smart metering in this area of the market to 55% by 2030, 73% by 2040 and 74% by 2050.<sup>752</sup> In Price Review 2024, around 800,000 smart meters will be rolled out to business customers.<sup>753</sup>
588. **Other efficiency measures can be used to reduce demand in both household and non-household settings. Water re-use, using dual-piped systems to supply non-potable water, involves treating and reusing water that has already been used for one purpose.** It can be implemented in a non-domestic setting by water companies, developers or individuals for non-drinking water (non-potable) purposes with the water used for irrigation, cooling and cleaning. In 2020, approximately 0.06% of wastewater was reused in England.<sup>754</sup> This is low in comparison with other countries. For example, in 2022, Spain reused approximately 8% of their treated

<sup>748</sup> Ofwat, [Charging trials - Ofwat](#), 2025. One example is South West Water's Smart Saver tariff that charges customers a cheaper rate for using a lower amount of water and progressively higher prices for using larger volumes of water. (viewed 18 July 2025)

<sup>749</sup> Ofwat, [Charging trial](#), (viewed 18 July 2025)

<sup>750</sup> UK Government, [6. Taking action on public water supplies: National Framework for Water Resources 2025 - GOV.UK](#), Section 6.3 (viewed 18 July 2025)

<sup>751</sup> Environment Agency, [Appendix A: Smart metering in revised draft water resources management plans - GOV.UK](#), (viewed 18 July 2025)

<sup>752</sup> EA, [Appendix A: Smart metering in revised draft water resources management plans - GOV.UK](#) (viewed 18 July 2025)

<sup>753</sup> Market Operator Services Limited, [Smart Metering - MOSL](#), (viewed 10 June 2025)

<sup>754</sup> UK Government, [Wastewater treatment in England: data for 2020 - GOV.UK](#), (viewed 2 July 2025)

wastewater, with reuse concentrated in Valencia and Murcia.<sup>755</sup> Israel stands out globally, with around 90% of its treated wastewater reused, primarily for irrigation.<sup>756</sup> Ofwat has recently introduced a framework to incentivise efficiency measures including water reuse for new housing developments, although this has not been extended to businesses and commercial buildings.<sup>757</sup>

589. **There are a range of targets in place to guide planning for water resource management, covering aspects of supply, demand and leakage, as set out in Box 34.**

#### **Box 34 – Targets relating to water supply, demand and leakage in England**

##### **Drought resilience**

- From 2020, WRMPs in England introduced a non-statutory target for the UK water sector to work towards being resilient to a 1 in 500-year drought by 2040 or earlier.<sup>758</sup>

##### **Statutory Targets set under the Environment Act 2021 on public water supply**

- A demand target to reduce the use of public water supply per head of population by 20% by 2038.<sup>759</sup> This is supported by interim non-statutory targets of reductions of 9% by 31 March 2027; and by 14% by 31 March 2032. All from a 2019 to 2020 baseline.

##### **EIP Commitments (non-statutory)**

- To support the statutory water demand target, there are interim non-statutory targets to reduce leakage by 20% by 31 March 2027 and 30% by 31 March 2032 from a 2017-2018 baseline.
- Reduce non-household water use by 9% by 31 March 2038 and 15% by 2050 from a 2019-2020 baseline.
- Reduce household water use to 122 litres per person per day by 31 March 2038 and 110 litres per person per day by 2050 from a 2019-2020 baseline.<sup>760</sup>

<sup>755</sup> Lecture Notes in Chemistry, Volume 113, Water Reuse in Spain: Drivers and Barriers in Murcia and Almeria Region, pages 617 – 641, [Water Reuse in Spain: Drivers and Barriers in Murcia and Almeria Region | SpringerLink](#), (viewed 2 July 2025)

<sup>756</sup> EPA, [From Water Stressed to Water Secure: Lessons from Israel's Water Reuse Approach](#), (viewed 14 July 2025)

<sup>757</sup> Ofwat, [Environmental incentives to support more water efficient new homes - Ofwat](#), (viewed 16 June 2025)

<sup>758</sup> Environment Agency, [A summary of England's revised draft regional and water resources management plans - GOV.UK](#), (viewed 11th July 2025)

<sup>759</sup> This target is set out specifically in The Environmental Targets (Water) (England) Regulations 2023

<sup>760</sup> HM Government, [Environmental Improvement Plan](#), (viewed 11th July 2025)



## Issues

590. **The Commission has identified 3 main issues in relation to water resources:**

- Water resources planning and delivery framework
- Water resources targets
- Leakage and demand management

## Water resources planning and delivery framework

591. **Water resources in England are under pressure.** By 2055, it is anticipated there could be an additional 8 million people living in England, and public water supply could experience a shortfall of up to 5 billion litres per day.<sup>761</sup> A further 1 billion litres of water may be needed by 2055 for other water users, such as the energy and food sectors.<sup>761</sup> Water supply pressures are already impacting economic growth and development. For example, in March 2024, Cambridge had 9,000 homes and 300,000 square meters of commercial space unable to proceed through the planning process due to the EA advising that some water bodies in Cambridge were at risk of deterioration if additional pressure was put on the groundwater sources.<sup>762</sup> In contrast, Wales is assessed as meeting its water needs. However, prolonged dry weather and drought is becoming more common in Wales, and there is a projected 15% reduction in summer rainfall by the 2050s in Wales.<sup>763</sup>

592. **As set out in Chapter 2, the Commission has heard that, despite extensive planning frameworks for water resources, there appears to be a gap between planning and delivery of new water supply infrastructure.** This is evidenced by the fact that no new major reservoirs have been built since 1992, despite a 21% increase in England's population<sup>764</sup> Moreover, the Commission has heard that there are limited mechanisms to require delivery of WRMPs. There is no specific statutory requirement for water companies to deliver the plans set out in their WRMPs. This means that projects to achieve WRMPs feed into the Price Review process as non-statutory requirements that need to be delivered and regulators are unable to take enforcement action or require alternative

<sup>761</sup> Environment Agency, [The National Framework For Water Resources 2025](#), 2025

<sup>762</sup> UK Government, [Addressing water scarcity in Greater Cambridge: update on government measures - GOV.UK](#), 2024

<sup>763</sup> Llywodraeth Cymru Welsh Government, [Written Statement: Protecting our water environment in a changing climate \(17 May 2023\) | GOV.WALES](#), 2023; Llywodraeth Cymru Welsh Government, [Climate Adaptation Strategy for Wales](#), 2024

<sup>764</sup> Water UK response to the Call for Evidence, 2025, [Water UK A Reset for Water - Response to the Independent Water Commission's Call for Evidence.pdf](#); UK Government, [Government steps in to build first major reservoirs in 30 years - GOV.UK](#), 2025

interventions if schemes are delayed, scaled down, or not even started.<sup>765</sup> Infrastructure delivery assurance is explored in Chapter 7.

593. **The delivery picture appears to be changing.** The creation of RAPID, the Regulator's Alliance for the Progression of Infrastructure Development, has helped to support the development of new water supply options. Plans were recently announced for 9 new reservoirs and progress on 7 large-scale water transfer schemes among other interventions.<sup>766</sup> However, concerns remain that growth assumptions have moved on since these schemes were designed and this investment will not be sufficient to achieve the government's growth plans.<sup>767</sup>

## Water resources targets

594. **While targets (as set out in Box 34) have been strengthened over time and provide a helpful planning framework, the Commission has heard that they are not underpinned with common national scenarios on growth, non-household demand and climate change.**<sup>768</sup> In part this is because forecasting needs are inherently complex and there is uncertainty. The timing, scale and regional necessity for new water resources vary frequently – shaped by climate variability, uneven growth and emerging understanding of risks. While the government has set a target for a 9% reduction in business water use in England by 2037–38, Water Resource Management Plans (WRMPs), as summarised in the National Framework for Water Resources 2025, are currently based on planning assumptions of a 6.1% reduction by the same date. This raises concerns about whether the current targets are sufficiently comprehensive or future proof.
595. **The Commission has heard mixed views on whether clearly defined supply targets could help.** Existing targets are predominantly demand-focused given the challenges in imposing a national supply target, which, if poorly designed, could lead to stranded assets and wasted money. However, there does appear to be a gap around network capacity expectations, specifically what level of supply will be required in light of population growth, climate variability and growth.<sup>769</sup> Stakeholders have also criticised targets for being set at the national level and not taking into account regional factors

<sup>765</sup> Engagement with the Commission

<sup>766</sup> Ofwat, [Ofwat sets out record £88 billion upgrade to deliver cleaner rivers and seas, and better services for customers - Ofwat](#), 2024

<sup>767</sup> Public First, [The Cost of Water Scarcity by Public First](#), 2025

<sup>768</sup> Water UK response to the Call for Evidence, 2025, [Water UK A Reset for Water - Response to the Independent Water Commission's Call for Evidence.pdf](#)

<sup>769</sup> Water UK, Supplementary response to the Call for Evidence, 2025

such as innovative local contributions around rainfall management and water recycling.<sup>770</sup>

## Abstraction

596. **The Commission has heard concerns that the current regulatory regime for abstraction is out of date.**<sup>771</sup> This means it is not effectively dealing with unsustainable over-abstraction, while at the same time it is placing unnecessary regulatory burden on small-scale, low-risk, activities.<sup>772</sup> Abstraction and impounding licensing still relies on a partly paper-based system.<sup>773</sup> Water UK have proposed that the EA should review and update historic licenses and introduce abstraction reporting requirements so that the EA has a clear picture on how much is being abstracted. Wildfish have called for licenses to be reviewed every 5 years for non-sensitive river abstractions and Water UK has argued that all abstractors should hold licenses.<sup>774</sup> The EA have proposed moving abstraction under the Environmental Permitting Regulations, outlining the flexible and risk-based approach this brings to abstraction, as well as the benefits of a common legislative framework and a more agile platform to undertake policy and legislative changes in the future.<sup>775</sup>

## Leakage

597. **Despite significant progress since privatisation and against EIP targets in England, the Commission has heard that there needs to be a continued focus on leakage.**<sup>776</sup> 19% of water supply is lost to leakage in England each year.<sup>777</sup> Since privatisation there has been a 41% decrease in leakage in England, however, between 2000-01 and 2023-24 leakage only fell by approximately 8.6%.<sup>778</sup>

## Household metering and consumption

598. **The Commission has heard that the public has a poor understanding of their current level of water usage, with 94% of the public**

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<sup>770</sup> Anglian Water response to the Call for Evidence, 2025; South East Water response to the Call for Evidence, 2025; Water UK response to the Call for Evidence, 2025, [Water UK A Reset for Water - Response to the Independent Water Commission's Call for Evidence.pdf](#); Angling Trust Submission to the Independent Water Commission, 2025

<sup>771</sup> Engagement with the Commission

<sup>772</sup> Engagement with the Commission

<sup>773</sup> Engagement with the Commission

<sup>774</sup> [Wildfish response to the Call for Evidence, 2025](#); [Water UK response to the Call for Evidence, 2025](#)

<sup>775</sup> EA engagement with the Commission

<sup>776</sup> Engagement with the Commission

<sup>777</sup> Environment Agency, [Water resources 2023-2024: analysis of the water industry's annual water resources performance - GOV.UK](#), 2024

<sup>778</sup> [Leakage Dataset - June 2025 - Ofwat](#)

**underestimating how much water they use each day.**<sup>779</sup> Evidence suggests that smart metering is a key tool for driving down demand. The National Infrastructure Commission reported that standard meters can reduce average consumption by 15% and smart meters by 17%.<sup>780</sup> CCW research shows that there is widespread public acceptance of smart meters, among both metered and unmetered customers.<sup>781</sup> Data suggests that over 87% of respondents would investigate getting a smart water meter if it would lead to a reduction in their bills,<sup>782</sup> and that switching to a meter results in lower, or similar bills for most customers, particularly once households understand and adjust their consumption.<sup>783</sup>

599. **But concerns have been raised.** Research from Independent Age shows the negative impact that volumetric charging could have on low-income households, with examples of people restricting washing and laundry due to concerns over costs. There are a minority of customers who do not wish to have a water meter installed, particularly in areas where meter coverage is lower.<sup>784</sup> In addition, concerns have been raised over the new telecommunication network poles required to monitor smart meters. Councillors in Great Yarmouth have blocked a plan by Essex and Suffolk water to install 157 poles in the town.<sup>785</sup>
600. **However, currently, water metering is not universal across England and Wales** and households without a water meter are charged an unmeasured rate, providing no incentive for water efficiency. Further, we heard that while 'standard' water meters provide an incentive for water efficiency, they do not provide timely information that helps customers better understand their water usage or help companies detect leakage in the way that smart meters can.
601. **While smart metering coverage remains limited at present, companies are planning a significant expansion over the coming decades.** In England, companies are aiming to achieve 76% and 65% coverage of households and non-households, respectively, by 2050 as set out in **Figure 19**. Welsh Water plans to increase total customer metering coverage to 79%

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<sup>779</sup> Water UK, [Vast majority of Brits have no idea how much water they are using | Water UK](#), 2023 (viewed 17 July 2025); Consumer Council for Water, [Understanding attitudes towards Smart Water Meters - CCW](#), 2025 (viewed 17 July 2025)

<sup>780</sup> NIC, [Preparing for a drier future](#) (viewed 17 July 2025)

<sup>781</sup> Consumer Council for Water, [Understanding attitudes towards Smart Water Meters - CCW](#), 2025 (viewed 17 July 2025)

<sup>782</sup> Waterwise, [Exploring public attitudes towards smart water metering](#), 2021 (viewed 17 July 2025)

<sup>783</sup> University of Southampton, [Water meter reduces consumption](#), 2025 (viewed 17 July 2025)

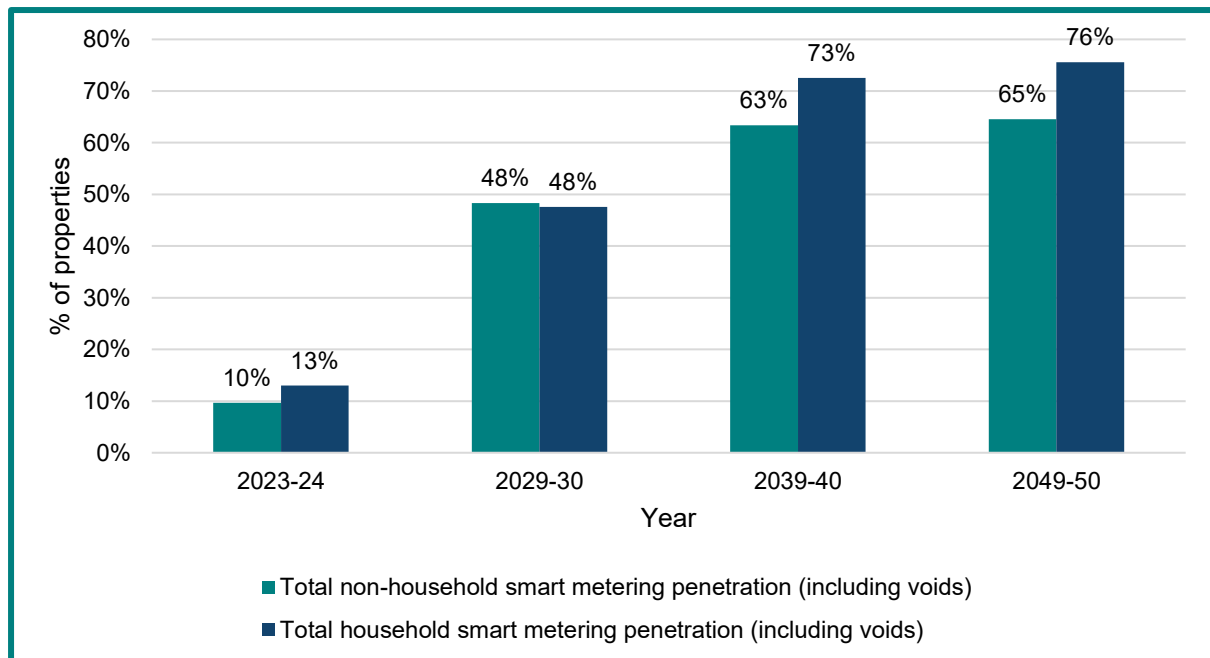
<sup>784</sup> Independent Age, ['Charting a course' - Research Briefing 0.pdf](#), Accessed 20 July 2025

<sup>785</sup> BBC News, [Council opposes 'bonkers' Great Yarmouth water meter pole plan - BBC News](#), Accessed 20 July 2025

by the end of AMP8 and 96% by 2050, with smart meters forming the core of the rollout strategy from 2025 onward.<sup>786</sup>

602. **The Commission has heard that companies could move faster on the implementation of smart metering.**<sup>787</sup> A Frontier Economics report found that compulsory metering delivers higher net benefits than a progressive or optional approach, with costs remaining broadly similar and benefits increasing due to higher coverage.<sup>788</sup> However, under current legislation water companies whose area is wholly or mainly in England can only deliver compulsory metering in certain circumstances. For example, where the premises is in an area of water stress.<sup>789</sup>

**Figure 19 – Planned rollout of Household and Non-household smart meters (including voids)<sup>790</sup>, 2023–2050, England**



Source: Environment Agency<sup>791</sup>

<sup>786</sup> Dŵr Cymru Welsh Water, [Final Water Resources Management Plan 2024 | Dŵr Cymru Welsh Water](#), 2024 (viewed 17 July 2025)

<sup>787</sup> Thames Water, [WRMP annual review joint regulator letter 2024](#), 2024 (viewed 17 July 2025); [Water supply and demand management](#) page 36 (viewed 17 July 2025), Engagement with the Commission

<sup>788</sup> Frontier Economics, <https://www.frontier-economics.com/media/we4lon3z/argiva-cost-benefit-analysis-a4-full-report.pdf>, 2021

<sup>789</sup> The National Archives, [The Water Industry \(Prescribed Conditions\) Regulations 1999](#), (viewed 16 July 2025); The National Archives, [Water Industry Act 1991](#), (viewed 16 July 2025); In Wales the Water Industry Prescribed Conditions Undertakers Wholly or Mainly in Wales Regulations 2004 is the relevant legislation.

<sup>790</sup> Note: Figures include void properties, meaning unoccupied premises that may not currently use water but are still counted in property totals for planning purposes.

<sup>791</sup> Data shared with the commission through engagement with the Environment Agency ([rdWRMP24\\_Smart Metering analysis\\_Jan24 AB.xlsx](#))



## Non-household consumption

603. **The Commission has heard how the business retail market (BRM) (further information set out in Chapter 6) is not meeting its full potential to support business customers with water efficiency.** CCW have noted that less than half of business customers in England and Wales (43%) are engaging in water-saving activities.<sup>792</sup>
604. **The Commission understands tariff structures are a particular issue.** Water UK, the Market Operator Services Limited (MOSL), WaterScan and the Strategic Panel have all highlighted that falling block tariffs may be creating perverse incentives for large businesses to use more water and agree falling block tariffs require review.<sup>793</sup>
605. **The Commission has also heard how variation in rollout of meters by wholesalers is hindering the BRM's ability to support water efficiency.**<sup>794</sup> The Commission has heard water companies are not prioritising high consumption water users first, as part of smart meter rollout plans.<sup>795</sup> There are also issues with interoperability of smart meters across different companies in different parts of the country.<sup>796</sup>

## Water efficiency

606. **The Commission has heard other water efficiency interventions could be used to support demand reductions in both household and non-household settings, however there are regulatory barriers to their use.**<sup>797</sup> Under the WIA 1991, it is unlawful for water companies to supply non-wholesome water for domestic and food production purposes. This, it is argued, is effectively blocking some dual-pipe and non-potable reuse systems.<sup>798</sup> However, additional water demand for businesses (for example, to cool or clean machinery) does not necessarily require potable water. Thus, although Ofwat are mandating water companies to offer environmental incentives to housing developers for water efficiency, the regulatory framework is restricting adoption. Similarly, the Commission understands industrial users are being deterred from installing reuse systems because of the associated costs and regulatory risks.<sup>799</sup> The Commission has heard

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<sup>792</sup> Consumer Council for Water, [Less than half of business customers are taking action to save water - CCW](#), 2024

<sup>793</sup> Market Operator Services Limited response to the Call for Evidence, 2025; WaterScan response to the Call for Evidence, 2025; Strategic Panel response to the Call for Evidence, 2025

<sup>794</sup> Retailer engagement with the Commission, 2025

<sup>795</sup> UKWRC response to the Call for Evidence, 2025

<sup>796</sup> UKWRC response to the Call for Evidence, 2025

<sup>797</sup> Engagement with the Commission

<sup>798</sup> Waterwise, [Call-for-Evidence-Dual-Supply-Pipe-System-WaterWise-Newsletter.pdf](#), (viewed 16 July 2025)

<sup>799</sup> Retailer engagement with the Commission, 2025

calls for updates to planning legislation in England to provide clearer and stronger signals for more ambitious action on water efficiency.<sup>800</sup> The Commission has also heard that much tighter standards are required to alleviate future supply-demand deficits.<sup>801</sup>

### **Box 35 – Water re-use infrastructure – case studies**

#### **Battery Park City, New York, USA**

Six buildings within the Battery City development are currently operating wastewater and rainwater recycling systems. These systems have consistently achieved greater than 50% water consumption reduction and a greater than 60% reduction in wastewater discharge. The treated water is reused for flushing toilets in the apartment buildings, cooling tower make-up and green roof irrigation. This development has been built as a model for scaling water conservation and reuse projects in urban redevelopment and campus-scale settings.<sup>802</sup>

#### **Greywater recycling, Holland Park, London, UK**

In October 2020, 25 new homes were built in Kensington, London. Planning and building control regulations had set a limit of 110 litres of mains water per person, per day. Wastewater from baths and showers is collected into a holding tank, pumped through a pre-filter system, dosed with low-levels of chlorine and passed through ultrafilters. This delivers 2.1m<sup>3</sup> of greywater each day, sufficient to flush all toilets on the development which equates to 70% of the peak demand.<sup>803</sup>

## **Conclusions and recommendations**

607. **There needs to be concerted efforts to prepare for a drier future.** Over the coming decades, demands on water will increase, driven by water needs for the environment, an expanding population, climate change, land use pressures and economic growth – with an expansion of the technology sector being a particular driver of demand.
608. **The Commission is setting out 4 recommendations on water resources, which relate to improving regulatory oversight of abstraction and strengthening measures to manage household and non-household demand for water.** This is in addition to recommendations elsewhere in the report that will support long-term planning and delivery.

<sup>800</sup> Waterwise, [What Waterwise want to see in the review of Building Regulations Part G \(March 2024 Position\) – Database WW](#), 2024; Waterwise response to the Call for Evidence, 2025

<sup>801</sup> Defra, [Consultation on measures to reduce personal water use](#), 2019

<sup>802</sup> Natural Systems Utilities, [Battery Park - Natural Systems Utilities](#), (viewed 25 June 2025)

<sup>803</sup> The Environment Partnership, [tep-international-perspectives-on-water-reuse-summary\\_april-25\\_reduced.pdf](#), (viewed 19 June 2025)

***Improved long-term planning frameworks and targets are needed to guide action on water supply***

609. **The Commission concludes that there is an urgent need to strengthen long-term strategic direction for water supply**, including through clearer long-term objectives and interim targets through the new National Water Strategy, reformed planning frameworks and infrastructure resilience standards to ensure that water industry plan effectively for long-term water resource needs. In addition, as part of a wider review of legislation and targets, the UK and Welsh Government should consider the need for rationalisation and strengthening of water resources targets. This could include considering setting new ‘peak water demand’ targets, as well as reviewing and consolidating the modelling and assumptions underpinning long-term and interim targets.
610. **Furthermore, stronger accountability mechanisms are needed to monitor and assure delivery of water resources infrastructure and interventions.** This would enable realignment of plans where delivery is off-track – for example shifting to more demand management measures where supply interventions are impeded – to help ensure overall progress is achieved.
611. **Water companies need to maintain a focus on bringing down leakage, in particular.** The collaboration seen between companies is promising. Changes to the ODI mechanism for leakage means that companies are now encouraged to innovate to deliver improvements. This has resulted in water companies willing to share more information and research than before.<sup>804</sup> Despite promising leakage reductions since privatisation, progress appears to have slowed over time. Resilience standards, as recommended in Chapter 7, will promote asset health and may help reduce leakage. Collaboration should continue to be encouraged alongside maintaining strict targets.
612. **Further detail on our conclusions and recommendations on strategic direction, accountability and resilience standards are included in Chapter 2 on long term planning and Chapter 7 on infrastructure.**

***Abstraction regulation should be strengthened and modernised***

**Recommendation 36: The Commission recommends the UK and Welsh governments improve regulatory oversight of water industry abstraction activity by bringing it under the Environmental Permitting Regime.**

613. **A transition to the Environmental Permitting Regime (EPR), should strengthen abstraction regulation, helping to tackle unsustainable**

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<sup>804</sup> Water UK engagement with the Commission, 2025

**abstraction.** The EPR would require the EA to periodically review all permits to ensure they are sustainable to protect water supplies and the environment.<sup>805</sup> This is a much swifter process than reviewing abstraction licenses individually, with the EA stating that at the current rate of reviewing and changing abstraction licences, it may take up to the 2050s to complete reviews of potentially all remaining licences contributing to unsustainable abstraction.

614. **Moving abstraction under the EPR would also provide a more flexible mechanism to support growth and water resources delivery.** It would enable the EA and NRW to focus its regulatory efforts on the riskiest abstraction activities, while creating flexibility for key areas of need. This could include measures to enable adequate water supply for emerging technologies and priorities such as the needs of data centres, a hydrogen based economy and small-scale nuclear generators. It will modernise the licensing regime so that license holders, such as developers, will benefit from reduced administrative burdens and a common IT system to manage applications.
615. **Furthermore, the abstraction licensing system does not allow regulators to reserve future water allocations, unless an abstraction licence is held.** EA and NRW encourage developers to engage early so resource needs are understood. Where there are competing demands, environmental regulators seek to weigh up the socio-economic benefits and grant a license which is of the greatest public interest. The Environment Agency has said it plans to consult further on the approach to reserving water abstraction. This may support the prioritisation of regional or national economic priorities.

*Efforts to reduce demand across the economy and society need to be accelerated*

**Recommendation 37: The UK and Welsh government should accelerate efforts to reduce household water consumption by introducing compulsory smart metering for a wider range of circumstances.**

616. **The Commission concludes that a move to compulsory household smart metering, under a wider range of circumstances, is required to drive down water demand.** Options within the water sector could involve looking at expanding criteria for compulsory water metering to be beyond 'areas of serious water stress' and the other limited existing circumstances in which compulsory metering can apply currently.
617. **In considering options for taking forward reform in this area, the Government should consider the experience of rolling out smart**

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<sup>805</sup> Environment Agency engagement with the Commission, 2025

**meters in other sectors.** Within the energy sector, unless there is good reason not to, suppliers must install a smart meter if they are replacing a meter or installing a meter for the first time. While households can choose not to have a smart meter fitted, there is an incentive to do so, as they may miss out on cheaper energy tariffs.<sup>806</sup>

618. **The Commission recognises the challenges with a smart meter roll-out and associated impact on bills, particularly in relation to impacts on vulnerable consumers.** As such the Commission concludes that the UK and Welsh Governments should carry out impact assessments to assess the distributional impacts and explore the introduction of support schemes to protect the most vulnerable in society to mitigate such impacts. The Commission comments on the role of affordability schemes such as social tariffs in earlier in this Chapter.
619. **The wider rollout of smart meters also has the benefit of creating new opportunities for innovative charging structures to manage demand and support affordability.** While the early results from the trials of different charging structures are encouraging, they are inconclusive. The Commission encourages further trials to support a better understanding of how charging affects customer behaviour and the impact they have on different customer groups.

**Recommendation 38: Tariff structures should be changed to incentivise water efficiency. This could involve removing falling block tariffs for non-household consumption.**

620. **The Commission recommends changes to wholesale tariffs, with a view to ensuring they are transparent and support objectives on water efficiency.** The Commission has heard clear concern that falling block tariffs disincentivise efficient management of water by businesses for instance, the more water businesses use, the cheaper it is. The Commission notes that several companies have trialled different tariff structures – and that there are industry-led efforts to reduce tariff complexity. However, given water scarcity concerns and the government's target of 9% reduction of business water use by 2038, the Commission is of the view that a more directive approach by the water regulator may be helpful. This could involve requiring companies to remove falling block tariffs. It will be for the future economic regulator to decide the exact approach taken; however, the Commission has heard clear concern that falling block tariffs disincentivise efficient management of water by businesses.

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<sup>806</sup> Ofgem, [Get a smart meter | Ofgem](#), (viewed 16 July 2025)



**Box 36 – Water usage in industry<sup>807</sup>**

**The largest five oil refineries in England and Wales (Fawley, Pembroke, Stanlow, Prax Lindsey and Humber) are all highly dependent on water.** These five sites are all ranked in the top 7 highest consuming users in the non-household market, consuming a total of 93 Megalitres of water per day or 3.6% of the total in the non-household market. Oil refineries are an example of an industrial sector where the majority of water ‘consumed’ is actually used for cooling purposes. Chemicals are then added to water supplies on site to the water to remove minerals to avoid damage to tanks from the cooling water. This cooling water will then flow into the sewerage system as wastewater. This essentially clean water will in many cases discharge into combined sewer systems, adding to the challenges of overloaded sewers. Oil refineries are critical national infrastructure, so their water supply will be prioritised in a water shortage - even if houses have no water. They also use a lot of water, many of them are on ‘bulk tariffs’, which means that their water gets cheaper the more they use – there may be limited incentives to reduce usage.

**Recommendation 39: Standards should be issued for the roll-out of smart meters in the non-household market in England and Wales.**

621. **The Commission recommends the government works with the regulator to ensure there are standards on smart meter roll-out for the non-household market.** The Commission recognises water companies have already agreed to significant smart meter roll-out plans for businesses. There is a risk, however, that these plans are not delivered in a consistent, timely and efficient manner across all companies. Standards are needed to ensure smart meters are interoperable within and across different companies and to provide clear guidance on how users with different levels of demand are prioritised within rollout plans. Given businesses operating in different areas interact with multiple water companies, there is a strong case for ensuring a cohesive approach to smart metering in the Business Retail Market. The government should also explore whether legislative change is required alongside, or to support, standards (for example, if smart metering is made compulsory for households, equivalent statutory targets could be introduced for non-households).

**Recommendation 40: The UK and Welsh Government should work with their regulators to develop a new policy and regulatory framework to drive the adoption of water re-use infrastructure in household and non-household markets.**

<sup>807</sup> Engagement with the Commission

622. **The Commission concludes that non-potable water uses (toilet flushing, irrigation and cooling) could reduce water demand in commercial and public buildings, particularly for businesses that are large water users.** Regulatory barriers need to be removed to drive water efficiency, including the adoption of water re-use infrastructure. This will provide clearer signals to household and non-household development in relation to the adoption of water efficiency measures including water re-use systems. UK and Welsh governments should look to international countries with best practice examples, such as Singapore, California, Spain and Battersea Park City in New York, as set out in Box 35.<sup>808</sup> Sectors such as data centres, offices, hospitals and retail parks present high reuse potential. The Commission has heard that larger, community scale water re-use schemes may be more cost effective, with a fall in cost as development size increases.<sup>809</sup> Large water users can be restricted from public water supplies due to drought or water stress.

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<sup>808</sup> Anglian Water, [anglianwater.co.uk/globalassets/non-potable-reuse-summary-report\\_april-2025.pdf](https://anglianwater.co.uk/globalassets/non-potable-reuse-summary-report_april-2025.pdf) (viewed 20 June 2025); World Economic Forum, [Circular water solutions key to sustainable data centres | World Economic Forum](#) (viewed 17 July 2025)

<sup>809</sup> CIWEM, [Enabling Water Smart Communities](#) (viewed 6 June 2025)

## 5.4 Affordability and consumer protections

### Background

623. **Consumer protections are in place across the water sector to offer protections from unfair treatment and poor service levels.** Household customers typically have no choice of supplier, as water services are provided by regional monopolies. This lack of competition makes it especially important to have robust safeguards in place to protect consumers from unfair treatment and poor service. This also ensures that consumers, especially vulnerable groups, receive reliable and affordable services.

### Consumer Protections

624. **Ofwat has a primary duty to protect the interests of customers.**<sup>810</sup> They regulate to ensure fair treatment and service levels by setting and monitoring guaranteed standards, financially incentivising companies to improve consumer outcomes and more broadly monitoring company performance against customer outcomes.
625. **The Guaranteed Standards Scheme (GSS), monitored by Ofwat, sets out the levels of service customers can expect from water companies in England and Wales.**<sup>811</sup> These standards, set by Secretary of State and the Welsh ministers, cover service provision and customer service.<sup>812</sup> Should standards not be met, companies are required to provide payments back to customers. The UK government recently updated the GSS to strengthen redress for customers that have experienced service failures. From 2<sup>nd</sup> July 2025, improvements were introduced with payments at least doubled from their previous levels. On 1<sup>st</sup> October 2025, standards will be further updated to expand list of circumstances that will trigger payment.<sup>813</sup> At the request of Welsh ministers, Ofwat launched a consultation on proposed changes to GSS in Wales on 14<sup>th</sup> July 2025.<sup>814</sup>
626. **In 2019, Ofwat introduced a financial and reputational incentive (C-Mex) for companies to improve service provision.** Ofwat conducts two surveys of customers to assess their satisfaction with their water company. The first is a Customer Service Survey (CSS) of residential customers who have recently contacted their water company and who are asked about that recent contact. The second is a Customer Experience Survey (CES) of a random sample of customers in relation to their experience of their water company. In both surveys, customers are asked how satisfied they are with the service

<sup>810</sup> Ofwat, [Our duties](#), (viewed 17 July 2025)

<sup>811</sup> Ofwat, [Guaranteed Standards Scheme - a summary of standards and conditions](#), (viewed 17 July 2025)

<sup>812</sup> An example of a service provision standard covered by GSS is restoring an interruption to supply; an example of a customer service standard is responding to account queries.

<sup>813</sup> Ofwat, [Standards of service](#), (viewed 17 July 2025)

<sup>814</sup> Ofwat, [Guaranteed standards scheme in Wales – a consultation on proposed changes](#), 2025

provided and how likely they would be to recommend the water company to family or friends.<sup>815</sup> Companies receive a C-Mex score based on these results and can receive outperformance payments, or incur underperformance penalties, based on how they score in relation to a benchmark.

627. **In 2024, Ofwat introduced a customer-focused licence condition to further strengthen consumer protections.** This licence condition sets out principles for high standards of customer service that companies are expected to deliver, including effective communication and providing support for customers who are struggling to pay.<sup>816</sup> Should a water company breach this licence condition, Ofwat are able to take formal enforcement action including fines of up to 10% of the company's turnover.

## Bills and affordability

628. **For 2025-26 the average bill in England and Wales is forecast to be £603, which is around £1.65 per day.**<sup>817</sup> However, there is regional variability in how customers are charged for their water and sewerage services based on the company which serves their area. Customers either pay directly for their usage through a water meter or pay an unmeasured charge, plus a standing charge.
629. **Water companies in England have made a commitment to make bills affordable for all households by 2030 and develop a strategy to eliminate water poverty.**<sup>818</sup> The industry defines households living in 'water poverty' as those who spend more than 5% of their net income (after housing costs) on water. The number of households in water poverty in England and Wales was 1.5 million in 2019-20 and analysis suggests this has increased in recent years.<sup>819</sup> The level of deprivation in each water company region has a significant impact on the levels of customer debt.<sup>820</sup> As of March 2024, just over 2.5 million household customers were in payment arrears, with the average amount owed to water companies being £822 per household.<sup>821</sup> Dŵr Cymru Welsh Water recognise they serve some of the poorest areas in the UK, with 22% of people in Wales living in relative poverty and have a

<sup>815</sup> C-Mex is comprised of a Customer Service Survey (CSS) of a sample of customers who have recently contacted their water company and Customer Experience Survey (CES) of a random sample of customers.

<sup>816</sup> Ofwat, [Customer-focused licence condition](#), (viewed 17 July 2025)

<sup>817</sup> Water UK, [Annual average bill changes 2025-2026](#), (viewed 18 July 2025)

<sup>818</sup> Water UK, [Public-Interest-Commitment](#), 2019

<sup>819</sup> CEPA, ['Quantitative analysis of water poverty in England and Wales'](#), 2021 Using the definition of water poverty that refers to where a household's bill makes up over 5% of their disposable income after housing costs; CEPA, [What Is Water Poverty](#), 2024

<sup>820</sup> Ofwat, ['PwC Retail Services Efficiency Review'](#) 2022

<sup>821</sup> Ofwat, ['Analysis of household customer debt'](#), 2025

commitment to "increase financial support to those customers" with low-comes.<sup>822</sup>

630. **Water companies offer statutory and voluntary schemes to support low-income households.** Each company has a voluntary social tariff scheme, operating with differing levels of support and eligibility criteria. Approximately 1.6 million low-income customers are signed up to social tariff schemes, receiving over £250 million of support in 2023-24.<sup>823</sup> Social tariffs are funded through customer bills, with companies required to assess their customers' 'willingness to pay' when determining how much of the bills they can use to cross-subsidise social tariffs.<sup>824</sup> The WSMA 2025 inserted new provisions into the Water Industry Act 1991 to enable the UK government to design and mandate new affordability schemes.
631. **In addition to social tariffs, WaterSure is a statutory scheme in England and a voluntary scheme in Wales.** It caps bills for low-income households who require high levels of water use due a medical need or because they have 3 or more children.

### Consumer representation and advocacy

632. **Following the introduction of new powers by the UK Government in the Water (Special Measures) Act, Ofwat is proposing to introduce new rules on the adoption of consumer panels in water companies.** Subject to a statutory consultation, panels will be made up of a diverse group of customers who will be able to raise matters with company executives. Companies will be expected to respond to issues raised by the panel in a timely way. Ofwat is also due to publish a statutory consultation this summer on implementation of a new rule under a new power in the WSMA 2025, requiring water companies in England and Wales to involve consumers in their decisions. Together, these measures aim to strengthen consumer representation by offering direct engagement with consumers. Existing forums such as the Independent Challenge Groups (ICGs), while no longer mandatory, provide additional scrutiny and challenge to individual water companies on behalf of customers. These groups consist of independent experts, often with experience in consumer and environmental representation.
633. **The Consumer Council for Water (CCW) was established in 2005 to replace WaterVoice committees, which were part of Ofwat, to become an independent consumer body.** They are the independent voice for water

<sup>822</sup> Senedd Cymru Welsh Parliament, [A challenging picture: tackling poverty and improving living standards](#), 2025; Dwr Cymru Welsh Water, [Vulnerability Strategy](#), 2025

<sup>823</sup> [The-shape-of-a-social-tariff.pdf](#)

<sup>824</sup> GOV.UK, [Flood and Water Management Act 2010](#), (viewed 18 July 2025) Companies are required by Department for Environment, Food and Rural Affairs and Welsh ministers to assess their customers' 'willingness to pay'



consumers in England and Wales. Their work is informed by research, which they use to champion the interests of consumers and influence water companies, governments and regulators.

634. **CCW provide advice and support for customers, including those who have had cause to complain to their water company.** Should the customer exhaust the water company's complaints procedure, they are referred to CCW's complaints service, whereby CCW will attempt to find a mutually acceptable resolution for the customer with the company. In 2023/24, of the 7,977 household complaints referred to CCW, approximately 97% were resolved at this stage. For those complaints that remain unresolved, or if customers do not wish to make use of the complaints service described above, CCW offer an Alternative Dispute Resolution (ADR) scheme. This scheme includes the option of mediation, using CCW's in-house mediators. Should mediation not be deemed appropriate by either the customer or the company, or if it is unsuccessful, the case can be taken to the ADR for a decision – which is contractually binding on the company.<sup>825</sup>

## Issues

635. **The Commission has identified 5 main issues in relation to customer protections and affordability:**
- Low levels of customer satisfaction;
  - Consumer protection regulations;
  - Bill and affordability;
  - The role of CCW;
  - Customer complaint handling.

### Low levels of customer satisfaction

636. **While customers' satisfaction with the reliability of their water supply is high, their overall trust and satisfaction has fallen,** with just 53% of customers agreeing that their water company cares about the service it provides in 2024, down from 73% in 2015.<sup>826</sup> Only half of customers think their company communicates clearly with them. The issue of poor communication was clearly illustrated in CCW and Ofwat's joint report into customer experience of sewer flooding in their homes, something experienced by almost 6,000 customers in 2023/24.<sup>827</sup> The report highlighted how poor communication placed added stress on customers effected, requiring them to spend even more time waiting on the phone and repeating

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<sup>825</sup> Consumer Council for Water, [Complaints process policy](#), (viewed 17 July 2025)

<sup>826</sup> Consumer Council for Water, [Water Matters 2025](#), 2025

<sup>827</sup> Consumer Council for Water, [Water Mark 2024](#), 2024

information they had already shared.<sup>828</sup> In addition to a reliable water supply and clear communication, customers generally also expect water companies to respect the environment.<sup>829</sup> However, just 35% of customers in 2024 were satisfied with the work companies do to protect the environment, down from 45% in 2022.<sup>830</sup> The top reason given for this dissatisfaction was the discharge of sewage into the waterways.

## Consumer protection regulations

637. **The Commission has heard from stakeholders that C-Mex is not working as an economic incentive to improve service quality.** C-Mex metrics over the past 4 years show scores declining every year, with low performing companies continuing to perform poorly.<sup>831</sup> The 6 companies that scored the lowest in 2023-24 have been in the bottom 6 in each of the 4 years since the measure was introduced.<sup>832</sup> Equally, the 3 companies with the highest scores in 2023-24 have been in the top 3 for each of the last 4 years, although their overall scores have fallen during this time.<sup>833</sup>
638. **There has been criticism of the metric used to incentivise consumer outcomes.** CCW argue that the volumes of complaints offer better evidence of service quality and should be introduced to the C-Mex metric.<sup>834</sup> However, we have heard concerns that current complaints data may not be robust enough to be used for this purpose.<sup>835</sup> Some water companies have also raised concerns that the criteria for C-Mex scores are not fair.<sup>836</sup> Companies are concerned that the surveys are picking up general perception of the industry, rather than the performance of the company and fuelled by media attention on pollution incidents, this is driving C-Mex scores, rather than an accurate reflection of service provision.

**Table 6 - C-Mex scores by company:**

Company	2020-21	2021-22	2022-23	2023-24
Anglian Water	83.05	80.43	78.77	77.49
Dwr Cymru	85.15	82.93	82.92	79.63
Hafren Dyfrdwy	81.38	78.78	80.03	77.38
Northumbrian Water	85.76	84.46	83.74	81.40

<sup>828</sup> Consumer Council for Water and Ofwat, [Customer experiences of sewer flooding](#), 2022

<sup>829</sup> Consumer Council for Water, [‘Customer views on Guaranteed Standards Scheme’](#), 2023

<sup>830</sup> Consumer Council for Water, [Water Matters 2025](#), 2025

<sup>831</sup> Ofwat, [Accent report for Ofwat: C-Mex and D-Mex](#), 2024

<sup>832</sup> Water Companies with the lowest C-Mex Scores since 2020: Thames Water, Southern Water, South East Water, SES Water, South West Water, Affinity Water.

<sup>833</sup> Water Companies with the highest C-Mex Scores since 2020: Portsmouth Water, Wessex Water, Northumbrian Water.

<sup>834</sup> [Consumer Council for Water response to the Call for Evidence](#), 2025

<sup>835</sup> Engagement with the Commission

<sup>836</sup> Yorkshire Water and United Utilities responses to the Call for Evidence, 2025

Company	2020-21	2021-22	2022-23	2023-24
Severn Trent	82.35	80.61	79.08	74.17
South West Water	80.96	78.48	76.45	72.76
Southern Water	74.64	72.00	69.77	66.87
Thames Water	72.91	68.86	67.06	64.85
United Utilities	83.59	82.01	81.26	78.30
Wessex Water	86.09	84.82	82.99	81.77
Yorkshire Water	82.78	80.41	78.25	76.54
Affinity Water	77.88	76.57	74.59	73.16
Bristol Water	83.30	82.86	80.68	80.97
Portsmouth Water	86.21	83.76	83.17	82.89
South East Water	80.70	76.59	73.47	70.81
South Staffs Water	81.89	83.38	79.87	76.29
SES Water	78.97	76.35	76.03	72.45

	C-Mex score in top 6 of all companies		C-Mex score in bottom 6 of all companies
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Source: Ofwat<sup>837</sup>

639. **Recently introduced reforms to strengthen consumer protections, including updates to the GSS, the new licence condition and the proposed introduction of Customer Panels, while positive have yet to be implemented and to bed in although** the Commission has heard initial concerns about the low customer awareness of GSS. Research carried out by CCW in 2023 outlined that almost all customers were surprised to hear about the scheme. Regarding the licence condition, the Commission has heard from water companies that it is unnecessarily prescriptive, with the detailed accompanying guidance leading to concerns that the condition becomes a tick-box exercise rather than focusing on outcomes.<sup>838</sup>

## Barriers and variability in affordability support

640. **Stakeholders have noted increasing affordability concerns for the poorest in society.** For 2025-26, the average bill in England and Wales is forecast to be £603, equating to approximately £1.65 per day, which is an increase of 26% from 2024-25.<sup>839</sup> While in comparison to other utilities this is relatively low, there are concerns over the impact of significant increases in customer bills when set against the backdrop of cost-of-living challenges. 36% of those polled for a Citizens Advice study said that they would find it difficult to afford the average 2025/26 water bill increase.<sup>840</sup> Independent Age

<sup>837</sup> Ofwat, [C-MeX 2023-24 results](#), [C-MeX 2022-23 results](#), [C-MeX 2021-22 results](#), [C-MeX 2020-21 results](#) (viewed 17 July 2025)

<sup>838</sup> Wessex Water and Yorkshire Water's responses to the Call for Evidence, 2025

<sup>839</sup> Water UK, '[Annual average bill changes 2025 -2026](#)' (viewed 30 May 2025)

<sup>840</sup> Citizens Advice, '[Barriers to Access: Why water and broadband social tariffs aren't reaching struggling households](#)', 2025

report that 45% of older people on a low income in England have reduced the number of times they have done the laundry, while 44% have reduced how often they flush the toilet.<sup>841</sup>

641. **The CCW estimate that 2 million customers may not be getting the financial support that they are entitled to due to low awareness and other potential barriers.**<sup>842</sup> The awareness among customers of financial support schemes has improved, up from 37% in 2022, to 45% in 2023 but is still relatively low.<sup>843</sup> In addition to awareness, CCW has identified other barriers to accessing support, including mental and emotional barriers (such as coming to terms with the need to ask for financial help), lack of trust in large organisations, the complexity of the application and literacy and language skills.<sup>844</sup> Furthermore, the Commission has heard how the variability in eligibility criteria and levels of support on offer from companies' social tariffs lead to very different outcomes for customers across the country.
642. **In relation to Wales there have been calls for WaterSure to be put on a statutory basis although Dwr Cymru and Hafren Dyfrdwy are already providing this protection to eligible customers.**

## The role of CCW

643. **The Commission has heard from stakeholders who question the effectiveness of CCW in its role as consumer advocate.**<sup>845</sup> For example, an NGO questioned CCW's purpose and noted that despite growing public concerns in the water sector, CCW "seems to have remained almost silent".<sup>846</sup> CCW has provided evidence of the impact of their work, both as an advice service and as a customer advocate. Last year, CCW's advice on benefits and grants resulted in customers identifying an estimated £22.5 million of unclaimed welfare benefits, while approximately 360,000 people used CCW's water meter calculator to better understand if switching to a meter would benefit them.<sup>847</sup> Conversely data shows that public awareness of CCW is low, with research showing that just 11% of people have heard of CCW when prompted with the name.<sup>848</sup> They also receive mixed reviews on Trust Pilot, with 57% of reviewers giving a one-star rating and 32% a maximum 5-star rating.<sup>849</sup>

<sup>841</sup> Independent Age, [Looking for a lifeline](#), 2024

<sup>842</sup> Consumer Council for Water, ['Households urged to tap into water company support'](#), 2023

<sup>843</sup> Consumer Council for Water, ['Water Matters 2024'](#), 2024

<sup>844</sup> Consumer Council for Water, ['Independent review of water affordability'](#), 2021

<sup>845</sup> NGO response to Call for Evidence, 2025

<sup>846</sup> Ibid

<sup>847</sup> CCW Engagement with the Commission

<sup>848</sup> Consumer Council for Water, [Awareness of Consumer Council for Water](#), 2017

<sup>849</sup> Trust pilot, [Consumer Council for Water Reviews](#), (viewed 17 July 2025)

644. **Moreover, the Commission has heard that there are limits to the ability of CCW, to be a strong and effective advocate for customers.**<sup>850</sup> While CCW has the power to investigate a water company for any matter related to the interest of customers, they have no powers to compel a water company to act.<sup>851</sup> CCW also has no power to require Ofwat to formally respond to any findings from a CCW investigation. This contrasts with other sectors where the consumer advocate can issue a ‘super-complaint’ if they believe that the regulator is not responding appropriately. Citizens Advice, for example, used this power when complaining to the Competition and Markets Authority (CMA) about ‘loyalty penalties’, where existing customers in markets including broadband, mobile and home insurance, were charged more than new customers. The use of the super complaint meant that the CMA had to respond within 90 days with a plan of action. While CCW have the power to issue a super-complaint, this is only in relation to the business retail market and not for household customers.
645. **We have heard concerns about the blurring of the boundaries between the work carried out by Ofwat and CCW.** This is seen in research into consumer matters, a statutory function of CCW but Ofwat also carries out such research to support regulatory matters.<sup>852</sup> In addition, there are questions about whether responsibilities are appropriately divided, for example, while CCW have responsibilities for providing advice and support to customers, Ofwat holds the responsibility of resolving disputes on the government’s Guaranteed Standards Scheme.<sup>853</sup> CCW also play a role in monitoring companies’ operations on consumer matters, for example complaints handling – which may be more consistent with the role of a regulator in overseeing the customer-focused licence condition rather than the consumer advocate.<sup>854</sup>

## Customer complaints handling

646. **We heard concerns about the increase in customer complaints to water companies which rose by 17,769 to 203,981 in 2023-24.** Stage 2 complaints – those that were not resolved by the company at the first attempt – rose by 3,149 to 18,594.<sup>855</sup> Furthermore, the number of complaints that are not resolved at the second attempt and are escalated to CCW have increased by 29%. The time taken to resolve complaints appears to be a problem. While companies have up to 10 working days to respond to a

<sup>850</sup> [Consumer Council for Water response to the Call for Evidence](#), 2025

<sup>851</sup> These investigations are part of Consumer Council for Water’s advocacy role. An example is their investigations into affordability. This work is distinct from their work to advice and support customers in resolving individual complaints against water companies.

<sup>852</sup> Consumer Council for Water, [Our legal functions, duties and powers](#), (viewed 17 July 2025)

<sup>853</sup> Ofwat, [Standards of services](#), (viewed 17 July 2025)

<sup>854</sup> Consumer Council for Water, [Complaint assessments of water companies](#), 2025

<sup>855</sup> Consumer Council for Water, [Household complaint handling report 2024](#), 2024; Stage 1 complaints do not include those made to Southern Water, due to historic inaccuracies in the companies records.



complaint, the follow up work they do to investigate and find a solution can take several months.<sup>856</sup> There is a difference between companies' performance on complaints handling.<sup>857</sup> For example, in 2023/24 Thames Water received 139.0 complaints per 10,000 connections, compared with just 22.5 for Hafren Dyfrdwy.

647. **We have seen some evidence that customers are dissatisfied with the outcome of complaints once they are referred to CCW.** CCW play a role in investigating and resolving complaints. The level of customers satisfaction in CCW's complaint service is 55%, compared with 79% for the Energy and Communications Ombudsman service.<sup>858</sup> It has been suggested that a direct route to a legally binding resolution may improve consumer trust.<sup>859</sup>
648. **However, other evidence suggests that the resolution of complaints that are referred to CCW is working well to deliver timely outcomes compared to other sectors.** Customers who have their complaint referred to CCW can expect to have their cases resolved within 20 working days.<sup>860</sup> This compares favourably with the energy sector, where customers typically wait 56 days for a resolution from the ombudsman and the financial sector where customers can expect to wait 90 days for an initial assessment by the ombudsman to be completed.<sup>861</sup> In addition, 97% of complaints are resolved without the need to proceed to CCW's Alternative Dispute Resolution service which brings a resolution and an end to a consumer's complaint.<sup>862</sup>
649. **We have heard calls for a mandatory redress or ombudsman scheme.** Water companies can choose if they sign up to CCW's Alternative Dispute Resolution Scheme.<sup>863</sup> This scheme is delivered on a contractual basis with a delivery partner appointed by CCW and delivers a contractually binding outcome on the company.<sup>864</sup> While all companies have opted to sign up, the voluntary nature means that companies could choose to opt out. This would leave some customers without the same protections in the water sector as enjoyed by customers in other sectors. In addition, redress schemes in other sectors, such as in energy, are approved by the regulator which is not the case in water.<sup>865</sup>

<sup>856</sup> Consumer Council for Water, [Household complaint handling report 2024](#), 2024

<sup>857</sup> Consumer Council for Water, [Household complaint handling report 2024](#), 2024

<sup>858</sup> Consumer Council for Water, [Our achievements](#), (viewed 17 July 2025); Trust Alliance Group, [TAG Annual-Report](#), 2023

<sup>859</sup> [Water UK's response to the Call for Evidence](#), 2025

<sup>860</sup> Consumer Council for Water data provided to the Commission, 2025

<sup>861</sup> Energy Ombudsman, [Annual Reports | EO](#), 2023; Financial Ombudsman Service, [How long it takes – FOS](#), (viewed 17 July 2025)

<sup>862</sup> Consumer Council for Water data provided to the Commission, 2025

<sup>863</sup> Consumer Council for Water, [Complaints process policy](#), (viewed 17 July 2025)

<sup>864</sup> Consumer Council for Water, [Complaints process policy](#), (viewed 18 July 2025)

<sup>865</sup> Energy Ombudsman, [How we are regulated](#), (viewed 17 July 2025)

## Conclusions and recommendations

*Despite recent reforms, consumers are still not adequately protected and advocated for in the current system.*

650. **The Commission welcomes the recent progress the UK and Welsh Government and Ofwat have made in relation to consumer protections and affordability.** Many of these still have to be implemented and to be in. The Commission believes, however, that the current framework can be strengthened to further improve outcomes for customers.
651. **The Commission has identified a range of reforms in other sections of this report that should improve customer outcomes and protections.** These recommendations apply to both England and Wales. Relevant recommendations include:
- **A new National Water Strategy for England and Wales respectively, alongside a reformed legislative framework for water, will establish ambitious, long-term targets for the water system that will build in with consumer priorities.** These will be subject to robust impact assessment, ensuring the impact on affordability is understood when strategic targets are set. (Chapter 1 and 3)
  - **New systems planners for England and Wales will have local authority and consumer representation, meaning consumers will have a voice in systems planning when decisions are made about how water is managed where they live.** Consultation processes for planning will also be streamlined, making it easier for customers to engage directly on the decisions that matter to them (Chapter 2)
  - **Regulatory oversight of company performance will be strengthened through the creation of integrated water regulators in England and Wales.** This will improve accountability and thereby help to restore customers trust that the regulators will hold companies to account for poor performance (Chapter 4)
  - **Reforms to the Price Review appeals process opens up the possibility for appeals to be raised by others,** such as customer groups (rather than only provide evidence in the context of redeterminations requested by water companies), as happens in other sectors (Chapter 5).
  - **Reforms to ownership, governance and financial resilience should lead to more resilient and robust water companies that will better serve the consumer and the public (Chapter 6).**

652. **Alongside these cross-cutting reforms, the Commission is also proposing specific recommendations explicitly related to consumer protections, affordability and service.**

*Better economic regulation on customer service*

**Recommendation 41 (England and Wales): The regulator should strengthen the C-Mex incentive to better reflect customer experience and move to a supervisory approach to monitoring the customer-focused licence condition.**

653. **The Ofwat C-Mex performance commitment should be reconsidered and strengthened to improve outcomes for customers.** Evidence provided above on C-Mex performance trends shows that C-Mex has not driven improvements in customer service. As set out early in this chapter, performance commitments can be an important tool of the economic regulator to drive behaviour change in companies. However, this isn't the case if they are based on insufficient data. Improvements are needed to more effectively capture the quality of service that customer's experience. Further information on the performance incentive framework is set out in the economic regulation section of this chapter.
654. **There are range of options which could be considered.** For example, in their return to the Commission's Call for Evidence, CCW proposed that a metric that measures customer complaint volumes per 10,000 connections should make up 25% of the value of C-Mex, arguing that a high level of complaints is evidence of a poor experience for many customers. The Commission also considers that C-Mex should have a closer link to the outcomes set out within the new customer-focused licence condition (as explained within the background section) to better hold companies to account for delivery.
655. **The regulator should ensure the measure is focussed on actual customer service delivered by a company rather than more general measures which will tend to pick up broader concerns about industry as a whole and which may be susceptible to media coverage of other companies' performance.** The public's view of the industry as a whole is generally an important indicator for the regulator but customer focussed performance incentives should be targeted at specific company performance. The regulator should reduce or eliminate the weight of such measures in C-MEX.
656. **The introduction of the customer-focused licence condition, a new water company licence condition, setting out the for the high standards of service that customers should expect is welcomed.** However, for this to deliver improved outcomes it will require regulators to oversee and

enforce the condition effectively. The Commission judges that the move to a more supervisory approach to economic regulation, recommended by the Commission earlier in this chapter, would provide more granular regulatory oversight, tailored to individual companies. This, in turn, would enable supervisors to better understand how companies are performing against this condition, with supervisory measures, or wider enforcement action to be taken as necessary.

*Help for customers facing water poverty should be strengthened*

**Recommendation 42 (England): The UK government should consult on the introduction of a national social tariffs with consistent eligibility criteria and levels of support.**

**Recommendation 43 (Wales): The Welsh government should review existing social tariff schemes provided by the two companies in Wales and consider reforms to ensure they are providing equitable outcomes.**

657. **The Commission recommends that the UK Government uses the powers provided by the Water (Special Measures) Act 2025 to establish a national social tariff scheme in England.** Noting that Wales only has two companies and does not yet have powers to introduce a national social tariff scheme, the Welsh Government should review the existing social tariff schemes the companies provide to ensure they are providing equitable outcomes across Wales.
658. **Having declined in real terms for a decade, water bills will rise markedly over the next 5 years, in line with the huge step up of investment in the water sector.** Bills are still relatively low compared to other utilities, with the average bill in 2025/26 at £1.65 a day, but these increases will put further pressure on the poorest and most vulnerable households.<sup>866</sup>
659. **Moreover, investment in the water industry will need to remain high well into the future to meet the challenges of climate change, population growth and rising environmental and health standards.** Ofwat estimate that the level of investment required could lead to average bills rising to £2,000 a year by 2050.<sup>867</sup> Against that background, it is crucial that there is effective support for those who will face water poverty and struggle to meet their bills.
660. **The Commission believes that given level and future trajectory of bills and the degree of variation in current social tariffs, a national scheme is justified.** It notes that similar national social tariffs exist in other regulated

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<sup>866</sup> Water UK, [Annual average bill changes 2025-2026](#) (viewed 18 July 2025)

<sup>867</sup> [Ofwat response to the Call for Evidence](#), 2025, £2,000 figure includes expected inflation

utility sectors. It recognises, however, that the cost of water necessarily varies between region in line with the costs of production and investment and that the level of social tariffs vary between water companies in line with customer preferences. The design of a national scheme – how it is funded, whether there is a single national social tariff and the level of support will involve distributional decisions between billpayers nationally rather than distributional decisions being intra company and based on customer agreement. Such national distributional decisions are, in the Commission's view, properly the province of elected government. The Commission does not therefore make any recommendations on the design of a national tariff.

661. **The Commission recognises it is important that this support reaches those who need it, therefore schemes should be designed to overcome the barriers that currently exist for many eligible customers.** Increased awareness of the scheme, a single set of eligibility criteria and a simple, or automatic, application process would be required.

*Redress and advocacy for consumers should be strengthened*

**Recommendation 44 (England and Wales): The UK and Welsh Government should consider whether to convert the Consumer Council for Water into a new mandatory Water Ombudsman.**

662. **While companies must improve both the service they provide to customers and the way they handle complaints, customers must also have assurance that complaints will be resolved.** The Commission believes that customers and companies should have access to a mandatory Ombudsman to adjudicate on complaints and deliver legally binding resolutions once other avenues have been exhausted. Without this, it may be difficult for customers and companies to rebuild trust; something that is particularly important in the water sector where customers are unable to switch companies. A mandatory Ombudsman would bind all water companies to this service and therefore give all water customers a guaranteed level of protection, as is the case in other utility sectors.
663. **To deliver on this change, the Commission believes that the Government should consider whether CCW should be converted into a new mandatory Water Ombudsman.** The Commission recognises the value CCW has provided in the end-to-end support it provides to customers through the complaints process. This helps to overcome many of the barriers that customers may experience in taking their complaint forward, particularly for those in vulnerable circumstances. The Commission recommends that features of this support should be retained as CCW converts into the Water Ombudsman and customers continue to be guided through the process. However, the independence of the Ombudsman is crucial to building trust and would require that the new Water Ombudsman is impartial.



**Recommendation 45: The government should consider transferring the advocacy functions of CCW to Citizens Advice, providing a stronger voice for customers, that the water regulator is required to respond to.**

664. **The Commission also recognises that advocacy functions are crucial to represent the interests of consumers.** This includes conducting research and public advocacy to champion the interests of consumers to influence water companies, regulators and government.
665. **The Commission recognises that if CCW was converted into a mandatory ombudsman, it would be no longer appropriate for them to carry out consumer advocacy,** as this would undermine the Ombudsman's ability to act fairly, impartially and maintain the trust of all parties.
666. **Citizens Advice also advocates and provides advice for water customers.** The Commission believes that they could therefore take on this function. By bringing consumer representation together in a larger cross-sector body this will enable Citizens Advice to use common learning from across sectors. Such learning will provide advocacy that has a broader understanding of people's lives and the financial pressures they face, to help inform better policy making. Further, Citizens Advice are well known as a champion for customers, citing 92% brand awareness, providing advice and support in many areas of people's lives, including energy, housing and debt.<sup>868</sup>
667. **This transfer of functions does not come without risks.** In comparison with other sectors, the degree of monopoly in the water industry, as a monopoly service, requires greater focus on advocacy and engagement with regulators, governments and individual companies. This in turn requires more sector-specific technical knowledge and close working relationships, particularly with companies at a local level. Safeguards will need to be in place to ensure that the required sustained specialist focus is preserved and not deflected to other Citizens Advice activities.
668. **Moreover, the Commission recommends that the water regulator should be required to formally respond to the recommendations of investigations by the new consumer advocacy function.** A structured framework for responses by the regulator would be needed, with a decision timeline, decision making process and a mechanism for publishing both the consumer advocates' requests and the final decision of the regulator and its rationale. The current situation, where no formal response is required from the regulator, means the customer voice can appear unheard, contributing to the erosion of trust in the sector.

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<sup>868</sup> Citizens Advice response to the Call for Evidence, 2025

669. **In implementing this recommendation, government should consider how to ensure a clear delineation of responsibilities and mechanisms for effective collaboration between Citizens Advice and CCW.** This will be particularly important for 'first line advice', which is currently the responsibility of CCW. It will be important that customers are clear on who they should speak to for advice in emergency situations, such as in the case of sewer flooding. It will also be important for information sharing arrangements between Citizens Advice and CCW to be put in place, recognising that a clear understanding of the reasons for customer complaints is important to inform an effective advocacy function.
670. **Finally, the Commission recognises a need to clearly delineate the functions of the consumer advocate and the water regulator to ensure that their distinct, but complementary roles in protecting customers are appropriately allocated and balanced.** This would include, but not limited to, the respective roles in customer research, involvement in customer complaints and the monitoring of company performance for the customer focused licence condition. This would help to reduce the duplication that currently exists, while simplifying the landscape for customers to navigate. It would ensure that each organisation has the structure, capacity and capabilities required.







## Chapter 6: Company structures, ownership, governance and management

### 6.1: Ownership and governance

#### Company ownership and performance

##### Background

671. **The water industry in England and Wales was privatised in 1989, with the 10 water and sewerage companies (WASCs) listed on the London Stock Exchange.** Since then, there have been material changes in the ownership of UK and Welsh water companies within the privatised model. Only 3 WASCs remain publicly listed, 7 are privately owned and 1 (Welsh Water) has a “not-for-profit” model.
672. **Water-only companies (WOCs) have always been private.** There has been a trend towards consolidation, from 29 WOCs at privatisation in 1989 to 5 today (see Box 37). There have also been changes to investor types, detailed in Section 6.2.

##### Box 37 – Evolution of ownership

**Since the water industry in England and Wales was privatised in 1989, there have been material changes in the ownership of water companies.**

**At the point of privatisation, the water and sewerage companies WASCs were all listed on the London Stock Exchange** and they were subject to the governance and transparency requirements for publicly listed companies.<sup>869</sup>

- 23.55% of shares were initially reserved for sale to the general public, including customers and employees of the water companies.
- 18.5% of shares were initially made available to overseas investors, with a clawback provision available for 25% of these to be sold to the general public if heavy demand.<sup>870</sup>
- Government also retained a temporary golden share, which was redeemed in 1995. This golden share prevented any individual or company controlling more than 15% of voting shares. This was designed in part to secure domestic ownership of water companies.<sup>871</sup>

**After the government’s golden share was redeemed, individual investors were able to acquire increasing numbers of shares in companies and take controlling interests.** This was in part supported by the steep increase in the

<sup>869</sup> Ofwat, ‘[The development of the water industry in England and Wales](#)’, 2006

<sup>870</sup> UK Parliament, ‘[Water Companies](#)’, 1989

<sup>871</sup> Ofwat, ‘[The development of the water industry in England and Wales](#)’, 2006

valuation of shares through the 1990s, driven by investment paid for by debt, which meant that it was attractive for the general public to sell their small shareholdings at profit.<sup>872</sup> 7 of the 10 water and sewerage companies in England and Wales have now become 'private', meaning they are not listed on the stock exchange.

**While the 10 WASCs created at privatisation still exist today, the number of WOCs has reduced following consolidation, from 29 at privatisation in 1989 to 5 today.**<sup>873</sup> WOCs have always been private and were not protected from takeover bids by a government golden share so the market activity for WOCs began earlier than for WASCs, with the earliest bids from foreign companies occurring in 1988.<sup>874</sup> WOCs have followed a similar trend to WASCs in terms of de-listing.

**The shareholders of publicly listed companies encompass a broad range of investors.** Institutional investors, for example sovereign wealth funds, asset management firms and private equity, represent a significant portion of ownership of the 3 listed companies, with major asset managers featuring prominently among the top shareholders.<sup>875</sup> The owners of private unlisted companies vary from private equity funds, usually representing a broad range of investors, to direct ownership by international infrastructure companies – or some combination thereof. There is more detail on the investor base and investment strategies at Section 6.2: Investment and financial resilience.

**Welsh Water has a distinct not-for-profit ownership model. See [Box 38] below for more information on its origins.** Glas Cymru, the owner, has no shareholders and therefore does not pay dividends – its business model is instead to finance investment by issuing debt and retaining profits.

**Welsh Water has a distinct not-for-profit ownership model. See [Box 38] below for more information on its origins.** Glas Cymru has no shareholders and therefore does not pay dividends – its business model is instead to finance investment by issuing debt and retaining profits.

<sup>872</sup> Ofwat, '[The development of the water industry in England and Wales](#)', 2006 (page 40)

<sup>873</sup> There were 10 WASCs at privatisation. There are now 11 WASCs in England and Wales but Hafren Dyfrdwy is a subsidiary of Severn Trent Plc and is therefore considered as part of Severn Trent's ownership model for the purposes of this chapter; [Severn Trent, 'Our shares'](#) (viewed 28 May 2025); [Pennon Group Plc, 'Water and wastewater'](#) (viewed 28 May 2025); [United Utilities, 'Investor guide'](#) (viewed 28 May 2025)

<sup>874</sup> UK Parliament, '[Water Companies \(Foreign Control\) - Hansard - UK Parliament](#)', 1989

<sup>875</sup> Institutional ownership insights are based on publicly available data from the Financial Times (FT) Markets profiles, which list the top disclosed institutional shareholders. These figures may not represent the full extent of institutional ownership, as smaller holdings and undisclosed positions are not included. FT profiles for each company can be found here: [Pennon Group PLC](#), [United Utilities Group PLC](#), and [Severn Trent PLC](#).



## Issues

673. **The Commission has identified 4 main issues regarding the extent to which ownership model impacts company performance:**

- profit in the provision of water and wastewater
- public listing versus ‘private’ (for example unlisted) ownership
- particular types of private investors and the investment vehicles they use
- Ofwat’s control and powers over water company ownership

### Profit motive versus not-for-profit

674. **Responses to the Call for Evidence highlighted concerns from the public in relation to the profit motive of privately-owned water customers.** A large number of respondents stated that they believed there was a conflict between the profit-making incentive of companies and their environmental and customer focused duties.<sup>876</sup> Some respondents commented that the Commission’s Terms of Reference should have allowed the Commission to look at nationalisation and publicly funded solutions.

675. **Many stakeholders have expressed concern about Ofwat’s ability to ensure profit is not at the expense of the environment and customers.**<sup>877</sup> Others noted the recent reforms by government and Ofwat, including updates to companies’ Articles of Associations to ensure the interests of customers and the environment are a primary objective, and conditions on when dividends can be paid.<sup>878</sup>

676. **Some stakeholders have argued for moving water companies to ownership models that either do not involve or restrict profit.** Surfers Against Sewage and River Action, for example, highlighted not-for-profit and Community Interest Companies and Public Benefit Company models (which restrict profit), arguing that these would enjoy greater public trust, pursue environmental objectives more effectively and have lower financing costs.<sup>879</sup>

677. **The Commission has also heard concerns about moving to a not-for-profit model.** Stakeholders have pointed out that there does not appear to

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<sup>876</sup> Responses to Q69 and Q72 of the Commission’s Call for Evidence, 2025

<sup>877</sup> eNGO engagement with the Commission, 2024

<sup>878</sup> For example, Anglian Water’s Articles of Association state that “The purpose of the Company is to conduct its business and operations for the benefit of members as a whole while delivering long term value for its customers, the region and the communities it serves and seeking positive outcomes for the environment and society”, as per [AW Committee](#) (viewed 18 July 2025); Ofwat, [‘Returns and dividends’](#) (viewed 20 July 2025)

<sup>879</sup> River Action and Surfers Against Sewage, [Joint Submission to the Independent Water Commission](#), 2025

be a relationship between a not-for-profit model and operational performance, highlighting Welsh Water's two out of four Environmental Performance Assessment rating.<sup>880</sup> Some highlighted that the lack of equity investment and profit motive in a not-for-profit model may minimise incentives for innovation and efficiency.<sup>881</sup> Concerns have also been raised about the not-for-profit model's reliance on debt, as in the case of Welsh Water, which could lead to challenges in financing a large programme of future infrastructure improvements.<sup>882</sup> Some stakeholders have also described Welsh Water's governance model as lacking in transparency.<sup>883</sup>

### **Box 38 – Transition to not-for-profit and mutual models: Case study on Yorkshire Water and Welsh Water**

#### Yorkshire Water

**In 2000, Ofwat rejected a proposal by Yorkshire Water owners, Kelda Group, to convert Yorkshire Water into a customer-owned mutual company because the change was not considered to benefit customers.** The Kelda proposal would have transferred ownership of the assets to a not-for-profit company financed entirely through debt that would have remained with the company. It was proposed that this would reduce bills by removing the need for dividends. Kelda intended to continue operating the water services for a period, after which it would be contracted out under competitive tender. The plan would have seen a significant benefit to the existing shareholders from the sale of assets. Ofwat rejected the proposal on the grounds that: (1) it did not clearly benefit customers in either reducing bills or improving service; (2) customers were not consulted appropriately; (3) customers would bear future risk directly; and (4) there was not sufficient independence of the mutual company from Kelda.<sup>884</sup>

#### Welsh Water

**In contrast, Ofwat did approve the conversion of Welsh Water into a not-for-profit in 2001.** In the late 1990s, Welsh Water purchased electricity companies and was renamed Hyder. Hyder subsequently encountered financial difficulties. Western Power Distribution purchased Hyder with the intent of extracting its electricity business, and put the water business up for sale. Glas Cymru was established as a company limited by guarantee, with the sole purpose of purchasing Welsh Water. In November 2000 Glas Cymru reached an agreement to

<sup>880</sup> Investors and Ofwat engagement with the Commission, 2025; Cyfoeth Naturiol Cymru Natural Resources Wales, '[Annual environmental performance report for Dŵr Cymru Welsh Water 2023](#)', 2023

<sup>881</sup> Investor and Ofwat engagement with the Commission, 2025

<sup>882</sup> Ofwat and Llywodraeth Cymru Welsh Government engagement with the Commission, 2025; Responses to Q73 of the Call for Evidence

<sup>883</sup> Llywodraeth Cymru Welsh Government engagement with the Commission, 2025; River Action and Surfers Against Sewage, '[Joint Submission to the Independent Water Commission](#)', 2025

<sup>884</sup> Ofwat, '[The Proposed Restructuring of the Kelda Group: A Preliminary Assessment by the Director General of Water Services](#)' (archived content), 2000

acquire Welsh Water for £1.8 billion, the amount of its debt. Unlike the Kelda proposal, new debt was not required to buy out the equity as the owners at the time were prepared to sell for the nominal sum of £1 (with the remainder of the purchase price paying off existing debt).<sup>885</sup> Notwithstanding this, the deal was initially met by scepticism from Ofwat, related to Glas Cymru's ability to build up sufficient reserves to manage financial shocks. However, Ofwat concluded in 2001 that they would not object to Glas Cymru's takeover if they agreed to a number of conditions (for example, licence condition changes, performance incentives for management).<sup>886</sup> Since the takeover, Welsh Water has built up cash reserves on its balance sheet and its debt has fallen from 89% in 2002 to 61% in 2024.<sup>887</sup>

### Public listing versus 'private', for instance, unlisted ownership

678. **Some stakeholders have suggested that privately held, for-profit, water companies should return to listing and trading shares on public stock markets**, arguing that this would deliver benefits from board independence, increased transparency, accountability and restraining company debt levels.<sup>888</sup>
679. **Conversely, others have questioned whether public listing would necessarily produce better outcomes for companies.** Some investors have questioned whether public equity markets would have sufficient depth to finance required investment. On the other hand, Barclays, for example, have commented that there would be sufficient liquidity for listing, but that it would come at a higher cost.<sup>889</sup> Ofwat noted they had not found a clear link between operational performance and whether companies were publicly listed or privately owned.<sup>890</sup>

### Particular types of private investors and the structures they use

680. **The Commission has heard concerns from the public about certain types of investment vehicles taking a stake in water companies, particularly private equity funds.** There is a perception on the part of many stakeholders that such investors have entered the sector with the aim of extracting unreasonable levels of return over short timeframes to the detriment of customers and the environment.<sup>891</sup> Other stakeholders have

<sup>885</sup> The Guardian, '[Glas Cymru seeks to lower bills at Welsh Water | Business | The Guardian](#)', 2000; BBC, '[BBC News | WALES | Company raises cash for water takeover](#)', 2001

<sup>886</sup> Said Business School, '[Case Study: Welsh Water](#)', 2021

<sup>887</sup> Dŵr Cymru Welsh Water, '[Dŵr Cymru Welsh Water Investor Report](#)' (viewed 18 July 2025); Ofwat, '[Monitoring Financial Resilience Report 2023-24](#)', 2024

<sup>888</sup> Dieter Helm, '[No-regret water reforms - Dieter Helm](#)', 2025

<sup>889</sup> Barclays, 'Rethinking the ownership model and capital structure', March 2025

<sup>890</sup> Ofwat engagement with the Commission, 2025

<sup>891</sup> Call for Evidence responses to Q43 and Q71, 2025; River Action and Surfers Against Sewage, '[Joint Submission to the Independent Water Commission](#)', 2025

argued that the business model of the underlying investors, rather than the ‘type’ of investment vehicle, is more important for driving company outcomes, citing, for example, the more recent development of private equity funds with longer horizons that specialise in infrastructure.<sup>892</sup>

681. **Stakeholders have also commented on investors using complex structures (for example, Whole Business Securitisation) to facilitate high levels of debt.** Ofwat has outlined that, on balance, these debt structures have not been beneficial for companies.<sup>893</sup> The Commission understands that, in the banking sector, the regulator has stronger powers with respect to parent companies, including powers of direction. This reflects the fact that group financial structures, and the wider activity of parent and group companies, can affect the stability, governance and reputation of regulated companies.<sup>894</sup> Conversely, some companies and investors maintained, that complex debt structures can benefit customers through cheaper financing costs, and emphasised that securitisation is a common device in other sectors.<sup>895</sup>

### Ofwat’s control and powers over water company ownership

682. **One of the key themes identified in responses to the Call for Evidence’s open-text questions on ownership was a concern over the strategy and practices of particular investors, as well as lack of control over ownership of water companies, including in respect of non-UK investors.**<sup>896</sup> Currently, Ofwat has no direct powers to approve owners of water companies. However, companies are required to inform Ofwat of potential changes in ultimate controller. Ofwat requires companies to obtain legally enforceable undertakings from their ultimate controller.<sup>897</sup> Ofwat can also consider whether concerns may arise on a change of control and, if appropriate strengthen licences to manage the risks. However, Ofwat cannot block prospective owners from buying a controlling interest in a company.
683. **Ofwat has argued that their change of control regime has been effective, within their statutory framework.** Ofwat has emphasised that they ‘do not currently have a formal role in approving investors, and noted it is ‘the behaviour of individual investors [rather than their type] which is

<sup>892</sup> Investor engagement with the Commission, 2025; Dieter Helm, ‘[Who owns the water companies? - Dieter Helm](#)’, 2018

<sup>893</sup> Ofwat response to the Call for Evidence, 2025, p99

<sup>894</sup> [Financial Services and Markets Act 2000](#)

<sup>895</sup> Water company submission to Independent Water Commission, December 2024

<sup>896</sup> Responses to the Call for Evidence, Q71.

<sup>897</sup> Ofwat define ‘ultimate controller’ as ‘any person which, whether alone or jointly and whether directly or indirectly, is, in the reasonable determination of Ofwat, in a position to control or in a position to materially influence the policy or affairs of the Appointee or any Holding Company of the Appointee. Source: Condition A of water companies’ instruments of appointment: Ofwat, ‘[Licences and licensees - Ofwat](#)’ (viewed 18 July 2025)

key'.<sup>898</sup> However, in engagement with the Commission, Ofwat has also acknowledged the challenges posed by different ownership models and structures, including complex and non-transparent group financial structures. Due to Ofwat's lack of extraterritorial jurisdiction, non-UK ultimate controllers can also pose a challenge to regulation and enforcement.<sup>899</sup> Ofwat has suggested that there may be a case for more direct oversight of ultimate controllers.<sup>900</sup> Ofwat has suggested that this need not entail a 'fit and proper person test' for new owners and emphasised it may be challenging to determine whether an investor is acceptable.<sup>901</sup>

## Conclusions and recommendations

684. **The Commission has taken the following approach in relation to ownership models.** In line with its terms of reference, the Commission has not considered: the transfer of water companies to public ownership; the use of public funds to purchase water companies from their existing owners to enable the transfer of the company to a not-for-profit or similar model; the public sector purchasing stakes in water companies; or the compulsory transfer of water companies to a not-for-profit or similar model that is likely to require compensation of existing owners.
685. **Subject to this, the Commission has examined, on the basis of comparable objective evidence available in the UK and internationally (and bearing in mind the limitations of the metrics and the dataset), the extent to which there is evidence of a causal relationship between ownership models and performance.** Where the Commission has identified such evidence, it has considered whether lessons can be learned, and measures introduced in England and Wales.
686. **With regard to alternative not-for-profit, or similar models that might be proposed by existing or prospective owners (as with Welsh Water and Kelda), the Commission believes that these models are viable and might be beneficial in some cases but that proposals need to be considered on a case-by-case basis, as was the case with Dwr Cymru and Kelda.** Such models might also present one possible exit route from a Special Administration Regime (SAR), but again proposals would need to be assessed on a case-by-case basis. The Commission has also considered the issues the water regulator should have in mind when making its assessment.
687. **Finally, the Commission has considered the risks to the public interest from existing for-profit business models, and whether additional tools**

<sup>898</sup> Ofwat response to the Call for Evidence, 2025, p90

<sup>899</sup> Ofwat engagement with the Commission, 2025

<sup>900</sup> Ofwat engagement with the Commission, 2025

<sup>901</sup> Ofwat engagement with the Commission, 2025



**and a change in regulatory approach are required to manage those risks.** The Commission believes that the dynamics within water companies, and between companies and their owners, have an important role to play in ensuring the alignment of the public interest with the private interest of water company owners.

688. **Based on this analysis, the Commission has drawn two overarching lessons.** Firstly, there is a legitimate public interest in the identity and business model of water company owners, but the ownership model itself does not appear to be the most important driver of company outcomes. Secondly, strong and evidence-based regulation is critical in ensuring customers and the environment are protected, regardless of ownership model.

*There is no clear relationship between ownership models and outcomes.*

689. **Box 39 shows evidence the Commission has drawn upon.** This covers outcomes of fully and partially nationalised public ownership models found internationally, as well as the not-for-profit model adopted by Welsh Water.
690. **The Commission recognises lessons can be learned from other models** (also outlined in Box 39). For example, the Commission has looked at the regional water boards which exist in the Netherlands. These provide a potential mechanism for involving local communities in decision-making, which the Commission believes could be partly replicated through a new regional systems planner (see Chapter 2). The Commission has also learnt from Scotland's ethical based regulation model the benefit of close supervisory engagement with the company to understand more deeply its challenges and capabilities and build trust (see Chapter 2). The Commission also recognises that trust has historically been higher in Welsh Water, which may reflect their not-for-profit model, although the Commission notes Northumbrian and Wessex Water have recently surpassed Welsh Water on this metric.<sup>902</sup> As detailed later in this chapter, the Commission considers that a range of reforms are needed to ensure that companies and their owners are held accountable for meeting public interest requirements.

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<sup>902</sup> Consumer Council for Water '[Water Matters 2025 - CCW](#)' (viewed 18 July 2025)

### **Box 39: Performance of different ownership models.**

#### **Data across various metrics does not show any strong correlation between ownership model and performance.**

The Commission has compared outcomes in countries reasonably similar to England and Wales. This analysis has not demonstrated any one model is universally better than another.

**Some models perform better on particular metrics. However, this often appears to reflect, for example, geographical circumstances (for example, population density), rather than ownership per se.** This echoes the findings of the Consumer Council for Water (CCW) report, which concluded there is no strong correlation between ownership and performance.<sup>903</sup>

**This comparison uses only metrics with consistent, comparable data across ownership models.** Gathering data on comparable metrics across different jurisdictions is challenging. Financial indicators and other key metrics like pollution were excluded due to inconsistent definitions, lack of reporting, or incompatibility across regulatory frameworks. In particular, while household bills are a key indicator, differences in what is included, subsidy levels and how water and wastewater costs are reported made recent, like-for-like comparisons across models unreliable.<sup>904</sup> There are also no standardised metrics for pollution incidents across the models compared, as most other countries do not systematically monitor or publish data on sewer-related pollution incidents comparable to England and Wales.

#### **Different ownership models**

**There are a variety of different water company ownership models internationally, including:**

- **Centralised nationalised model** – In Scotland, the water industry is nationalised, with a single company – Scottish Water.<sup>905</sup> Scottish Water is owned by the Scottish Government, and funded through customer bills, with volatility in revenues and investment being funded by government lending.<sup>906</sup> Despite being nationalised, Scottish Water is still regulated; there has been a recent move to a more ‘ethical’ based model, which emphasises trust and collaboration

<sup>903</sup> Consumer Council for Water, ‘[Water industry reform and water company ownership models review](#)’, 2025

<sup>904</sup> Commission analysis based on pre-2021 data found that prices in England were around the median of comparable countries, although the Commission has not been able to obtain post-2021 data, therefore the Commission has not drawn upon this analysis in its assessment.

<sup>905</sup> Scottish Government and Water Industry Commission for Scotland engagement with the Commission, 2025

<sup>906</sup> Scottish Government, ‘[Water industry governance - Water](#)’ (viewed 20 July 2025)

between Scottish Water and the regulator. Water supply in Northern Ireland and Ireland is also nationalised, although spending is mostly funded through taxpayers.<sup>907</sup>

- **Decentralised nationalised model** – The Netherlands also has a public ownership model, but with a different water industry and regulatory structure to Scotland.<sup>908</sup> In particular, separate entities exist for supplying drinking water (water companies), managing urban water and sewage collection (municipalities), and managing regional water systems (regional water boards). The private sector is also involved in building and maintaining the water infrastructure.<sup>909</sup>
- **Mixed public-private model** – France and Germany have more mixed models of private and public ownership. In France, for example, local authorities own water infrastructure but typically outsource management of this to private companies. There are some exceptions to this arrangement. For example, in 2008, the city of Paris decided to end long-term contracts with private operators and ‘remunicipalise’ water services.<sup>910</sup> Germany has a mostly publicly owned water system but has also had examples of public-private partnerships.<sup>911</sup>
- **For-profit privatised model** – England has a regulated private for-profit company model in which the assets are fully owned and operated by private companies.
- **Not-for-profit privatised model** – Since 2001 Welsh Water has operated as a not-for-profit private company, meaning they are privately owned by a company limited by guarantee, have no shareholders and do not pay dividends.

### Outcomes on water resources

<sup>907</sup>Households in Ireland and Northern Ireland do not currently pay water charges. Businesses are liable for water charges. There are plans in Ireland to introduce an ‘excess use charge’ for households that use above a certain amount of water. Source: [Household water charge for excess use](#), (viewed 18 July 2025)

<sup>908</sup> Prof Havekes, ‘[Successful Decentralisation? A critical review of Dutch water governance](#)’, 2023

<sup>909</sup> Netherlands government engagement with the Commission, 2025

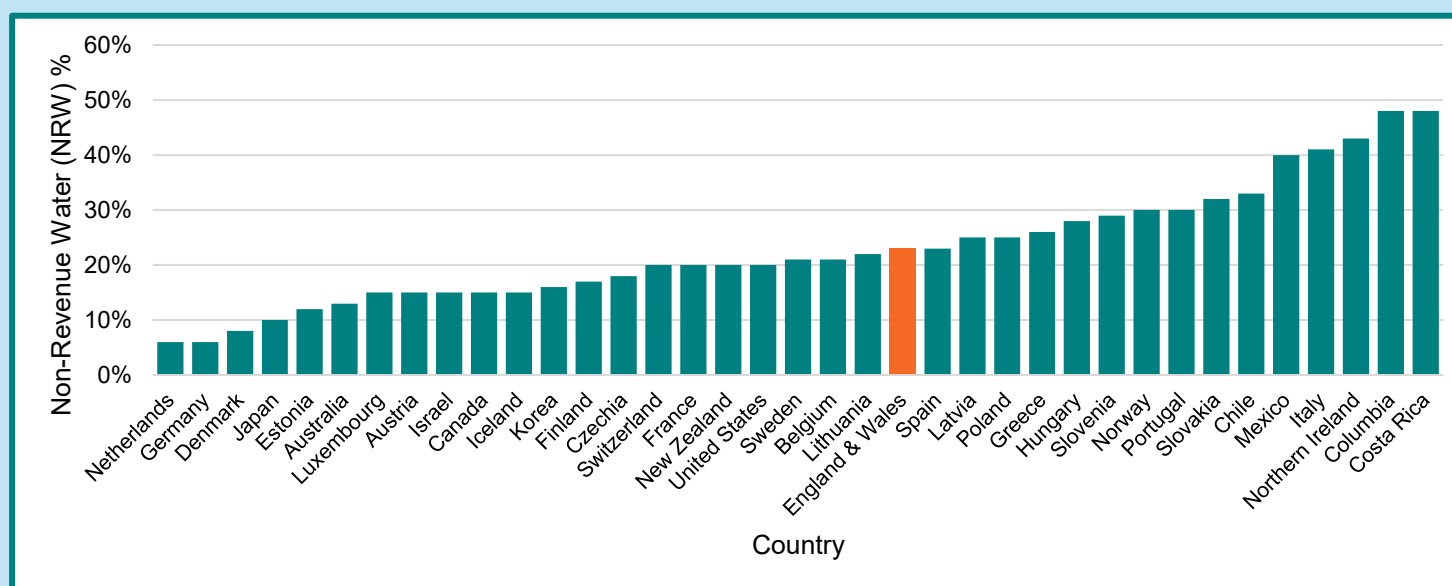
<sup>910</sup> E Lobina and others, ‘[Water remunicipalisation in Paris, France and Berlin, Germany](#)’, 2021

<sup>911</sup> E Lobina and others, ‘[Water remunicipalisation in Paris, France and Berlin, Germany](#)’, 2021

**Public and mixed models such as the Netherlands and Germany show strong water efficiency, with low per capita use (128 litres/day) compared to England and Wales (137 litres/day).** However, there are examples of public and mixed models with worse performance in Scotland (178 litres/day) and France (150 litres/day).

**Leakage of clean water in England and Wales, measured as Non-Revenue Water, ranks them in the middle of the international range as shown in Figure 21.** Reported leakage of 23% is similar to Spain and slightly higher than France and the US (~20%). Germany, the Netherlands and Australia report much lower losses.

**Figure 20: Non-Revenue Water, % of water produced that is lost or unbilled, 2022-23.**

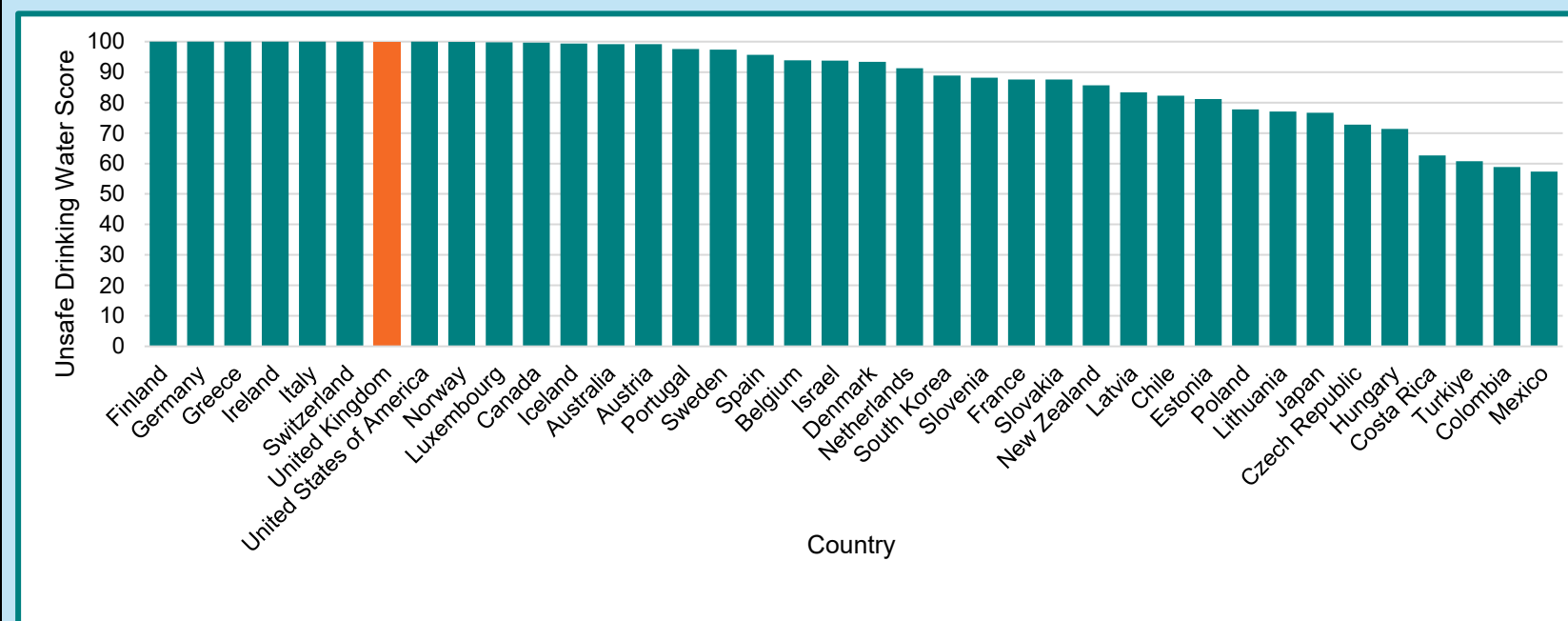


Source: Moodys<sup>912</sup>

### Outcomes on drinking water safety

**Drinking water safety is generally high across all the comparator countries considered.** The UK, Ireland, and Germany score 100 in the 2024 Environmental Performance Index, indicating the safest levels. The Netherlands (91.3) and France (87.6) perform marginally worse.<sup>913</sup>

**Figure 21: Unsafe Drinking Water Scores, OECD Countries, 2024**



Source: Environmental Performance Index<sup>914</sup>

<sup>912</sup> Data provided by the Moody's to the Commission. Source: © 2025 Moody's Investors Service, Inc. and/or its affiliates. All rights reserved. Information is provided subject to the terms and conditions available at the following link: <https://www.moody.com/Pages/globaldisclaimer.aspx>

<sup>913</sup> Environmental Performance Index, '2024 Environmental Performance Index - Unsafe drinking water' (viewed 18 July 2025)

<sup>914</sup> Environmental Performance Index, '2024 Environmental Performance Index - Unsafe drinking water' (viewed 18 July 2025)



**Environmental outcomes**

**Environmental performance varies across countries and models.** Surface water quality in England and Wales lags behind many European countries, with only 16% and 40% of water bodies respectively achieving “good” or “excellent” ecological status in 2019 and 2021, respectively. However, England performs well in terms of a low number of sites in the “bad” category, with only 3% classified at the lowest status. When compared with other densely populated European countries (for example, Germany and the Netherlands), England performs favourably.

**However, bathing water quality is high across most countries**, with Germany (97%), Wales and Ireland (both 94%), and France (91%) achieving the highest proportion of sites meeting good or excellent standards. The Netherlands (89%) and Scotland (87%) also perform strongly, while England, though slightly lower at 85%, remains broadly comparable.

**On wastewater, the share treated to at least primary level is high across all countries**, with England and Wales, Germany, France, and the Netherlands all treating over 98% of wastewater.

**Table 7: Summary of key performance metrics by different ownership models**

Performance metric	Private	Not for profit	Public			Mixed	
	England	Wales	Scotland	Ireland	Netherlands	France	Germany
Water Resource Management							

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Water usage, litres per day per person <sup>915</sup>	140 <sup>916</sup> (2024)	141 <sup>917</sup> (2024)	178 <sup>918</sup> (2025)	133 <sup>919</sup> (2022)	129 <sup>920</sup> (2021)	150 <sup>921</sup> (2025)	128 <sup>922</sup> (2023)
Non-Revenue Water, % of water produced that is lost or unbilled, 2022/23 <sup>923</sup>	23%	23%	25% <sup>924</sup> (2023/24)	37% <sup>925</sup>	6%	20%	6%
<b>Drinking Water Safety</b>							

<sup>915</sup> This metric measures the average liters of water consumed per person per day in households. Figures for *Water usage (liters per person per day)* are based on the most recent data available for each country. The last year of available reported data varies and is indicated in brackets alongside each country's value.

<sup>916</sup> Ofwat, '[Water company performance report 2023-24](#)', 2024

<sup>917</sup> Ofwat, '[Water company performance report 2023-24](#)', 2024

<sup>918</sup> Scottish Water, '[Long Term Strategy - Scottish Water](#)', 2025

<sup>919</sup> Irish Water, '[New Conservation Calculator for households to track and improve water usage | News | Uisce Éireann \(formerly Irish Water\)](#)' (viewed 18 July 2025)

<sup>920</sup> Netherlands Central Bureau of Statistics, '[How many litres of water do we use per day? - The Netherlands in numbers | CBS](#)' (viewed 18 July 2025)

<sup>921</sup> French Government, '[Ecological transition -Estimate your water footprint with Our Climate Actions | Service-Public.fr](#)' (viewed 18 July 2025)

<sup>922</sup> Deutschland.de, '[Water and hydrogen in Germany | Facts and figures](#)' (viewed 18 July 2025)

<sup>923</sup> Source: © 2025 Moody's Investors Service, Inc. and/or its affiliates. All rights reserved. Information is provided subject to the terms and conditions available at the following link: <https://www.moody.com/Pages/globaldisclaimer.aspx>. This metric represents the percentage of treated water that is lost or unbilled and therefore does not generate revenue. NRW includes real losses, such as leaks from mains, service connections, and in the UK, customer supply pipes and vacant properties. It also covers apparent losses like metering errors, unauthorised use, and billing inaccuracies. High NRW values indicate inefficiencies in the water supply system.

<sup>924</sup> WICs, [2023-24 B tables | WICS](#), table B8, cell F27 (viewed 18 July 2025). Scotland's leakage figures reflects losses from visible, hidden, and customer-side leaks but excludes apparent losses such as metering inaccuracies or unauthorised consumption. Leakage is calculated using a water balance approach, supported by flow and pressure data, and is distinct from the broader Non-Revenue Water (NRW) metric used in some other countries.

<sup>925</sup> Irish Water, '[Leakage reduction programme | Projects | Uisce Éireann \(formerly Irish Water\)](#)' (viewed 18 July 2025). Ireland's leakage figure reflects reported leakage as a percentage of treated water, based on physical losses through the distribution system. Unlike the NRW metric used for other countries in this table, it does not include apparent losses such as metering errors, unauthorised use, or billing inaccuracies.

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Unsafe Drinking Water, 2024 <sup>926</sup>	100 (UK score only)			100	91.3	87.6	100
Environmental							
Bathing water quality (good or excellent) <sup>927</sup> ,	85%	94%	87%	94%	89%	91%	97%
Surface water quality (achieving GES) <sup>928</sup>	16%	40%	66%	53%	0%	44%	9%
Surface water quality achieving bad status <sup>929</sup>	3%	1%	3%	<1%	9%	6%	18%
Wastewater treated, % of	86% (UK only value)			64%	100%	82%	97%

<sup>926</sup> Environmental Performance Index, '[2024 Environmental Performance Index - Unsafe drinking water](#)' (viewed 18 July 2025). This metric measures the population-weighted risk of exposure to drinking water that fails to meet health-based standards for microbial or chemical contamination. The score (0–100) reflects the inverse of risk: higher scores indicate lower exposure to unsafe drinking water and better overall access to safe water.

<sup>927</sup> Defra and Environment Agency, '[92% of English bathing waters meet water quality standards](#)', 2024; Cyfoeth Naturiol Cymru Natural Resources Wales, '[Wales Bathing Water Report 2024](#)', 2024; SEPA, '[Scotland's Bathing Waters](#)' (viewed 20 July 2025), European Environment Agency, '[European bathing water quality in 2024 | European Environment Agency's home page](#)' (viewed 18 July 2025). This metric measures the percentage of bathing sites meeting EU standards for microbiological safety. Higher values indicate cleaner, safer water for recreation.

<sup>928</sup> Defra '[Surface water status - GOV.UK](#)', 2025; Cyfoeth Naturiol Cymru Natural Resources Wales, '[Assessment of water quality in Wales 2024](#)' (viewed 19 July 2025); WISE Freshwater, '[Surface water bodies: ecological status or potential, by country](#)', 2024; SEPA, '[The River Basin Management Plan for Scotland 2021 – 2027](#)' 2021. This metric measures the percentage of rivers, lakes, and coastal surface waters meeting "Good Environmental Status" under the EU Water Framework Directive. The most recent year of classification data has been used for each country.

<sup>929</sup> Defra, '[Surface water status - GOV.UK](#)', 2025; Cyfoeth Naturiol Cymru Natural Resources Wales, '[Assessment of water quality in Wales 2024](#)' (viewed 19 July 2025); WISE Freshwater, '[Surface water bodies: ecological status or potential, by country](#)', 2024; Figures for Scotland were calculated using data from [SEPA's River Basin Management Plan Explorer \(2021–2027\)](#) (viewed 18 July 2025) based on the overall condition of classified surface and groundwater bodies in 2020. Percentages were derived by summing all water bodies and calculating the proportion at "poor or worse" status. This metric measures the percentage of rivers, lakes, and coastal waters classified as having "poor" ecological status under the EU Water Framework Directive. The most recent year of classification data has been used for each country..

wastewater that undergoes at least primary treatment, 2024 <sup>930</sup>					
<b>Customers</b>					
Customer Satisfaction with water services <sup>931</sup> , 2023	52% (GB score only) <sup>932</sup>	53%	81%	60%	67%

<sup>930</sup> Environmental Performance Index, '[2024 Environmental Performance Index - Wastewater treated](#)', viewed 18 July 2025. This metric measures the percentage of wastewater that undergoes at least primary treatment before release, indicating a country's capacity to manage water pollution and protect ecosystem and public health.

<sup>931</sup> Ipsos, '[Ipsos Global Infrastructure Index 2023](#)', 2023. This metric measures the percentage of survey respondents who report being very or fairly satisfied with water and sewerage services.

<sup>932</sup> Ipsos measure used because CCW's Water Matters survey provides public trust scores for water companies in England and Wales and does not cover Scotland, Northern Ireland, or other ownership models.

***Proposals from owners to change ownership model or a change following SAR should be considered on a case-by-case basis.***

691. **Absent public funding or compulsion, any change in ownership model would require current owners to propose a move to a new model, or to sell their equity to new owners (as in the case of Welsh Water).** It may also be possible, when a company enters a SAR, for a company to move to a new model. This would be at the discretion of the special administrator. This is what happened when the government formed Network Rail in order to bid competitively for Railtrack after it entered SAR.<sup>933</sup> This, however, may not be without consequence for public finances: in 2014, the Office for National Statistics reclassified Network Rail as a public sector body, which had the effect of moving its debt onto the government balance sheet.<sup>934</sup>
692. **The Commission recognises that, in such circumstances, there may be benefit to the proposed change in ownership model. It would be for the water regulator – and special administrator in the SAR case – to decide whether in those circumstances the change would be in the public interest.** The transition of a water company to a not-for-profit model, for example, may have implications for a company's financial resilience. Without equity as a 'buffer' to shocks, a not-for-profit company needs to retain earnings to build up a similar buffer. In the case of a mutual model, the regulator may be concerned about customers taking on too much risk, as the case of Kelda Yorkshire Water showed (see Box 38). The regulator may also be concerned about impacts this would have on management and governance. Water companies are complex infrastructure companies. Under any model, company management needs to be skilled and incentivised to perform. Therefore, it is important that the regulator assesses whether the proposed change in ownership model is best for the public interest.

***There is legitimate public interest in water company ownership.***

693. **The Commission believes there is legitimate public interest in the ownership of water companies.** While ownership model per se does not appear to be a good indicator of performance, that is not to say ownership is irrelevant. Rather, it is important because the business model of the owners plays a very important part in driving the behaviour of management and, more broadly, of the company.
694. **The regulator needs the capacity to understand the business model.** The regulator also needs the powers to ensure the private interest of water company owners is aligned with, and not contrary to, the public interest. Currently, these powers are lacking with respect to prospective owners, meaning the regulator has no ability to prevent owners from taking a material

<sup>933</sup> BBC, '[BBC News | BUSINESS | Q&A: Network Rail bids for Railtrack](#)', 2002

<sup>934</sup> Department for Transport, '[ONS decision on the classification of Network Rail - GOV.UK](#)', 2013



stake in companies. These powers are also lacking with respect to current owners and ownership structures, which could limit the regulator's powers to deal with concerns around, for example, the adoption of complex structures or other behaviour likely to undermine company resilience. The Commission believes lessons can be learned from the financial services regulators' powers with respect to company owners.

695. **The Commission's view is that the water industry is likely to be best served by investors that take a long-term, low return-low risk investment approach.** Investors who intend to maintain their ownership in a water company across multiple spending periods are more likely to be concerned about the long-term health and performance of the company.

***Strong regulation is critical to ensure that customers and the environment are protected, regardless of companies' ownership models.***

696. **The Commission believes strong regulation is necessary to ensure alignment between the public interest and private interests of water company owners.** The Commission is supportive of recent changes to ensure companies act in the public interest – including stronger requirements on dividends and updates to company Articles of Association.<sup>935</sup> The Commission also believes, however, that accountability in this area should be strengthened.

697. The Commission is proposing 4 recommendations related to ownership:

- Recommendation 46: The regulator in England and Wales should continue to adopt an evidence-based process to consider, on a case-by-case basis, whether it would be appropriate for a water company to transition to an alternative ownership model where they request to do so or following a SAR.
- Recommendation 47: The regulator in England and Wales should have the power to block material changes in control of water companies.
- Recommendation 48: The regulator in England and Wales should be provided with powers to direct parent companies and ultimate controllers.
- Recommendation 49: The regulator in England and Wales should mirror elements of the Articles of Association in licence conditions to strengthen accountability.

**Recommendation 46: The water regulator in England and Wales should continue to adopt an evidence-based process to consider, on a case-by-case**

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<sup>935</sup> Defra and The Water Services Regulation Authority, '[Government announces first steps to reform water sector - GOV.UK](#)', 2024

**basis, whether it would be appropriate for a water company to transition to an alternative ownership model where they request to do so or following a SAR.**

698. **In cases where water company owners want to move to other ownership models, or following a SAR, the regulatory approval process should have transparent criteria**, which considers customer interests and whether it is in the public interest, as well as financial resilience and incentives for management. As discussed above, as part of this process, the regulator should consider the implications of a new model on the financial resilience of a company, as well as the impacts on company management.

**Recommendation 47: The regulator in England and Wales should have the power to block material changes in control of water companies.**

699. **The water industry regulatory framework should contain a robust change of control regime.** The regulator should have the power to block changes in control of water companies. This would be appropriate given the role that water companies serve in providing critical national infrastructure to the country and historic cases where owners do not appear to have prioritised the long-term interests of the company and its customers.
700. **There are different ways of achieving this, which should be explored by the government and regulator.** Other sectors have a range of different change of control regimes. For energy distributors, Ofgem runs a comparable regime to Ofwat, with companies required to maintain an enforceable undertaking with ultimate controllers; Ofgem do not have a specific power to block changes of control.<sup>936</sup> Financial services firms are required to seek the approval of the Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA) for changes of control; the regulators are responsible for assessing, for example, the financial soundness and reputation of a prospective controller.<sup>937</sup> This is similar to what happens for oil and gas producers, where companies are required to seek the approval of the North Sea Transition Authority (NSTA) ahead of changes of control.<sup>938</sup>
701. **Across all sectors, under the National Security and Investment Act 2021, the government is able to ‘call in’ changes of control where there are national security concerns.**<sup>939</sup> In a number of defined sectors (for example, parts of the energy sector), companies also have to notify the government of changes of control. The Commission is aware that the water sector is being considered for inclusion in the mandatory notification regime in the future. Bringing the water sector in scope of the National Security and Investment Act 2021 mandatory notification regime may provide additional assurance, though this would only allow the government (and not the

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<sup>936</sup> Ofgem, ‘[Standard conditions of the electricity distribution licence](#)’, 2025

<sup>937</sup> [The Financial Services and Markets Act 2000 \(Controllers\) Regulations 2009](#)

<sup>938</sup> NSTA, ‘[Change of Control - The North Sea Transition Authority](#)’, viewed 18 July 2025

<sup>939</sup> [National Security and Investment Act 2021](#)

regulator) to block changes of control on national security (and not broader) grounds.

702. **One option would be to provide the regulator with a power to ‘object’ to changes of control, akin to ‘call in’ powers** in the National Security and Investment Act 2021, but with broader grounds. Another option would be to require the regulator to approve all changes of control. While this would be a strengthening of the regulator’s powers relative to, for example, Ofgem, it would not be out of step with the PRA and FCA’s, as well as the NSTA’s powers. Given the considerable level of public interest in water company ownership, the lack of competition and the vertically integrated nature of water companies (relative to energy), there appears to be a case for going beyond Ofgem’s powers. This would ensure the regulator is able more effectively to address concerns around investors’ business model ‘upstream’, before they invest in the sector.
703. **In any case, change of control powers should be used as a last resort and be subject to statutory constraints.** The Commission does not anticipate change of control powers being used frequently by the regulator. The Commission believes the regulator should only be able to block a change in ultimate controller where there are material concerns about the risk that is posed to the water company’s public duties for example, due to the ultimate controller’s financial soundness, reputation, governance or competence. Change of control powers should also only apply where there is a change in the ultimate controller of a company and not in respect of all transactions. The government should also develop potential appeals mechanisms for decisions on changes of control.

**Recommendation 48: The regulator in England and Wales should be provided with powers to direct parent companies and ultimate controllers.**

704. **There may also be situations where the regulator needs a parent company or ultimate controller to take certain actions**, to enable the regulated water company to meet its statutory duties or licence conditions.
705. **A direction power would ensure the regulator is empowered to prevent owners from taking action that would undermine the resilience of water companies.** The regulator needs to be able to obtain information at the group level about other group businesses and financial structures, including before they are put in place, so as to understand the risks that they present to the water company; and to intervene if the risks are unacceptable. This could enable the regulator to address concerns around the potential future adoption of complex company structures like Whole Business Securitisation.
706. **There would need to be clear constraints around the use of such a power to ensure its use would be pragmatic.** We recommend any suitably constrained power of direction should be subject to clear legal tests before it can be used. It would also have to be used compatibly with the Human

Rights Act. To aid transparency, the regulator should consult on a public policy statement setting this out, with examples.<sup>940</sup>

**Recommendation 49: The regulator in England and Wales should mirror elements of the Articles of Association in licence conditions to strengthen accountability.**

707. **The Commission recommends the government works with the regulator to insert a ‘public benefit’ clause into water company Appointment licences.** For example, in England, each company could be required to ‘conduct its business to deliver long-term value to customers, communities and the environment, taken as a whole’. In Wales, accounting for the Well-being of Future Generations (Wales) Act 2015, each company could be required to ‘conduct its business to provide high quality and better value drinking water and environmental services so as to enhance the well-being of its customers and the communities it serves both now and for generations to come’.
708. **These conditions would reinforce that regulated water companies provide essential public services and serve the public as well as the private interest and enable enforcement without displacing companies and directors’ broader obligations.** These proposed conditions align with existing provisions in most companies’ Articles of Association. Companies should therefore already be meeting these requirements. However, inserting them into licences would strengthen their prominence within the company and enable regulatory enforcement. Like all regulations and rules, these conditions would sit alongside, and not override, other legal duties on companies and directors, including in relation to shareholders. There may, however, be interactions between public benefit conditions and other regulatory obligations; for example, complying with the recently created customer-focused licence condition may help demonstrate what it means to deliver long-term value for customers. Regulatory guidance, or other licence conditions, may be required to provide clarity on other aspects of ‘delivering long-term value for customers, communities and the environment, taken as a whole.’
709. **This approach is not without risk, which the regulator should consider when designing a future regime.** The Commission recognises that assessing this condition will require careful judgment as well as objective evidence. It will be important to ensure the condition relates to a company’s performance as a whole and over time and for the regulator to make any assessments in the round rather than in respect of particular incidents. Regulatory guidance, or other licence conditions, may help to reduce

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<sup>940</sup> Bank of England Prudential Regulation Authority, ‘[Statement of Policy - The power of direction over qualifying parent undertakings](#)’, 2013

uncertainty over the interpretation of a social purpose licence condition, but the Commission recognises that these considerations may make it difficult to design an appropriate regime. It is however, on balance, of the opinion that such a licence condition is worth pursuing if it is practically possible to design it appropriately.

710. **Linking to the public interest, the Commission notes that some stakeholders have proposed industry wide caps on dividends, potentially through a Community Interest Company model.**<sup>941</sup> The Commission believes a dividend cap would be the wrong tool for limiting dividends, as the proportionate level of dividends will rightly vary depending on companies performance and business model, and Ofwat already has the power to block dividends.
711. **The Commission has also heard proposals that the regulator should approve all dividends in advance.**<sup>942</sup> **The Commission agrees with Ofwat's existing approach, whereby companies must show dividend levels reflect company performance.** It is appropriate that equity investors are rewarded when the company performs well and that a company should not pay dividends where to do so would threaten its financial resilience, for example. The Commission believes that pre-approval of dividends would not be overly restrictive, given that Ofwat already has the power to intervene and block dividends where it believes this is in the public interest.

## Governance and management

### Background

712. **Governance standards have developed over time and need periodic updating.** Ofwat first introduced Board Leadership, Transparency and Governance Principles in 2014. These were then updated in 2019.<sup>943</sup> These principles include having a chair that is independent of management and investors; and a company Board whose largest single group is independent non-executive directors.<sup>944</sup> The principles contain overarching objectives, along with guiding provisions on how they can be met. Water companies are required by their licences to meet the objectives, but not the guiding provisions.<sup>945</sup> The Commission understands Ofwat is currently working on reforms to its Board Leadership, Transparency and Governance Principles,

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<sup>941</sup> River Action and Surfers Against Sewage, [Joint Submission to the Independent Water Commission](#), 2025

<sup>942</sup> EFRA Committee, [Priorities for water sector reform](#), 2025

<sup>943</sup> Ofwat, [Board leadership, transparency and governance – principles - Ofwat](#), 2019

<sup>944</sup> Ofwat, [Board leadership, transparency and governance – principles - Ofwat](#), 2019

<sup>945</sup> Ofwat, [Board leadership, transparency and governance – principles - Ofwat](#), 2019.



such as strengthening the requirements, and ensuring closer alignment with the refreshed UK Corporate Governance Code 2024.<sup>946</sup>

713. **Recent legislation has strengthened Ofwat's powers regarding both consumer interests in decisions made by water companies and their senior management.** The Water (Special Measures) Act (WSMA) 2025 required Ofwat to issue new rules outside of licences requiring companies to have arrangements for involving consumers in certain decisions that have a material effect on consumer interests.<sup>947</sup> WSMA 2025 also required Ofwat to issue rules relating to the fitness and propriety of senior individuals within water companies.<sup>948</sup> Ofwat consulted on the design of these rules in late 2024 and intend to carry out statutory consultations on the detailed proposals during 2025.<sup>949</sup> Finally, under WSMA 2025, water company executives can now be prohibited from receiving a bonus if the company breaches certain standards relating to consumer and environmental matters, criminal liability and financial resilience. This has already resulted in bonuses being stopped for senior executives in 6 water companies.<sup>950</sup>

## Issues

714. **The Commission has identified 4 main issues in relation to the governance of water companies:**

- the culture and structure of water companies
- accountability for water company decision-making
- executive remuneration
- the responsibility of water company senior managers

## Company culture and structure

715. **The Environment Agency (EA) has told the Commission that it has experienced a culture of obfuscation, with water company employees refusing to attend interviews.**<sup>951</sup> For example, in 2024 Anglian Water was found guilty of failing, without reasonable excuse, to comply with a requirement to provide records for the EA as part of a criminal investigation.<sup>952</sup> Ofwat has argued that poor performing companies have failed to put in place basic enablers for success and good governance.<sup>953</sup>

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<sup>946</sup> Ofwat engagement with the Commission, June 2025

<sup>947</sup> [Water \(Special Measures\) Act 2025](#)

<sup>948</sup> [Water \(Special Measures\) Act 2025](#)

<sup>949</sup> Ofwat, [Ofwat opens consultation on new powers in Water Bill - Ofwat](#), 2024

<sup>950</sup> Defra, [Government's new law sees unfair bonuses banned for six water companies with immediate effect - GOV.UK](#), 2025

<sup>951</sup> EA engagement with the Commission, April 2025

<sup>952</sup> EA, [Anglian Water Services Ltd convicted in Environment Agency case - GOV.UK](#)

<sup>953</sup> Ofwat engagement with Commission, 2024

Stakeholders have also raised concerns about what is seen as the increasing financialisation of companies, with company leaders placing less emphasis on engineering or hydrology or service delivery expertise and more on finance.<sup>954</sup>

716. **Stakeholders have commented on the interaction between water company ownership and the strength of governance and quality of company culture.** For example, stakeholders noted that Board-level oversight has been more challenging in privately held companies with consortia structures.<sup>955</sup> Equally, stakeholders have highlighted that Welsh Water’s membership governed not-for-profit model is lacking in transparency.<sup>956</sup>
717. **The House of Commons Select Committee for Environment, Food and Rural Affairs (EFRA) has carried out a review of water sector regulation, looking extensively at water company ownership, leadership and governance.**<sup>957</sup> They have been critical of the leadership of the sector, who they accuse of having “lost sight”. EFRA call for “more responsible leadership” of the sector” to enable “better stewardship of our natural water resources”.<sup>958</sup> The Committee also call for improved transparency and ‘more collaboration with customers’.<sup>959</sup>

### Local accountability

718. **The Commission has heard that governance requirements should be strengthened.** Some stakeholders have called for a greater voice to be given to various independent stakeholders in the decision-making process. For example, placing customer representatives, mayors or other monitors on Boards to represent public interest and hold management to account.<sup>960</sup> Other stakeholders have highlighted issues with placing consumer representatives or independent monitors on Boards, including legal issues.

### Executive remuneration

719. **The Commission recognises the strength of public concern and anger around executive bonuses.** Public concerns around water company bonuses have been driven by a perception that the executives in many companies have been rewarded when companies have performed poorly in relation to customers or the environment. There are also concerns about the

<sup>954</sup> Water company CEO and former Ofwat senior official engagement with the Commission; River Action and Surfers Against Sewage, [Joint Submission to the Independent Water Commission](#), 2025

<sup>955</sup> Former Ofwat senior officials engagement with the Commission

<sup>956</sup> Welsh Government engagement with the Commission, 2025

<sup>957</sup> EFRA Committee, [Priorities for water sector reform](#), 2025

<sup>958</sup> EFRA Committee, [Priorities for water sector reform](#), 2025

<sup>959</sup> EFRA Committee, [Priorities for water sector reform](#), 2025

<sup>960</sup> River Action and Surfers Against Sewage, [Joint Submission to the Independent Water Commission](#), 2025

size of bonus payments. The Commission's Call for Evidence found that a large number of respondents believe there should be stronger guardrails on bonuses.<sup>961</sup>

720. **The Commission notes that the Call for Evidence took place prior to use of the new WSMA 2025 powers to restrict bonuses if a company breached certain standards.** The Commission has also been told by some stakeholders that bonuses are necessary to incentivise good management of a company, and to attract suitable talent to turn around the performance of companies.<sup>962</sup>

## Senior accountability

721. **Concern has been expressed about the responsibility of senior managers.** It is evident to the Commission that the current culture in the industry as a whole does not carry the public's confidence that companies will meet their public duties and regulatory requirements and that these concerns extend beyond board level governance to senior management. EFRA have noted they "are not satisfied [current measures on leadership] are enough to change the overall culture of water companies and improve performance for customers".<sup>963</sup> The Commission has looked at how other regulated sectors approach the role of senior leaders in promoting the right culture and "doing the right thing", which includes some form of pre-approval or licensing of senior managers, measures to sharpen senior leaders' responsibilities, a code of conduct, and consequences for failing to meet responsibilities.
722. **The Commission has heard how other regulators have or are exploring more extensive frameworks.** The financial services sector has a 'Senior Managers and Certification Regime' (which is currently undergoing reform in order to ensure high standards are maintained at senior manager level, but operational burden is minimised and proportionate).<sup>964</sup> The Commission has heard that Ofgem, the energy regulator, is also considering a 'senior managers regime'.<sup>965</sup> The Commission understands that Ofwat is open to such a regime – but has argued it would need to be tailored to the sector's specific needs, allow for adequate transition, and work in a complementary fashion to existing plans for a fit and proper person test.<sup>966</sup>

<sup>961</sup> Responses to Q42 of the Commission's Call for Evidence

<sup>962</sup> Water company Chairs and investors engagement with the Commission

<sup>963</sup> EFRA Committee, [Priorities for water sector reform](#), 2025

<sup>964</sup> GOV.UK, [Reforming the Senior Managers Certification Regime Consultation 2025.pdf](#), 2025

<sup>965</sup> Ofgem engagement with the Commission, 2025

<sup>966</sup> Ofwat engagement with the Commission, 2025

## Conclusions and recommendations

### 723. The Commission is proposing 2 recommendations related to governance:

- Recommendation 50: The regulator in England and Wales should continue current plans to strengthen governance standards and bring its principles in line with the UK Corporate Governance Code. Rules should apply to all water companies, listed and unlisted, and create a level playing field in governance and transparency across all companies.
- Recommendation 51: A new regime for senior accountability should be established by the UK and Welsh Government. The proposed regime should be subject to public consultation before implementation.

*Companies should have equivalently robust governance arrangements, regardless of ownership model.*

**Recommendation 50: The regulator in England and Wales should continue current plans to strengthen governance standards and bring its principles in line with the UK Corporate Governance Code. Rules should apply to all water companies, listed and unlisted, and create a level playing field in governance and transparency across all companies.**

724. **Through Ofwat's Board Leadership, Transparency and Governance Principles, all water companies are expected to adhere to certain standards of governance**, such as having appropriately skilled directors and being transparent in decision-making.<sup>967</sup> These Principles are not mandatory; but meeting the Principles would be a way for companies to achieve their compliance with enforceable Objectives in licence conditions.

725. **Publicly listed companies are also required to comply, or explain when they have not complied, with the UK Corporate Governance Code.** This is a set of principles and standards that aim to ensure companies are run well, transparently, and in the interests of stakeholders and wider shareholders. Firms must report on how they have done so – and this is enforceable by the FCA.

726. **As noted, Ofwat is working to reform its Board Leadership, Transparency and Governance Principles.** This should be continued by the regulator in England and Wales. Ofwat's Principles on Board Leadership, Transparency and Governance should be recast as rules, to ensure the regulator is able to take swift enforcement action when companies fail to comply. The effect should be that all companies have mandatory governance standards which are, at a minimum, in line with the UK Corporate

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<sup>967</sup> Ofwat, [Board leadership, transparency and governance – principles - Ofwat](#), 2019

Governance Code 2024, and that they must follow a similar ‘comply or explain’ regime. Ultimately, the aim should be to ensure all companies – whether publicly listed, privately held or not-for-profit – are on a level playing field in relation to governance standards.

*A broader approach to incentivising senior individuals and Chairs at regulated companies is needed to promote the right culture and meet regulatory requirements.*

**Recommendation 51: A new regime for senior accountability should be established by the UK and Welsh Government. The proposed regime should be subject to public consultation before implementation.**

727. **The Commission recognises the focus on senior management remuneration given the public’s anger** but believes that going forward bonuses need to be set within a broader, more comprehensive framework to drive the right culture, accountability and performance, while maintaining companies’ ability to reward performance and attract high quality managers.
728. **The recently introduced rules on bonuses should be allowed to bed in** and take account of the need both to link bonuses to the delivery of achievable public objectives, and for the industry to be attractive to a pool of high-quality managers, particularly given the need for improvements in the sector and the growing challenges it faces. The new requirements for ‘fit and proper assessments’ of water company senior managers should likewise be allowed to bed in, and alongside integrity and propriety, should take into account the relevance of experience for the delivery of the public goods and services that are required of water companies.
729. **The Commission has concerns that senior managers and Chairs may be put under pressure by Boards and investors, respectively, to place insufficient weight on the public objectives of water companies.** The Commission understands these issues may be more acute in privately held rather than publicly listed companies, with the investors and boards often operating more at arms-length in the latter due to a more diffuse ownership structure.
730. **The Commission believes lessons can be learned from the financial services sector, which has addressed these issues through improved senior manager accountability.** The Commission considers that a set of senior managers and chairs should have direct regulatory responsibilities. This should strengthen the ability of the regulator to promote suitable cultures within companies as well as ensuring senior managers have clear personal accountability. It may also empower senior managers in interactions with the board, and chairs in interactions with investors.
731. **The Commission recognises that the Senior Managers and Certification Regime used in the financial services sector was designed with that**



**specific sector in mind.** As such, while it may be a useful inspiration, it is not a blueprint to be copied directly across to other sectors. The Commission has followed the recent proposed reforms of certain aspects of that regime – that the scope of the certification regime is too wide, and that other aspects of its operation (such as annual assurances activities, periodic updates and obtaining regulatory approvals) are too burdensome in relation to its positive impacts on public trust, accountability and culture.<sup>968</sup> However, it is widely acknowledged that the approach in financial services has played a key role in improving standards and accountability in that sector.<sup>969</sup> The regime, proposed by Parliament following the financial crisis, has also been seen as important in restoring public confidence in the industry and changing the management culture. The Commission also recognises that, though the consequences of failure in the water industry are great, major failure in the financial sector carries risks of explosive system wide collapse and long-lasting damage to the economy.

732. **The Commission does not therefore believe it would be appropriate to introduce the financial services regime into the water industry, but rather a much more streamlined regime.** The Commission proposes that the regime should cover only a very a narrow set of senior managers: Chair, Chief Executive Officer (CEO) and the executive level leaders with overall responsibility for finance, meeting environmental and drinking water standards and the Company's compliance with its licence conditions. There should be no certification regime, unlike in financial services. These senior managers should have a clear Statement of Responsibilities, and the regulator should also set out an appropriate principles-based Code of Conduct for this group, including behavioural characteristics such as acting with integrity. The Code should be put on a statutory basis, but give the regulator sufficient flexibility to ensure it remains proportionate over time, and give the regulator the power to enforce it by requiring the senior manager in breach to take certain actions or by making a determination on whether the senior manager remains fit-and-proper (which may result in the individual being removed from their role). The Commission expects this regime will require new legislation. In designing and implementing the regime, the regulator should be mindful of the issues and planned reforms in the financial services sector, to learn any lessons and avoid any excessive burdens arising.
733. **The Commission notes Ofwat has recently been granted powers through the WSMA 2025 to require companies to have arrangements for involving consumers in certain decisions.** The Commission

<sup>968</sup> See [Reforming the Senior Managers Certification Regime Consultation 2025.pdf](#) and [CP25/21: Senior Managers & Certification Regime review](#), especially consultation feedback at page 9. Viewed 18 July 2025.

<sup>969</sup> GOV.UK, [Reforming the Senior Managers Certification Regime Consultation 2025.pdf](#), 2025

understands Ofwat is still developing its approach in this area, and feels further time is needed to assess the efficacy of these reforms.

734. **The Commission notes there is some stakeholder interest in going further than these reforms and placing customers or other representatives of the public interest, such as local mayors on Boards to guide company decision making.** However, the Commission does not feel Board-level governance changes are the best way to achieve that objective. Because of the obligations on directors through the Companies Act 2006, it is possible that appointing board members with responsibilities that go wider than legal duties to the company, may result in conflicts and legal risks. Moreover, it is important that company boards function effectively with a unitary purpose.
735. **In addition to the implementation of the new WSMA 2025 regime referred to above the Commission believes customers and representatives of local democracy should be more involved in key planning and decision making on water company investment.** The Commission proposes that local authority and customer representatives should form part of the regional water system planning boards (see Chapter 2), established across the country, with responsibility for directing water company investment on the priorities that matter to local people.

## Section 6.2: Investment and financial resilience

### Investment

#### Background

736. **Water companies in England raise external financing for investment activity by issuing debt and by attracting equity.** Welsh Water, which operates a not-for-profit model, relies solely on issuing debt and retaining earnings as reserves to absorb losses. Debt and, for other companies, equity financing are used to pay up front for investment so that it is paid for over the life of the investment by the customers that will benefit now and in the future. Equity financing, in particular, plays a critical role in absorbing risk, since it is the first of a company's liabilities to absorb losses if a water company encounters financial difficulty.
737. **There is a wide variety of different types of investors in English water companies.** The largest investors in Anglian Water are pension funds.<sup>970</sup> The largest shareholder in Yorkshire Water is the Singaporean sovereign wealth fund GIC.<sup>971</sup> Wessex Water and Northumbrian Water both have majority investments by global infrastructure conglomerates.<sup>972</sup> Private equity firms are also invested in Yorkshire and previously Anglian. The asset manager Lazard manages the largest stake of any investor in each of the publicly listed companies Severn Trent, Pannon and United Utilities. The insurer L&G, and the asset managers Impax, Pictet, Vanguard and Blackrock also have major stakes in the listed companies.<sup>973</sup>
738. **The total return investors demand is derived from their assessment of the risk they bear relative to investors in the wider market, as well as the 'risk-free rate'.** This is the interest rate investors could secure for zero risk (normally understood as the rate offered by government bonds or 'gilts'). Typically, debt is offered at a lower rate of return than equity. This is because it does not bear as much risk – interest payments are not discretionary but dividend payments are. Equity investors will expect a higher return because their return is more uncertain.

#### Issues

739. **The Commission has identified 6 main issues in relation to the attractiveness of the sector to investment:**

<sup>970</sup> Anglian Water Group, [Anglian Water investor list](#), viewed 18 July 2025

<sup>971</sup> Kelda Group, [Yorkshire Water investor list](#), viewed 18 July 2025

<sup>972</sup> Wessex Water YTL Group, [Wessex Water history](#), viewed 18 July 2025; Northumbrian Water Group, [Northumbrian Water Group Structure](#), viewed 18 July 2025

<sup>973</sup> Financial Times, [Severn Trent investor list \(FT\)](#), [Pannon investor list \(FT\)](#), [United Utilities investor list](#), viewed 18 July 2025

- The low levels of return
- High levels of risk
- The need for new equity
- Competing demands for investment in other similar sectors and countries
- The impact of government and regulation
- Past decisions by companies that have weakened them and made them less attractive

### Low levels of returns

740. **Industry representatives including the Global Infrastructure Investor Association (GIIA) and Water UK have noted that sentiment among their members towards the water industry in England has been very low, especially in response to Ofwat's draft determinations for Price Review 2024.**<sup>974</sup> Some investors maintain that they can expect to earn 8-10% nominal returns in other comparable sectors. This is against the real 'allowed' (the return Ofwat 'allows' when setting the prices companies can charge in the 5 yearly price review) return on equity stated in Ofwat's final determination of 5.1% at 55% gearing, equivalent to 7.2% in nominal terms, assuming 2.0% inflation.<sup>975</sup> Actual returns may be lower if the company performs badly or if inflation is lower than assumptions, or higher if the company performs well or if inflation is higher than assumptions.
741. **Ofwat has maintained in their evidence to the Commission that changes in allowed returns across Price Reviews largely reflect trends in the wider market.** Ofwat has pointed out that the return to equity and debt investors that Ofwat takes into account has closely tracked 10-year and 20-year Retail Price Index (RPI)-linked gilt yields and so any fluctuations have been consistent with the market.<sup>976</sup> Investors have questioned this conclusion, arguing that risk levels are currently higher in the sector than they were in the past and that this should be reflected in an increased spread on gilts.<sup>977</sup>

### High levels of risk

742. **Long-term institutional investors, such as pension, sovereign wealth and infrastructure funds, are generally considered to be 'low risk-low return' investors; their investment strategies prioritise stable returns**

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<sup>974</sup> Water UK, [PR24 Investor Engagement Report](#), 2024

<sup>975</sup> Ofwat, [Final Determinations 2024 - Aligning Risk and Return](#), 2025; Ofwat, [Final Determination 2024 - Aligning Risk and Return Appendix](#), 2025

<sup>976</sup> Ofwat response to the Call for Evidence, Annex, 2025, p.66-67

<sup>977</sup> Investor engagement with the Commission, 2025

**over long periods.** Often, they have a predictable stream of liabilities over time (for example, pension liabilities) and are seeking investments that will generate a matching stream of revenue rather than investments that can generate capital gain through sale in the shorter term. These investors will still expect to be compensated for the risk that they take and will expect that, although returns may be low relative to higher risk investments, they will always be greater than the ‘risk-free rate’ that can be earned on government bonds.

743. **Some investors argue both that returns are too low relative to other similar investments and that returns in the water sector have become volatile, with risks biased to the downside.**<sup>978</sup> They ascribe this in large part to the volatility in the regulatory framework overall and to the policies adopted by Ofwat. In the Commission’s engagement with investors, many have highlighted high and asymmetric levels of risk in the water industry. These investors have been clear that, in a regulated sector like water, they would be willing to forgo the possibility of high returns on the ‘upside’ in exchange for commensurately lower ‘downside’ risks and greater stability in returns.<sup>979</sup> Echoing these concerns, environmental groups have agreed that the current high risk profile of the sector is more conducive to short-term investors, who are likely to expect greater returns over a shorter time horizon.<sup>980</sup> They have suggested this may be reducing the attractiveness of the sector to Environmental, Social and Governance (ESG) investors.<sup>981</sup>

## Need for new equity

744. **The Commission has heard that the water industry has not needed to raise large amounts of equity since privatisation in 1989.**<sup>982</sup> Throughout the 1990s, the investment need was high because of increasingly stringent environmental targets and a prior period of funding below that which was required.<sup>983</sup> But because water companies were privatised with limited debt, for much of the post-privatisation period companies were able, as intended, to finance new infrastructure through borrowing without the ratio of debt to equity becoming so high as to threaten their financial resilience headroom.<sup>984</sup>

<sup>978</sup> Investor engagement with the Commission, 2025

<sup>979</sup> Investor engagement with the Commission, 2025

<sup>980</sup> Surfers Against Sewage and River Action engagement with the Commission, 2025

<sup>981</sup> River Action & Surfers Against Sewage, [Joint Submission](#), 2025

<sup>982</sup> NAO, [Regulating for investment and outcomes in the water sector](#), 2025

<sup>983</sup> Ofwat, [The development of the water industry in England and Wales - Ofwat](#), 2006; Ofwat, [Industry Overview, Ofwat](#), viewed 18 July 2025

<sup>984</sup> As will be discussed in the next section, high gearing ratios restrict water companies’ ability to absorb financial cost shocks. As they are unable to raise bills without the prior consent of the regulator, borrowing is the most efficient way for companies to meet unexpected costs. If they do not have the headspace to do so, they may not be able to weather shocks.



745. **Investors have emphasised to the Commission that equity financing needs of the water sector are now much higher – meeting these needs will be challenging given low returns and high levels of risk.** They argue this is in part because, over the past 20 years, investment levels, though agreed by the regulators, have not kept pace with changing environmental standards or population growth and now need to catch up. This is evidenced by the quadrupling of required investment in Price Review 2024 relative to the previous four price reviews.<sup>985</sup> More equity is also necessary now because debt at many water companies is too high relative to the level of equity to provide adequate headroom for further borrowing without damaging companies' financial resilience.<sup>986</sup> Water companies have estimated they will need an additional £7 billion of new equity to finance the £44 billion of enhancement investment planned over the next 5 years. Ofwat estimates that a higher amount of equity will likely be needed – suggesting £12.7 billion in their financeability assessment – but it could be less depending on the level of earnings companies choose to retain.<sup>987</sup>

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<sup>985</sup> Based on Ofwat enhancement expenditure allowances

<sup>986</sup> Commission analysis

<sup>987</sup> Ofwat, [Final Determinations 2024 - Aligning Risk and Return](#), Ofwat, 2024

**Table 8 - Debt and Equity Raises since Price Review 2024 Final Determination**

Equity				Debt			
Date	Issuer	Amount	Comment	Date	Issuer	Amount	Issue price <sup>988</sup>
Feb-25	Pennon	£490m	Listed Company – Shares issued to existing shareholders (“rights issue”) at 35% discount	Jan-25	Yorkshire	£250m	5.9%-6.3%
Feb-25	Affinity	£150m	Existing shareholders – commitment to provide equity by March 2026	Jan-25	Severn Trent	£720m <sup>989</sup>	4%
Feb-25	South East Water	£75m	Holdco/existing investors	Feb-25	United Utilities	£550m <sup>990</sup>	3.6%
May-25	South East Water	£200m	Holdco/existing investors	Mar-25	Affinity	£350m	6.4%
July-25	Southern	£1.2bn	£655m initial equity commitment, up to £545m more (a minimum of £245m) by December	Mar-25	Wessex	£600m	6.2-6.6%
				Mar-25	Northumbrian	£50m	6.2%
				July-25	Yorkshire	£750m	6.1%-6.7%

Source: National Wealth Fund / UKGI

<sup>988</sup> Effective Nominal Interest Rate based on issue price.<sup>989</sup> Converted from Euro to GBP, GBP = 1.1852 EUR, May 2025 using [Average Sterling exchange rate: Euro XUMAERS - Office for National Statistics](#)<sup>990</sup> Converted from Euro to GBP, GBP = 1.1852 EUR, May 2025 using [Average Sterling exchange rate: Euro XUMAERS - Office for National Statistics](#)

## Competing demands for investment

746. **The Commission also understands that increasing equity needs have come at a time when demand for infrastructure financing – both debt and equity – is high in the UK and international markets.** This reflects significant UK infrastructure programmes in transport, water and especially energy transition.<sup>991</sup> Financing for these projects comes from the same broad pool of investors and water companies have to compete in the market for finance. Over the Price Review 2024 period, the government estimates that £182 billion of private investment is required in non-water sectors in the UK.<sup>992</sup> This is likely an underestimate as this data was published before additional investment plans were published including the Clean Power 2030 Action Plan, which itself will require investment close to £192 billion.<sup>993</sup> Over the same period, global water infrastructure will require £1.2 trillion of investment.<sup>994</sup> Water companies are due to invest £44 billion over Price Review 2024 and this the second highest infrastructure spend by industry behind energy to 2030.<sup>995</sup>

## Impact of regulation and governance

747. **The Commission has heard that Ofwat’s approach in recent years has had a significant adverse impact on investor returns and investors’ assessment of the risks they bear in the water sector.** This investor concern extends beyond the Price Review to policies that Ofwat has developed, the increase of powers in relation to companies, and the way those powers have been used. There has been substantial criticism of the way Ofwat calculates the overall revenue companies are allowed to raise from water bills and the way in which the Outcome Delivery Incentive (ODI) mechanism has put increasingly large amounts of revenue at risk (see Chapter 5 for more detail on allowances and ODIs). Water UK has said that “miscalibration and underfunding in recent Price Reviews have increased risk, eroded reserves and deterred investment to make up for shortfalls”.<sup>996</sup> Investors have also commented on the instability of environmental policies which have increased burdens on companies.<sup>997</sup> This picture of instability is

<sup>991</sup> NIC, [National Infrastructure and Construction Pipeline 2023](#), Infrastructure and Projects Authority, 2023

<sup>992</sup> NIC, [National Infrastructure and Construction Pipeline 2023](#), Infrastructure and Projects Authority, 2023

<sup>993</sup> DESNZ, [Clean Power 2030 Action Plan: A new era of clean electricity](#), 2025. 2022/23 prices.

<sup>994</sup> Infrastructure Outlook, [Global Infrastructure Outlook](#), viewed 18 July 2025. Converted to 2022 price year and GBP from USD.

<sup>995</sup> NIC, [National Infrastructure and Construction Pipeline 2023](#), Infrastructure and Projects Authority, 2023

<sup>996</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>997</sup> Investor engagement with the Commission, 2025

one of the factors in Moody's downgrading of the stability and predictability of the regulatory regime for water from Aaa to Aa in 2018, and to A in 2024.<sup>998</sup>

748. **Stakeholders have argued that, underlying these failures, is a narrow focus on the financeability – rather than the investability – of the sector.** The Commission understands Ofwat is required under the Water Industry Act 1991 to “secure that companies [...] are able (in particular, by securing reasonable returns on their capital) to finance the proper carrying out of those functions”.<sup>999</sup> Ofwat do conduct a financeability assessment factoring, for example, an assumption of 4% dividend yields at 2.5% inflation at Price Review 2024. However, Water UK have argued that Ofwat's financeability assessment does not constitute an assessment of whether the sector is investable since it focuses too narrowly on whether a set of credit ratio thresholds are met for a company with the notional level of gearing.<sup>1000</sup> A distinction has been drawn between ‘financeability’, which is focused on whether companies have sufficient headroom to raise debt finance on reasonable terms,<sup>1001</sup> and ‘investability’, which relates to companies' ability to attract and retain the equity needed to deliver desired investment and absorb risk.<sup>1002</sup>
749. **Stakeholders have also told the Commission that government has had a significant and adverse impact on investor sentiment and the perceived risk profile of the sector.** Ofwat operates within a remit set by government and inconsistent policy and prioritisation decisions over time are held to have influenced regulatory outcomes on returns and stability. Stakeholders argue that this has included pressure on Ofwat from governments to keep bills low while setting, for example, ambitious and expensive storm overflow targets.<sup>1003</sup> Stakeholders also note that consistently critical public messaging by government, as well as media and other organisations, about the sector alongside legislative and other interventions have increased the perception of risk, including the reputational risk to investors investing in the sector.<sup>1004</sup>

<sup>998</sup> Moody's, [Moody's Assessment of Water Industry](#), 2024, requires subscription.

<sup>999</sup> Gov.uk, [Water Industry Act 1991](#), (viewed 18 July 2025)

<sup>1000</sup> Water UK response to the Call for Evidence, Annex: 'A sustainable and investable regulatory framework for the England and Wales water sector', 2025

<sup>1001</sup> Frontier Economics, [Finance and financeability](#), (viewed 18 July 2025)

<sup>1002</sup> Water UK response to the Call for Evidence, Annex: 'A sustainable and investable regulatory framework for the England and Wales water sector', 2025

<sup>1003</sup> For example, a speech from the former Secretary of State pressing for consumer bills to be lowered. Link: Gov.uk, [A water industry that works for everyone](#), Defra, 2018.

<sup>1004</sup> Investor engagement with the Commission, 2025

## Past decisions by companies

750. **The Commission has heard that water companies themselves have made decisions that have contributed to their higher risk profile.** Stakeholders note that decisions by a number of companies to increase debt to high levels in the 2000s and adopt complex structures, for example, have increased perceived risk at these companies and contributed to the increase in the assessment of risk for the sector as a whole.<sup>1005</sup> They also note that these decisions have contributed to declining returns for those companies, as senior management have become focused on meeting debt covenants at the expense of operational performance – compounding the effect of Ofwat’s introduction of ODIs from 2015 onwards.<sup>1006</sup> The perception of very high risk at some companies, particularly Thames, has also damaged the reputation of the sector in the eyes of investors and has likely pushed up the financing costs of the sector more generally.<sup>1007</sup>

## Conclusions and recommendations

751. **The Commission recognises that, in recent years, actual rates of return appear to have been out of line with levels of risk in the water sector.**<sup>1008</sup> As shown in Figure 22, until Price Review 2019, companies’ actual returns have been above the return on gilts (the risk-free rate) meaning that investors earned a return to compensate them for their risk. However, data provided to the Commission by Ofwat also shows that the spread between gilts and yields fell in Price Review 2019.<sup>1009</sup> Some companies also appear to have earned below the risk-free rate of interest at certain points during this period. These investors would have earned more by investing in risk-free government bonds than in the water sector. The analysis in Box 40 also indicates that investors were able to obtain higher returns in other similar sectors but it is difficult to assess whether the risks in these sectors were higher or lower than risks in the water sector.
752. **Companies may not be able to raise further debt to improve operational performance because they have not maintained the financial headroom to do so.** This has been seen clearly in the case of Thames Water, and through increased financing costs for a number of companies.

<sup>1005</sup> Investor engagement with the Commission, 2025

<sup>1006</sup> Investor and water company engagement with the Commission, 2025

<sup>1007</sup> Investor and water company engagement with the Commission, 2025

<sup>1008</sup> Oxera on behalf of Water UK, [Investability at PR24](#), 2024

<sup>1009</sup> Ofwat response to the Call for Evidence, Annex, 2025, p66-67



**Box 40 – Rates of return and risk**

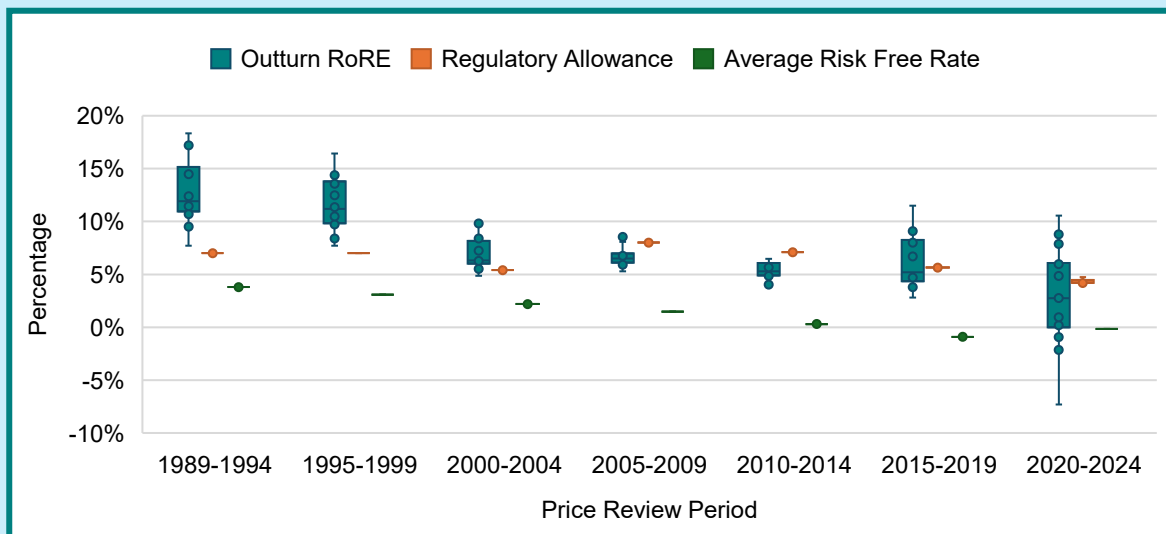
**The rates of return companies achieve reflect a mixture of Ofwat's allowed cost of capital, as well operational and financing out and underperformance.**

As covered in Chapter 5, Ofwat sets a Weighted Average Cost of Capital (WACC) as part of the price review which serves as companies' baseline return.

Companies are permitted to recover this amount from bill revenues. Within this, Ofwat makes an assumption about the cost of equity and debt, as well as companies' gearing – the ratio of equity to debt. Sometimes, the actual cost of capital faced by companies may be higher or lower than the assumptions made by Ofwat. If the actual cost of capital is lower, companies will be able to use revenues to make, for example, additional dividend payments. If the actual cost of capital is higher, companies will need to use operating profits to fund financing costs. As covered later in this chapter, companies may also be able to generate additional returns by adopting a higher level of gearing than assumed by Ofwat. Finally, companies can generate additional returns above the baseline by underspending against allowances, or overperforming against ODIs. If allowances are too low, or ODIs too stretching, this can reduce returns.

**The Commission has examined rates of return over time.** Figure 22 shows that overall investor returns have decreased since privatisation and that the variation between company returns across the sector has recently increased. It is difficult to compare exactly across time periods because agreed methods of measuring returns have changed, but on some comparable measures average returns have declined from around 13% during 1989-1994, to around 3% during 2020-24. The figure also shows that the difference in outcomes between the best and worst performers has become much larger and that some returns have now fallen below the risk-free rate, calculated as an average of the returns from 10-year government bonds. Investors will almost always expect returns above the risk-free rate to put their capital at risk. The risk-free rate does fluctuate depending on the wider economic climate, but Price Review 2019 has been the first time that any water company has received returns below that rate.

**Figure 22: Estimated Return on Capital Employed (ROCE)/Return on Regulatory Equity (RORE) since privatisation, England and Wales, WASCs and WOCs, %**



Source: Independent Commission Analysis <sup>1010</sup>

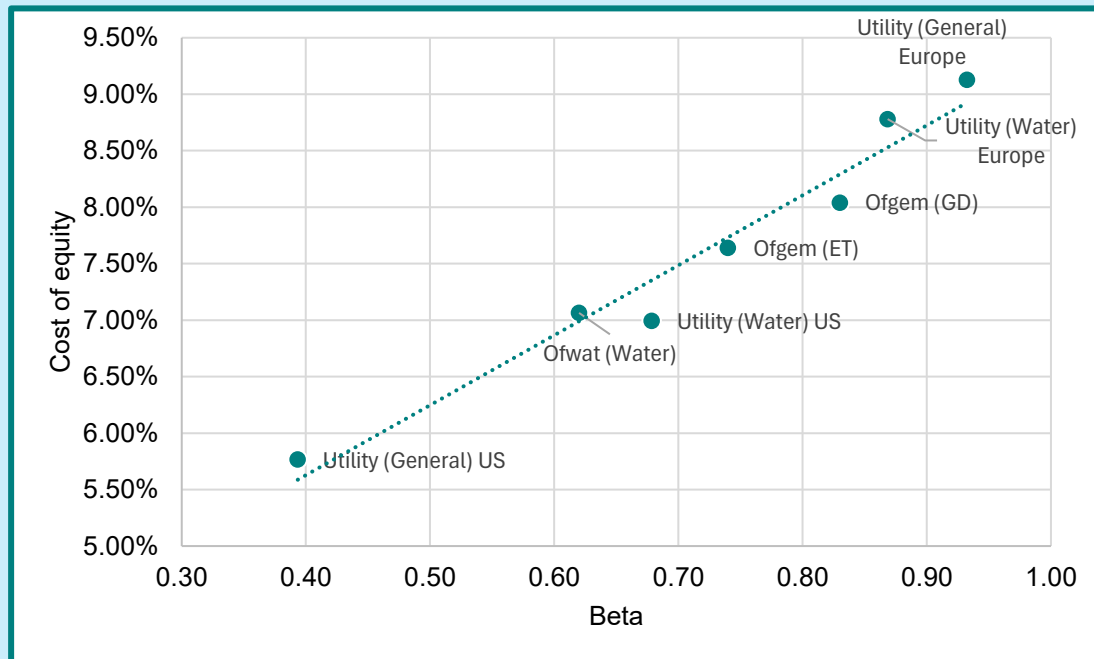
**The Commission has also analysed rates of return in England and Wales compared to other sectors.**

The Commission has heard from the Global Infrastructure Investor Association (GIIA) that some comparator markets to water and sewerage in England and Wales offer a higher return on equity (8-12% compared to 7.2% offered by Ofwat at Price Review 2024, in nominal terms).<sup>1011</sup> Ofgem's draft determination of the cost of equity for their RIIO-3 price control (which runs from 2026 to 2031) has a midpoint estimate for electrical transmission and gas delivery and transmission of 7.64% (based on gearing of 55%) and 8.04% (based on gearing of 60%) respectively, when including a 2% inflation assumption.<sup>1012</sup> These draft determination figures are slightly above the Ofwat's final determination for Price Review 2024. If the associated risk were equal for both sectors, an investment in one of Ofgem's sectors would be a more attractive option.

**The Commission has also explored levels of risk.** To measure and compare the investment risk of different sectors, investors use the 'equity beta'. Equity beta is a proxy for risk – it benchmarks the risk of a sector compared to a diversified market portfolio. A beta of less than 1 suggests that the sector in question's returns are less volatile than the broader market and presents a lower risk. A beta of more than 1 suggests that companies in the sector in question's returns are more volatile than the broader market and presents a higher risk. Across investments there should be positive correlation between beta and the rate of return.<sup>1013</sup> The graph below examines the relationship between the cost of equity and the equity beta experienced by different sectors and geographic markets. This shows that, while the cost of equity set by Ofwat for Price Review 2024 is lower

than other examined sectors (the third lowest, ahead of USA General Utility and USA Water), the corresponding lower equity beta shows that the overall risk-return offering is not out of line with other regulated utility sectors.

**Figure 23 - Examining the Cost of Equity and Equity Beta<sup>1014</sup>**



**Analysing the riskiness of an investment is not straightforward.** The above estimate by Ofwat is a point in time estimate and represents the base return an investor can expect on their equity investment. However, since the majority of water companies are not publicly listed, Ofwat can only draw data from United Utilities, Pennon and Severn Trent, which are generally better performing companies, to calculate a beta.<sup>1015</sup> This could positively skew the data, though Ofwat do control for performance.

<sup>1010</sup> Outturn return – The return on regulated equity that was actually achieved by the companies. Regulatory allowance – The allowed return that companies were able to charge bill payers to pay for their cost of equity. Average risk-free rate – The return that investors would expect to earn without assuming any risk to their capital. The metric used here is 10-year Gilt rates. An average of the rate was taken for each 5-year period.

<sup>1011</sup> Ofwat, [Final Determinations 2024 - Aligning Risk and Return](#), 2024; Ofwat, [Final Determination 2024 - Aligning Risk and Return Appendix](#), 2025

<sup>1012</sup> Ofgem, [RIIO-3 Draft Determinations for the Electricity Transmission, Gas Distribution and Gas Transmission sectors](#), 2025

<sup>1013</sup> [Useful Data Sets](#) - Stern Business School's Aswath Damodaran regularly publishes useful datasets which are widely used by investors to assess the comparative risk and return offered by a range of sectors. Professor Damodaran publishes estimates for the equity beta and cost of equity for selected industries. The data in this box relating to Europe and USA have been extracted from the publication in January 2025

<sup>1014</sup> The Europe and USA variables are point estimates using the latest data up to January 2025. Ofwat set the final determination in December 2024 and the early view figures from Ofgem were released July 2024

<sup>1015</sup> Pennon was not considered as their dataset did not stretch back far enough and any data before the switch to being a business would be biased due to their waste management business interests

**A number of water companies did not meet the allowed rate of return through Price Review 2019 and the overall spread of outcomes was large, which suggests that risk may be higher than implied by beta calculations.**

This was partly driven by operational underperformance, and partly by an increased cost of financing driven by the macroeconomic climate. Industry average ODIs performance for Price Review 2019 up to 2023-24 was -0.66% RORE and the industry average operational performance was -3.4% (driven mainly by Totex overspend).<sup>1016</sup> It is worth noting that United Utilities and Severn Trent were the only two companies to outperform on ODIs in Price Review 2019 to date and both performed better than the average on Totex overspend. This could suggest that the operational underperformance risk from Price Review 2019 to the wider sector is under-weighted in the beta estimate for Price Review 2024.

753. **To support the attractiveness of the sector as a whole to long-term, low-risk, low-return investors it has to present a lower risk profile than has been the case in recent years.** Long-term investors have been clear that, at current risk levels, the sector is not attractive and will struggle to attract the finance needed from such investors.<sup>1017</sup> This does not apply equally to all companies and some have been able to attract capital. Stronger performers in particular remain able to attract investment at reasonable financing costs. An alternative to lowering the risk profile would be for the sector to offer higher returns which are commensurate with higher risk. But this may attract a different category of investor who are more interested in generating higher returns over a shorter time horizon, more willing to accept higher downside risk and less suited to a long-term regulated industry that needs stability over time. Higher returns will also add to customer bills.
754. **The Commission acknowledges that lowering the risks on the upside and on the downside could blunt the incentives for companies to improve performance, but is not convinced that current levels of risk in both directions have been effective in raising the performance of the sector as a whole.** Risk serves to incentivise improvements in the regulatory framework, through the reward of additional revenue for outperformance and the penalty of lower revenue for underperformance. However, it is not clear, as discussed in Chapter 5, that increasing the amount of risk in the performance targets within the economic regulatory framework, as has happened over recent Price Reviews, has been an effective mechanism for driving improvement of the sector as a whole.

<sup>1016</sup> Ofwat, [Monitoring Financial Resilience report 2023-24](#), Ofwat, 2024

<sup>1017</sup> Investor engagement with the Commission, 2025

755. **The Commission has identified a range of reforms in other sections of this report that should help to lower the risks in the sector by ensuring the regulatory system is predictable, stable, and, where appropriate, supportive.** These recommendations apply to both England and Wales, though the effect in Wales will be different given that Welsh Water does not have any equity investors. Relevant recommendations include:

- A long-term National Water Strategy, alongside a new Ministerial Statement of Water Industry Priorities (MSWIP), to support stable long-term investment planning, as outlined in Chapter 1.
- The introduction of a company specific supervisory approach to economic regulation and price-setting with a smaller role for the current industry-wide econometric modelling, as outlined in Chapter 5.
- Reforms to ODIs to limit downside skew and the introduction of a common WACC methodology, as outlined in Chapter 5.
- A rationalisation exercise to streamline current laws and regulations and provide clarity to regulators and investors, as outlined in Chapter 3.
- A new integrated water regulator across environmental, economic and drinking water functions, as outlined in Chapter 4.
- Improvements to the environmental enforcement and sanctions policy, with swifter decisions and processes to reduce uncertainty, as outlined later in Chapter 6.
- A more effective approach to turnaround for companies under stress, as outlined later in Chapter 6.

756. **Alongside these cross-cutting reforms, the Commission is also proposing 4 recommendations explicitly related to investability:**

- Recommendation 52: The UK and Welsh governments should include a target relating to the stability of the regulatory model as an objective in its strategic guidance.
- Recommendation 53: The UK government should use the opportunity of this review and its decisions on the implementation of the Commission's recommendations to reset its approach to strategic communications regarding the water industry.
- Recommendation 54: The regulators in England and Wales should conclude long-running investigations and enforcement cases as soon as possible as part of a reset of the sector.
- Recommendation 55: The regulators in England and Wales should consider how best to promote the use of environmental bonds

***Inconsistent government guidance and imbalanced messaging are undermining the stability and attractiveness of the sector to investment.***



**Recommendation 52: The UK and Welsh Government should include a target relating to the stability of the regulatory model as an objective in its strategic guidance.**

757. **The water sector needs to be both financeable and investable.** The government should provide clear guidance to the regulator on the need to support investability through stable and predictable regulation. This could be achieved by updating the regulator’s statutory objectives, or through non-statutory guidance.
758. **Ofwat is already required under the Water Industry Act 1991 to “secure that companies [...] are able (in particular, by securing reasonable returns on their capital) to finance the proper carrying out of those functions”.**<sup>1018</sup> Ensuring companies can finance their functions is not simply a matter of demonstrating they have sufficient headroom to raise debt finance on reasonable terms. It is also about ensuring the sector is attractive to investment. The stability and predictability of the regulatory framework is a key enabler of this attractiveness. Government should explore amending Ofwat’s duty to make it clear that ‘stable and predictable regulation’ is also required to ensure companies can finance their functions both by raising debt and attracting equity.
759. **Government could also issue clear guidance within the proposed MSWIP on the need to regulate the sector in a stable and predictable manner.** See Chapter 2 for more details on the MSWIP.

**Recommendation 53: The UK Government should use the opportunity of this review and its decisions on the implementation of the Commission’s recommendations to reset its approach to strategic communications regarding the water industry.**

760. **Government messaging can help reduce instability and the perception of risk in the water industry.** There has been serious poor performance by water companies – this is not in doubt. However, the Commission’s report and these reforms represent an opportunity to draw a line in the sand and reset the sector in line with public interest. This reset is a moment for government to change its narrative around the sector. The public wants to understand where progress is being made by water companies, and the government should outline this progress.
761. **Government messaging should also be balanced, acknowledging other contributors to environmental outcomes.** Population growth, changing environmental expectations and climate change have all had an effect on outcomes. At the same time, water companies are not the sole polluters of waterways, increasingly agriculture is the more dominant source of pollution,

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<sup>1018</sup> GOV.UK, [Water Industry Act 1991](#), (viewed 18 July 2025)

and progress towards environmental targets needs to be set in this shared context.

*Long-running enforcement action, during which a potential penalty hangs over a company for several years, is a key source of uncertainty for investors.*

**Recommendation 54: The regulators in England and Wales should conclude long-running investigations and enforcement cases as soon as possible as part of a reset of the sector.**

762. **Long-running investigations are not in the interest of customers, regulators or companies.** The public wants to see enforcement as quickly as possible after any water company breach occurs. But the EA has an enforcement backlog of 66 cases dating back to before 2021.<sup>1019</sup>
763. **Lengthy investigations are creating uncertainty over the attractiveness of the sector to investment.** The Commission encourages both the regulators and companies alike to explore options for resolving these cases with expedited timelines. The regulator should address how it will aim to secure faster enforcement outcomes in its enforcement and sanctions policy.

*There is value in encouraging and facilitating greater use of green financing solutions.*

**Recommendation 55: The regulators in England and Wales should consider how best to promote the use of environmental bonds.**

764. **Risk in the water sector may have restricted its appeal to ESG investors in particular.** The global ESG investing market is large and growing, currently estimated at over \$30 trillion.<sup>1020</sup> New investment products designed to attract this investor class may therefore have the effect of expanding and diversifying the investor base and thereby reducing financing costs through increased competition. Green bonds, for example, are issued to raise capital for specific kinds of projects that have environmental benefits. These bonds have informal assurances, upheld in part by investors, which create additional mechanisms (including reporting requirements and interest rate incentives) for incentivising delivery of green investments. Issuance of green bonds may therefore have the secondary effect of improving environmental outcomes across the industry.
765. **Some water companies already issue environmental bonds, but it is possible that not all investment programmes across the industry meet ESG requirements.** This may be because of concerns around industry environmental performance or project design (they may be carbon intensive, for example). But in other countries, environmental bonds have been used

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<sup>1019</sup> EA engagement with the Commission, 2025

<sup>1020</sup> Bloomberg, [Global ESG assets predicted to hit \\$40 trillion by 2030, despite challenging environment, Bloomberg Intelligence](#), viewed 18 July 2025

successfully to raise capital for water quality programmes, suggesting there is a use case.<sup>1021</sup>

766. **The regulator should work to understand the barriers to the wider adoption of environmental bonds and, where possible and appropriate, remove them.** Barriers to adoption may include the ability to identify or design suitable programmes, a lack of clarity about company ability and capacity to meet reporting requirements associated with environmental bonds, or concern that the sector is not attractive to ESG investors because of wider public opinion. The regulator may address these by promoting industry-wide standards, supporting companies to design qualifying projects, and working with ESG investors to understand their needs and preferences. A regulator-led approach, providing incentives and frameworks and ensuring programmes are linked to specific sustainability and environmental targets, could ensure companies feel empowered to issue environmental bonds and do so in a systematic manner.

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<sup>1021</sup> [BRK Ambiental Sustainable Financing Framework, Brazil](#), viewed 18 July 2025; [Nordic Investment Bank Green Bonds](#), viewed 18 July 2025; [Asian Development Bank Green and Blue Bonds](#), viewed 18 July 2025

## Financial resilience

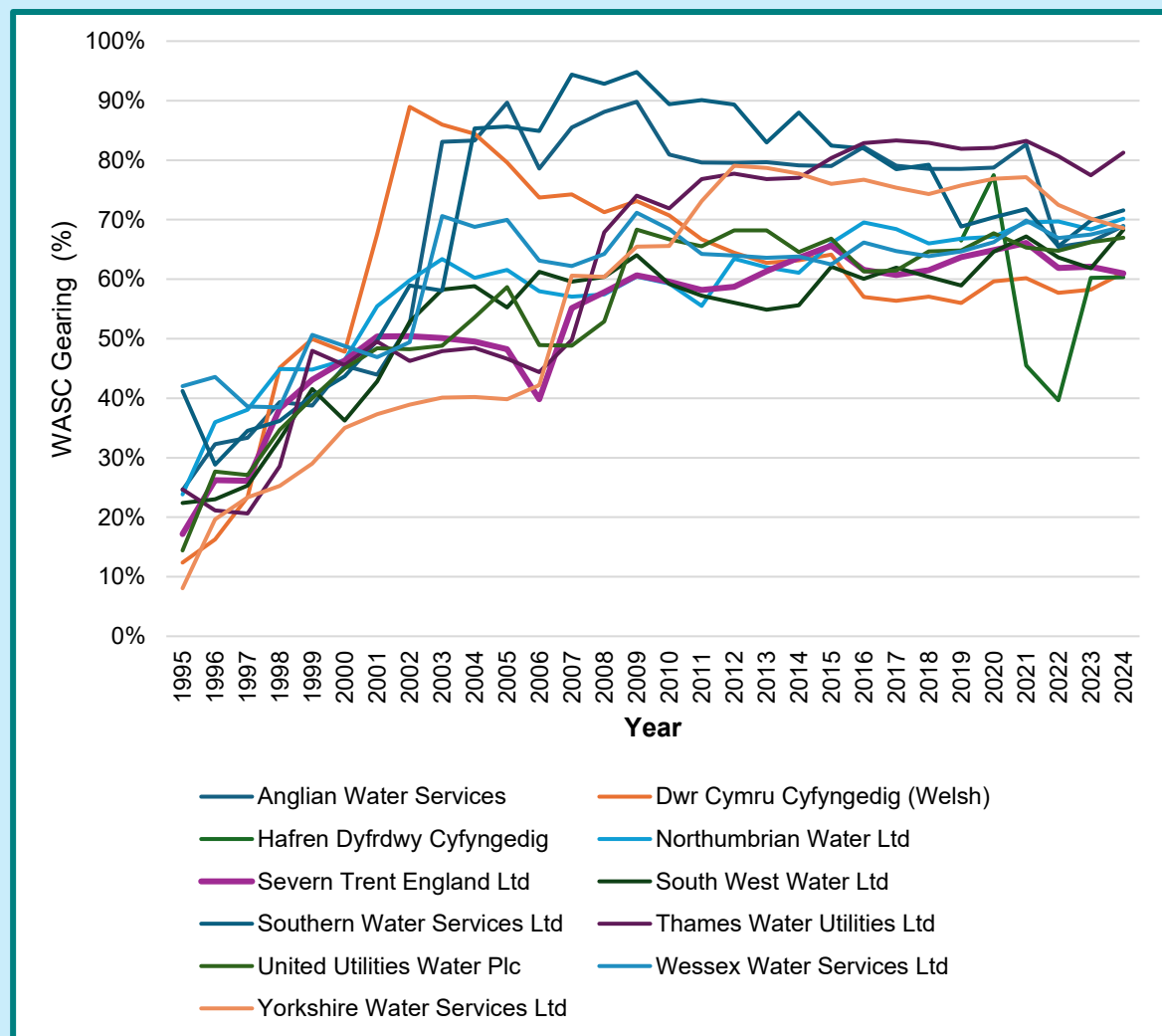
### Background

#### Box 41: Evolution of the sector's finances

##### Trends in financial resilience

**When the water industry was privatised, companies had little debt.** This was to ensure the sector was attractive to private investors and to support infrastructure upgrades. Between 1991 and 2009 water companies increased their gearing – the ratio of debt to equity – from a WASC industry average of 4% to 72%. Average debt levels then stabilised through the 2010s, though there is now a mixed picture with some water companies adopting higher gearing ratios than others.

**Figure 24: Evolution of gearing, England and Wales, WASCs, 1995 to 2024, %**



Source: Ofwat<sup>1022</sup>

**Several companies increased debt above average levels, including Anglian (around 90% gearing in the late 2000s), Southern (95% gearing in the late 2000s) and Thames Water (gearing over 80% for most of the last decade).**

Thames Water and Southern Water have both received credit rating downgrades over the last 9 months with their debt burdens highlighted in credit agency decisions.<sup>1023</sup>

**Some companies with high debt levels have made active decisions to reduce their debt by retaining profits or putting more equity into the company.**

Anglian Water has pursued a proactive strategy of reducing gearing at the regulated company from 90% in the late 2000s to 69% in 2023-24 to increase resilience.<sup>1024</sup> Welsh Water's gearing ratio was 89% in 2003 following the debt-funded takeover by Glas Cymru in 2001.<sup>1025</sup> This was the highest gearing ratio in the sector by some distance at the time. However, without equity to absorb risks as a not-for-profit company, Welsh Water has had to generate cash reserves to increase its resilience, which it has done successfully by reinvesting surpluses to reduce the company's gearing ratio to 61% in 2024.<sup>1026</sup>

#### Use of debt by companies

**Investors take on the financial risk of water companies. In return for putting their capital at risk, they expect a stable stream of dividends over time to match long-term liabilities and the level of risk incurred.** Companies need to finance large programmes of capital investment. Companies face decisions over whether to finance this investment from retained earnings or issuing new equity or debt.

**Given that the industry was privatised with no debt, in general, it would not have been cost-efficient to rely on new equity to finance new investment at that time.** Similarly, while companies may have run operating profits, they may not have been able to deploy these to both finance new investment and compensate existing investors for putting their capital at risk. In this context, it may have been necessary for companies to issue debt.

**There are legitimate questions about whether companies have, in some cases, issued dividends at the expense of their own financial resilience.**

Between 2002 and 2012 some companies – including Anglian Water, Thames Water, Southern Water, Yorkshire Water, South East Water and Affinity Water – carried out balance sheet restructuring. As part of restructuring, companies raised

<sup>1022</sup> Commission engagement with Ofwat, 2025. Calculated as industry net debt divided by regulatory capital value. Hafren Dyfrdwy Cyfyngedig was formed in 2018 so data from thereafter is shown above.

<sup>1023</sup> Moody's, [Moody's Ratings downgrades Thames Water](#), 2024; Moody's, [Moody's Ratings downgrades Southern Water](#), 2024

<sup>1024</sup> Ofwat engagement with the Commission, 2025

<sup>1025</sup> Dŵr Cymru Welsh Water, [Dŵr Cymru Welsh Water Investor Report](#), viewed 18 July 2025

<sup>1026</sup> Ofwat, [Monitoring Financial Resilience Report 2023-24](#), Ofwat, 2024



increased levels of debt at the regulated company and also paid special dividends or made inter-company loan arrangements. The payment of such dividends may have left companies with reduced financial resilience. Southern, South East and Thames Water are rated with Ofwat financial resilience status in 2023-24 of 'action required' and with gearing above 80% across multiple years since 2022.<sup>1027</sup> The Commission understands for some companies in the sector at present, the value of regulated equity is lower than the value of operating and capital charges, suggesting these companies are only running thin buffers against stress.<sup>1028</sup>

#### Ofwat's financial resilience toolkit

**Ofwat has no specific or direct powers in relation to company gearing, but it can affect and influence financial resilience in a number of ways.** These include the price review, financial monitoring, rules on risk and conduct, and the SAR.

**The price review is a key lever to ensure companies can attract investment and remain resilient.** As detailed in Chapter 5, Ofwat uses the price review to provide allowances for base, enhancement and the WACC, as well as to penalise and reward companies through the ODI mechanism. If allowances are set too low relative to spending and financial needs, this can potentially undermine financial resilience or encourage risky behaviour. At the same time, Ofwat can use the price review to set expectations on levels of debt and equity. Ofwat uses a 'notional' level of gearing as part of its allowance-setting. This has, in practice, typically been lower (assuming less debt and more equity) than the actual level of gearing companies have chosen.

**Because debt is typically cheaper than equity, companies may have been incentivised by the WACC to prefer using debt.** As the WACC is an average, the rate at which it is set is higher than the cost of debt and lower than the cost of equity. This may incentivise water companies to take on gearing levels beyond the notional level in the WACC because they can secure a lower actual cost of capital overall by increasing gearing relative to the notional level. Through the 1990s and 2000s, for example, Ofwat assumed relatively low gearing (50% in 1999).<sup>1029</sup> Since the cost of debt was consistently lower than the WACC there was a potential benefit for all companies and their shareholders in rebalancing gearing. Theoretically, the cost of debt should rise incrementally for companies carrying lower levels of equity as there is less protection for the debt holder if a company experiences stress, which should offset any benefits from increasing gearing above the notional level. The extent to which this has happened in practice in relation to water industry debt is not clear. This is in large part because companies were historically able to maintain investment grade credit ratings at higher gearing levels. Almost all companies have taken on more debt than Ofwat has assumed in

<sup>1027</sup> [Monitoring financial resilience - Ofwat](#)

<sup>1028</sup> Commission analysis

<sup>1029</sup> Ofwat, [PR99 Final Determinations, Ofwat](#), viewed 18 July 2025

its economic model, but there may have been other reasons alongside any incentive in the WACC, why companies have chosen to take on more debt and less equity that Ofwat have assumed. Ofwat's view is that capital structure decisions are independent of setting the allowed return as a WACC.

**Ofwat's approach to financial monitoring has changed over time.** Before 2009 it published annual performance and expenditure reports but it then significantly reduced the amount of information that it collected and published, possibly in response to the 2011 Gray Review and related discussions which recommended a reduction in overall regulatory burden.<sup>1030</sup> In 2015 Ofwat reintroduced financial monitoring through the annual Monitoring Financial Resilience Report.<sup>1031</sup> Companies now report data annually on financial metrics, credit ratings, dividends and other pressures on company finances. Ofwat analyses this information, categorises companies by performance and publishes its findings. As part of these reports, companies are expected to publish long-term viability statements regarding their finances and stress test the assumptions made in these statements. Ofwat also engages with companies to understand their finances outside of annual reports.<sup>1032</sup>

**From Price Review 2024 Ofwat has introduced its Turnaround Oversight Regime, which is a form of enhanced monitoring for companies in financial distress.**<sup>1033</sup> The Turnaround Oversight Regime has so far only been applied to Thames Water. It allows Ofwat to increase the frequency and breadth of their financial monitoring, appoint an independent monitor to sit within companies, and to consider additional options to strengthen customer protections. The Turnaround Oversight Regime is still under development and does not contain any supportive measures to make turnaround easier for companies. Exit from the regime for Thames will be based on sustained improvement in operational performance, delivery of the capital programme, and adequate levels of financial resilience, but this could be different for other companies.<sup>1034</sup>

**Ofwat has historically used water company licence conditions to set requirements to protect customers in the event of financial distress of a water company.** Water company licences contain a number of conditions that make up the 'regulatory ring-fence'. These conditions are broad but, among other things, they require that regulated companies are not placed under pressure by other commitments that their parent companies may have. Since 2007, licences have also included the 'cash lock up' conditions. These conditions were subsequently revised in 2023, and prevent companies from making distributions and other transactions with group companies without Ofwat's consent, and are linked to a credit rating trigger. Ofwat began to introduce the regulatory ring-fence

<sup>1030</sup> [Ofwat response to the Call for Evidence](#), 2025, p12

<sup>1031</sup> Ofwat, [Monitoring financial resilience –a snapshot](#), viewed 18 July 2025

<sup>1032</sup> Ofwat engagement with the Commission, 2025

<sup>1033</sup> Ofwat, [PR24 final determinations: Our approach](#), Ofwat, 2024

<sup>1034</sup> Ofwat engagement with the Commission, 2025

to water company licences as some companies pursued mergers in the 1990s. It has gradually made the conditions universal and has strengthened them over time including recently by using its new power to unilaterally alter licences, introduced by the Environment Act 2021.

**The SAR is set out in the legislative framework for the sector as the backstop to protect customers.** The water SAR has never been used. The purposes of special administration as set out in the Water Industry Act 1991 are to transfer, as a going concern, so much of the undertaking of a company as it is necessary to ensure that its statutory functions can be carried out by a new operator and to carry out the statutory functions during the transition.<sup>1035</sup> In addition, where the special administration is made on insolvency grounds, there is a primary purpose to rescue the company as a going concern and it is only where rescue as a going concern is not possible that the statutory purpose becomes to transfer the functions of the company to another provider. Ofwat has the power to apply to the High Court to appoint a special administrator if the Secretary of State agrees (the Secretary of State, or Welsh ministers in the case of a water company operating mainly in Wales, can also make an application themselves).<sup>1036</sup> An application can be made on insolvency or performance grounds. Insolvency grounds are when the company is or is likely to be unable to pay its debts. Performance grounds include, for example, when a company is in such serious breach of its principal statutory duties or a regulatory enforcement order as to make it inappropriate for the company to continue to hold its licence. The SAR is not a form of nationalisation. The special administrator is an independent appointee and the appointment is temporary, ending when the objectives or purposes of the special administration have been achieved. Government may provide forms of financial assistance (including grants, loans, or indemnities) for the special administration.

767. **The financial resilience of a company is its ability to absorb adverse shocks to their finances.** Companies are exposed to a range of shocks, which can impact their costs and revenues and can lead to losses. The ability to absorb risk is particularly important for water companies as they are price regulated and, unlike unregulated companies, they do not have the discretion to increase bills to cover increases in costs or lower revenues. This places greater weight on companies to have sufficient capital or reserves to absorb shocks.
768. **Ofwat's powers to intervene when companies become or risk becoming stressed has evolved over time.** As covered in Box 41 above, historically Ofwat took a non-interventionist approach to company finances, assuming

<sup>1035</sup> GOV.UK, [Water Industry Act 1991](#), viewed 18 July 2025

<sup>1036</sup> GOV.UK, [Water Industry Act 1991](#), viewed 18 July 2025

owners would act rationally to maintain their resilience to withstand stress. Ofwat held the position that “a company’s management and investors are responsible for determining the company’s capital and financing structure, and they, not customers, bear the risk associated with it”.<sup>1037</sup> Ofwat’s approach has become more interventionist since 2015 as companies began to exhibit weakened resilience and as Ofwat has been granted the power to modify licence conditions without the agreement of companies. More recently, at Price Review 2024 Ofwat introduced a ‘Turnaround Oversight Regime’.<sup>1038</sup> This includes enhanced monitoring, the appointment of an independent monitor, and enhanced customer protections.

## Issues

### 769. **The Commission has identified 3 main issues in relation to the management of the sector’s finances:**

- oversight of company finances, given concerns over debt levels.
- the lack of an effective recovery regime.
- questions around the SAR.

### Oversight of company finances, given concerns over debt levels

770. **Some companies have made decisions historically about capital structure that have been against the longer-term public interest.** This includes increasing borrowing beyond levels consistent with maintaining longer-term resilience as well as adopting complex debt structures that reduced borrowing costs but left companies more vulnerable to stress. More detail on complex structures can be found earlier in this chapter. Analysis by the Commission also indicates that some companies took decisions to pay dividends instead of retaining earnings to build reserves or pay down debt and this may have increased their financial resilience risks.

771. **The Commission has heard that the approach to economic regulation has not been robust enough in the past to prevent these decisions being made, and that the regulatory approach may have encouraged risky decision-making.**<sup>1039</sup> This was covered in greater detail in Chapter 5. The Commission also understands that the regulatory approach to financial monitoring has not been consistent and that this has created information asymmetries where, at different points in time, Ofwat did not have the information it needed to take effective decisions. For example, after 2015, Ofwat reintroduced a more robust approach to financial monitoring (after temporarily decreasing requirements in order to meet government steers to

<sup>1037</sup> Ofwat, [Monitoring financial resilience, Ofwat](#), viewed 18 July 2025

<sup>1038</sup> Ofwat, [PR24 Final Determinations - our approach, Ofwat](#), 2024

<sup>1039</sup> eNGO engagement with the Commission

reduce regulatory burden) and began to set stronger expectations on debt levels, as well as risk and conduct.<sup>1040</sup> They have continued to strengthen their approach to monitoring and it may now be stronger, but its evolution has come with a reliance on lagging indicators – such as credit ratings – which makes it difficult for them to identify issues as or before they emerge.

772. **Over 65% of respondents to the Call for Evidence believe that change is required to the economic regulatory framework, to ensure water companies' financial resilience.** Although Ofwat has powers to restrict dividend payments under certain circumstances, the Commission understands this is the only direct tool that they have over capital structures, and that Ofwat has no power of direction in this area. Ofwat has told the Commission that they have strengthened their oversight of company finances and introduced “a more supervisory approach”.<sup>1041</sup> But the Commission understands this has not been instituted within an overarching supervisory model or culture, as set out in Chapter 5. Other stakeholders have noted that Ofwat’s approach to monitoring financial resilience may be too desk-based.<sup>1042</sup> Other regulators, including Ofgem, have made moves towards a more formal supervisory approach to company finances, with individual supervisors appointed to oversee specific companies and mechanisms for requesting information.<sup>1043</sup>

### Lack of an effective recovery regime

773. **Investors and companies have argued that an increasingly “punitive” regulatory approach by Ofwat has exacerbated existing financial resilience weaknesses.**<sup>1044</sup> This includes the impact of a larger downside skew in Ofwat’s approach to incentives (through ODIs), stronger enforcement penalties, and a more interventionist approach to guidance on financial decision-making. The impact of this may be shown in the widening gap between the best and worst performers and in the increasing number of companies earning returns below the risk-free rate.
774. **The Commission has heard from stakeholders close to Thames Water that Ofwat did not, in the past, adequately support them to turn the company around where the impact of poor decisions by previous investors had led to financial resilience weaknesses.** These stakeholders, including investors, creditors, and others involved, have told

<sup>1040</sup> [Ofwat response to the Call for Evidence](#), 2025

<sup>1041</sup> Ofwat engagement with the Commission, 2025

<sup>1042</sup> Water company engagement with the Commission, 2025

<sup>1043</sup> Ofgem, [Transitioning to a supervisory approach to the financial resilience of energy suppliers](#), Ofgem, 2023

<sup>1044</sup> [Water UK response to the Call for Evidence](#), 2025



the Commission that Ofwat could and should have done more to support turnaround.<sup>1045</sup>

775. **In relation to Ofwat’s ‘Turnaround Oversight Regime’, the Commission has heard that this involves intensified monitoring and restrictions but does not include any supportive interventions which might materially help a company to improve its situation.** In their response to the Commission's Call for Evidence, Water UK set out their concerns that the regime does not have a clear link to the overall regulatory framework or to other processes.<sup>1046</sup>
776. **The Commission has heard mixed views concerning the idea of a more supportive turnaround regime.** Companies and investors are, understandably, in favour, while Ofwat has emphasised the risk of moral hazard and questioned whether forbearance through a turnaround regime could create perverse incentives by providing a safety net that could encourage companies to take imprudent risks.<sup>1047</sup> Other investors have noted that the public embarrassment to a company and its leadership arising from entering a turnaround regime would be a sufficient deterrent to prevent this.<sup>1048</sup>
777. **The Commission has heard that Ofwat does not have sufficient powers to support failing water companies and prevent the need for SAR, relying instead on market solutions.**<sup>1049</sup> While this is clearly appropriate in a competitive market, these stakeholders argue that a more interventionist approach may be necessary in a regulated monopoly public utility.<sup>1050</sup>

#### Box 42: Independent monitoring of Thames Water

**Ofwat has powers to take action where there are concerns about a company’s performance.** In the case of persistent poor performers, Ofwat implements closer regulatory oversight through what it has described as its Turnaround Oversight Regime, introduced at Price Review 2024, which combines enhanced monitoring, potentially using an independent monitor, and stronger customer protections. Ofwat placed Thames Water into an enhanced oversight framework in July 2024 following credit rating downgrades by both Moody’s (24 July) and S&P Global Ratings (31 July), in which Thames Water lost their investment grade credit rating and therefore breached their licence conditions.<sup>1051</sup> Thames Water is the first and so far the only company for which Ofwat has used this framework.

<sup>1045</sup> Investor engagement with the Commission, 2025

<sup>1046</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>1047</sup> Ofwat and investor engagement with the Commission, 2025

<sup>1048</sup> Investor engagement with the Commission, 2025

<sup>1049</sup> Investor engagement with the Commission, 2025

<sup>1050</sup> Investor engagement with the Commission, 2025

<sup>1051</sup> Ofwat, [‘Ofwat confirms actions for Thames Water following investment credit rating downgrade - Ofwat’](#), 2024

**In August 2024, Ofwat announced they would appoint an independent monitor to report on Thames Water's progress, including against its transformation plan.** Ofwat appointed LEK Consulting in October 2024. The monitor will remain in place until Thames Water regains 2 credit rating agency investment grade ratings (its 'remediation objective').<sup>1052</sup> The monitor is entitled to full access to Thames Water's data to report on its progress against a transformation plan and other monitoring areas identified in the process.<sup>1053</sup> They provide additional oversight and offer constructive challenge to help Thames Water improve their planning, and recommends additional steps for Thames Water to regain credit worthiness. They also provide monthly performance reports to Ofwat, as assurance of progress, and are working closely with Thames Water on their delivery plans to ensure commitments are met.

## Questions about the SAR

778. **The Commission has also heard that the SAR is not a credible deterrent against imprudent decisions that reduce resilience, lead to poor performance, and that are generally adverse to the public interest.** Some respondents have suggested the introduction of automatic and less judgement-based triggers for entry into a SAR. However, regulators and water companies are not in general supportive of wider reforms to it.<sup>1054</sup> The view of those stakeholders is that thresholds for its use are appropriately high. Some investors have told the Commission that the use of SAR is likely to have a significant negative effect on the market value of a company relative to its Regulatory Capital Value (RCV), and that this in turn may undermine faith in the regulatory framework and the water industry as a whole.<sup>1055</sup> The Commission has also heard that the practical difficulties of operating a water company in a SAR are effectively a barrier to its use.<sup>1056</sup>
779. **Some stakeholders have argued that a lack of credibility in the SAR regime has led to moral hazard.**<sup>1057</sup> It may have encouraged owners and shareholders to take risky decisions, especially in respect of financial resilience, in the belief that the regulator would never take away a failing company licence through SAR or by giving notice as allowed in the licence.
780. **The Commission has also heard comments about the 25-year notice period included in water company licences.** At privatisation water company licences were issued for 25 years, with a 10-year notice period for termination. In 2002, the notice period was extended to 25 years to provide

<sup>1052</sup> Ofwat, '[Undertakings for the purpose of Section 19 of the Water Industry Act 1991](#)', 2024

<sup>1053</sup> Ofwat, '[PR24 final determinations: Our approach](#)', 2025

<sup>1054</sup> Investor, water company, and Ofwat engagement with the Commission, 2025

<sup>1055</sup> Investor engagement with the Commission, 2025

<sup>1056</sup> Industry engagement with the Commission, 2025

<sup>1057</sup> Dieter Helm, '[Time to put Thames Water out of its \(and our\) misery](#) - Dieter Helm', 2025

certainty to companies and their investors, allowing them to plan for the long term in line with statutory planning cycles.<sup>1058</sup> Some commentators have suggested that these notice periods may have, in fact, reduced resilience as a longer notice period reduces the likelihood that an undertaker could lose their licence despite taking risks not in the long-term interest of the company.<sup>1059</sup>

## Conclusions and recommendations

781. **The Commission’s view is that the financial resilience of water companies is a matter of public interest and therefore should not just be the concern of companies and their Boards.** Water companies enjoy a monopoly licence to provide essential public services, and this licence comes with the obligation for companies to be financially as well as operationally resilient. A system of private, regulated water companies therefore requires high quality and effective oversight of company finances, particularly given the history with regard to capital structures of some water companies. Ofwat has strengthened its approach and powers in relation to financial resilience in recent years and the Commission also recognises that the roots of weaknesses that some companies are now experiencing lie in the period before had its current suite of powers and before it had adopted a more ‘hands-on’ approach to financial resilience. It also notes Ofwat’s claim that they have been adopting “a more supervisory approach”, though the Commission’s view is that effective supervision requires a much more fundamental shift in capability, culture and approach.
782. The Commission is proposing 4 recommendations explicitly related to financial resilience:
- Recommendation 56: A financial supervision framework should be embedded as part of a broader supervisory model. Within this framework, the regulator in England and Wales should publish a range of risk factors that inform their judgement of a company’s financial risk profile.
  - Recommendation 57: The regulator in England and Wales should have the power to set minimum capital levels for water companies.
  - Recommendation 58: A formal turnaround regime should be established for the regulator in England and Wales to support turnaround of poorly performing companies. This should enable both an enhanced power of direction as well as regulatory forbearance.

<sup>1058</sup> Ofwat, [The development of the water industry in England and Wales - Ofwat](#), 2006

<sup>1059</sup> Perspective Media, [Feargal Sharkey | Perspective Media](#), viewed 18 July 2025

- Recommendation 59: The regulator in England and Wales should develop and consult on a framework for ensuring companies are prepared for SAR.

*There needs to be a robust regulatory framework for overseeing company finances.*

**Recommendation 56: A financial supervision framework should be embedded as part of a broader supervisory model. Within this framework, the regulator in England and Wales should publish a range of risk factors that inform their judgement of a company's financial risk profile.**

783. **Regulatory oversight of companies' finances should be situated within the formal supervisory framework and toolkit.** Supervisors should assess companies' risk profiles. Risk factors could include baselines on some key financial metrics (for example, the ratio of equity to annual operating expenditure and capital charges) but, crucially, should also allow for supervisory judgement based on the regulator's wider understanding of the company and engagement with its board and senior management. Risk factors should be published in policy statements that should be consulted upon and that should aim to give companies clear indication of how the regulator will normally expect to act, and which allows for appropriate regulatory judgement. The aim should be to identify and encourage companies to address potential weaknesses at an early stage. For example, the policy could make clear that companies with a declining credit rating would attract more intensive regulator engagement with company boards and management on their remediation plan and, where appropriate, take further regulatory action.
784. **The supervisors assigned to each company should be able to draw on expertise in risk management and corporate finance, enabling them to reach an informed view of the risk exposure of each water company.** A supervisory team with an in-depth knowledge of a company's context would provide the regulator with higher-quality understanding and a more informed, authoritative dialogue with companies than at present. There may still be difficult discussions and tensions with companies over the risks they bear and their level of resilience. But, if introduced correctly, this heightened level of understanding and engagement should also lead to an overall reduction in regulatory burden as the information flow between the regulator and companies will be smoother as reporting requirements are streamlined.

*Capital structure is not simply a matter for companies and owners; the regulator should ensure companies do not act against the public interest.*

**Recommendation 57: The regulator in England and Wales should have the power to set minimum capital levels for water companies.**

785. **The regulator should be given a statutory power to set and enforce minimum capital levels.** Requirements could take the form of a specific equity level or expressed in more general terms, but company supervisors should have discretion to apply judgement to decisions made against capital minima.
786. **There are different models that could be considered when designing this power.** In 2023 Ofgem introduced minimum capital requirements on energy companies using a combination of licence conditions – including a power to direct companies to ringfence customer credit under specific circumstances – and statutory capitalisation plans and targets.<sup>1060</sup> The PRA also has statutory powers relating to capital requirements.<sup>1061</sup> As banks do not own significant infrastructure and nor do they have guaranteed regulatory income, these capital requirements are expressed in terms of liability risk. Banks must maintain financial resources which allow them to meet the nature and level of risks to which they are exposed. Risk assessments must be subject to stress testing and supervisory judgement.<sup>1062</sup>
787. **The UK and Welsh governments and the regulator in England and Wales should take these models into account when consulting on how best to design effective and proportionate tools to set and enforce minimum capital requirements suitable to the water industry.** The regulator should then consult on and issue a policy statement and further guidance on the levels at which those minimum capital requirements are set. The regulator should consider whether, in the light of further work on risks, the policy in this area should be industry-wide minimum levels, more company-specific levels, or some combination of the two. It may be consistent with a supervisory approach for the regulator to set an industry-wide floor and then impose capital expectations above that level depending on company circumstances and regulatory judgement.

***The current regulatory model has not provided sufficient support for underperforming companies to turn around performance.***

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<sup>1060</sup> Ofgem, [Strengthening Financial Resilience- Minimum Capital Requirement and Ringfencing CCBs by Direction](#), 2023

<sup>1061</sup> GOV.UK, [The Capital Requirements Regulations 2013](#), viewed 18 July 2025

<sup>1062</sup> PRA, [Internal Capital Adequacy Assessment | Prudential Regulation Authority Handbook & Rulebook](#), viewed 18 July 2025



**Recommendation 58: A formal turnaround regime should be established for the regulator in England and Wales to support turnaround of poorly performing companies. This should enable both an enhanced power of direction as well as regulatory forbearance.**

788. **The Commission believes it is important that, where companies fail to comply with requirements, there is accountability and consequence. However, these may sometimes need to be pursued within the context of the broader public interest.** It is not clear that the current regulatory approach to company turnaround enables this. The Commission acknowledges that Ofwat has recently introduced a Turnaround Oversight Regime, but this appears primarily to be a mechanism for placing enhanced monitoring requirements on companies by appointing independent monitors accompanied by a lock-up of dividends.<sup>1063</sup> These may well be necessary but they need to be set in the context of a turnaround plan within a general turnaround policy. Ofwat has issued no policy statement or guidance on the conditions under which companies will enter or exit turnaround or on the broader tools which will be used to support company improvement beyond the appointment of an independent monitor and other enhanced monitoring requirements. Nor does Ofwat's Turnaround Oversight Regime provide for coordination across the regulators.
789. **A turnaround regime would comprise a set of defined tools for the regulator to deploy when a company enters the regime.** These tools would include both supportive levers to improve performance, and sanctions to ensure there is sufficient consequence that prevents moral hazard and that ensures enforcement in relation to regulatory breaches. The aim would be to ensure the wider public interest, particularly the interest of customers, is not damaged by punitive measures on poorly performing companies that make it harder for them to recover. The turnaround regime should facilitate coordination across other regulatory domains, including environmental and drinking water.
790. **The water regulator should publish guidance around the circumstances that will inform entry into and exit from a turnaround regime.** The regulator should consult on and publish a policy on its approach to entry into and exit from turnaround. This policy should include the indicators that it will take into account alongside a public interest test, but the thresholds should not be automatic. Indicators could include where companies suffer significant and demonstrable loss in value – either through shareholders writing down their equity or through decline in the value of traded assets (bonds or shares). Entry into the turnaround regime would not be automatic but would depend on an assessment by the regulator that the company was

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<sup>1063</sup> Ofwat, [PR24 final determinations: Our approach](#), 2024

recoverable with proportionate and justifiable support and that this was in the public interest. In circumstances where the regulator judges that turnaround is not possible without disproportionate or inappropriate support, the regulator should assess whether the conditions for a SAR have been met.

791. **There are a range of levers to support the turnaround of water companies, in line with public interest**, which could be considered for inclusion within a turnaround regime:

- **Forbearance.** Water regulators are expected to investigate and enforce against breaches of the regulatory framework. For some regulators and some offences there is a statutory requirement that they must do so. A turnaround regime could provide the water regulator with additional discretion over enforcement in defined circumstances, allowing them to defer or waive fines and penalties where it is in the broader interest of customers. This may include, for example, circumstances where additional fines are likely to hinder the ability of the company to invest in infrastructure improvement. Where forbearance is offered it would need to be contingent on agreed future performance targets being met, be accompanied by measures to prevent moral hazard, and be demonstrably in the public interest.
- **Deferral.** For companies in turnaround there may be a case for the water regulator to provide flexibility on deadlines by which projects must be delivered, so long as reasonable progress can be demonstrated and deferral is in the public interest. This would ensure, for example, that companies are not fined for non-delivery of projects that they are unable to deliver because of their broader circumstances.
- **Settlement.** In addition to forbearance, the water regulator may choose to agree settlements with companies – these would be significant financial commitments by water companies made in order to conclude ongoing enforcement investigations. The regulators would have to ensure settlements were an appropriate response and in the public interest. This could include considering, for example, whether a settlement is likely to lead to quicker remediation of harm.
- **Reviewing allowances and performance targets.** For companies in turnaround, the regulator should be able to take a pragmatic assessment of the current spending priorities and allow investment to be made where it is needed most to bring the company back into compliance. For example, where higher allowances are necessary given a company's unique circumstances, the regulator may wish to consider these. The regulator should also consider whether performance targets and incentives need to be set differently for companies in turnaround.

792. **Various restrictions on water company activity could be considered for inclusion in the turnaround regime both to minimise further risks and to prevent moral hazard.**

- **Cash-lock up.** Ofwat already has the power to restrict dividend payments under specific circumstances. This power could be applied to a turnaround regime, to ensure funds are used for investment or retained to bolster resilience, and to ensure that the shareholders suffer consequences for entry into turnaround.
- **Bonus restrictions.** For companies in turnaround, executive bonuses could be blocked or deferred until the company has met prescribed thresholds.
- **Direction.** As part of Ofwat's enforcement function, it accepts undertakings proposed by operators where it considers these will lead to compliance. Ofwat cannot currently propose the content of undertakings. With appropriate caveats, reforms could enable the regulator to direct that any penalty money taken from a water company's profits is spent in a particular way to redress harm or to meet priority investment needs. In this way the regulator could choose, for example, to direct that money which may have been spent on penalties is spent on improvements to infrastructure.
- **Capital structure.** For companies in turnaround the regulator should be able to direct them to inject new equity into the company where required. Failure to do so could trigger entry into the SAR. This may be facilitated by a new power with respect to company owners, as set out earlier in this chapter.
- **Enhanced monitoring.** Ofwat already has the power to appoint an independent monitor to sit within and observe a water company's corporate decision-making structure and provide enhanced information. This should continue and be applied to companies in turnaround.

*The SAR should be a credible option of last resort.*

**Recommendation 59: The regulator in England and Wales should develop and consult on a framework for ensuring companies are prepared for SAR.**

793. **The Commission believes the SAR should be a practical option for the regulator and government but that it should be very much a last resort. However well prepared, a SAR would be a major exercise which carries some risk of disruption to the company's operation.** The Commission notes that lowering the threshold for SAR would increase costs to customers through higher financing given the increased risk on investors. The Commission is also mindful of the risks in creating automatic triggers – experience in insolvency and similar regimes in other sectors, including

financial services, is that conditions and circumstances of individual cases vary widely and cannot be anticipated. There is a need for broad, judgement-based tests within a clear policy, that has been set out in advance, of how the regulator will assess failing companies against these tests, the factors it will take into account and the indicators it will consider. In the Commission's view the two current tests for entry into SAR effectively balance objective and subjective factors and include an appropriate level of judgement. It believes, however, that the policy around making the SAR assessment should be set out more clearly.

794. **The Commission believes that further practical steps can be taken to ensure the SAR is a credible, but low probability, threat.** In particular, as part of the SAR policy set out above, the regulator should develop and consult on a framework for ensuring companies prepare a plan for SAR. This should consider what the practical barriers to SAR might be, and how these can be mitigated in advance.
795. **The Bank of England's resolution planning regime (see Box 43) provides one relevant model which the regulator may draw upon, though not replicate.** In the Bank's regime firms are expected to have appropriate financial resources, business continuity arrangements, and communication functions. However, this regime is focused on financial failure; mirroring the Bank's regime in its entirety, including the provisions to ensure financial resources in resolution, would not be proportionate or appropriate for water companies.
796. **In water, a framework would need to consider barriers in both performance and financial SAR.** In either case, companies would need to have plans and processes to ensure they are able to continue operating during SAR and, as appropriate, be successfully restructured or sold. To achieve these objectives contingency plans may be required on, for example, provision of essential services, restructuring of balance sheets, and valuation of assets.

**Box 43: Resolution planning in financial services<sup>1064</sup>**

**In the financial services sector, the Bank of England is required to draw up resolution plans and assess the resolvability of UK banks and building societies.** The main purpose of the resolution plan is to set out how the Bank would resolve a firm which had failed. As well as financial resources, these plans cover firms' arrangements to ensure they continue to operate and provide any functions that are critical to the financial system. This includes ensuring that key contracts and suppliers carry on, and that firms have effective communications plans for staff, customers and other stakeholders. Firms are expected to have the right capabilities, resources and governance in place to support resolution.

**To provide assurance that firms are resolvable, the Bank undertakes a resolvability assessment which identifies any barriers to resolution.** The emphasis is on firms themselves testing their capability to be resolved and proactively identifying barriers themselves. Firms should put in place effective assurance arrangements for their assessments. The Bank makes clear that firms need to own their assessments and that it is their responsibility to ensure they are resolvable. If the Bank finds there are substantive barriers to resolvability, it has the power to direct a firm to remove these through changes to its operations or structure.

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<sup>1064</sup> Bank of England, [The Bank of England's approach to resolution](#) | [Bank of England](#), viewed 18 July 2025



## Section 6.3: Competition

### Business Retail Market (BRM)

#### Background

797. **Water companies mostly operate as regional monopolies. However, Ofwat in line with government policy and following the 2011 Cave Review, has introduced a number of schemes to promote competition in England.**<sup>1065</sup> Competition has not been proactively pursued in Wales as a matter of policy; the Welsh Government do not feel it is a priority and are concerned about the risk of fragmentation from the pursuit of competition initiatives.<sup>1066</sup>
798. **The Business Retail Market (BRM) offers businesses (and not households) a choice of water retailers and depending on how much water they consume, price protections.** Created in 2017, it functions with retailers buying water and/or sewerage services from wholesalers and selling a package on to business customers.<sup>1067</sup> Market Operator Services Limited (MOSL) is the operator for the BRM and is responsible for ensuring its functioning.<sup>1068</sup> The Strategic Panel, established by Ofwat, shapes the future direction of the BRM.<sup>1069</sup> In 2024-25, the cost of running the market is £13.53 million.<sup>1070</sup> This is funded through levies on wholesale charges for the BRM. These wholesale charges were estimated to total £3 billion in 2024-25.<sup>1071</sup>
799. **Ofwat regulates prices in the BRM through the Retail Exit Code (REC).** Under the REC, business customers in England are split into three groups according to consumption. Group 1 customers are the smallest (annual consumption less than 0.5 megalitres) and have the highest level of price protection.<sup>1072</sup> Group 3 customers are the largest (annual consumption over 50 megalitres) and have no price protection, on the assumption these users have sufficient market power to negotiate with retailers.<sup>1073</sup> In Wales, the BRM only applies to these higher consumption users, with businesses consuming below that level remaining in the household market.<sup>1074</sup>
800. **Awareness of the BRM is higher for larger business customers.** Consumption in the BRM is heavily skewed, with the top 1% of users (about

<sup>1065</sup> GOV.UK, '[Competition and innovation in the water markets \(Cave review\)](#)', 2011

<sup>1066</sup> Welsh Government engagement with Commission, 2025

<sup>1067</sup> MOSL, [How the Market Works - MOSL](#), viewed 18 July 2025

<sup>1068</sup> MOSL, [How the Market Works - MOSL](#), viewed 18 July 2025

<sup>1069</sup> MOSL, [How the Market Works - MOSL](#), viewed 18 July 2025

<sup>1070</sup> MOSL engagement with the Commission, 2025, prices in nominal terms 2024/25

<sup>1071</sup> MOSL engagement with the Commission, 2025, prices in nominal terms 2024/

<sup>1072</sup> Ofwat, [Business retail market 2021-22 review of the Retail Exit Code](#), 2022

<sup>1073</sup> Ofwat, [Business retail market 2021-22 review of the Retail Exit Code](#), 2022

<sup>1074</sup> Ofwat, [Business retail market - Ofwat](#), viewed 18 July 2025

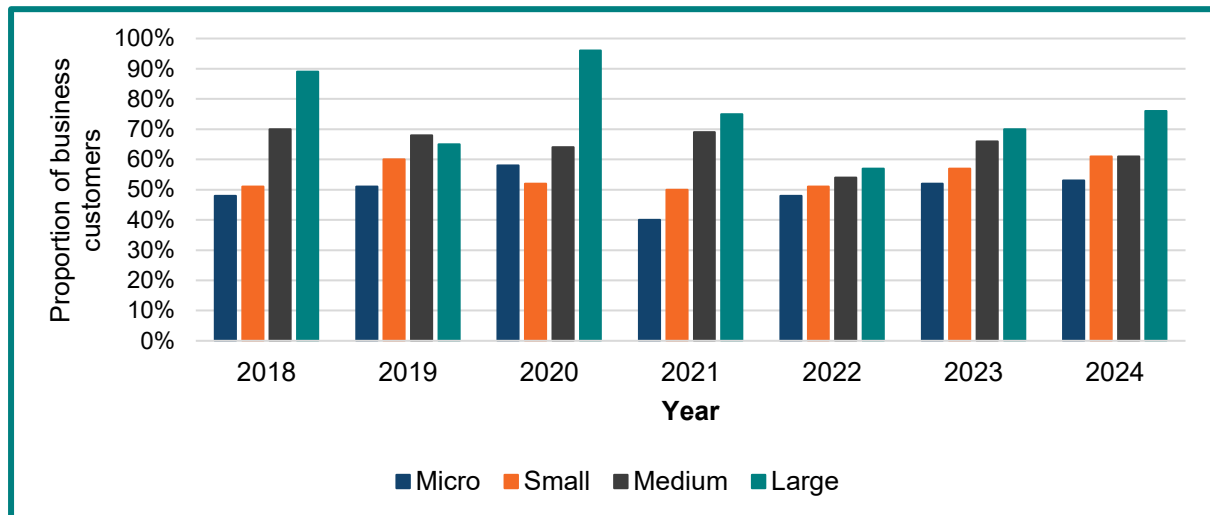
13,000 businesses) accounting for half of the market's total Consumption.<sup>1075</sup> There are more than 20 retailers in the market. However, the majority of business customers continue to be served by incumbent retailers (more than 90%).<sup>1076</sup> Of the users that have switched to a new supplier, these have tended to be larger consumers of water (Table 9).

**Table 9: Switching data per consumption group, June 2025**

Ofwat Consumption	Volume band	Number of customers	% customers who switched at least
3	>50	1,600	53%
2	0.5 – 50	220,000	37%
1	<0.5	922,000	22%

Source: MOSL<sup>1077</sup>

**Figure 25: Customer awareness of the Business Retail Market, 2017-2024**



Source: CCW<sup>1078</sup>

801. **Self-supply businesses act as their own retailers**, applying to Ofwat for a licence to buy water services, wastewater services, or both directly from the regional water company. As of March 2024, there were 16 self-suppliers (for example, Greene King, Marstons PLC) operating in the market, accounting for 2.5% of retail market consumption.<sup>1079</sup> The Strategic Panel states that large corporations and local authorities acting as self-suppliers have

<sup>1075</sup> MOSL engagement with the Commission, 2025

<sup>1076</sup> MOSL engagement with the Commission, 2025

<sup>1077</sup> Ibid.

<sup>1078</sup> CCW, [Synthesis of market data on low water use business customers' experiences of the water retail market](#), 2025

<sup>1079</sup> Ofwat, [PN 12/18: Coca-Cola European Partners to be granted self-supply licence in business retail water market - Ofwat](#), 2018, Ofwat, [Business retail market 2023-24 update](#), 2024

decreased retail costs and improved water efficiency, reporting a 3 billion litre saving in 2023-24.<sup>1080</sup>

802. **So far, the BRM has only applied to business users and not households.** Ahead of the launch of the BRM, the government asked Ofwat to conduct an assessment of extending retail competition to households, and set an ambition to begin a transition to retail competition for all customers by the end of the Parliament.<sup>1081</sup> Ofwat published their assessment in 2016, concluding that “the introduction of competition in the residential retail market in England would be likely to result in a net benefit”.<sup>1082</sup> Neither Ofwat nor government have proactively pursuing expansion of the retail market in recent years, however, instead focusing on improvements to the existing BRM.

## Issues

191. **The Commission has identified 4 main issues in relation to the BRM:**

- a lack of engagement in the BRM by smaller users
- the impact of Ofwat’s price protections on the BRM
- views on the efficacy of the BRM
- regulatory gaps in the BRM

### Lack of engagement in the BRM by smaller users

803. **Many stakeholders have highlighted a lack of engagement and awareness of the BRM, particularly in relation to small users in England.**<sup>1083</sup> The Commission has heard that, even where business customers are aware of the market, they may not consider the benefits to be worth the perceived effort involved in switching.<sup>1084</sup> Ofwat’s price saving research shows that, for small business customers using up to 0.5 megalitres per annum, annual savings for switching or renegotiating in 2023-24 were up to £75.<sup>1085</sup>
804. **Some stakeholders have questioned whether the market is meeting its objectives and whether smaller business users should be removed in England, as is the case in Wales, given their low usage of the market.** Water UK note that the current annual cost of running the market (£13.7 million)<sup>1086</sup> is larger than the savings they estimate companies have gained,

<sup>1080</sup> [Strategic Panel response to the Call for Evidence](#), 2025, p18

<sup>1081</sup> GOV.UK, [A better deal: boosting competition to bring down bills for families and firms](#), 2015, p7

<sup>1082</sup> Ofwat, [Costs and benefits of introducing competition to residential customers in England](#), 2016, p56

<sup>1083</sup> [CCW response to the Call for Evidence](#), 2025

<sup>1084</sup> CCW, [Non Household Customer Insight-Survey 2020](#), 2020, p34

<sup>1085</sup> Ofwat, [Business retail market 2023-24 update](#), 2024, p23

<sup>1086</sup> MOSL engagement with the Commission, 2025

between £6.2 and £10.2 million per year.<sup>1087</sup> CCW note that, while they are concerned the market has not delivered expected benefits for smaller business customers since opening, they do not currently recommend changing eligibility criteria to remove them.<sup>1088</sup> They have stated, however, that they will keep this position under review, pending further developments in the market, including the roll out of smart metering.<sup>1089</sup>

805. **Some stakeholders have argued that the costs of removing small business users from the BRM in England would be significant.** The Strategic Panel notes that wholesalers have dismantled billing systems and teams serving business customers, which would require significant resources to reboot.<sup>1090</sup> At the same time, they are not aware of any evidence showing smaller business customers would be better served by reverting to the wholesaler market.<sup>1091</sup> The UK Water Retailer Council (UKWRC) are also concerned this would significantly impact returns to the approximately £500 million investment made by retailers since the opening of the BRM.<sup>1092</sup> MOSL notes that the costs of removing smaller users from the market would vary depending on the eligibility criteria used. As a guide, moving England to the Welsh model (where only businesses using more than 50 megalitres per year are eligible for the BRM), would reduce the market size to approximately 1,600 customers, from 1.37 million.<sup>1093</sup> The Commission understands this could create inefficiencies and costs for those left within the BRM.<sup>1094</sup>

## Impact of Ofwat's price protections on the BRM

806. **Retailers have expressed concerns about the impact of Ofwat's price protections on competition, particularly for low users of water in England.** The UKWRC argues that the margins available for Group 1 businesses are too small for it to be profitable for retailers to compete for these users. Retailers further note that some of these business customers (for example, those who do not engage online and pay invoices late) carry inherently higher costs to serve. The Strategic Panel echoed these concerns and note that when retailer margins were increased in Scotland, the market started to flourish. Moreover, they argue that this increase in margins is being passed on to business customers in the form of discounts, rather than being retained by retailers. They have proposed reviewing how the

<sup>1087</sup> [Water UK response to the Call for Evidence](#), page 109

<sup>1088</sup> CCW, [Synthesis of market data on low water use business customers' experiences of the water retail market](#), 2025

<sup>1089</sup> CCW engagement with Commission 2025

<sup>1090</sup> [Strategic Panel response to the Call for Evidence](#), 2025, p6

<sup>1091</sup> [Strategic Panel response to the Call for Evidence](#), 2025

<sup>1092</sup> UKWRC engagement with the Commission

<sup>1093</sup> MOSL response to the Call for Evidence

<sup>1094</sup> MOSL response to the Call for Evidence

regulatory framework could better stimulate a more diverse competitive market, while ensuring adequate customer protections.<sup>1095</sup>

807. **Ofwat is planning to review the REC in 2025**, and have said that they remain open to adjusting price protections depending on the evolution of the market.<sup>1096</sup> However, Ofwat is concerned they must balance the need for competition with regulation that protects business customers.<sup>1097</sup> CCW has stated that price protections are necessary and must not be removed from the REC merely to stimulate competition.<sup>1098</sup> Ofwat has instead proposed improving competition by tackling three market frictions: poor quality data on addresses, premises and meters; poor wholesaler performance; and inconsistent interactions between wholesalers and retailers that worsen customer outcomes.<sup>1099</sup>

## Views on the efficacy of the BRM

808. **The Commission has heard from retailers that they are better positioned to offer quality service to businesses than wholesalers.**<sup>1100</sup> The ability for large multi-site businesses to consolidate billing through a single retailer is considered especially helpful.<sup>1101</sup> For example, BT went from processing 12,000 invoices annually to 25-35 a month from a single retailer.<sup>1102</sup> However, no data is available on what proportion of the market this affects.<sup>1103</sup> CCW note that the majority of business customers who do end up switching retailer or renegotiating contracts considered they received better value for money, while a significant minority considered they gained better service.<sup>1104</sup>
809. **Retailers have pointed to improved meter reading and bill accuracy for all BRM users**, regardless of whether they have switched. In the first 2 years since the market opened in 2017, the number of meters not read reduced by 94.5% from 1,258,981 to 69,349. This continued to reduce to 10,572 in June 2025.<sup>1105</sup>
810. **Some stakeholders have indicated that, with increased bills, and concerns around water usage by industry, the BRM's importance will grow in the future.** The Businesses have expressed significant concerns to

<sup>1095</sup> Stakeholder responses to the Call for Evidence, 2025

<sup>1096</sup> Ofwat engagement with the Commission, 2025

<sup>1097</sup> MOSL response to the Call for Evidence

<sup>1098</sup> CCW, [CCW response to REC consultation](#), 2022

<sup>1099</sup> Ofwat, [Business retail market update 2023-24](#), 2024

<sup>1100</sup> Retailer response to the Call for Evidence

<sup>1101</sup> Retailer engagement with the Commission

<sup>1102</sup> [Strategic Panel response to the Call for Evidence](#), 2025.

<sup>1103</sup> MOSL engagement with the Commission, 2025

<sup>1104</sup> CCW, [Synthesis of market data on low water use business customers' experiences of the water retail market](#), 2025, p8

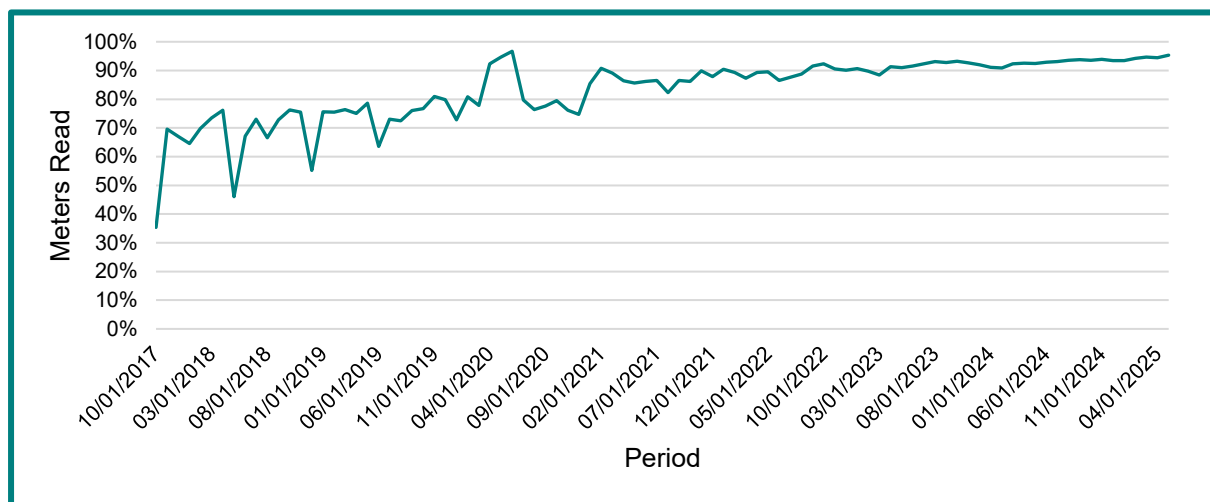
<sup>1105</sup> MOSL engagement with the Commission, 2025



the Commission about bill increases.<sup>1106</sup> MOSL have noted that concern around bills, as well as pressure to reduce demand, may increase incentives for engagement with the BRM.<sup>1107</sup>

811. **Officials in the Welsh Government remain sceptical of the BRM and have been clear they are not supportive of expanding the Welsh BRM to include smaller users.**<sup>1108</sup> The Welsh Government have been clear competition should not be an aim in itself and have rejected the idea that the BRM may help to enable businesses manage demand.<sup>1109</sup>

**Figure 26: Average market meter reading performance since market opening**



Source: MOSL<sup>1110</sup>

## Concerns around regulatory gaps

812. **Stakeholders have highlighted unnecessary complexity within the BRM**, with clear concerns from businesses about the clarity of billing.<sup>1111</sup> Stakeholders have emphasised the large number of different wholesaler tariffs, which can make business customer bills confusing.<sup>1112</sup> Water UK considers there may be merit in reducing the number of wholesaler tariffs but are concerned that this may lead to arbitrary winners and losers.<sup>1113</sup>
813. **The Commission has also heard from retailers how variation in the rollout of meters and the lack of standardised data may hinder the BRM's ability to use data effectively.** The Strategic Panel has said that there is a need for 'centralised regulation' from Ofwat before smart meter roll outs ramp up later this year.<sup>1114</sup> Water UK believes responsibility for installing

<sup>1106</sup> Large water user engagement with the Commission, 2025

<sup>1107</sup> MOSL engagement with the Commission, 2024

<sup>1108</sup> Welsh Government engagement with the Commission, 2025

<sup>1109</sup> Welsh Government engagement with the Commission, 2025

<sup>1110</sup> MOSL engagement with the Commission, 2025

<sup>1111</sup> Large water user engagement with the Commission, 2025

<sup>1112</sup> Water retailer engagement with the Commission, 2025

<sup>1113</sup> Water UK engagement with the Commission, June 2025

<sup>1114</sup> [Strategic Panel response to the Call for Evidence](#), 2025

smart meters should remain with incumbents but acknowledges the benefits of minimum standards so that meters are interoperable.<sup>1115</sup>

814. **More broadly, the Commission has heard issues with tariff structure and meter rollouts are hindering the BRM's ability to support businesses in England with water efficiency.** Stakeholders have highlighted that falling block tariffs may be creating perverse incentives for large businesses not to conserve water. Water UK acknowledges that “some historical pricing structures, such as large user tariffs where the unit rate decreases with higher consumption, create distortions that may not align with environmental or efficiency goals”.<sup>1116</sup> Similarly, issues with metering are preventing retailers from working with businesses to manage demand. Barriers to the use of non-potable water usage are also limiting the BRM. These issues are discussed in more detail in Chapter 5.
815. **The Commission has heard that there are inadequate protections in place should retailers exit the market in an unplanned manner.** Ofwat consulted on this in 2023 and published a decision document in July 2024.<sup>1117</sup> They remain of the view that legislative changes are required to ensure business customers are adequately protected against a failed retailer.<sup>1118</sup> CCW agrees the current situation is a gap in the market that renders businesses vulnerable and must be changed.<sup>1119</sup>
816. **Finally, the Commission has heard there is no suitable appeals mechanisms within the BRM for retailers who dispute price restrictions.** The REC was originally designed as a temporary arrangement, with the appeals process operating via judicial review. Retailers feel this is not as suitable as appealing to the Competition and Markets Authority (CMA), as occurs, for example, via the Market Arrangements Code.<sup>1120</sup> Ofwat has stated that either mechanism could be used and does not favour one over the other.<sup>1121</sup>

## Conclusions and recommendations

817. The Commission is proposing 2 recommendations related to the BRM:
- Recommendation 60: The UK Government should conduct a full post-implementation review of the BRM. The Welsh Government may also wish to consider a post-implementation review of the BRM, although the Commission recognises policy towards the BRM is different in Wales than England.

<sup>1115</sup> Water UK engagement with Commission, 2025

<sup>1116</sup> [Water UK response to the Call for Evidence](#), 2025

<sup>1117</sup> Ofwat, [Strengthening customer protections in the business retail market](#), 2024

<sup>1118</sup> Ofwat, [Strengthening customer protections in the business retail market](#), 2024

<sup>1119</sup> [CCW response to the Call for Evidence](#), 2025

<sup>1120</sup> UKWRC response to the Call for Evidence, 2025

<sup>1121</sup> Ofwat engagement with the Commission, 2025

- Recommendation 61: The government and regulator in England and Wales should explore short-term measures to improve the functioning of the BRM.

*Given the costs, small users should not be removed from the BRM; but the success and strategic objectives for the BRM should be reviewed*

**Recommendation 60: The UK Government should conduct a full post-implementation review of the BRM. The Welsh Government may also wish to consider a post-implementation review of the BRM, although the Commission recognises policy towards the BRM is different in Wales than England.**

818. **The BRM has been operating for 8 years; now is an appropriate time to take stock of its performance against objectives.** The Commission understands a post-implementation review was envisaged at the opening of the BRM but has never been conducted.<sup>1122</sup> Good practice states that implementation reviews should normally be carried out within 5 years of the regulation coming into force.<sup>1123</sup> Such a review would provide an opportunity to reflect on the intended objectives of the BRM, the extent to which these have been met and whether they remain appropriate. As part of this review, the UK government should explore the benefits business customers across different groups have received from the market, the impact price protections have had on competition within the market, and the impact wholesaler regulation, including in relation to tariff structures and metering, has had on the market. A review would also allow for a quantitative assessment of the cost of running the scheme relative to the savings for businesses. The Commission does not believe, on the evidence of the BRM so far, that there is case for extending the BRM to households, though the UK government may wish to confirm the position on this in the review.
819. **The UK government should further recognise the shift in strategic context since the BRM was set up in 2017.** Water scarcity and efficiency have become more important given the changing climate. Trust in the broader water industry has fallen and bills have increased and are likely to remain higher for the foreseeable future.<sup>1124</sup> In this context, the role that retailers might play in helping businesses to manage water has potentially grown and different strategic steers may be required for the regulator.
820. **The Welsh Government may also wish to consider a post-implementation review of the BRM, although the Commission recognises policy towards the BRM is different in Wales than England.** The Commission recognises there is little appetite for expanding the BRM in Wales, and reform may be a lower priority.

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<sup>1122</sup> MOSL engagement with the Commission, 2025

<sup>1123</sup> Gov.uk, [Producing post-implementation reviews: principles of best practice](#), viewed 18 July 2025

<sup>1124</sup> Ofwat, [Customer trust and satisfaction in water companies falling in latest Ofwat and CCW research](#), 2024, Ofwat, [Our final determinations for the 2024 price review](#), 2024

*There is also scope to pursue shorter-term measures to improve the functioning of the BRM.*

**Recommendation 61: The government and regulator in England and Wales should explore short-term measures to improve the functioning of the BRM.**

821. **In addition to, or alongside, a post-implementation review, the regulator should explore whether action is needed on wholesale tariff structures.** The Commission notes that there are industry-led efforts already underway on tariff structures but it is of the view that, given concerns around complexity, a more directive approach may be helpful. Further detail on the Commission's recommendations on tariffs and water efficiency is set out in Chapter 5.
822. **The Commission further considers there is a case for closing regulatory gaps as part of a future legislative exercise.** The Commission agrees with Ofwat and the CCW that there is the need to create a 'supplier of last resort' mechanism that ensures business customers are fully protected from retailer failure. Such a mechanism exists in other retail markets like energy, as well as for wholesalers through the SAR. The Commission also feels it is appropriate to bring the BRM in line with other price-regulated sectors and create an equivalent CMA appeals process for retailers as wholesalers. This would ensure that retailers have a fair and open opportunity to air concerns. Since these reforms are focused on increasing protections in the BRM, rather than expanding it, the Commission is of the view they could be explored in both England and Wales.

## New Appointments and Variations (NAVs)

### Background

823. **New Appointments and Variations (NAVs), introduced in 1991, were designed to enhance competition in the water industry.** NAVs allow a new entrant company to replace an incumbent water and sewerage company in a specific area and are mainly used by larger housing developers to supply new sites with water services, sewerage services, or both.<sup>1125</sup> Currently NAVs connect around one in 5 new homes to the water supply, supporting competition and innovation in the sector.<sup>1126</sup> NAVs enter into bulk supply agreements with incumbent water companies and charge end customers for services, with prices capped at the incumbent's rates (under the 'no worse off' principle) ensuring customers of NAVs never pay more for their services.<sup>1127</sup> NAV profitability is driven by the margin between the bulk supply cost and the retail price charged to customers. NAVs typically

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<sup>1125</sup> Ofwat, [New Appointments and Variations \(NAVs\)](#), viewed 18 July 2025

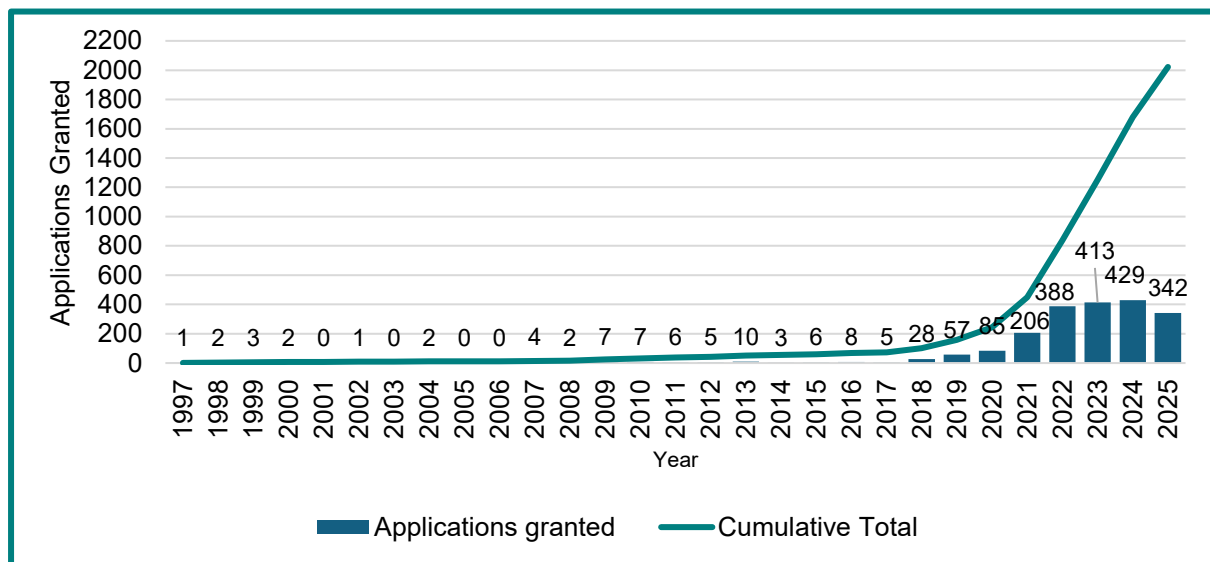
<sup>1126</sup> INA response to the Call for Evidence, 2025

<sup>1127</sup> Ofwat, [NAV Assessment details](#), link accessed July 2025

source water from, and discharge wastewater into, the incumbent water company's network at the boundary of the development site. They are responsible for delivering the "last mile" of water and wastewater services directly to end customers within the site.<sup>1128</sup>

824. **England's NAV market has experienced remarkable growth in recent years, especially in large-scale housing developments.** This has been driven by regulatory changes by Ofwat from 2018 onwards, which addressed long-standing process and pricing issues in the market. These included a developer satisfaction index (D-MeX) and guidance for bulk supply service charges from incumbents.<sup>1129</sup> The Welsh Government does not support the use of NAVs in Wales, with concerns about market fragmentation and increased complexity.<sup>1130</sup>

**Figure 27:** Cumulative number of NAV applications, 1997-2025



Source: Independent Water Commission Analysis<sup>1131</sup>

825. **Ofwat runs the NAV application process for new site licences. NAVs are currently required to make a new application for every site they wish to serve.** Ofwat must assess NAV applications with reference to number of criteria (for example, whether premises are within an area already 'served' by an incumbent, whether customers will be worse off as a result of a NAV, and whether an applicant will be able to finance its functions).<sup>1132</sup> Before approving a NAV, Ofwat must publish a notice, stating the reasons for approval (with reference to the criteria above), and notify the incumbent,

<sup>1128</sup> Frontier Economics, [Study of the NAV market](#), 2017

<sup>1129</sup> INA response to the Call for Evidence, 2025

<sup>1130</sup> Welsh Government engagement with the Commission, 2025

<sup>1131</sup> To note, these figures should be treated as indicative and not exact due to duplications within the dataset (for example where different services have been applied for separately) and changes to ownership of a NAV. Data from: [Register of new appointments and variations granted to date - Ofwat](#)

<sup>1132</sup> GOV.UK, [Section 7, Water Industry Act 1991](#), viewed 18 July 2025



DWI, EA or Natural Resources Wales (NRW), and relevant local authorities. These, and other parties as relevant, have a 28 day consultation period to make representations or objections.<sup>1133</sup> This process is different to equivalent processes in the energy sector where companies are awarded a licence to operate on a nationwide basis.<sup>1134</sup>

## Issues

### 826. The Commission has identified 4 main issues in relation to NAVs:

- the proportionality of the NAV application process
- NAV consultation timelines
- broader concerns around competition between NAV and incumbents
- different attitudes to NAVs in England and Wales

### Proportionality of the NAV application process

#### 827. The Commission has heard the existing application process for NAVs is leading to unnecessary delays.

One large NAV highlighted that, of the applications they have submitted to Ofwat for development, a high proportion were subject to lengthy reviews but none had been rejected.<sup>1135</sup>

Housebuilders state the process can impact connections and delay projects.<sup>1136</sup>

#### 828. Stakeholders have been particularly critical of the site-specific nature of the NAV licensing process.

The Commission understands NAVs must duplicate information across different site applications.<sup>1137</sup> The Commission also understands that in other sectors, like energy, companies can receive a nationwide licence to operate.<sup>1138</sup>

#### 829. Ofwat has acknowledged the current application system is burdensome and may lead to a disproportionate administrative burden on NAVs which is not placed on incumbents.

<sup>1139</sup> Ofwat has noted they are to some degree constrained by the legislative framework for NAVs but note they have some discretion within existing powers.<sup>1140</sup> Ofwat are open to an approach more like the energy sector where “some appointees fulfil conditions to have a national licence to operate”.<sup>1141</sup>

<sup>1133</sup> GOV.UK, [Section 8, Water Industry Act 1991](#), viewed 18 July 2025

<sup>1134</sup> Ofgem, [Independent Distribution Network Operators – licence applications from affiliates](#), 2018

<sup>1135</sup> NAV engagement with the Commission, 2025

<sup>1136</sup> Housebuilder engagement with the Commission, 2025

<sup>1137</sup> INA engagement with the Commission, 2025

<sup>1138</sup> Ofgem, [Independent Distribution Network Operators – licence applications from affiliates](#), 2018

<sup>1139</sup> Ofwat response to Call for Evidence, Annex, 2025

<sup>1140</sup> Ofwat engagement with the Commission, 2025

<sup>1141</sup> Ofwat response to the Call for Evidence, Annex, 2025

## NAV consultation timelines

830. **Stakeholders have flagged the consultation timeline of 28 days for NAV applications.** The Commission has heard this rarely provides new information that alters the outcome of the application and causes unnecessary delays; where responses are received, these are typically from local authorities who do not raise materials concerns.<sup>1142</sup> On the other hand, CCW have argued that the existing 28 day consultation timeline is appropriate.<sup>1143</sup>
831. **In relation to the 28-day consultation timeline, Ofwat believes this could be removed with little consequence for the majority of simpler applications** but would prefer to retain discretion to consult on more complex applications.<sup>1144</sup> The Department for Business and Trade consulted on amending Section 8 of the Water Industry Act 1991 to consider the scale or nature of applications being made in 2023; the response to this consultation was not published following the 2024 general election.<sup>1145</sup>

## Broader concerns around competition between NAVs and incumbents

832. **In addition to the primary concern of the site application process, the Commission has heard several more minor concerns that may skew competition in favour of incumbents.**
833. **Some stakeholders have observed that NAVs are currently required to produce Water Resources Management Plans (WRMPs) and Drainage and Wastewater Management Plans (DWMPs).** However, NAVs have been clear they do not hold the required information to complete these and rely on the incumbents they work with to provide much of the information required.<sup>1146</sup> The Commission has heard varying views on how this should be handled. Some have suggested NAVs should develop the skills and capability to produce WRMPs and DWMPs. The EA believe NAVs could be excluded from WRMPs as there is little environmental benefit in including them.<sup>1147</sup>
834. **The Commission has also heard feedback regarding the lack of transparency on bulk charging structures from incumbents.** These are generated individually by each incumbent, with great variability between regions.<sup>1148</sup> The Independent Networks Association (INA) is concerned that

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<sup>1142</sup> INA engagement with the Commission, 2025

<sup>1143</sup> CCW, [Our response to the Department of Business and Trade's Smarter Regulation consultation - CCW](#), 2024

<sup>1144</sup> Ofwat engagement with the Commission, 2025

<sup>1145</sup> GOV.UK, [Smarter regulation: strengthening the economic regulation of the energy, water and telecoms sectors](#), 2023

<sup>1146</sup> INA response to the Call for Evidence, 2025, p4

<sup>1147</sup> EA response to the Call for Evidence, 2025, p22

<sup>1148</sup> INA engagement with the Commission, 2025

incumbents are not allowing the full costs that NAVs incur to be properly accounted for.<sup>1149</sup> Ofwat say that published bulk charges are difficult to calculate, compare and their derivation is unclear.<sup>1150</sup> Ofwat has recently issued a consultation on this.<sup>1151</sup>

835. **The Commission has also heard that NAVs face disproportionate water testing requirements at sites.**<sup>1152</sup> Currently, NAVs must sample water on each of their sites, running the full suite of tests in the regulations. The Commission has heard this level of testing is not proportionate to the risk involved, especially for tests such as for pesticides where the incumbent is already testing the source water they provide. The DWI have also suggested that fees charged to NAVs for testing are disproportionately high and note an amendment is required to the Water Quality and Supply (Fees) Order 2016 to correct this.<sup>1153</sup>

## Different attitudes to NAVs in England and Wales

836. **Officials in the Welsh Government have expressed scepticism around NAVs.** The Welsh Government have noted concerns around fragmentation from the NAV market and emphasised that UK and Welsh governments have different objectives on housebuilding.

## Conclusions and recommendations

837. **The Commission believes that NAVs have shown that they can provide effective competition in this part of the water market that is of benefit to customers.** Previous regulatory changes have accelerated the development of the market for NAVs, but there remains significant scope for improvement. In particular, the Commission believes that the current NAV site application process is overly burdensome and should be reformed; there is extensive duplication of data between NAV applications. The number of NAV applications is currently expanding rapidly and is forecast to continue to do so.<sup>1154</sup> Reform could minimise the administrative burden from applications for both NAVs and Ofwat. This, in turn, could speed up housing development applications, helping to achieve the government's housing targets.
838. **The Commission is also concerned that certain processes may prevent fair competition in the market.** It is essential for the future of the market that it operates in a manner that encourages new entrants to join. This

<sup>1149</sup> INA engagement with the Commission, 2025

<sup>1150</sup> Ofwat engagement with the Commission, 2025

<sup>1151</sup> Ofwat, [Consultation on rules for bulk charges](#), 2025

<sup>1152</sup> INA engagement with the Commission, 2025

<sup>1153</sup> DWI engagement with the Commission, 2024

<sup>1154</sup> Ofwat engagement with the Commission, 2025

requires a level playing field for both the NAV and incumbent positions, and that all parties are regulated proportionately.

839. The Commission is proposing 3 recommendations related to the NAVs:

- Recommendation 62: The framework for regulating NAV applications in England should be made more proportionate to support housing growth. The Commission recognises that given different views on the benefits of NAVs, the Welsh Government may decide not to pursue these reforms.
- Recommendation 63: The Commission sees a strong case for dropping the requirement for NAVs to produce WRMPs and DWMPs given the view of the EA and for changes to the requirements upon them in relation to drinking water testing. The Commission recognises that given different views on the benefits of NAVs, the Welsh Government may decide not to pursue these reforms.
- Recommendation 64: The Commission believes the UK government should monitor NAV market size and risk of fragmentation.

*The current regulation of NAVs is not appropriately proportionate. This hinders the potential of the market to support housing growth.*

**Recommendation 62: The framework for regulating NAV applications in England should be made more proportionate to support housing growth. The Commission recognises that given different views on the benefits of NAVs, the Welsh Government may decide not to pursue these reforms.**

840. **The government should work with the regulator to facilitate movement towards a more company- rather than site-based approach to regulating applications, as happens in the energy sector.** Ofwat believe they already have legal flexibility to move towards a more company-based approach, as evidenced by their use of long-term company-based viability assessments for established NAVs (with a more site-specific approach for new entrants to the market).<sup>1155</sup> However, the government should review whether the current legal framework provides sufficient flexibility to ensure the NAV market is appropriately regulated. The Commission recognises that given different views on the benefits of NAVs, the Welsh Government may decide not to pursue these reforms.

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<sup>1155</sup> Ofwat engagement with the Commission, 2025

841. **The Commission does not recommend removing statutory consultation requirements for NAVs altogether, as this would not be proportionate. However, the Commission does support, as originally proposed by the Department for Business and Trade, looking to amend Section 8 of the Water Industry Act 1991, which currently requires Ofwat to undertake a full statutory consultation on all licensing applications to consider the scale or nature of applications made.<sup>1156</sup> This could involve reducing the statutory consultation timeline for small or routine cases or waiving this altogether. By amending rather than removing statutory consultation requirements, Ofwat would still be required to consult on, for example, large or contentious NAV proposals, but would not need to consult on more routine proposals which currently receive little to no engagement**

**Recommendation 63: The Commission sees a strong case for dropping the requirement for NAVs to produce WRMPs and DWMPs given the view of the EA and for changes to the requirements upon them in relation to drinking water testing.**

842. **Given the current state of the market, concerns around the proportionality of broader NAV regulation are legitimate.** In particular, the Commission sees a good argument for relaxing requirements on NAVs to produce WRMPs and DWMPs, and instead requiring NAVs to work with incumbents. This could have the broader benefit of helping to simplify planning, in line the Commission's recommendation in Chapter 2 to rationalise the planning frameworks. The Commission also believes water testing requirements and fees on NAVs can be made more proportionate. The DWI support amending the Water Quality and Supply (Fees) Order 2016 to this end.<sup>1157</sup> The Commission also believes there is a case for looking at bulk provision charges, including whether wholesalers should adopt a common methodology, to ensure these are sufficiently transparent. These reforms, if enacted, could have the effect of increasing the NAV market's ability to support developers.
843. **On the other hand, the Commission recognises that the appropriate level of regulation required for the NAV market may change in the future,** if the market grows in size. The UK government should work with the regulator to review these requirements on NAVs, balancing the need to support market growth with concerns around market size and fragmentation. The Commission recognises that given different views on the benefits of NAVs, the Welsh Government may decide not to pursue these reforms.

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<sup>1156</sup> GOV.UK, [Smarter regulation: strengthening the economic regulation of the energy, water and telecoms sectors](#), 2023

<sup>1157</sup> DWI engagement with the Commission, 2024

**Recommendation 64: The Commission believes the UK government should monitor NAV market size and risk of fragmentation.**

844. **While the Commission sees clear benefits from expanding the NAV market now – including in relation to meeting the UK government’s objectives on housing – it is also mindful of the risks of rapid market expansion**, including from fragmentation which will create a more complex environment for regulators in overseeing outcomes and delivery. The UK government should monitor the overall size and risk of fragmentation from the NAV market.



## Direct Procurement for Customers (DPC) and Specified Infrastructure Projects Regulations (SIPR)

### Background

845. **At Price Review 2019, Ofwat introduced the Direct Procurement for Customers (DPC) procurement model.**<sup>1158</sup> Companies were required to consider DPC for discrete, large-scale enhancement schemes expected to cost over £100 million.<sup>1159</sup> The intent was to enable companies to put large infrastructure projects out to competitive tender where infrastructure is discrete and separable from the company's network. Under the model a third party Competitively Appointed Provider (CAP), selected by the company (and approved by Ofwat) was to be appointed to design, build, finance, and in some circumstances operate and maintain the relevant infrastructure.
846. **From Price Review 2024, Ofwat has required companies to use DPC, by default, for projects over £200 million.**<sup>1160</sup> Ofwat still reserves the right to explore the use of DPC for major projects below this size threshold where it may offer value for money for customers.<sup>1161</sup> Ownership of the asset is transferred back to the incumbent water company after the agreed length of contract expires (generally 25-30 years) and is incorporated into their RCV.<sup>1162</sup> The activities of the CAP are regulated indirectly via the contractual relationship between the CAP and the water company. DPC currently operates in both England and Wales. For example, Ofwat has designated Welsh Water's Cwm Taf Water Supply Strategy as a DPC project, for the development of a new water treatment plant and associated works.<sup>1163</sup>
847. **Specified Infrastructure Projects Regulations (SIPR) enable a third-party provider, the infrastructure provider, to be granted its own licence to build a major project which is then regulated directly by Ofwat.** SIPR was introduced in 2013 but currently can only be used under strict legal criteria, such as for projects of such size and complexity that they may threaten the water company's ability to provide services and value for money to customers.<sup>1164</sup> However, the government has recently outlined its intent to relax these criteria.<sup>1165</sup> SIPR was set up specifically for the Thames Tideway Tunnel project and, to date, it is the only project to have used SIPR.<sup>1166</sup> At Price Review 2024 Ofwat proposed that a further 3 SIPR schemes would be

<sup>1158</sup> Ofwat, [Direct Procurement for Customers \(DPC\)](#), viewed 18 July 2025

<sup>1159</sup> Ofwat, [DPC technical discreteness guidance](#), 2023

<sup>1160</sup> Ofwat, [DPC technical discreteness guidance](#), 2023

<sup>1161</sup> Ofwat, [DPC guidance](#), 2023

<sup>1162</sup> Ofwat, [DPC guidance](#), 2023

<sup>1163</sup> Ofwat, [PR24 Draft Determinations Major Projects](#), 2024, p5

<sup>1164</sup> GOV.UK, [The Water Industry \(Specified Infrastructure Projects\) \(English Undertakers\) Regulations 2013](#), viewed 18 July 2025

<sup>1165</sup> GOV.UK, [New approach to ensure regulators and regulation support growth](#), 2025

<sup>1166</sup> GOV.UK, [Thames Tideway](#), viewed 18 July 2025

brought forward (Fens Reservoir, Lincolnshire Reservoir, South East Strategic Resource Option).<sup>1167</sup> Projects run with SIPR are never incorporated into a water company's asset base. To date, no SIPR proposals have been made in Wales.

#### **Box 44: Thames Tideway Tunnel and SIPR**

**The Thames Tideway Tunnel (TTT) is a 25 kilometre long sewer that has been built in London to reduce the amount of sewage that flows into the Thames.** The tunnel will collect sewage from 34 of the river's most polluting overflow points and transfer it to Beckton Treatment Works. After 8 years of construction, the TTT is now fully operational.<sup>1168</sup>

**TTT is the UK water sector's largest infrastructure project since privatisation and is estimated to have cost £5 billion.**<sup>1169</sup> The use of SIPR for TTT reduced costs to customers. Initially, the project was expected to increase Thames Water's customer bills by £70-£80 annually in the worst case scenario. Following the SIPR procurement competition, the estimated average annual bill increase was reduced to £20-£25.<sup>1170</sup>

**To help the private sector to finance this project, a government support package was agreed** to assist the project if exceptional, highly unlikely risks occurred during the build phase. Thames Water will operate the above ground assets with Thames Tideway maintaining the tunnel and servicing debt and providing a return to its equity holders.

## **Issues**

848. **The Commission has identified 3 main issues in relation to DPC and SIPR:**

- administrative burden and cost
- need for government support
- fragmentation risks

### **Administrative burden and cost**

849. **Concerns have been raised by construction companies that Ofwat and water companies may not yet have enough experience of DPC to progress projects without delays.**<sup>1171</sup> In part, this is to be expected given the scheme is relatively new and a limited number of projects have been started. Ofwat is, however, undertaking work to reduce administrative burden

<sup>1167</sup> Ofwat, [PR24 Draft Determinations Major Projects](#), 2024, p8/9

<sup>1168</sup> ICE, [Thames Tideway, London's super sewer now fully connected](#) <https://www.ice.org.uk/what-is-civil-engineering/infrastructure-projects/thames-tideway>, viewed 18 July 2025

<sup>1169</sup> Ofwat, [Ofwat awards licence for Thames Tideway Tunnel](#), 2015

<sup>1170</sup> Ofwat, [Ofwat awards licence for Thames Tideway Tunnel](#), 2015

<sup>1171</sup> Construction industry engagement with the Commission, 2025

and costs for delivering DPC, for example, by producing standard form project templates.<sup>1172</sup>

850. **Concern has also been expressed over the costs of setting up SIPR projects, which can reportedly go into several hundreds of millions of pounds.**<sup>1173</sup> Companies have suggested that when further experience of SIPR has been gained in the sector that this burden of effectively setting up new water companies may be reduced via using ‘templates’.<sup>1174</sup> Ofwat has indicated they are exploring templates for SIPR in the future to reduce costs.<sup>1175</sup> However, given the small number of projects earmarked for SIPR which will broadly run concurrently, it is likely only future projects could benefit from this potential option.

### Need for government support

851. **The Commission has heard some commentary on whether government support is needed for DPC and SIPR as was the case for Thames Tideway.**<sup>1176</sup> The Commission understands no government support packages are currently planned for future SIPR projects. Such support was considered by many to be essential to ensure the inflow of private investment by removing the highly unlikely but high-risk tail risk within the Thames Tideway project. Thames Tideway state that Government and regulators need to ensure appropriate risk allocation between parties, which may include a role for customers or taxpayers where the market is not in a position to bear certain risks (for example, significant cost overruns, capital market disruption, discontinuation).<sup>1177</sup>
852. **Water UK are equivocal on DPC, stating that it remains to be seen whether these projects will attract sufficient interest and will provide sufficient predictability and simplicity to attract investors,** noting there has been limited market engagement to date.<sup>1178</sup> Water UK would prefer incumbents to be allowed to bid for DPC projects.<sup>1179</sup> Water UK have also suggested standardising and bundling DPC projects to ensure they are attractive to investors.<sup>1180</sup>

### Fragmentation risks

853. **Some concern has been expressed in relation to these large projects causing fragmentation of the sector.** Officials in the Welsh Government

<sup>1172</sup> Ofwat, [DPC guidance](#), 2023, p21/22

<sup>1173</sup> Water company engagement

<sup>1174</sup> Water company engagement

<sup>1175</sup> Ofwat engagement with the Commission, 2025

<sup>1176</sup> Investor engagement with the Commission, 2025

<sup>1177</sup> Thames Tideway response to the Call for Evidence, 2025, p1

<sup>1178</sup> Water UK response to the Call for Evidence, 2025

<sup>1179</sup> Water UK response to the Call for Evidence, 2025

<sup>1180</sup> Water UK response to the Call for Evidence, 2025

have indicated they do not view DPC and SIPR as a priority and expressed concern they increase complexity by increasing the number of participants involved in the sector.<sup>1181</sup> However, Ofwat believes that the number of projects is manageable and that because many projects are multi-party in nature, the appointment of a third party to own and operate projects will help minimise cross boundary integration issues.<sup>1182</sup> The Welsh Government currently believes there will be no project in Wales large enough to consider the use of SIPR.<sup>1183</sup>

854. **Concerns have also been raised on the transfer of liabilities for these schemes.** One water company is concerned that appropriate risk transfer arrangements must be present to ensure the infrastructure provider (SIPR) or CAP (DPC) assume or appropriately transfer liability for DWI water quality and Reservoirs Act obligations.<sup>1184</sup> Without this, they are concerned that projects will become less investable. Investors have raised similar concerns.<sup>1185</sup> This appears to be a particular issue for assets with longer lifespans, and where lines of accountability are more blurred between the contractor and water company. Ofwat acknowledge there is risk present for DPC on reintegration of the asset at the end of the contract period, though state their model contains robust hand back provisions.<sup>1186</sup> Ofwat has, however, also highlighted plans to issue guidance on the management of liabilities.

## Conclusions and recommendations

855. **The Commission believes that competitive delivery can be an effective approach for large and complex infrastructure projects.** It notes that Ofwat is in the process of changing the DPC regulations with regards to oversight and has made it the default method for projects over £200 million in Price Review 2024.<sup>1187</sup>
856. **As noted previously, the UK government has also announced plans to relax the criteria for using SIPR.<sup>1188</sup> The Commission is supportive of these changes.** Given the potential benefits using DPC and SIPR can offer, addressing known difficulties with these schemes is important. However, the Commission would caution against introducing further changes beyond existing plans without significant consideration. Letting current regulatory changes become embedded and subsequently reviewing how pipeline

<sup>1181</sup> Welsh Government engagement with the Commission

<sup>1182</sup> Ofwat engagement with the Commission, 2025

<sup>1183</sup> Welsh Government engagement with the Commission, 2025

<sup>1184</sup> Water company response to Call for Evidence

<sup>1185</sup> Investor engagement with the Commission, 2024

<sup>1186</sup> Ofwat response to the Call for Evidence, Annex, 2025, p75

<sup>1187</sup> Ofwat, [PR24 Draft Determinations Major Projects](#), 2024, p1

<sup>1188</sup> GOV.UK, [New approach to ensure regulators and regulation support growth](#), 2025

projects are progressing would be a pragmatic approach for this nascent market.

857. The Commission is proposing one recommendation related to the DPC and SIPR:

- Recommendation 65: The regulator in England should continue the essential steps that Ofwat is taking to address issues with DPC and SIPR. A full evaluation of both schemes should be undertaken in 5 years when a broader evidence base has been accumulated. The Commission recognises that given different views on the benefits of DPC and SIPR, the Welsh Government may decide not to pursue these reforms.

*DPC and SIPR need further time to bed-in. There is a clear case for addressing early teething issues.*

**Recommendation 65: The regulator in England should continue the essential steps that Ofwat is taking to address issues with DPC and SIPR. A full evaluation of both schemes should be undertaken in 5 years when a broader evidence base has been accumulated. The Commission recognises that given different views on the benefits of DPC and SIPR, the Welsh Government may decide not to pursue these reforms.**

858. **The regulator should ensure there is clear guidance on management of liabilities in DPC and continue to work with industry to share best practice for SIPR.** As further schemes move through the DPC and SIPR pipeline, additional lessons may emerge including around whether government support packages are needed to address exceptionally high tail risks that can most appropriately be borne by the public sector. The Commission recognises that given different views on the benefits of DPC and SIPR, the Welsh Government may decide not to pursue these reforms.







## Chapter 7: Infrastructure and asset health

### 7.1 Resilience and Asset Health

#### Background

859. **The provision of safe drinking water and effective wastewater management requires resilient infrastructure and supply chains.** Failures to build, supply, and maintain infrastructure can have significant consequences for people and the environment. Future challenges from climate change and population growth, alongside rising environmental and health standards are expected to place additional pressures on infrastructure.<sup>1189</sup>
860. **The health of companies' assets, and their ability to perform despite shocks and pressures, are crucial to achieving resilience in the sector.** Ofwat defines asset health as “an indicator of an asset's ability to perform its functions so that it delivers a range of benefits, for example, financial, societal, environmental”.<sup>1190</sup> Resilience is wider than just asset health. It encompasses the capacity to recover as well as to prevent failure. It requires redundancy in the system and addressing potential critical points of failure. Achieving a suitable level of resilience requires water companies to understand the risks in their infrastructure, the impact of failure on customers and on the environment and to have recovery mechanisms in place. This, in turn, requires a thorough understanding of their asset base, its condition, and the maintenance and renewal necessary to reduce the likelihood of failure. It should also include a robust exercising regime to test capabilities with resilience partners.<sup>1191</sup>
861. **The smooth operation of supply chains is also critical to water industry resilience.** Failures in the supply chain can lead to service disruptions with possible impacts on customers and the environment. Supply chain issues regarding delivery of new infrastructure are covered separately in Section 7.5.
862. **To ensure infrastructure resilience, companies are subject to both overarching legal requirements and various discrete infrastructure requirements.** For instance, companies are required to “improve and extend... and cleanse and maintain” their sewerage system, as well as have regard to their “existing and likely future obligations”,<sup>1192</sup> and map the

<sup>1189</sup> NIC, [Developing resilience standards in UK infrastructure](#), 2024

<sup>1190</sup> Ofwat, [PR24 Asset Health Roadmap](#), 2024

<sup>1191</sup> Cabinet Office, [Preparing and planning for emergencies: responsibilities of responder agencies and others](#), 2013

<sup>1192</sup> [Section 94 of the Water Industry Act 1991](#)

location of their sewer network, albeit with some exemptions.<sup>1193</sup> The Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licensees) Direction 2022 (as amended) (SEMD),<sup>1194</sup> which is covered in Section 7.2, sets the requirements on companies regarding their response to, and planning for, emergency and security events that affect their services.

863. **Regulators have levers to require companies to meet their legal duties in respect of infrastructure.** The Environment Agency (EA) and Natural Resources Wales (NRW), for example, are responsible for inspecting permitted assets. The Drinking Water Inspectorate (DWI) take action in relation to the maintenance of drinking water quality and security and emergencies.
864. **Ofwat, through their ‘resilience’ objective (introduced through the Water Act 2014) is also responsible for infrastructure resilience and has taken steps in recent years to improve the sector’s understanding of asset health.**<sup>1195</sup> In 2021, Ofwat published an Asset Management Maturity Assessment (AMMA), with recommendations across a number of areas of asset management including risk management, long-term planning and information management.<sup>1196</sup> The 2021 assessment reviewed each company’s approach to asset management and ranked their maturity. The exercise was aligned to the principles outlined by the Institute of Asset Management.
865. **Ofwat also influences levels of maintenance and renewal expenditure through the allowances and performance targets it sets in its Price Review process, measured by a series of metrics.** These metrics include sewer collapses, mains repairs and unplanned outages.
866. **In 2023, the National Infrastructure Commission (NIC) called for standards to be introduced to deliver resilient infrastructure across telecoms, energy, transport and water.**<sup>1197</sup> A follow-up paper set out that standards should reflect expectations from citizens on key infrastructure services. For the water industry, the NIC recommended that standards cover peak water supply demand, single sources of water supply, sewer flooding and the introduction of a forward-looking asset health metrics.<sup>1198</sup> The NIC argue that their approach could deliver consistent, industry-wide standards against which assets and resilience can be assessed, encompassing not

<sup>1193</sup> Section 199 of the Water Industry Act 1991

<sup>1194</sup> Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licensees) Direction 2022 (as amended) (SEMD)

<sup>1195</sup> Ofwat, [Operational resilience](#) (viewed 17 July 2025)

<sup>1196</sup> Ofwat, [Asset management maturity assessment](#) (viewed 17 July 2025)

<sup>1197</sup> NIC, [The Second National Infrastructure Assessment](#), 2023

<sup>1198</sup> NIC, [Developing resilience standards in UK infrastructure](#), 2024

only their condition, but also other factors such as redundancy, back up, and single points of failure.

## Issues

867. **The Commission has identified 4 main issues in relation to infrastructure and supply chain resilience:**

- A lack of resilience standards
- Limited understanding of the condition and location of infrastructure
- Infrastructure oversight
- Supply chain resilience

## Lack of resilience standards

868. **The Commission has heard concerns about the absence of infrastructure and system resilience standards that are forward-looking and applied consistently across the water industry.** The current metrics used by Ofwat to measure resilience, such as sewer collapses and mains repairs, address short term measures and are backward-looking. They do not address long-term, system challenges.<sup>1199</sup> These concerns featured heavily in responses to the Call for Evidence, with 50% of responses from stakeholders, including water companies, industry bodies and eNGOs supporting the development of resilience standards.<sup>1200</sup> Water UK, for instance, call for well-defined, highly visible and legally binding outcome-based resilience standards which would be used to inform the approach of regulators and companies. They argue that regulators have been left to develop their own metrics, which have focused on short-term measures such as water supply interruptions, rather than forward-looking risks.<sup>1201</sup> The National Engineering Policy Centre also addressed the need for resilience standards. They have argued that standards need to be aligned with priority outcomes for consumers. They state that while resilience is important at an asset level, it is more so at the system level, and better coordination on resilience is needed between companies and across sectors.<sup>1202</sup>

869. **Current regulatory requirements on water company infrastructure do not provide a high level of confidence that they will deliver a resilient system and one that takes account of future risks.** There are 'general' duties to provide drinking water and treat waste, but they lack minimum system resilience standards meaning that one company's capability to manage infrastructure in response to pressures and shocks can differ to that of other companies. Although this approach may allow for companies to

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<sup>1199</sup> Water company and industry engagement with the Commission engagement, 2024-25

<sup>1200</sup> Commission analysis of Call for Evidence Responses, 2025

<sup>1201</sup> Water UK response to the Call for Evidence, 2025

<sup>1202</sup> National Engineering Policy Centre response to the Call for Evidence, 2025

approach the maintenance of their infrastructure flexibly and with consideration of geographic context, it could also be leading to a ‘postcode lottery’ of resilience across England and Wales.<sup>1203</sup> The current Ofwat performance commitments do not set targets beyond the current Asset Management Period, so are not used as a basis for long-term resilience planning and investment. While water companies conduct exercises internally and with partners, Defra has told the Commission that there is no industry-organised national exercise regime which tests responses to a range of risks.<sup>1204</sup>

## Limited understanding of the condition and location of infrastructure

870. **Stakeholders have consistently raised the issue of asset data.** The National Audit Office, in an April 2025 report, outlined that regulators do not have a shared understanding of the condition of water and wastewater assets or the level of funding needed to maintain them.<sup>1205</sup> The DWI, in their Call for Evidence response, stated that the usual cause of underperformance on drinking water is linked to, or driven by, a lack of asset resilience, asset maintenance and investment.
871. **For both England and Wales, Ofwat measures asset health through a series of failure metrics, rather than an explicit assessment of the condition of assets or preventative activity taken by companies.** Ofwat’s metrics on asset health are limited to mains repairs, unplanned outages, and sewer collapses. This gives a picture of when assets have failed which is important but incomplete as a prognostic indication of asset health. There are other metrics, such as pollution incidents and discharge compliance, which could be impacted by infrastructure management, but are primarily considered environmental outcomes. The Commission has heard that Ofwat’s data is not adjusted for external factors such as environmental conditions that impact year-on-year data. For example, while there was a 25% fall in mains’ pipe bursts between 2022-23 and 2023-24, companies reported that limited freeze-thaw or extreme weather conditions in 2023-24 were a significant contributing factor to this.<sup>1206</sup> External factors such as weather events can potentially skew results to present a falsely positive position on asset health.

<sup>1203</sup> NIC, [Developing resilience standards in UK infrastructure](#), 2024

<sup>1204</sup> Defra engagement with the Commission, 2025

<sup>1205</sup> NAO, [Regulating for investment and outcomes in the water sector](#), 2025

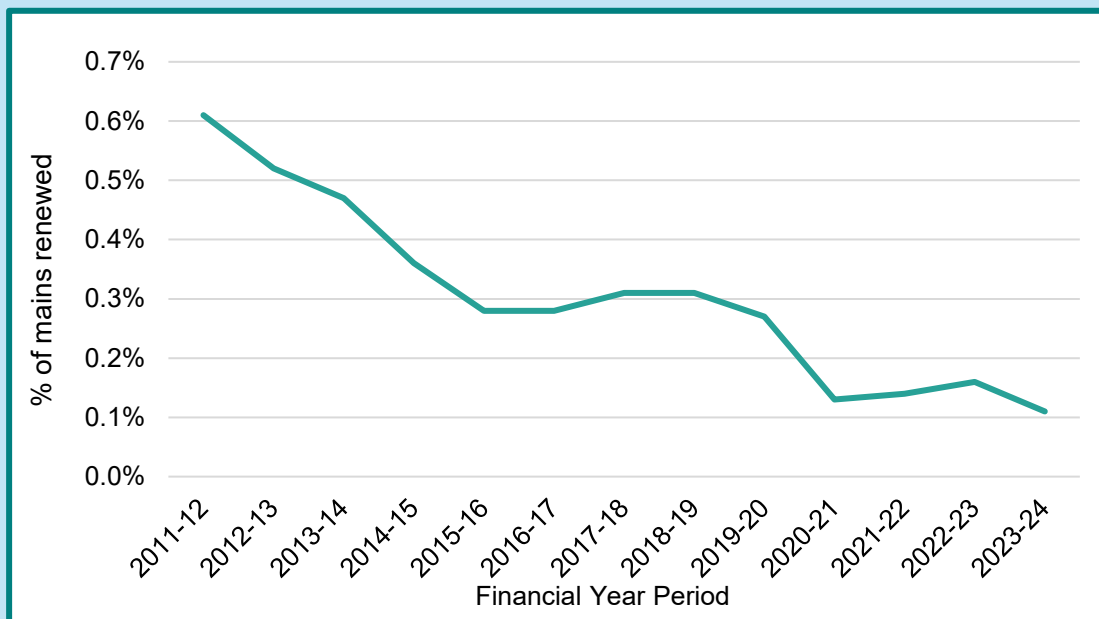
<sup>1206</sup> Ofwat, [Water company performance report](#), 2023-24, 2024

**Box 45: Ageing Infrastructure**

**The Commission has heard that infrastructure is increasingly old.** Some have commented that this is due to companies not upgrading their assets appropriately although they have been funded to do so, while others claim that the regulatory system has not adequately required or funded upgrades.<sup>1207</sup> The age of infrastructure varies by company. Thames Water warns that their ageing, Victorian infrastructure poses a risk to public safety, water supply and the environment. They also state that they have approximately £19 billion of assets that are in poor or failed condition or are not capable of reliably performing their function.<sup>1208</sup> Other companies have younger infrastructure.

**Both Water UK and the then National Infrastructure Commission have highlighted ageing infrastructure and low replacement rates as a cause for concern.**<sup>1209</sup> For example, Ofwat data shows that around 60% of mains were built before 1981 with around 13% over 100 years old. Meanwhile mains replacement rates are low, at around 0.1% in 2023-24 having fallen from around 0.6% in 2011-12 (Figure 28).<sup>1210</sup>

**Figure 28: Outturn Water Mains Renewals Rates, % of Mains, 2011-12 to 2023-24**

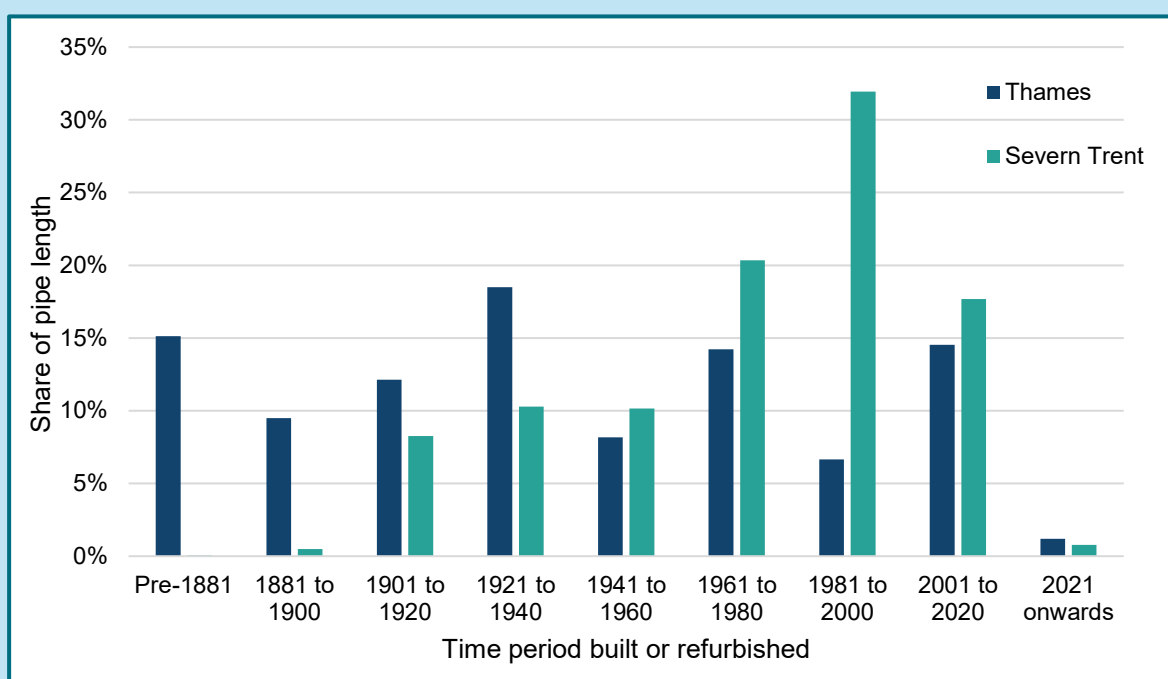


Source: Ofwat Data<sup>1211</sup>

**Ofwat argue that age is not necessarily a good indicator of asset health if assets have been properly maintained, and research by UK Water Industry Research found that some pipes can last as long as 160 years.**<sup>1212</sup> The age of networks varies significantly between companies as seen in the comparison of age of Severn Trent and Thames Water mains pipes network in Figure 27. A 2022 report commissioned by Water UK, supports the view that age, while relevant, does not account for the volume of use which can also impact asset health.<sup>1213</sup>

However, cases in which a large proportion of a company's network is old and replacement rates are low raise some concern for future maintenance and renewal needs. Geography may also have an important role in asset health. Examples of company specific circumstances in relation to asset health are discussed in Chapter 5.

**Figure 29: Share of mains' length in km built by time period, Severn Trent and Thames Water**



Source: Independent Commission Analysis of Ofwat Data<sup>1214</sup>

**Other than the age of supply and sewerage mains, there is not an accurate picture of the age or condition of wider water infrastructure.** Ofwat stopped collecting expenditure and workload data for asset classes, other than mains and meters, as part of their exercise to lighten the regulatory burden after 2009. While Ofwat state that they have collected asset condition data on 70% of assets in Price Review 2024, this condition data is almost entirely based on failure metrics which

<sup>1207</sup> Water company, industry bodies, and regulators engagement with the Commission, 2024-25

<sup>1208</sup> Thames Water, [Asset Health Deficit](#), 2023

<sup>1209</sup> Water UK and NIC engagement with the Commission, 2024-25

<sup>1210</sup> Ofwat report that average mains renewal rates declined post-2008 due to the end of the drinking water quality improvement programme, [Letter from Ofwat to the NIC](#) (viewed on 17 July 2025)

<sup>1211</sup> Ofwat data provided to the Commission

<sup>1212</sup> UKWIR, [Long-term aging of polyethylene pipes](#), 2020

<sup>1213</sup> Water UK, [Options for a Sustainable Approach to Asset Maintenance and Replacement](#), 2022

<sup>1214</sup> Commission analysis of Ofwat Data from: [PR24-DD-Mains-Condition.xlsx](#)



Ofwat use to measure asset health such sewer collapses and mains repairs.<sup>1215</sup>  
No age or condition data is gathered on critical civil structures such as service reservoirs or treatment works.

872. **Stakeholders have noted that regulatory metrics of asset health are backward-looking and do not proactively prioritise funding for maintenance and renewal.** The NIC have observed that Ofwat's metrics contain significant lags.<sup>1216</sup> Water infrastructure can have a long lifespan, so accumulating structural failures could take a long time to be highlighted through Ofwat's metrics. This lag could prove to be particularly problematic when coupled with the 'failure' focussed (rather than prognostic) nature of Ofwat metrics as there may be little warning in reported metrics until it's too late. Some companies and industry bodies such as Water UK also argue that the lack of an explicit and forward-looking assessment of the condition of assets has resulted in a lack of funding to sufficiently maintain and renew their assets.<sup>1217</sup> In the Price Review 2019 redeterminations, the Competition and Markets Authority called for Ofwat to develop a forward-looking metric, and many companies at Price Review 2024 highlighted that Ofwat have failed to do so.<sup>1218</sup> While Ofwat recognise the benefits of a forward-looking metric for assets, they were not able to develop a robust and comparable forward-looking asset health metric in time for Price Review 2024.
873. **The Commission is also aware of concerns regarding the extent to which companies are adequately mapping their network.** The Commission has heard that there are varying rates of mapping among companies. The majority of companies' water networks are extensively mapped but there are lower rates of mapping exist for underground wastewater assets.<sup>1219</sup> This could be driven by exemptions in legislation. There is an exemption, for instance, for sewerage undertakers in relation to drains, sewers and disposal mains laid before 1 September 1989 if the undertaker does not know of, or have reasonable grounds for suspecting the existence of, or if it is not reasonably practical to discover the source of the sewer.<sup>1220</sup> There is also currently no requirement for adoption of private sewers by water companies for properties built after 2011, resulting in a further subset of sewers not mapped. The duty to map is also not currently enforced by a regulator; currently, the responsibility for enforcement lies with

<sup>1215</sup> Ofwat, [Expenditure allowances – addressing asset health](#), 2025

<sup>1216</sup> NIC, [Letter to Ofwat on water company asset management](#), 2023

<sup>1217</sup> Water UK, [Options for a Sustainable Approach to Asset Maintenance and Replacement](#), 2022

<sup>1218</sup> CMA, [Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations – Final Report](#), 2021

<sup>1219</sup> Water company engagement with the Commission, 2024

<sup>1220</sup> Section 199(7) Water Industry Act 1991

the Secretary of State and there is no provision for this to be delegated to Ofwat.

## Infrastructure oversight

874. **The Commission has heard that responsibility for both asset health and infrastructure resilience is spread across regulators and that integrated oversight is limited.** The regulators are required, in legislation, to coordinate their activity. No regulator, however, currently inspects infrastructure from the perspective of condition data gathering. While Ofwat is responsible for infrastructure through its operational resilience objective, it does not, in practice, appear to lead or coordinate regulatory assurance of companies' infrastructure or consider overall system resilience. There is also conflicting evidence and views on the effectiveness of Ofwat's current framework in ensuring the long-term resilience of infrastructure. During engagement with the Commission, water companies raised examples of fragmented regulation and confusion regarding who was ultimately responsible for resilience.<sup>1221</sup> Companies have provided examples of where the EA and DWI are setting implicit standards through their enforcement actions, but the standards are not otherwise recorded.
875. **Some stakeholders have raised Ofwat's limited engineering capability.**<sup>1222</sup> A Chief Engineer has not been on the board at Ofwat since 2005. Prior to the Gray Review of Ofwat in 2011 there was engineering expertise embedded directly into the regulator. A shift at Price Review 2014 saw a reduction in engineering expertise and a greater reliance on outcome-based regulation such as through Outcome Delivery Incentives (ODIs) rather than more specific scheme output monitoring.<sup>1223</sup> For Price Review 2024, however, Ofwat have introduced additional delivery assurance tools (see Section 7.4).

## Supply chain resilience

876. **Stakeholders have raised concerns around points of failure and critical dependencies within the supply chain for water.** This is particularly on the supply of chemicals which are used to treat water as well as issues around international supply chain uncertainty and the diminishing indigenous supply of chemicals. Companies have also raised concerns that the water industry represents a small proportion of demand for chemicals and therefore has limited buying power in global supply chain markets.<sup>1224</sup> The water industry has strong critical dependencies with the chemical, telecoms and energy

<sup>1221</sup> Water company engagement with the Commission, 2024

<sup>1222</sup> Water company and industry body engagement with the Commission, 2024-25

<sup>1223</sup> Efra Committee, [Regulation of the water industry](#), 2018

<sup>1224</sup> Water UK and water company engagement with the Commission, 2024-25

sectors for continuity of service. There are increased risks where multiple companies rely on the same supplier.

## Conclusions and recommendations

877. **The current regulatory approach to infrastructure resilience is not delivering a sufficiently resilient system to tackle both short-term shocks and long-term pressures.** Neither the industry as a whole, nor the regulator, appears to have a clear understanding of the amount of intervention and investment required to reach a sustainable level of renewal, nor the standard it should be aiming for. Assets have not been fully mapped, nor does any regulator enforce duties to map networks. Ofwat's current approach is largely backward looking, based on lagging maintenance expenditure and indicators of asset health. There are no consistent sector wide standards set by government against which companies can assess their resilience and capability to meet future demand. This includes supply chains, where sector-wide critical dependencies have the potential to impact the overall resilience of the industry significantly. As a result, it is not possible to form a clear view on the condition of water industry assets, the adequacy of past renewal and maintenance, and the overall resilience of the sector to current and future pressures.

### *A lack of standards is causing poor infrastructure resilience*

878. **Although risks and pressures on water infrastructure are continuously emerging and evolving, it is unclear whether companies are equipped to maintain services and recover from disruptions.** This is being driven by a lack of resilience standards to set expectations and guide company behaviour. Without a single, comprehensive framework of resilience standards that require all companies to plan for, and meet, future pressures and disruptions, the industry is unlikely to be able to achieve the performance levels required into the future.

**Recommendation 66: Statutory resilience standards, covering system, infrastructure and supply chains, should be developed and adopted for the water industry in England and Wales.** Resilience standards should ensure all companies make forward-looking, long-term assessments of their systems and assets and of their ability to recover from disruption to their network.

879. **Resilience standards are a key tool to maintain essential services in the face of disruptions, whether from climate change, population growth, asset failures or supply chain vulnerabilities.** Standards will also address regional fragmentation and a 'postcode lottery' of resilience. Water industry exercising arrangements, which test and validate emergency plans for water outages, should also be strengthened to support the standards.

Examples of good exercise practice exist in other Critical National Infrastructure (CNI) sectors, such as the civil nuclear industry.<sup>1225</sup>

880. **The Commission believes that there is benefit in specifying outcome-based resilience standards at the system level, rather than prescriptive requirements for individual assets.** This would provide flexibility for the different conditions that companies operate in, such as geographic and climatic, while ensuring the sector reaches a consistent level of resilience. Using the NIC's recommendations as a foundation, resilience standards should be long-term in nature and should be factored into business planning and the Price Review process. Asset condition assessments and supply chain risk assessments will inform investment decisions for work required to meet the overarching resilience standards, given that an understanding of these factors is a prerequisite to a resilient system.
881. **Work will need to be undertaken to design standards which address the ability of a company to meet consumer and environmental expectations.** For instance, standards could include the ability of systems to meet peak water demand, a threshold for outage duration during infrastructure failure, or a cap on properties reliant on a single source of water supply. Overall system resilience, which includes the ability of the supply chain and assets to withstand shocks, alternative supply provision such as dual supply, and the capability and preparedness of companies to respond to failures should also be explored.
882. **The development of standards should happen at pace to ensure that priority standards are reflected in Price Review 2029.** A working group should be established to include representatives from industry, the regulators and other relevant stakeholders, and be facilitated by a body such as the National Infrastructure and Service Transformation Authority (NISTA), as the successor to the NIC.
883. **This exercise should generate an estimate of costs and benefits to meet standards.** There will be trade-offs on the scale and pace of resilience improvements and affordability considerations which the government will need to consider and include in its strategic guidance. The water regulator should issue guidance on how standards will be applied.
884. **Future standards must also be consistent with resilience frameworks in other sectors.** Although there are water industry specific issues that standards must address, there are strong interdependencies and a need for consistency with other sectors such as transport and energy. The proposal set out in the government's 10 Year Infrastructure Strategy, that the Cabinet

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<sup>1225</sup> ONR, [Emergency arrangements](#) (viewed 17 July 2025)

Office conduct a mapping exercise and collate and publish existing standards for resilience, would support this.<sup>1226</sup>

885. **The regulator, drawing on its supervisory approach and engineering expertise, should align the assurance, regulation, enforcement and funding of companies against the standards.** The Commission understands the different starting points that companies are in with varying degrees of resilience.<sup>1227</sup> The regulator should have the required expertise and knowledge of infrastructure to ensure that the Price Review process results in funding that reflects the need of companies to meet standards over time, in line with government strategic guidance.

***Water companies and regulators do not hold sufficient data on water infrastructure***

886. **Holding accurate and robust data on the assets water companies are responsible for, including an adequately mapped network, is a prerequisite to a resilient system.** The Commission recognises the work already being undertaken by Ofwat and companies to improve the understanding of asset condition by Price Review 2029. This work should be accelerated.

**Recommendation 67: The UK and Welsh Governments should strengthen the requirements on companies to map and assess the health of their assets, and the regulator should ensure metrics for asset health are sufficiently forward-looking.**

887. **Reforms should be considered on company duties to map their networks.** The duty to map infrastructure would remain with water companies but the existing duty to enforce should be delegated by the Secretary of State to the regulator.<sup>1228</sup> There are currently exemptions where the undertaker is not aware of the existence of a sewer main or if discovering the main is not 'reasonably practicable'.<sup>1229</sup> Governments should undertake an assessment of the case for removing or changing the exemptions to mapping, taking into account the associated costs and benefits, feasibility and potential timetable for removing these. This assessment will enable a better understanding of the balance of costs of increasing mapping with the potential benefits of increased clarity for new connections, improved understanding of where high pressure mains are close to properties and facilitating asset condition assessments. Governments should also consider

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<sup>1226</sup> HM Treasury, [UK Infrastructure: A 10 Year Strategy](#), 2025

<sup>1227</sup> NIC, [Developing resilience standards in UK infrastructure](#), 2024

<sup>1228</sup> Section 198 of the [Water Industry Act 1991](#); Section 199 of the [Water Industry Act 1991](#)

<sup>1229</sup> These exemptions apply only to maps of sewerage works (which sewerage undertakers must comply with). It also only applies to drains, sewers or disposal mains laid before 1 September 1989.

if action is needed around the ongoing gap in mapping and adoption of private sewers since 2011.

888. **A methodology to assess asset condition should be developed by the regulator, which companies should use to undertake asset condition surveys of their network.** This assessment should be risk-based and proportionate. Companies should also prioritise and categorise their assets by expected life, such as short-life assets (water meters), medium-life assets (pumping stations), and long-life assets (sewerage mains) in order to develop an updated infrastructure inventory. Improving the amount of available data will allow companies and regulators to make informed, accurate and cost-effective decisions on improving system resilience and reaching a sustainable level of maintenance and replacement. See Chapter 5 for discussion on valuing depreciation of assets.
889. **Funding for asset assessment, replacement and renewal needs to be assessed through a longer-term lens.** The regulator should develop a forward-looking asset health metric for use during price setting. This metric could draw on the asset condition data gathered as part of Ofwat's roadmap for enhancing asset health understanding across the sector as well as, depending on their final design, future resilience standards. The Commission recognises that the development of this metric will require significant expertise and industry input but is of the view that the sector is lacking a clear, consistent picture of long-term asset health and its associated risks and potential cliff edges.

#### **Box 46: International approaches to asset maintenance**

##### **Germany**

**The Commission has visited Germany and researched international approaches to infrastructure management.** During engagement with Stadtentwässerungsbetriebe (StEB) Köln, a wastewater company based in Germany, the company outlined their sewer rehabilitation strategy as well as their approach to inspecting and reporting on their network of 2,400km of sewers.

**StEB inspect their entire network every 15 years and a minimum of 5% of their sewers annually.** This is achieved through remote video or walk-through inspections, and AI is now increasingly used to analyse the video data. The cost of inspecting 5% of sewers yearly is estimated to be around €700,000 (around £610,000), although this also includes the cost of prior cleaning as the two activities are often combined.<sup>1230</sup> Inspection data is used to provide sewers with a condition grade of between 0 (very severe defect) to 5 (no defects). Condition criteria are set centrally by a technical association and not by the company. StEB told the Commission that the inspection of sewers is a state requirement which

<sup>1230</sup> Converted to GBP sterling, correct as of 15 July 2025, 1€ = 0.87 GBP



stems from a federal demand to maintain networks, and the resulting data is publicly available. States across Germany, however, may interpret this federal requirement differently.

**As part of their renewal strategy, StEB have set an objective of having all sewers in a condition grade of 3 or higher.** This is achieved by dividing their network into ‘rehabilitation’ areas and targeting the method of improving sewer condition by starting with repair before moving to renovation and replacement if required. StEB asserts that this strategy has been successful and their rehabilitation rate in 2024 was 1.4%, above the national average of 1%.<sup>1231</sup> In 2012 there were no sewers in the highest grade of 5. By 2025, around 65% of their network had reached grade 5. Only 7% of their network remains in the lowest three grades of condition, compared to a Germany-wide average of 19.4%.<sup>1232</sup>

### **Scotland**

**Scottish Water, as part of a shift towards improved condition monitoring and understanding of expected asset lives, is gathering an increasing amount of data.** Scottish Water divide assets into business services assets, assets that are continually refurbished or assets that are replaced entirely. A broad estimate is then made of replacement cost and average life. This, in turn, supports data-driven decision making for both the company and the regulator for future funding.

**Scottish Water has, as a result, identified that the current rate of asset replacement is well below the newly calculated long term required replacement rate.** In 2023 rates of investment were estimated to be around 40% of that needed and this amount was expected to increase to address additional demands arising from an ageing asset base, a changing climate, and an ambition to be beyond net zero emissions by 2040.<sup>1233</sup>

### **England and Wales**

**While approaches to asset condition inspection vary across the water industry in England and Wales, the Commission has heard the example of one water company undertaking regular inspections of their sewers and third-party inspections of around 70% of above ground assets.** Due to the large nature of the company’s sewerage network of around 44,000km of sewers, the company use deterioration modelling to assess sewer condition supported by a rolling programme of inspections. A £1.2 million sewer inspection programme is conducted each year using CCTV and based on a European condition scoring standard, covering around 84km of the network.<sup>1234</sup> The company also undertook a ‘find and fix’ programme, covering around 10km of sewer each year at a cost of

<sup>1231</sup> Rehabilitation rate includes repair, renovation and renewal.

<sup>1232</sup> Stadtentwässerungsbetriebe (StEB) Köln engagement with the Commission, 2025

<sup>1233</sup> [Transforming Scottish Water’s asset management to ensure sustainable investment decisions](#), 2025

<sup>1234</sup> BSI, [Investigation and assessment of drain and sewer systems outside buildings](#), 2006

around £1 million and a rehabilitation programme covering a further 230km as well as wider surveys on the sewerage system.<sup>1235</sup> Inspection data is used in deterioration modelling to provide insight on their network.

***The current regulatory approach to infrastructure resilience is not adequate***

890. **The regulation of infrastructure system resilience and asset health is fragmented, and there is confusion regarding ultimate regulatory responsibility.** Oversight is limited - there is no consideration of overall system resilience, and only permitted water industry assets are subject to regulatory inspections. Assets, such as mains and sewerage pipes, are not inspected by any regulator. There is lack of understanding on condition of infrastructure and this may contribute to lack of trust in the sector and in the ability of regulators to assure that companies are meeting their statutory duties.<sup>1236</sup> Ofwat does not appear to have the senior engineering expertise and capability for adequate oversight of company infrastructure.

**Recommendation 68: The regulator’s oversight of infrastructure resilience and asset health should be strengthened, under its supervisory approach. This should include the appointment of a Chief Engineer on the board of the regulator in England and Wales respectively.**

891. **The regulator should have overall oversight of infrastructure and operational resilience under its supervisory approach.** A clear framework should set out the relevant responsibilities under the regulator’s supervisory approach, as outlined in Chapter 5.
892. **The regulator should be enabled to conduct-on-the-ground assurance of asset health and resilience standards as needed.** Inspections are currently undertaken to assess water company permit compliance and could be broadened in scope to assess asset health and resilience standards. This could also be achieved by the regulator requiring third-party inspections or auditing. Inspections, however, should complement and not replace reporting and assurance provided by companies.
893. **The lack of engineering expertise within Ofwat is impacting trust in the regulator’s ability to set costs – a Chief Engineer should be appointed to the regulator.** Although other regulators, such as Ofgem, employ a Chief Engineer Ofwat has not had one sat on their board since 2005. The Commission is concerned that Ofwat does not have adequate in-house understanding of the assets companies are responsible for and therefore does not have the ability to provide an ongoing assessment of asset needs for the sector. The Commission recognises the impact of the 2011 Gray

<sup>1235</sup> Water company engagement with the Commission, 2025

<sup>1236</sup> NAO, [Regulators have failed to deliver a trust and resilient water sector](#), 2025

Review of Ofwat, which saw a reduction in engineering expertise and a greater reliance on outcome-based regulation such as through ODIs. There needs to be a fundamental shift in the culture and importance of engineering-based supervision rather than relying solely on junior engineers and external consultants.

***There is inconsistent understanding of supply chain constraints***

894. **The industry lacks a consistent, sector wide, understanding of operational supply chain constraints and the ability of companies to absorb shocks, increasing the risk of service disruptions.**<sup>1237</sup> This is exacerbated by the limited statutory and regulatory levers to address supply chain risks for the water industry. There is limited clarity over where the balance of risk should lie between water companies, suppliers and government to secure a resilient service. While some aspects of supply chain resilience for ongoing operations are overseen through SEMD and enforced by DWI, it remains unclear as to whether companies' existing supply chain resilience arrangements more broadly are sufficient to address future challenges. This has led to a lack of understanding of critical dependencies and points of failure across the sector by both companies and regulators.

**Recommendation 69: The regulator should conduct a sector-wide risk assessment of critical supply chain dependencies in England and Wales.** The assessment should make reference to the water industry national supply chain requirements dashboard (see Recommendation 80).

895. **The water industry must be resilient to operational supply chain disruption.** The regulator should be aware of where critical dependencies exist, for example where multiple companies rely on the same supplier, and where dependencies sit across sectors. The regulator should conduct a risk assessment that considers specific measures or actions companies could take either individually or across the water industry, particularly where there is a shared risk. Potential measures to address critical dependencies should include, for instance, identifying second suppliers, or companies developing their own or shared manufacturing capability. Water UK should consider whether it could play a convening role in this area.
896. **Companies should be expected to continue conducting their own supply chain risk assessments.** While a new sector-wide risk assessment allows for a system-wide perspective that will be able to identify interdependencies or cross-sector risks that individual companies may miss, it is critical that companies continue to undertake their own assessments.

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<sup>1237</sup> Defra and water company engagement with the Commission, 2024-25

Companies should be expected to continue to own and mitigate risks they identify and take responsibility for funding these mitigations.

897. **The Commission recognises the ongoing work in this area, including by the Water UK National Chemicals Steering Group which has looked at chemical supply chain issues specifically.**<sup>1238</sup> The water industry should consider the case for the establishment of a manufacturing centre shared across the industry to address the need for an indigenous supply of chemicals. It may also be appropriate, in some situations, for the government or regulator to take ownership of a specific sector-wide risk. This will depend upon the outcome of the risk assessment.

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<sup>1238</sup> Water UK engagement with the Commission, 2024-25

## 7.2 Infrastructure Security

### Background

898. **Changes in the global threat environment have highlighted the importance of security alongside infrastructure resilience.** The Director General of MI5 outlined in 2024 that the UK faces an increasingly complex threat environment.<sup>1239</sup> This strengthens the need to ensure that infrastructure, particularly Critical National Infrastructure (CNI), is not just resilient to operational failure – but secure to hostile threats.
899. **In the water industry, this is particularly true for cyber security. The 2017-21 Water Sector Cyber Security Strategy highlighted ‘credible cyber threats to UK CNI, including the water industry’.**<sup>1240</sup> Freedom of Information requests reveal an increasing number of water industry cyber security incidents – 7 incidents impacting CNI and a further 6 events below the regulatory threshold were reported under Network and Information Systems Regulations 2018 (NIS) in 2023.<sup>1241</sup> While not all cyber incidents will have operational impacts, severe attacks could lead to impacts on drinking water and wastewater services, and therefore public health and the environment. Companies must also bear in mind personnel and physical threats, such as sabotage. The National Protective Security Authority recommends that organisations regularly review their security strategies.<sup>1242</sup>
900. **Water companies are subject to two broad sets of requirements on infrastructure security:**
- **The Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licensees) Direction 2022 (as amended) (SEMD) –** Issued using the powers of the Secretary of State and Welsh Ministers to direct companies in the interest of national security and to mitigate the effects of a civil emergency.<sup>1243</sup> SEMD applies to all water and sewerage companies regardless of size. It does not, however, apply to business retail market suppliers, Infrastructure Provider Project Licensees, private suppliers or Competitively Appointed Providers that operate under the Direct Procurement for Customers model.<sup>1244</sup> Under SEMD and associated guidance, companies are required to report against 33 outcomes covering

<sup>1239</sup> MI5, [Director General Ken McCallum gives latest threat update](#), 2024

<sup>1240</sup> Defra, [Water Sector Cyber Security Strategy](#), 2017

<sup>1241</sup> Defra engagement with the Commission, 2024

<sup>1242</sup> NPSA, [Countering the Threat of Sabotage Operations to UK Interests and National Security](#), 2024

<sup>1243</sup> Section 208 of the [Water Industry Act 1991](#)

<sup>1244</sup> Models such as DPC are explained in Chapter 6

contingency planning, security and emergency preparedness. SEMD also sets additional requirements on CNI.

- **Network and Information Systems Regulations 2018 (NIS)** – Large water companies are subject to specific requirements for cyber security under NIS. These cyber security requirements are defined in legislation for water companies who produce drinking water for more than 200,000 people. NIS requirements are implemented through meeting the basic and enhanced threat profiles, using the Cyber Assessment Framework designed by the National Cyber Security Centre.<sup>1245</sup>

901. **The DWI is responsible for regulating companies under SEMD and NIS on behalf of the Secretary of State (for England) and Welsh Ministers.** For SEMD outcomes related to sewerage risk, the DWI has an agreement with the EA and NRW for support where necessary. The enforcement of SEMD and NIS follows a structured and escalating approach, similar to the DWI's policy for enforcing drinking water quality. If informal action by the regulator is not successful or a serious security breach has occurred they can escalate. For SEMD the DWI escalates through advisory letters, legal notices and financial penalties (which would be imposed by the Secretary of State on advice from DWI).<sup>1246</sup> For NIS, the DWI escalates through information notices, enforcement notices and financial penalties up to a maximum of £17 million.<sup>1247</sup> No financial penalties have been imposed on water companies to date. Ofwat, through its 5-yearly Price Reviews, is responsible for setting the allowance of SEMD and NIS-related costs for which companies are allowed to charge customers.
902. **Alongside water industry specific regulation, the water industry sits within a broader, cross-government framework on security.** Water is designated as a CNI sector. UK and Welsh Government are responsible for deciding which water assets should be designated as CNI. The Cabinet Office is responsible for managing overarching policy on CNI sectors, including by managing and updating a public National Risk Register supported by a non-public National Security Risk Assessment.<sup>1248</sup> A non-public National Risk Register for Wales and a range of other civil contingencies products are produced by the Welsh Government.
903. **The Civil Contingencies Act 2004 is also applicable to water companies.** Companies are designated as Category 2 Responders under the Act, which places a legal duty on them to cooperate and share information with Category 1 Responders such as the police, the EA and

<sup>1245</sup> DWI, [Enforcement Policy – Network and Information Systems](#) (viewed 17 July 2025)

<sup>1246</sup> DWI, [Enforcement Policy – Security and Emergency Measures Direction](#) (viewed 17 July 2025)

<sup>1247</sup> DWI, [Enforcement Policy – Network and Information Systems](#) (viewed 17 July 2025)

<sup>1248</sup> Cabinet Office, [National Risk Register](#), 2025



NRW, and local authorities in Local Resilience Forums to inform emergency planning.<sup>1249</sup>

904. **Ofwat have recognised that security risks are likely to evolve over the Price Review 2024 period and have introduced an ‘uncertainty mechanism’ to provide funding allowances in relation to cyber security for Price Review 2024.**<sup>1250</sup>

## Issues

905. **The Commission has identified 2 main issues in relation to infrastructure security:**

- Gaps in security legislation for the water industry
- Enforcement of security legislation

### Gaps in security legislation for the water industry

906. **The Commission has heard from stakeholders, including regulators, that Defra ministers’ Strategic Policy Statements have not given sufficient weight to cyber security.**<sup>1251</sup> Stakeholders have raised concerns regarding cyber security of wastewater infrastructure.<sup>1252</sup> NIS, as drafted, only applies to drinking water supply. This gap was raised by Ofwat in their Call for Evidence response, and water companies provided the Commission with examples of where funding for wastewater cyber security was refused as it is not a statutory requirement.<sup>1253</sup>
907. **The DWI, supported by Ofwat, have also highlighted concerns about the scope of water industry security legislation.** SEMD, in its current form, only applies to Licensees and Undertakers as appointed by Ofwat or the Secretary of State. The WIA 1991 does not provide the power to impose requirements on third-party operators relating to national security or civil emergencies. Instead there is a reliance on water companies to include security provisions in their contracts with any external operators. Price Review 2024 company business plans identified 26 projects as suitable for delivery by third parties under Direct Procurement for Customers (DPC) or Specified Infrastructure Projects Regulations (SIPR).<sup>1254</sup> The DWI highlighted examples across the water industry where there are proposals for third parties to not only build and design facilities but also operate and maintain them.<sup>1255</sup>

<sup>1249</sup> Civil Contingencies Act 2004

<sup>1250</sup> Ofwat, [PR24 final determinations – In-period adjustments](#), 2024

<sup>1251</sup> Regulators and water company engagement with the Commission, 2024-25

<sup>1252</sup> Regulators and water company engagement with the Commission, 2024-25

<sup>1253</sup> Ofwat and water company response to the Call for Evidence, 2025

<sup>1254</sup> Ofwat, [PR24 draft determinations – Major projects development and delivery](#), 2024

<sup>1255</sup> DWI engagement with the Commission, 2025

## Enforcement of security requirements

908. **The Commission has also identified potential gaps in the enforcement of security legislation.**<sup>1256</sup> Enforcement for breaches of SEMD currently relies on suitable undertakings being offered by the company or on enforcement orders made through section 18 of the WIA 1991. The WIA 1991 does not provide for powers of entry for the purposes of ensuring that water companies are complying with SEMD. Further, the powers to issue penalties under section 22A of the WIA 1991 have not been delegated to DWI who instead have to recommend penalties to the Secretary of State.

## Conclusions and recommendations

### *There are potential vulnerabilities in security arrangements, including cyber security*

909. **There are gaps that need to be addressed in relation to the water industry's security arrangements, and the maturity of companies' security arrangements is concerning given the increasing number of cyber incidents.** It is not clear whether the regulators are adequately able to assure security arrangements given the limited scope of legislation in some instances. Wastewater systems, for example, are not in scope of NIS, and can be subjected to cyber-attacks with potentially severe consequences. The development of new business models, such as SIPR and DPC, has resulted in an expansion of third parties and contractors who could be involved in the supply of drinking water and are not covered by SEMD.<sup>1257</sup>

**Recommendation 70: The UK and Welsh Government should strengthen legislation relating to security arrangements for the water industry to ensure it keeps pace with a changing industry.**

910. **The Secretary of State and Welsh Ministers should be able to impose requirements in relation to security on third parties contracted by water companies to operate assets.** This could be achieved by bringing third parties into scope of SEMD. This will need to be applied proportionately following an assessment, for example, on whether scope is increased only for third parties working on critical water infrastructure or the supply of drinking water or for third parties operating any water industry assets. This should be aligned with the recommendation set out in Chapter 5 regarding third party drinking water suppliers.
911. **The UK and Welsh Government should also consider the benefits of updating The Network and Information Systems Regulations 2018 to include cyber security in relation to wastewater.** The Commission

<sup>1256</sup> DWI engagement with the Commission, 2024-25

<sup>1257</sup> Models such as SIPR are explained in Chapter 6

recognises there is ongoing work in this area and that the forthcoming Cyber Security and Resilience Bill may help to address gaps in the existing cyber frameworks and put regulators on a stronger footing.<sup>1258</sup> A cyber-attack on wastewater infrastructure and its subsequent failure could have significant consequences for the environment and public health.<sup>1259</sup>

***The DWI does not have sufficient powers to regulate and enforce security provisions***

912. **There are gaps in the ability of DWI to ensure compliance with SEMD.** While the DWI already holds strong powers of entry in relation to drinking water safety requirements, these powers do not extend to the enforcement of security provisions such as SEMD.

**Recommendation 71: The regulator should be provided with stronger powers for the enforcement of existing security regulations in England and Wales.**

913. **Unlike other water regulators, which are able to impose penalties, the DWI is only able to recommend penalties in relation to security to the Secretary of State or Welsh Ministers.**<sup>1260</sup> The regulator should be able to issue financial penalties, based on the consideration of seriousness, culpability and impact. This should be aligned with the recommendation set out in Chapter 5 regarding penalties for drinking water standards.
914. **The regulator should be given powers of entry for the purpose of ensuring compliance with directions made under section 208 of the Water Industry Act 1991, similar to those already available to the DWI in relation to drinking water requirements.** Under the current regime, the DWI could not undertake an inspection at short notice for a security issue without alerting the water companies beforehand. Extending powers of entry would therefore streamline the enforcement of security provisions, particularly during emergency situations. The DWI provided the Commission with examples of where existing powers of entry have intercepted a potential offence regarding drinking water quality.<sup>1261</sup> This could therefore reduce response time and increase the security regulator's ability to enforce against SEMD requirements.

<sup>1258</sup> Defra engagement with the Commission, 2025

<sup>1259</sup> National Engineering Policy Centre, [Testing the waters – Priorities for mitigating health risks from wastewater pollution](#), 2024

<sup>1260</sup> Section 22A of the Water Industry Act 1991

<sup>1261</sup> DWI engagement with the Commission, 2025

## 7.3 Infrastructure Delivery

### Background

915. **Water infrastructure must be delivered in a timely way to meet both current societal needs and to facilitate future growth for critical areas such as housing and data centres.**<sup>1262</sup> The Prime Minister wrote to 17 regulators, including Ofwat and the EA, in December 2024 requesting 5 measurable commitments that prioritise growth and facilitate investment.<sup>1263</sup> EA and Ofwat highlighted the need to consider the removal of barriers to building water infrastructure as ways the water industry can support growth by unlocking opportunities for rapidly expanding industries, such as hydrogen production and data centres.<sup>1264</sup>
916. **Through Price Review 2024 the water industry in England and Wales will increase enhancement expenditure to £44 billion, around 4 times the level of Price Review 2019.**<sup>1265</sup> Higher levels of investment will continue well into the future. For drinking water infrastructure alone, draft Water Resource Management Plans (WRMPs) set out the need for 9 new desalination plants, 10 new reservoirs and 1 reservoir enlargement, 7 new water recycling projects and multiple internal and inter-company transfer projects to be delivered by 2050.<sup>1266</sup> In contrast, there has not been a single reservoir completed in the UK since 1992.<sup>1267</sup> Wastewater investment is likely to remain high in the same way.
917. **There are no major water projects planned for Wales in Price Review 2024 however the Welsh Government acknowledge future development and climate change will impact the supply and availability of water and wastewater services.** In the Future Plan for Wales, the Welsh Government outlines plans to focus development in existing built-up areas to reduce the likelihood of a need for significant new sources of water.
918. **As part of their Plan for Change, the UK government has committed to building 1.5 million homes in England over the course of the current Parliament.** Additionally, the government has said that it will look to fast-track planning decisions on at least 150 major economic infrastructure

<sup>1262</sup> ICE, '[State of the Nation Infrastructure in 2025](#)', 2025; Ofwat, '[Ofwat calls for accelerated and optimised water project delivery to support economic growth](#)', 2025; Environment Agency, '[Taking action on other significant water-using sectors and emerging demands: National Framework for Water Resources 2025](#)', 2025; Defra, '[Plan for Water: our integrated plan for delivering clean and plentiful water](#)', 2023

<sup>1263</sup> BBC News, '[Starmer asks UK regulators for ideas to boost growth](#)', 2024

<sup>1264</sup> Ofwat correspondence, 2025; Environment Agency correspondence, 2025

<sup>1265</sup> [Our final determinations for the 2024 price review – Sector summary](#)

<sup>1266</sup> Ofwat, 'PR24 Final Determinations: Major Projects Development and Delivery', 2024

<sup>1267</sup> Severn Trent's Carsington reservoir in Derbyshire.

projects.<sup>1268</sup> Demand for new water resource supplies is set to increase significantly in the coming decades and the gap between supply and demand is projected to be 5 billion litres per day by 2055 in England.<sup>1269</sup> Public First have estimated that water scarcity could cost the economy £8.5 billion in lost commercial growth over the next five years if this demand is not met.<sup>1270</sup>

919. **In England, planning authorities are required to develop local plans that set out a 15-year outlook for development in the local area.** Local plans include new infrastructure such as water supply or sewerage and help to guide individual planning application decisions. Where local plans have been drawn up and adopted, water companies have greater certainty on upcoming new developments, although adoption rates are low across the country.<sup>1271</sup> Reforms to local plans have been announced by the UK government with the aim of speeding up the timeframe within which local plans should be delivered and giving greater clarity about how plans should be prepared and updated.<sup>1272</sup>
920. **In Wales, Local Development Plans are used to set out how land should be used and where development should take place over a given period of time.**<sup>1273</sup> They sit beneath the National Development Plan, and currently 44% of them require updating.<sup>1274</sup> In comparison, 79% of local plans need updating by their local planning authority in England.<sup>1275</sup> Welsh water companies have also been statutory consultees for planning applications since 2016, covering both single applications and large housing developments.<sup>1276</sup>
921. **There are a number of planning and regulatory mechanisms that have been developed in recent years to speed up planning approval for new infrastructure by the water industry.** These include the Nationally Significant Infrastructure Projects (NSIP) framework. When water industry infrastructure projects meet the threshold set out in the Planning Act 2008 (PA 2008) they require a Development Consent Order (DCO) instead of consent from the local planning authority. This has been shown to speed up the planning process for major projects. Recently 3 reservoirs – in

<sup>1268</sup> Prime Minister's Office '[Plan for Change](#)', (Viewed 17 July 2025)

<sup>1269</sup> Climate Change Committee, [Independent-Assessment-of-UK-Climate-Risk-Advice-to-Govt-for-CCRA3-CCC.pdf](#), 2021; EA, [England faces 5 billion litre public water shortage by 2055 without urgent action - GOV.UK](#), 2025

<sup>1270</sup> Public First for Water UK, [The Cost of Water Scarcity by Public First](#), 2025

<sup>1271</sup> [Local Plans: the examination process - GOV.UK](#)

<sup>1272</sup> [Planning overhaul to speed up and simplify local plans - GOV.UK](#)

<sup>1273</sup> [Development plans community guide | GOV.WALES](#)

<sup>1274</sup> 11 out of 25 Local Development Plans need updating in Wales. [House Building Federation](#), 2024

<sup>1275</sup> 21% of English Local Planning Authorities have adopted a plan in the last five years, LPAs are required to update the plan every five years. From: [Research Repository | Planning Data Update 2024](#)

<sup>1276</sup> Welsh Government engagement with the Commission, 2025

Cambridgeshire, Lincolnshire and Oxfordshire – have been designated as NSIPs.

922. **Government policy on the development of NSIPs and DCOs is laid out within National Policy Statements (NPSs), which provide a decision-making framework for assessing NSIPs.** NPSs outline the government's objectives for the development of nationally significant infrastructure in a particular sector to provide clarity, certainty and transparency. NPSs can also include specific recommendations on building locations of projects. The NPS for wastewater was last updated in 2012 and the NPS for water resources was updated in July 2025. The UK government's Planning and Infrastructure Bill has introduced a proposed statutory requirement that will require the NPS for Wastewater to be updated by autumn 2027.
923. **Outside the planning system, the owner or occupier of a property is entitled to request that a water company provides a connection for a domestic purpose supply for both new and existing properties.** The 'right to connect' was included in the Water Act 1945 as the "duty of undertakers to provide domestic supply for new buildings" and was carried over into the WIA 1991 (Section 45) given the need for properties to connect to an essential service and the risk of a water company refusing connection where it was uneconomic for them to do so. There is also a 'right to connect' to the sewerage system, but water companies can refuse the request in circumstances, such as when making the connection would harm their system.<sup>1277</sup>
924. **The Regulators' Alliance for Progression of Infrastructure Development (RAPID) aims to speed up project development.** At Price Review 2024, the RAPID programme was expanded to 28 projects with over £2 billion of funding allocated to progress their delivery at pace.<sup>1278</sup> RAPID currently provides oversight of water resource projects, using a gated process, and provides momentum towards securing consents and permits that are needed prior to beginning construction. RAPID also facilitates early conversations around optioneering.

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<sup>1277</sup> [Section 106 of the Water Industry Act 1991](#)

<sup>1278</sup> RAPID is a working arrangement between Ofwat, EA and the DWI for the progression of major water resources projects. RAPID's working arrangements are set out in a Memorandum of Understanding (MOU). [RAPID action on major water infrastructure is securing supply for future generations - Ofwat](#)



#### **Box 47: The Planning and Infrastructure Bill**

**The UK Government introduced the Planning and Infrastructure Bill in March 2025** to deliver a faster and more certain consenting process for critical infrastructure, improve certainty and decision-making in the planning system, and introduce effective new mechanisms for cross-boundary strategic planning.

**Measures in the Bill that may support the speeding up or streamlining of water industry infrastructure delivery through improvements to the planning system include:**

- A requirement to update National Policy Statements (NPS) every five years
- Changes to Development Consent Order (DCO) consultation requirements to limit delays
- Introducing the ability for DCO projects to be redirected into the most appropriate consenting route available
- Additional DCO reforms to give greater certainty to developers, streamline changes post-consent, and alignment of secondary consents to reduce duplication
- Reducing Judicial Review (JR) permission attempts for DCOs
- Modernisation of Planning Committee ways of working
- Introducing sub-regional spatial development strategies

## **Issues**

925. **The Commission has identified 4 main issues in relation to infrastructure delivery:**

- Water company sight of development plans
- Existing regulatory mechanisms are inadequate
- Government and regulator coordination on major infrastructure projects is limited
- There is varied expertise among companies for large infrastructure delivery

926. **There is a perception that delivery of infrastructure in the water industry has been slow.** Stakeholders point to the development of Abingdon Reservoir, which was first proposed by Thames Water in 2006 but only gained approval in 2024 and will be a further 16 years before it is fully

operational in 2040.<sup>1279</sup> The Commission understands that the speed of delivery of water infrastructure is complicated by multiple factors, including competition for constrained resources with other growth sectors and long planning processes.<sup>1280</sup> Additionally, there has been debate over the need for new water resources given some evidence that demand from non-household sectors is decreasing due to decline of industrial activity and reduced use of water in power generation.<sup>1281</sup> Some stakeholders also point to the potential of leakage and demand management policies to reduce the water demand-supply imbalance and therefore avoid the need for new reservoir infrastructure.<sup>1282</sup>

## Water company sight of development plans

927. **In England, water companies often do not have early sight of new planning applications for housing and other developments and are not currently statutory consultees for planning applications.**<sup>1283</sup> This can cause delays at later stages in the planning process when it becomes apparent that developments must be relocated or additional infrastructure must be built to enable adequate supply of water and wastewater services.<sup>1284</sup> The Commission has also heard that local plans are not updated regularly and that water companies are not closely involved in their development. Non-household growth is also hard to account for in local plans and is generally underestimated. Furthermore, as set out above companies are required to connect new domestic water supplies upon request, regardless of network capacity and any lack of advanced notice. In their response to the Call for Evidence, the Water All-Party Parliamentary Group (APPG) note the importance of considering water availability in planning decisions and call for “water resource availability to be considered a fundamental criterion in infrastructure and land-use planning”.<sup>1285</sup>

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<sup>1279</sup> Thames Water, [South East Strategic Reservoir Option \(SESRO\) - Thames Water Strategic Resource Options](#) (Viewed July 2025)

<sup>1280</sup> Water company engagement with the Commission, 2025

<sup>1281</sup> CIWEM, [House of Lords - Science and Technology - Written Evidence](#), 2005

<sup>1282</sup> Engagement with the Commission, 2025

<sup>1283</sup> House of Commons Library, [‘Role of water companies in new housing development planning’](#), 2025; Member of Parliament correspondence with the Commission, 2025

<sup>1284</sup> Water Company engagement with the Commission, 2025

<sup>1285</sup> Water APPG Call for Evidence return, 2025

## Existing regulatory mechanisms are inadequate

928. **In England, the Secretary of State can give permission for certain projects to be treated as NSIPs and be granted a DCO even if they do not necessarily meet the criteria.**<sup>1286</sup> However, the Commission has heard that it would be clearer and faster for a company to know in advance, via the National Policy Statement (NPS), whether a project will be treated as an NSIP. The outdated wastewater NPS is considered by some to have slowed down some recent DCOs from being approved. For example, the Cambridge wastewater treatment plant, which needed relocating to unlock significant housing growth, did not qualify as an NSIP. Instead, it had to be issued a Section 35 directive to allow for a DCO application, which took longer to approve. The Commission has also heard that legal challenge against a DCO causes delays in the consenting process and delivery.<sup>1287</sup>
929. **Beyond the delivery of major infrastructure projects, the Commission has found that there is a need to improve delivery of smaller infrastructure projects, such as water quality monitoring units and small pumping stations.** Smaller projects absorb company resource and time through onerous planning applications, which can be disproportionate to the type of infrastructure that is needed to be installed.<sup>1288</sup> Permitted Development Rights (PDRs) grant the ability to make certain improvements or changes to property without the need to apply for and obtain planning permission. Current PDRs allow water companies to build some infrastructure but do not cover newer technologies and buildings that are essential for operational purposes, such as monitoring units or structures that house plant machinery.

## Government and regulator coordination on major infrastructure projects is limited

930. **Stakeholders have commented that although RAPID has been an improvement, its scope is too limited.** Early indicators suggest RAPID can support the timely delivery of major infrastructure projects. However, it does not cover smaller water supply projects as the threshold for inclusion in the programme has been set for water supply projects with a deployable output of 50 megalitres or more per day or projects that involve two or more water companies. RAPID also excludes wastewater projects and the Commission has heard that there has been limited engagement between NRW and

<sup>1286</sup> Section 35 of the Planning Act (2008); There is no equivalent of Section 35 available to Welsh Ministers for projects in Wales.

<sup>1287</sup> The Banner Review, '[Independent review into legal challenges against Nationally Significant Infrastructure Projects](#)', 2024

<sup>1288</sup> Water company engagement with the Commission, 2025

RAPID to date.<sup>1289</sup> The Commission has also heard that regulatory processes and approvals outside of frameworks such as RAPID can be duplicative and time consuming.<sup>1290</sup>

## There is varied expertise among companies for large infrastructure delivery

931. **The Commission has heard that, currently, some water companies do not have the experience to deliver large infrastructure projects or programmes.** NISTA have told the Commission that these companies are likely to be slower in delivering infrastructure than companies that have developed mature internal capabilities and external networks to deliver efficiently over time.<sup>1291</sup> This is compounded by recruitment and skills challenges the industry is facing. The industry has an ageing workforce (23% of water engineers are expected to retire in the next 5 years) so there is potential for even more knowledge and capacity to be lost (see Section 7.4).<sup>1292</sup> The Commission has heard that a sector-wide infrastructure delivery body has been effective in other sectors in developing delivery expertise and experience to drive efficiency, for example Great British Energy and National Highways.

## Conclusions and recommendations

### *Water companies need improved sight of Local Plans and planning applications*

932. **There is a need for better integration of the water industry within the planning framework.** While water companies are statutory consultees for finalised local plans, they do not currently have sufficient ability to influence the development of local plans. They cannot contribute critical knowledge regarding water and wastewater infrastructure in the development of local plans, such as network capacity or location of resources.<sup>1293</sup> Without advanced sight of local needs, companies will be slower to deliver the required water infrastructure. Similarly, there is a need to sight companies on specific planning applications earlier so that they can ensure they develop infrastructure plans accordingly.<sup>1294</sup>
933. **There may also be a need for water companies to have a greater ability to object, where appropriate, to requests to connect to a water company main in circumstances where there is insufficient network**

<sup>1289</sup> Regulator and water company engagement with the Commission, 2025

<sup>1290</sup> Water company engagement with the Commission, 2025

<sup>1291</sup> NISTA engagement with the Commission, 2025

<sup>1292</sup> Murray McIntosh, 'The Water Industry Labour Report 2025', 2025

<sup>1293</sup> Water company engagement with the Commission, 2025

<sup>1294</sup> Water company engagement with the Commission, 2025

**capacity.** Currently, companies can impose conditions around requiring financial deposits or certain installation standards when a request is made. However, they are unable to object to planning applications based on insufficient network capacity. As a result, any new required infrastructure can end up delayed and more pressure can be put on existing water supply sources from abstraction.<sup>1295</sup>

**Recommendation 72: The role of water companies in the planning process in England should be strengthened to ensure they have sufficient sight and influence over upcoming developments. The ‘right to connect’ should be reviewed.** In line with recommendations in Chapter 2, the independent systems planners should also have a role in the planning process.

934. **Water companies in England should be included within a ‘requirement to assist’ with the development of local plans.** Currently, organisations including the EA, the Office for Rail and Road (ORR) and Natural England are included within this requirement.<sup>1296</sup> While it would create an additional burden on companies, it would reduce the risk of delay to development by ensuring that the water industry is prepared for future demands. In England, the Commission supports the Ministry for Housing, Communities and Local Government’s current proposals regarding the full adoption and 5-yearly review of local plans by local planning authorities.
935. **In Wales, the Commission understands that there is adequate engagement with water companies during the development of Local Development Plans.** Welsh Government should consider if companies’ role in the process could be strengthened.
936. **Water companies should have a greater ability to comment on planning applications above a certain threshold in England to ensure they can deploy site specific technical advice and avoid delays.** The UK government should consider whether this should be as a statutory consultee or through a ‘requirement to notify’. Further consideration would be needed with regards to what threshold would be appropriate for companies to provide comment. Currently, the UK government is seeking to reduce the number of statutory consultees in order to speed up the planning process.<sup>1297</sup> A ‘requirement to notify’ has previously been introduced in relation to minerals development and some heritage applications, allowing the relevant organisation to choose to respond through the public consultation period that applies to any planning application. Water companies operating in Wales have been statutory consultees for planning

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<sup>1295</sup> Water company engagement with the Commission, 2025

<sup>1296</sup> The Town and Country Planning (Local Planning) (England) Regulations 2012, Section 4

<sup>1297</sup> Ministry of Housing, Communities and Local Government, [‘Bureaucratic burden lifted to speed up building in growth agenda’](#), 2025

applications since 2016 and the Commission has heard that this approach has been useful in increasing engagement with local planning authorities.<sup>1298</sup>

937. **Finally, the UK government should conduct a review of the ‘right to connect’.** This should consider whether it is appropriate to provide for circumstances where a water company can object to a request, for example when there is insufficient network capacity.<sup>1299</sup> While water companies possess regional monopoly status and therefore have an obligation to provide an essential service within the region, it may be appropriate to strengthen companies’ rights to object where mains supply connection requests are deemed unreasonable. Allowing companies to object based on insufficient capacity would ensure that the planning system was required to involve all parties at an earlier stage so that any required infrastructure can be planned and delivered in a timely way. Additionally, it would help protect companies from the risk of inadvertently breaching their abstraction licenses, if they have inadequate infrastructure in place to meet new demand. Developer rights of appeal would need to be protected should a company be acting unreasonably in objecting a connection.

***Planning processes could be improved to support water industry infrastructure***

938. **There is a need to ensure that the planning process does not slow water industry infrastructure delivery.** The wastewater NPS should be updated to reduce the need for current government policy to be debated in the context of each planning application. Legal challenge against large, critical infrastructure projects can significantly slow down delivery and should be minimised where appropriate, while protecting existing legal safeguards. Small-scale infrastructure delivery, that could instead be covered by Permitted Development Rights (PDR), can currently take up water company and local planning authority resource that would be better spent focused on delivering major infrastructure.<sup>1300</sup>

**Recommendation 73: Planning processes in England should be updated to support the timely delivery of water industry infrastructure.**

939. **The Wastewater and Water Resources National Policy Statements (for the provision of infrastructure) should be reviewed and updated in England.** The review should consider how strategically significant projects could be better reflected in the NPSs to speed up their inclusion in the NSIP framework, in addition to the existing major projects that are already in scope. The introduction of the NSIP framework has seen the speeding up of

<sup>1298</sup> Commission Engagement with Welsh Government; DCWW, [Our crucial role in development planning | Dŵr Cymru Welsh Water](#), 2021

<sup>1299</sup> Water Industry Act 1991

<sup>1300</sup> Water company engagement with the Commission, 2025



major project applications in the planning system, from around 2 years to approximately 16 months.<sup>1301</sup> The NPS which informs the NSIP framework needs to be as clear as possible about which projects the government deems necessary for environmental protection, economic growth and housing delivery. Up-to-date NPSs also support the preparation of local plans and decision-making on planning applications under the Town and Country Planning Act regime.

940. **Within the NPS review, the UK government should consider giving Critical National Priority (CNP) status to the Wastewater and Water Resources National Policy Statements.** This will ensure that a project receives priority consideration during the planning process. Currently, low-carbon energy infrastructure, such as offshore wind and nuclear power, is prioritised under CNP policy.<sup>1302</sup>
941. **To support the NSIP and DCO planning process to deliver quickly, the Commission supports reducing the scope to bring a legal challenge against an NSIP planning decision in England and Wales.** The UK government has included a draft clause in the current Planning and Infrastructure Bill (PIB) to streamline the process and reduce delays, without limiting the ability of individuals to challenge government decisions through judicial reviews.<sup>1303</sup> Current water industry plans contain 6 projects that have been designated NSIP status and are in pre-application stage. More are expected to be designated in future. Legal challenges against large infrastructure projects can cause delays in securing the necessary consents and permits, such as the recent judicial review case against Thames Water's proposed reservoir in Abingdon which delayed the delivery of essential services for customers.<sup>1304</sup>
942. **In Wales, the NSIP regime applies in a limited way: water NPSs do not apply and DCOs are not used for water industry projects.** Legislation to streamline and speed up the consenting process for significant infrastructure in Wales, including water industry projects, was introduced in June 2025.<sup>1305</sup>

**Recommendation 74: Permitted development rights (PDRs) for water companies in England and Wales should be updated to reduce the scale of delivery requiring full planning permission.**

943. **Current planning process means there are long waits for simple infrastructure projects to be approved such as water quality monitoring**

<sup>1301</sup> Planning Inspectorate, '[Planning Act 2008 FAQs](#)', (viewed 17 July 2025)

<sup>1302</sup> Department for Energy Security and Net Zero, '[Planning for new energy infrastructure: revised draft National Policy Statements for energy infrastructure](#)', 2025

<sup>1303</sup> Planning and Infrastructure Bill 2025 Part 1, Chapter 1, Clause 12 (2)

<sup>1304</sup> Water Magazine, '[Judicial Review call launched against approved Abingdon reservoir](#)', 2024

<sup>1305</sup> Welsh Government, '[Written Statement: Infrastructure \(Wales\) Act 2024 – Laying of statutory instruments](#)', 2025

**units or small pumping stations.** Updating PDRs could also support additional delivery on existing water company operational sites and could avoid larger projects from needing planning permission for small elements of the project, for example a vent stack for a storm overflow. Reducing the number of elements of projects that need planning permission allows companies to focus effort and resourcing into the bigger and more complex project delivery.

944. **Welsh Government is currently consulting on changes to PDRs – including for heat pumps or electric vehicle charging units – but have not included any proposed changes for the water industry.** Welsh Government should also consider updating PDRs to reduce the scale of delivery requiring full planning permission.

***Government and regulator coordination on infrastructure projects could be improved***

945. **The RAPID framework to speed up delivery of major projects could be expanded to increase coverage and effectiveness.** They should also be considered alongside the existing planning framework, such as the DCO process, to avoid any duplication. Going forward, Ofwat has set out plans to be more flexible and include more projects within RAPID where it is necessary to ensure a consistent regulatory response to strategically important issues. However, it is not clear if this will go far enough to improve coordination of major infrastructure delivery across the water industry.

**Recommendation 75: RAPID, in England and Wales, should be expanded and strengthened to support strategic infrastructure delivery.**

946. **The scope of RAPID should be expanded to include wastewater projects and strategically important projects that do not meet current size and complexity thresholds across England and Wales.** It will be for the UK and Welsh governments to define which strategically important projects are complex or high risk and which should be included in an expanded programme. RAPID should continue to work with water companies and the independent systems planners, as outlined in Chapter 2, given the key role they would play in the oversight of major projects in a region. The exact nature of the interaction with the systems planners and the supervisory approach will depend on the response to recommendations in Chapters 2 and 5. RAPID should continue to coordinate major or strategically important infrastructure project delivery through a gated process and support projects to gain the permits and consents needed before construction.
947. **There has been limited engagement between NRW and the current RAPID programme.** There should be greater engagement and coordination

with the regulators in Wales to ensure benefits of the programme are being realised.<sup>1306</sup>

948. **When considering an expansion of RAPID, lessons regarding the development of the Ofgem’s Accelerated Strategic Transmission Investment (ASTI) regulatory framework should be taken into account.**<sup>1307</sup> Ofgem has recently implemented the ASTI regulatory framework to streamline the previous Large Onshore Transmission Investment gated process. ASTI’s purpose is to deliver large projects more quickly by providing automatic development funding, providing access to early construction funding, and incentivising delivery with rewards and penalties.<sup>1308</sup> Ofgem estimate the ASTI process will reduce delivery time for large projects (defined as those costing more than £100 million) by around 4 years.
949. **Streamlining RAPID to avoid duplication with planning consent processes, such as DCOs, would reduce resourcing need from companies.**<sup>1309</sup> Water companies report that RAPID often requires high levels of planning detail prior to the DCO process requiring it, which can be inappropriate for the stage projects are in. RAPID should seek to align with key DCO stages and procurement check points, to reduce duplication by enabling one set of submissions for all processes.

*Water companies could benefit from a more joined up approach across the industry*

950. **Some water companies may not be well placed to deliver major infrastructure projects.** There is a need to facilitate a more joined-up approach to infrastructure delivery across water companies to ensure expertise and best practice are shared and infrastructure delivery is efficient.<sup>1310</sup> This is especially critical for types of projects that are unlikely to be needed regularly in each water company region, such as water transfer projects or reservoirs. Greater standardisation may also provide efficiency benefits for core infrastructure elements such as pumping stations or other smaller infrastructure.

**Recommendation 76: NISTA should consider how the water industry in England and Wales could move towards standardised practices and further recommend how this could be advanced.**

951. **A move towards standardisation of design would increase delivery efficiency.** The different geographies and unique infrastructure needs of

<sup>1306</sup> Regulator engagement with the Commission, 2025

<sup>1307</sup> Ofgem engagement with the Commission, 2025

<sup>1308</sup> Ofgem, ‘[Accelerated Strategic Transmission Investment Guidance And Submission Requirements Document](#)’, 2023

<sup>1309</sup> Water company engagement with Commission, 2025

<sup>1310</sup> NISTA engagement with the Commission

each water company should be considered to understand feasibility issues in some scenarios. However, it is clear that even the standardisation of smaller, core components such as pumps would be beneficial, as seen with the introduction of Submerged Aerated Filter units to reduce storm overflow spills by Severn Trent. These units are assembled and prepared off-site and are smaller than traditional designs, meaning they are easily transported and deployed where they are needed.<sup>1311</sup>

952. **Some government infrastructure programmes, for example school and prison building, have shown the efficiency benefits of moving towards standardisation of design for key asset types and classes.** MoJ have used processes such as Design for Manufacture and Assembly where materials and structures are manufactured off-site and then more efficiently assembled on-site to accelerate building of prisons by up to 25%.<sup>1312</sup> Standardised buildings and components can lead to higher quality and certainty of delivery timeframes and allow learning to be shared across a portfolio. There are also opportunities to standardise data and information management in project delivery and in leveraging long-term relationships in the supply chain.<sup>1313</sup>
953. **NISTA and Defra should also consider the creation of a sector-wide infrastructure delivery company to deliver programmes of large infrastructure projects.** This could be useful for complex projects that are infrequently delivered in a water company region – for example reservoirs or desalinisation plants – and would avoid the need for duplication of expertise between companies. It would also allow for shared information around lessons learnt, best practice and training needs.

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<sup>1311</sup> Severn Trent, '[How new 'agile' SAFs helping Severn Trent to reduce storm overflow spills](#)', 2024

<sup>1312</sup> Ministry of Justice engagement with the Commission, 2025

<sup>1313</sup> NISTA engagement with the Commission, 2025

## 7.4 Monitoring and assurance of infrastructure delivery

### Background

954. **The ability to provide assurance that planned infrastructure projects are being delivered in a timely manner, is a key function of any regulator and necessary for public confidence.** Price Review 2024 has seen the greatest increase in total expenditure since privatisation for both infrastructure maintenance and enhancement spend to improve water availability and facilitate environmental improvements.<sup>1314</sup> There are 30 major projects to be delivered in the next 15 years.<sup>1315</sup>
955. **Prior to 2014, Ofwat undertook a detailed approach to assurance, assessing outputs, performance and expenditure.** Following the Gray review in 2011, Ofwat moved to a more outcomes-based approach, with less assurance of output delivery.<sup>1316</sup>
956. **There have been efforts by regulators to improve monitoring of water company infrastructure delivery in recent years.** For example, Ofwat have introduced a suite of new monitoring tools for Price Review 2024, including the Delivery Monitoring Framework for WINEP (England) and NEP (Wales) spend.<sup>1317</sup> Joint regulator mechanisms like RAPID have also improved oversight of major projects since Price Review 2019.<sup>1318</sup> Ofwat introduced a new Delivery Plan framework for Price Review 2024 which aims to annually track progress that companies make towards delivering their enhancement programme and additional customer funded outputs from base expenditure. Ofwat has also required delivery action plans from companies where it has identified concerns over their delivery plans - currently in place for Thames Water and Southern Water.<sup>1319</sup> Ofwat currently require water company board assurance on the deliverability of each company's business plan. These tools aim to improve regulatory oversight and highlight issues earlier through better joined up working and increased data sharing.
957. **Other tools such as Price Control Deliverables (PCDs) and Outcome Delivery Incentives (ODIs) track delivery of projects and provide incentives for companies to deliver in a timely manner.** Where water companies fail to deliver these projects, Ofwat will return funding to customers, acting as a safeguard against overpayment.

<sup>1314</sup> Commission Analysis of Ofwat Data

<sup>1315</sup> Ofwat, '[Price Review 2024 Final Determinations: Major projects development and delivery](#)', 2025

<sup>1316</sup> Ofwat, '[Call for Evidence response](#)', 2025

<sup>1317</sup> Ofwat, '[Delivery Plan Guidance](#)', 2025

<sup>1318</sup> Regulator and water company engagement with the Commission, 2025

<sup>1319</sup> Ofwat, '[Expenditure allowances – Assurance requirements for delivery of enhancement schemes appendix](#)', 2024

958. **PCDs introduced for Price Review 2024 cover 38% of total expenditure**, largely covering enhancement spend (around 80% of total enhancement spend) and a small minority of base spend (8% of total base expenditure covering mains renewals and some company specific projects). Base expenditure includes a significant proportion of operational expenditure, such as staffing, IT, and energy costs (around 65% of base at Price Review 2024) for which Ofwat has stated is harder to set PCDs.<sup>1320</sup> Existing base PCDs are set for some maintenance spend including mains renewal and company specific upgrades and targets. There are two types of PCDs in use. Firstly, non-delivery PCDs, where funding is clawed back and returned to customers if companies fail to deliver a stated benefit by the end of the regulatory period. Additionally, time incentive PCDs, where a reward is given for delivering on time and a penalty issued for late delivery, are applied alongside some non-delivery PCDs.
959. **Ofwat first used a measure akin to PCDs at Price Review 2019**, where they were introduced to protect material enhancement investments in areas where there was no regulatory oversight from other regulators such as resilience. Ofwat felt that this did not sufficiently provide assurance of delivery and highlighted concerns around late delivery of Price Review 2019 WINEP enhancement projects. They found that 24% of projects were not delivered on time at Price Review 2019, and that some companies were only spending a low proportion of their allowed expenditure for WINEP enhancement investigations.<sup>1321</sup> In order to get a better assurance on delivery, Ofwat introduced PCDs more broadly in Price Review 2024.
960. **Ofwat state that from Price Review 2024, PCDs will be used to increase their oversight of delivery through increased reporting and assurance requirements on what companies are delivering.** They are also intended to protect customers from companies failing to deliver the funded improvements by returning the funding to customers and to incentivise companies to deliver 'on time' by applying underperformance payments where companies deliver late and applying outperformance payments where companies deliver on time.
961. **Other industries more closely track and report on progress of infrastructure projects.** The Office of Rail and Road (ORR), for example, publicly report on the progress of projects within Network Rail's Enhancement Delivery Plan.<sup>1322</sup> These projects cover major upgrades to railway infrastructure, such as modernisation of stations and the upgrade of

<sup>1320</sup> Figures provided to the Commission from Ofwat

<sup>1321</sup> Ofwat define 'on time' delivery as a scheme being delivered by the financial year when the regulatory date falls into. Ofwat found 76% of projects were delivered on time. Ofwat, '[PR24 final-determinations-Expenditure-allowances](#)', pg 311; '[PR24-redeterminations-expenditure-allowances-common-issues-REDACTED-redacted.pdf](#)'

<sup>1322</sup> Office of Rail and Road, '[Monitoring Network Rail's Performance](#)', (viewed 17 July 2025)



signalling infrastructure. If ORR report that a project is off schedule, they provide a transparent reason for this.

## Issues

### 962. **The Commission has identified 2 main issues in relation to assurance of infrastructure delivery:**

- Existing monitoring frameworks do not provide a single view of infrastructure delivery
- Price Control Deliverables (PCDs) need to be reviewed

### Existing monitoring frameworks do not provide a single view of infrastructure delivery

963. **The Commission has heard that there may be a gap in regulators' powers to hold companies to account for the delivery of infrastructure projects.** Ofwat primarily uses performance commitments to incentivise companies to deliver actions in business plans but does not routinely conduct inspections or detailed tracking of individual projects to assure that a company has delivered what they said they would (more detail on Ofwat's incentive frameworks is set out in Chapter 5).<sup>1323</sup> Where projects have been agreed through business plans, failure to deliver them may result in a breach of EA and NRW permits.<sup>1324</sup> However, the Commission has heard that there may be inadequate mechanisms for the regulators to take action prior to the point of failure to ensure delivery is on track.<sup>1325</sup> Additionally, the NAO found that in recent price control periods the regulators have had limited oversight of whether companies carry out work as expected, with EA conducting site inspections on only 1% of WINEP actions in Price Review 2019.<sup>1326</sup> Chapter 5 sets out additional recommendations which support the strengthening of onsite inspections by regulators.

964. **The Commission has heard there is a lack of a single, clear monitoring and assurance framework in place to track delivery infrastructure expenditure within the water industry.** Some efforts are being made to improve the monitoring of delivery, for example, Ofwat's introduction of the Delivery Monitoring Framework and new Delivery Plan Framework. However, the current monitoring frameworks appear to be complex and duplicative for companies in terms of resource and reporting. They are also siloed by programme delivery, such as WINEP or WRMP, meaning that a full picture of delivery is not available.<sup>1327</sup> The new frameworks cover

<sup>1323</sup> Ofwat, '[PR24 final determinations: Delivering outcomes for customers and the environment](#)', 2025

<sup>1324</sup> Regulator engagement with the Commission, 2025

<sup>1325</sup> Regulator engagement with the Commission, 2025

<sup>1326</sup> The National Audit Office, '[Regulating for investment and outcomes in the water sector](#)', 2025

<sup>1327</sup> Regulator engagement with the Commission, 2025

enhancement spend but base spend, which covers maintenance and replacement of assets, does not have a clear delivery schedule or metrics regarding what is delivered, beyond the small amount covered by PCDs.

## Price Control Deliverables (PCDs) need to be reviewed

965. **Ofwat, as the economic regulator, need to ensure that water companies are not charging customers twice for delivery of the same projects, however their methodology may not be robust enough.** For example, Ofwat is currently facing legal challenge from the eNGO River Action for approving above-inflation water bill increases, without guaranteeing the money will be spent on new infrastructure.<sup>1328</sup>
966. **Feedback in the Call for Evidence from water companies is that there is a need for greater delivery flexibility in PCDs.** The Commission heard that, in general, PCDs are too prescriptive, and that they limit companies' ability to innovate and deliver new solutions. Companies stress the need for PCDs to be outcome based and to allow for flexibility. It is not reasonable for technically complex infrastructure to be delivered exactly as it was specified years previously, nor that the solution specified will necessarily continue to be the most effective way to meet the outcome. Some feel that there is a risk that incentives are duplicated, for example mains replacement are subject to both PCDs and ODIs. Water UK suggest that a tailored approach to PCDs, where higher performing companies have PCDs set at outcomes-based level deliverables and poorer performers have more prescriptive output or scheme-level PCDs, such as those outlined in Price Review 2024, could strike a more useful balance.<sup>1329</sup> PCDs only cover around 38% of total expenditure at Price Review 2024 meaning that a full view of infrastructure spend is not possible. Only 8% of base spend at Price Review 2024 has a PCD attached, limiting understanding of the capital renewal of assets.<sup>1330</sup>

## Conclusions and recommendations

### *Existing delivery monitoring frameworks are complex, onerous and limited in scope*

967. **There are weaknesses in regulators' approaches to holding companies to account for delivery of infrastructure spending.** This is becoming an increasingly important issue given the scale of current and future infrastructure delivery and the erosion of public trust. There is no single overarching view of delivery assurance across the regulators and a lack of assurance for smaller projects, even when the delivery could be complex or

<sup>1328</sup> River Action, '[River Action granted permission to proceed with legal challenge against Ofwat](#)', (viewed 17 July 2025)

<sup>1329</sup> Water UK response to the Call for Evidence, 2025

<sup>1330</sup> Commission Engagement with Ofwat, 2025

critical for local growth opportunities. New monitoring frameworks introduced for Price Review 2024 do not appear likely to address this, and risk being inflexible and creating complex and disproportionately onerous reporting requirements. There is also a lack of in-depth assurance activity by the regulators, including a lack of on the ground assurance.

968. **Currently, unlike enhancement spend, base spend (largely maintenance) sees little direct monitoring by regulators and there is little assurance that companies have delivered what they committed to in business plans.** Some outcomes, for example leakage, are tracked through ODI reporting, however, this does not translate into clear reporting on infrastructure maintenance delivery.

**Box 48: Will the new delivery monitoring frameworks be effective?**

**Ofwat is aiming to increase transparency on what companies deliver over Price Review 2024, in part due to the increase in enhancement expenditure.**

They asked companies to provide Delivery Plans for their final determinations. Companies will report on these plans every 6 months and are additionally required to submit an independently assured progress report each year. Delivery Plans track enhancement spend, collating data from, for example, PCD outputs (such as a specified increase in water supply volume), and interim delivery milestones for major projects.

**Additionally, a Delivery Mechanism is used for the worst performing companies,** which limits their expenditure allowances until they can prove to Ofwat annually, via a Delivery Action Plan, that they have the capacity to fully deliver their business plan. Water companies have reported concerns that the amount of reporting required under Delivery Plans is excessive.<sup>1331</sup>

**Ofwat, the EA and NRW are also developing a new Delivery Monitoring Framework (DMF) for AMP 8.** It will establish a system for tracking water company delivery of environmental obligations (as laid out in WINEP and NEP) using a consistent set of metrics. This will include reporting on the delivery of new or improved infrastructure, such as an upgrade to sewage treatment works but also the resulting environmental metrics, like reduction of storm sewage overflows.<sup>1332</sup> The DMF will provide a dashboard, updated at least annually, for direct company comparison and an annual report.<sup>1333</sup>

**Ofwat state that they are working with other regulators to improve monitoring of Price Review 2024 delivery.** Their aim is to incorporate data from other monitoring frameworks, like the Delivery Monitoring Framework, WRMPs and DWMPs, into Delivery Plans to bring together delivery data across all

<sup>1331</sup> Water company engagement with the Commission, 2025

<sup>1332</sup> Environment Agency, '[WINEP Case Study: Thames Water Ex.1](#)', (viewed 17 July 2025)

<sup>1333</sup> Environment Agency engagement with the Commission, 2025

expenditure areas into one place. However, the frameworks still appear to be duplicative as both the DMF and Delivery Plans report on PCD progress but through different processes.

**As these frameworks are newly introduced for Price Review 2024, it remains unclear how effective they will be at providing a single, clear framework for ensuring companies remain on track for infrastructure delivery and are held to account for non-delivery.**

**Recommendation 77: The delivery assurance frameworks (Delivery Plans and Delivery Monitoring Framework) that cover infrastructure capital spending across England and Wales should be reviewed during AMP8 and rationalised.**

969. **Any future delivery assurance framework should cover infrastructure capital spending across both base and enhancement allowances to ensure that regulators have a clear view of delivery across all areas.**<sup>1334</sup>

There is a need for detailed monitoring and certainty for larger critical projects, especially those that sit outside of the RAPID or large scheme gated processes. Smaller projects should be monitored at a programme level, rather than tracked individually, and there should be embedded flexibility for the delivery of smaller projects to change based on need. A future framework should be proportionate in terms of reporting burden for both companies and the regulator and be informed by existing water company data practices where possible to avoid additional regulatory burdens. A balance must be struck between assurance and absolute certainty of infrastructure spend to ensure that companies retain appropriate levels of delivery flexibility to drive innovation and efficiency. This will be a challenging balance to strike given current levels of mistrust between regulators, the companies, and the public.<sup>1335</sup>

970. **Reporting on RAPID and other projects that are tracked through large, gated processes should be incorporated into a future framework, to allow for a single view on companies' delivery.** The assurance framework should also align closely with the reformed PCD framework (see Recommendation 78) and wider incentive frameworks (see Chapter 5) to ensure a single, consistent view of infrastructure delivery. In future, the regulator should consider combining a future assurance framework with the reformed PCD framework (see Recommendation 78), to further streamline and reduce reporting burden.

<sup>1334</sup> Capital spending on new infrastructure and capital maintenance on existing infrastructure

<sup>1335</sup> Consumer Council for Water, '[Overall trust in water companies falls again as customers question fairness of bills](#)', (viewed 17 July 2025); National Audit Office, '[Regulators have failed to deliver a trusted and resilient water industry](#)', (viewed 17 July 2025)

971. This recommendation sits separately from the Recommendations 66 and 67 which cover standards and the strengthening of data collection on assets.

***Price Control Deliverables (PCDs) should be reformed***

972. **In future price reviews, there should continue to be a clawback mechanism (like that included within Price Review 2024 non-delivery PCDs) to ensure effective accountability where companies fail to deliver on infrastructure plans, or where they spend in an unapproved manner.** It is key that customers are protected from companies failing to deliver. There should, however, be rational and proportionate flexibility built into the framework to allow, for example, for innovation where new opportunities arise, for projects that prove to be more challenging than anticipated, and for reprioritisation to more urgent infrastructure needs. While it is too soon to understand how the expanded PCD framework functions in practice, the Commission has heard that the framework does not provide flexibility to deliver new infrastructure that unexpectedly becomes urgent and that companies will end up being penalised for outcomes beyond their control.<sup>1336</sup>
973. **Base spend, which covers routine costs for maintenance of assets, is not wholly tracked via PCDs.**<sup>1337</sup> There is a risk therefore that PCDs are insufficiently tracking infrastructure delivery to replace assets in poor condition, and that customers will end up paying excess in the long term.

**Recommendation 78: A review of the current PCD framework in England and Wales should be completed before the end of AMP8, to inform a more robust and flexible framework, broadly set at programme level spending.**

974. **Subject to the outcomes of a review of the existing PCD framework, future PCDs should be broadly set at a programme level with some specific output PCDs linked to major projects.** Programme spend would group individual projects with commonalities together, for example by type of infrastructure or by capital maintenance allowance (see Chapter 5). This should accommodate innovative or new solutions that may arise during a price review cycle, for example, by substituting grey infrastructure for a nature-based solution, and any unforeseen circumstances which limit delivery, such as supply chain issues. The regulator's infrastructure supervisory approach (see Recommendation 79) should play a key role in setting PCDs that are contextual to each company, managing reporting requirements and advising where changes to PCDs are needed mid cycle.

<sup>1336</sup> Water company responses to the Call for Evidence, 2025

<sup>1337</sup> Ofwat, '[PR24 final determinations: Price control deliverables appendix](#)', 2025; Regulator engagement with the Commission, 2025

975. **A revised PCD framework should also include increased flexibility for changes to delivery mid-Price Review.** If the regulator is content that a company has not delivered spend as planned under a particular PCD, for example if priority work has emerged after business planning, then funding should not be clawed back. Instead, this change in priority should be reflected in a change to the PCDs, so that the company still have the incentive to deliver the spend under the different PCD.
976. **Furthermore, the current level of spend that PCDs cover is not sufficient to give assurance on asset maintenance and upgrades made to existing infrastructure.** Future PCDs should cover additional enhancement spend, as well as additional base spend for capital renewal spend, such as upgrades or repairs to existing infrastructure. They should not include operational expenditure.

***The infrastructure supervisory approach should have a key role in assuring delivery***

**Recommendation 79: Under the supervisory approach, the regulator in England and Wales should provide assurance on how companies are delivering infrastructure spend.**

977. **Supervisory activity would be risk-based, proportionate and informed by company performance rather than checking all infrastructure delivery in detail.** Most infrastructure expenditure across enhancement and base would be in scope and any future delivery assurance framework and reformed PCDs would be key metrics to inform supervisory activity. Additional assurance activity could include an audit programme and supplementary spot checks to inform regulatory activity. The supervisory approach should provide oversight of the overall assurance framework and PCDs in order to take a view where flexibility or alternative options may be required on a company-by-company basis.
978. **There are key lessons to be learnt from the use of an Independent Technical Assessor during the construction of the Thames Tideway Tunnel.** This was a successful approach to supervising the delivery of infrastructure, and the assessor was able to objectively and independently review and assess the ongoing project performance and delivery, primarily in relation to project costs and schedule.<sup>1338</sup> The infrastructure supervisory approach should consider fundamental takeaways from this example.

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<sup>1338</sup> Water company engagement with the Commission; Thames Tideway response to the Call for Evidence, 2025



## 7.5 Supply chain and labour force capacity

### Background

979. **The smooth operation of supply chains is critical to the provision of water and the management of wastewater, as well as the delivery of infrastructure to address current and future challenges and enable growth.** Supply chains can be complex, work across national boundaries and sometimes take many years to build effectively. The water industry is heavily reliant on the construction industry for the provision of new infrastructure.<sup>1339</sup> Supply chain resilience is also critical for provision of resilient services that limit impacts on customers and the environment and is covered in detail in Section 7.1.
980. **One of NISTA's core responsibilities is to oversee a stable and integrated infrastructure pipeline,** helping the supply chain plan resources and invest with confidence.<sup>1340</sup> In the energy sector, for example, the National Energy System Operator has produced advice for a long-term pipeline detailing the energy infrastructure required to deliver a programme of clean power investment estimated to be around £40 billion per year for the next 6 years.<sup>1341</sup> They have also developed roadmaps, such as the UK Solar Roadmap, with forecasts of infrastructure and workforce needs and supply chain stress testing to identify bottlenecks. The Department for Energy Security and Net Zero (DESNZ) is working with industry, regulators, trade unions, and investors to deliver the roadmap.
981. **The workforce of the water industry and its associated supply chain is a critical component of all future delivery and operations.** At Price Review 2024, Ofwat requested companies to submit a long-term delivery strategy and to consider the future availability of skills and the capacity of the supply chain in their plans.<sup>1342</sup> The UK Government, in partnership with companies, has committed to attracting new talent to the sector and equipping the workforce with the skills needed to deliver investment over the next five years, including 5,000 apprenticeships and putting up to 2,000 young people through the new 'Water Academy Work Programme'.<sup>1343</sup>

<sup>1339</sup> Ofwat, '[Business Plans](#)' (viewed 16 July 2025)

<sup>1340</sup> GOV.UK, '[About us - National Infrastructure and Service Transformation Authority](#)' (viewed 16 July 2025)

<sup>1341</sup> GOV.UK, '[Clean Power 2030 Action Plan: A new era of clean electricity – main report](#)' (viewed, 16 July 2025)

<sup>1342</sup> Ofwat, '[PR24 and beyond: Final guidance on long-term delivery strategies](#)', 2022

<sup>1343</sup> Water UK, '[Jobs and skills in the water industry](#)' (viewed 16 July 2025)

## Issues

982. **The Commission has identified 3 main issues in relation to supply chain capacity:**
- Lack of long-term visibility and coordination in infrastructure delivery
  - Future investment could outpace supply chain capacity
  - Skills and recruitment challenges for the water industry

### Lack of long-term visibility and coordination in infrastructure delivery

983. **The Commission has heard about a lack of clarity and confidence in the long-term plan for water infrastructure delivery.** This is preventing the supply chain from effectively building the necessary capacity to invest beyond the current Price Review cycle, apart from for a limited subset of major projects.<sup>1344</sup> The plans that do exist, for example, EA's National Framework for Water Resources, and companies' own WRMPs and DWMPs are not currently coordinated enough across government and industry to be effective change makers.<sup>1345</sup> Compounding this issue, the 5-year price review cycles may be creating further uncertainty as companies typically delay investment until the start of a new cycle, when they have more certainty over future revenues. This creates 'boom and bust' patterns of expenditure that is disruptive for supply chains, as seen in Figure 4 (see Chapter 2).<sup>1346</sup>

### Future investment could outpace supply chain capacity

984. **The Commission has heard concerns around whether infrastructure spending in the water industry is outpacing supply chain capacity, with some companies flagging concerns about their ability to deliver the planned new infrastructure over Price Review 2024.**<sup>1347</sup> Ofwat have introduced additional water company delivery plan assurance for Price Review 2024, requiring board sign off that companies can realistically deliver their programmes, including assessment of supply chain capacity and capability.<sup>1348</sup>
985. **Industry bodies have indicated that there is significant variation in how effectively companies engage with the supply chain.** While some water companies are reported to have good relationships with suppliers, others perform worse on factors such as contract approach and procurement with

<sup>1344</sup> British Water and the Future Water Association engagement with the Commission

<sup>1345</sup> Water company responses to the Call for Evidence, 2025

<sup>1346</sup> British Water, '[How The Supply Chain Can Effectively Deliver Environmental And Customer Improvements](#)' (viewed 16 July 2025)

<sup>1347</sup> IPA and supply chain engagement with the Commission

<sup>1348</sup> Ofwat, '[Business plans](#)' (viewed 16 July 2025)

significant divergence between high and poor performers. For example, in a 2024 survey of the water industry supply chain out of a scoring of 10, Northumbrian Water scored 8.5 and 8.4 on contract approach and procurement respectively, with Thames Water scoring 4.7 and 5.<sup>1349</sup>

## Skills and recruitment challenges for the water industry

986. **The Commission has been made aware of concerns raised by industry experts regarding retention and rising vacancies across water companies.**<sup>1350</sup> These challenges are contributing to an ageing workforce, with an estimated 23% of the workforce due to retire within the next decade.<sup>1351</sup> This has the potential to create a 'knowledge cliff-edge' where critical expertise may be lost as experienced employees exit the workforce. Increasing demands on companies to deliver infrastructure will mean a shift of emphasis from operational capability to construction - with corresponding implications for resourcing and management of risk. At the same time, the water industry is competing with other industries for limited resources to deliver major infrastructure projects. For example, major infrastructure projects in the east of England, such as Sizewell C and the Lower Thames Crossing, are expected to be delivered at the same time as major water infrastructure projects including the Fens Reservoir in Cambridge.<sup>1352</sup>
987. **Some companies, like Severn Trent, are not reporting experience of workforce challenges and have established mature workforce plans.** They have outlined a strategy for building a resilient workforce equipped to meet future challenges, acknowledging the presence of an ageing workforce.<sup>1353</sup>

### Box 49: Attracting talent to the sector (Severn Trent)

**The Commission has identified that the water industry is facing skills and recruitment challenges.**<sup>1354</sup> Almost a quarter (22%) of the total UK water industry workforce are over 55 years old, and it employs proportionately fewer 16-24 year olds (7%) than the UK average (12%).<sup>1355</sup> According to a survey of 4,000 engineers across the UK water industry 66% said they were planning to leave the industry in the next three years.<sup>1356</sup>

**Some companies have developed and implemented long-term workforce plans to address these risks.** The Severn Trent Academy, launched in 2021, is a

<sup>1349</sup> British Water, '[Company Performance Survey](#)', 2024

<sup>1350</sup> APPG response to the Call for Evidence, 2025

<sup>1351</sup> Murray McIntosh, '[The Water Industry Labour Report](#)', 2025

<sup>1352</sup> GOV.UK, '[Water investment to unlock growth in East of England](#)', 2025

<sup>1353</sup> Severn Trent, '[Long Term Drinking Water Plans](#)', 2018

<sup>1354</sup> Water company engagement with the Commission

<sup>1355</sup> Merit Skills, '[The Water Industry Skills Gap](#)' (viewed 16 July 2025)

<sup>1356</sup> 2024 Survey of 4,391 specialist engineers UK water industry, Murray McIntosh, '[The Water Industry Report](#)', 2025

training and development centre created by Severn Trent to deliver training to employees while also offering free employability skills training to the public.<sup>1357</sup> Since its establishment, the Academy has seen over 50,000 people take part in its programmes, supported 140 apprentices through in-house projects, and delivered over 500,000 training hours.<sup>1358</sup>

**Where Severn Trent’s internal workforce plan has identified future, long-term skills gaps, the Academy helps them to proactively address them.** For example, the Academy delivers apprenticeship programs to train new technical roles such as water network and maintenance technicians. This approach allows them to develop skills in-house in line with business delivery needs and timescales, while also reportedly contributing to staff retention rates and attracting staff from the local area.<sup>1359</sup>

## Conclusions and recommendations

### *Greater clarity and assurance in long-term infrastructure planning is needed*

988. **The water industry is lacking a single mechanism that sets out long-term water industry infrastructure needs and assesses whether the demands on the supply chain are deliverable.** There have been attempts to improve the visibility of the pipeline of projects and their deliverability. For example, RAPID sets out clear delivery priorities and milestones, helping companies and the supply chain understand what is expected and allowing for improved sequencing of major projects.<sup>1360</sup> However, it does not take account of supply chain capacity and only covers a small subset of major projects.

**Recommendation 80: The regulator and systems planners, in England and Wales, should jointly undertake a water industry infrastructure delivery needs assessment against an assessment of supply chain capacity.**

989. **The national coordinator of the systems planners in England and the national systems planner in Wales, should publish a national supply chain requirements dashboard every 5 years, following protocols for managing cross-border issues and opportunities as outlined in Chapter 2.** The dashboard should include a forward-looking national picture of water industry delivery needs against an assessment of supply chain capacity. NISTA should play a role in the production of this dashboard, given its focus on improving the delivery of major projects. The systems planners should

<sup>1357</sup> Severn Trent engagement with the Commission

<sup>1358</sup> Severn Trent, ‘[Over 50,000 people through the doors at Severn Trent’s flagship training academy since 2021 opening](#)’ (viewed 16 July 2025)

<sup>1359</sup> Severn Trent engagement with the Commission

<sup>1360</sup> RAPID, ‘[Forward Programme 2025-26](#)’, 2025

look to other sectors who have successfully implemented such planning, such as energy.<sup>1361</sup>

990. **Alongside this, the National Water Strategy (see Chapter 1) will provide a 25-year, high-level view of the priorities for the water industry.** These actions would reduce uncertainty and encourage investment in capacity and skills needed for the supply chain to deliver.

***Greater collaboration and sharing of best practice would address supply chain gaps***

991. **While some companies collaborate effectively with their supply chains by providing early visibility of upcoming projects, others lack the same level of engagement.**<sup>1362</sup> Further standardisation and sharing of best practice would help address gaps in capability where this exists.

**Recommendation 81: Water companies, through Water UK, should share best practice on supplier contracts and procurement strategies to help improve water company relationships with the supply chain in England and Wales.**

992. **Water companies, with support and guidance from Water UK, should share best practice for supplier contracts and procurement strategies to give suppliers more certainty.** This would most likely benefit smaller companies in the supply chain and reduce risks for suppliers going through lengthy bureaucratic processes before being awarded contracts.<sup>1363</sup> At Price Review 2019, United Utilities identified nearly £360 million of cost savings through market-testing its entire cost base by using new and better means of procurement.<sup>1364</sup>
993. **Water UK should draw upon their existing work with research facilities like the Centre for Resilience in Environment, Water and Waste and the Water Research Institute, which brings together experts from universities, eNGOs, community groups and water companies to explore sustainable solutions.**<sup>1365</sup> British Water also has a Supply Chain Taskforce Procurement Working Group comprised of members and water company representatives to address issues and promote standardisation in procurement practices.<sup>1366</sup> NISTA have published guidance on managing

<sup>1361</sup> Department for Energy Security & Net Zero, '[UK renewables deployment supply chain readiness study](#)', 2024

<sup>1362</sup> Water company and supply chain engagement with the Commission

<sup>1363</sup> Water Industry Journal, '[A procurement wish-list for water industry suppliers](#)' (viewed 16 July 2025)

<sup>1364</sup> Frontier Economics, '[Innovation and the water industry](#)' (viewed 16 July 2025); United Utilities, '[CMA Price Determinations, Comments from United Utilities Water Limited](#)', 2020

<sup>1365</sup> Cardiff University, '[Water Research Institute](#)' (viewed 16 July 2025); University of Exeter, '[Centre for Resilience in Environment, Water and Waste](#)' (viewed 16 July 2025)

<sup>1366</sup> British Water, '[How The Supply Chain Can Effectively Deliver Environmental And Customer Improvements](#)' (viewed 16 July 2025)

contracts and supplier relationships, as well as strategic procurement planning.<sup>1367</sup>

***Water companies must demonstrate resilient workforce and supply chain plans***

994. **Given the scale of delivery and future pressures, water companies must demonstrate they have the labour and skills they need to adapt to emerging technologies and to deliver and manage infrastructure.** The Commission has heard from water companies that Ofwat's scrutiny of workforce planning and capacity is currently perceived as light-touch and may limit Ofwat's ability to effectively ensure that companies have a suitable workforce plan in place to deliver plans at an efficient cost.<sup>1368</sup> The Commission has also heard some concerns regarding whether infrastructure spending in the water industry is outpacing supply chain capacity.<sup>1369</sup> Supply chains are not sufficiently considered as part of Price Review planning processes.

**Recommendation 82: The regulator, under its supervisory approach, should gain further assurance from companies in England and Wales on workforce and supply chains to ensure companies can sufficiently deliver.**

995. **Under the wider supervisory approach, the regulator should continue to require company boards to assure delivery plans, including workforce and supply chain considerations.** Using a risk-based approach, the supervisory approach should provide additional scrutiny where companies have previously experienced challenges to allow the regulator to ensure companies strengthen their workforce and supply chain strategies. Companies will need to demonstrate that they are appropriately considering their current and future workforce needs, and whether they can sufficiently deliver on both business-as-usual activities and future infrastructure requirements. Further evidence of engagement with suppliers should be required as part of approval of plans in some situations.
996. **Supervision in this area should take account of the independent systems planners' supply chain capacity assessment across the whole water industry where there may be competing demands for similar suppliers (Recommendation 79).**

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<sup>1367</sup> GOV.UK, '[National Infrastructure and Service Transformation Authority](#)' (viewed 16 July 2025)

<sup>1368</sup> Water company engagement with the Commission

<sup>1369</sup> Infrastructure and Projects Authority Engagement with the Commission



## 7.6 Innovation and technology

### Background

997. **Innovation in the water industry is critical for productivity growth and has the potential to facilitate better quality outcomes and lower customer bills.** The water industry has experienced a significant slowdown in productivity growth since 2008, averaging 0.1% per year between 2009 and 2017.<sup>1370</sup>
998. **Furthermore, Research & Development (R&D) investment in the sector has notably declined and is low in comparison to other UK industries.** In 2023, the water collection, treatment, and supply industry reported R&D expenditure of £33 million, representing 0.1% of total R&D spending by UK businesses.<sup>1371</sup> By contrast, the telecommunications industry had a significantly higher R&D investment of £1.2 billion, accounting for 2.4% of business R&D spending.<sup>1372</sup>
999. **Attempts have been made to stimulate innovation in the water industry through a variety of programmes.** These include bespoke programmes such as the Ofwat Innovation Fund and broader government and industry-led programmes including HM Revenue and Customs' Research and Development Expenditure Credit scheme, UK Water Industry Research (UKWIR) and Spring - the Innovation Centre of Excellence for the sector.<sup>1373</sup> The £200 million Ofwat Innovation Fund, initially launched in 2020, has since been increased to £400 million for 2025-30 and aims to increase the water industry's capacity to innovate.<sup>1374</sup>
1000. **Some water companies have also developed innovative initiatives.** Northumbrian Water's Innovation Festival launched in 2017 and has tackled a wide range of challenges, including the creation of a pilot for the National Underground Asset Register (NUAR) that helps utility companies reduce disruptions for the public and businesses by providing instant access to a digital map of assets.<sup>1375</sup> United Utilities' Innovation Framework and Strategy

<sup>1370</sup> Frontier Economics, '[Productivity improvement in the water and sewerage industry in England since privatisation](#)', 2017

<sup>1371</sup> To note, granular R&D expenditure data for sewerage (SIC 37) is not available at the individual SIC code level. The £33 million reported R&D spending for SIC 36 (Water collection, treatment, and supply) does not cover the entire water industry as it excludes wastewater treatment and sewerage services. The total R&D investment in the broader water industry may well be higher when considering these additional activities.

<sup>1372</sup> Office for National Statistics, '[UK gross domestic expenditure on research and development](#)' (viewed 16 July 2025)

<sup>1373</sup> Spring Innovation, '[Accelerating Water Industry Transformation](#)' (viewed 16 July 2025)

<sup>1374</sup> Ofwat, '[Water innovation competitions](#)' (viewed 16 July 2025); HR Wallingford engagement with the Commission

<sup>1375</sup> GOV.UK, '[National Underground Asset Register \(NUAR\)](#)' (viewed 16 July 2025)

sets out their approach to exploring innovative technologies.<sup>1376</sup> This includes delivering greater efficiency through the use of smart networks, adoption of AI to detect water leaks, reducing flooding risk through CCTV analysis of sewer pipe condition and the use of aerial drones to inspect hard to reach assets and assess water quality faster.<sup>1377</sup> Similarly, Anglian Water have a 'five-point plan for innovation acceleration'.<sup>1378</sup>

1001. **As part of WINEP, the Ofwat, EA and Defra encourage water companies to trial new and innovative solutions.**<sup>1379</sup> Trials have included nature-based solutions to partially remove plastics and micro-plastics prior to wastewater treatment and innovative treatment technologies or polishing technologies which may facilitate micro-plastic removal from partitioning in the sludge.<sup>1380</sup>
1002. **The Growth Duty Performance Framework, produced by the Department for Business and Trade, was updated in May 2024 and is intended to help regulators support innovation and investment by identifying and removing unnecessary obstacles to innovation.** This includes reviewing outdated or overly burdensome regulations, supporting regulatory sandboxes or pilot projects and facilitating collaborative engagement with innovators.<sup>1381</sup>

#### **Box 50: Innovation in the energy sector**

**The Energy Innovation Centre (EIC) is a not-for-profit organisation that connects innovators with the UK's energy networks to accelerate the development and adoption of new technologies in gas and electricity transmission and distribution.** Its mission is to support the transition to a net zero power system by 2030 by driving innovation across the energy sector. The EIC works in partnership with nine UK energy networks, has supported over 10,000 innovators and secured over £50 million in investment for the innovation community.<sup>1382</sup>

**Innovation projects supported by the EIC are often funded through the Network Innovation Allowance (NIA), a ringfenced funding mechanism established by Ofgem to promote innovation in the electricity and gas networks.**<sup>1383</sup> The NIA allows energy network companies to recover up to 90% of eligible project costs through customer bills, with the remaining 10% funded from other sources, such as shareholder contributions or external sources.<sup>1384</sup>

<sup>1376</sup> United Utilities, '[Innovation Framework and Strategy](#)', 2023

<sup>1377</sup> United Utilities response to the Call for Evidence, 2025

<sup>1378</sup> Anglian Water, '[Anglian Water's five-point plan for innovation acceleration](#)', 2021

<sup>1379</sup> GOV.UK, '[Water industry national environment programme \(WINEP\) methodology](#)', 2022

<sup>1380</sup> CIWEM, '[The UK research exploring how to make sewage sludge safer and more sustainable](#)' (viewed 16 July 2025)

<sup>1381</sup> Department for Business & Trade, '[Growth Duty: Statutory Guidance- Refresh](#)', 2024

<sup>1382</sup> Energy Innovation Centre, '[Official Website](#)' (viewed 16 July 2025)

<sup>1383</sup> Ofgem, '[Network Innovation Allowance \(RIIO-2\)](#)' (viewed 16 July 2025)

<sup>1384</sup> Energy Innovation Centre engagement with the Commission

To qualify, projects must meet strict eligibility criteria, be led by licensed network operators and demonstrate clear benefits to consumers, the environment, or the wider energy system.

## Issues

**1003. The Commission has identified 4 main issues leading to a lack of innovation in the water industry:**

- Risk aversion and regulatory constraints
- Insufficient access to funding for innovation
- Lack of collaboration across the water industry
- Lack of visibility in long-term delivery requirements

### Risk aversion and regulatory constraints

**1004. Given the water industry is a natural regional monopoly sector, there can be limited incentives for companies to innovate - concerns have been raised around a culture of risk aversion in companies and regulators.** The Commission has heard that innovation may have been sacrificed for certainty by both companies and regulators and there has been a slow adoption of new technologies and solutions, such as nature-based solutions which often get stuck in “pilot purgatory”.<sup>1385</sup> The Commission has also heard that the public and political scrutiny the industry is under is making it more difficult for companies to justify experimental or high-risk innovation, despite the potential that it could lead to long-term benefits.<sup>1386</sup>

**1005. The regulatory landscape seems to have unintentionally created barriers to innovation.** Rigid legislative frameworks or unclear pathways for testing and adopting new approaches make it difficult for companies to trial novel approaches. For instance, the Urban Waste Water Treatment (England and Wales) Regulations 1994 (UWWTR) have been identified as an example of overly prescriptive legislation that can hinder trials of innovative approaches like using storm water treatment techniques instead of storage, due to rigid interpretations.<sup>1387</sup>

**1006. Water companies have noted there are ‘pockets of good innovation’ that have taken place between water companies and the regulators, such as catchment permitting and Catchment Nutrient Balancing (CNB)**

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<sup>1385</sup> CIWEM, ‘[Nature-based solutions can work for the water sector – but it takes a step-change in thinking](#)’ (viewed 16 July 2025)

<sup>1386</sup> Regulator engagement with the Commission

<sup>1387</sup> Water Company and regulator engagement with the Commission

**developed between the EA and the water industry.**<sup>1388</sup> However, while catchment permitting continues to be supported as an innovative approach to addressing nutrient pollution, EA support for CNB has recently been withdrawn.<sup>1389</sup>

## Insufficient access to funding for innovation

1007. **The Commission has identified uncertainty around the impact of existing funding mechanisms for innovation in the water sector.** The industry has welcomed the Ofwat Innovation Fund, however some water companies have raised the need for greater funding for implementation of innovation and that the competitive nature of the Fund may advantage larger, higher performing companies.<sup>1390</sup> In the last 3 years between 78%-87% of this funding has been awarded to the same five water companies.<sup>1391</sup> The Commission has also heard concerns about the size and uncertainty of the short term nature of funding for innovation.<sup>1392</sup> At £400 million, the Fund is equivalent to approximately 0.38% of total industry spending over Price Review 2024 to support all firms' innovation in the sector.<sup>1393</sup> However, in comparison, innovation in the energy sector can be funded through the ringfenced Network Innovation Allowance, the £450 million Strategic Innovation Fund and contributions from the £1 billion Net Zero innovation fund.<sup>1394</sup>

## Lack of collaboration across the water industry

1008. **The Commission has heard from some industry bodies that Ofwat's comparative benchmarking discourages companies from sharing knowledge and best practices, as doing so may contribute to their peers being benchmarked more favourably than themselves.**<sup>1395</sup> The structure of the Water Industry Act 1991 may not encourage collaboration either, as Ofwat must further the consumer objective by protecting the interests of consumers, wherever appropriate, by promoting effective competition, although this must be balanced against other duties.<sup>1396</sup> There are examples of water companies working with regulators and public bodies on innovation. For example, Yorkshire Water collaborates with the EA, Hull

<sup>1388</sup> Water UK and Spring engagement with the Commission

<sup>1389</sup> The UK Water Report, '[Environment Agency withdraws catchment nutrient balancing](#)' (viewed 16 July 2025)

<sup>1390</sup> Water Company engagement with the Commission

<sup>1391</sup> Commission Analysis of Innovation Fund Annual Reports, 2023 to 2025. Top 5 water companies by percentage of total funding awarded. Includes Northumbrian Water, Severn Trent, Thames Water, Anglian and United Utilities. From: [Insights - Ofwat Innovation Fund](#)

<sup>1392</sup> Spring and water company engagement with the Commission

<sup>1393</sup> Ofwat, '[PR24-final-determinations-Expenditure-allowances](#)', 2025

<sup>1394</sup> GOV.UK, '[Energy Innovation](#)' (viewed 17 July 2025)

<sup>1395</sup> Water company and industry body engagement with the Commission

<sup>1396</sup> Sections 2(2A)(a) and 2(2B) of the Water Industry Act 1991

City Council, East Riding of Yorkshire Council, and the University of Hull to develop innovative water management systems aimed at improving flood resilience.<sup>1397</sup> However, the Commission has heard that this knowledge and learning is not being effectively shared between companies.<sup>1398</sup>

### Lack of visibility in long-term delivery requirements

1009. **The Commission has also heard that the short length of the 5-year Price Review cycle, may negatively impact longer term innovative initiatives**, such as nature-based solutions, as there is a drive to see more immediate, short-term progress which favours standard grey solutions.<sup>1399</sup>

## Conclusions and recommendations

1010. **The Commission has identified a range of reforms in other sections of this report which should help encourage innovation in the sector.** These recommendations apply to both England and Wales and include:
- A long-term National Water Strategy, alongside a new Ministerial Statement of Water Industry Priorities, to support stable long-term investment planning, as outlined in Chapter 1.
  - A move towards more outcomes-based regulation to encourage new and innovative ways to meet regulatory targets, as outlined in Chapter 3.
  - A rationalisation exercise to streamline current laws and regulations and provide clarity to regulators and investors, as outlined in Chapter 3.
  - The development of the concept of “constrained discretion” for the regulators in Chapter 3.
  - The suite of recommendations within Chapter 5 that propose increasing the use of technology and innovative solutions within environmental regulation.
1011. **In addition to these broader recommendations, the Commission has determined that there is a need for additional reforms to directly support improved innovation.**

***There is a lack of long-term vision and a culture of risk aversion regarding innovation***

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<sup>1397</sup> Centre for Strategy & Evaluation Services, ‘[Innovation baseline in the water sector](#)’, 2022

<sup>1398</sup> Water company and regulator responses to the Call for Evidence, 2025

<sup>1399</sup> Water company engagement with the Commission

1012. **A culture of risk aversion in both water companies and regulators is posing a barrier to innovation.**<sup>1400</sup> New mechanisms to facilitate innovation within water company and regulator culture is needed. Alongside supporting productivity growth, the adoption of innovative technologies could have wider benefits, such as reductions in carbon emissions, wider environmental outcome improvements, and longer-term cost savings.<sup>1401</sup> A number of Call for Evidence responses supported the idea of introducing regulatory sandboxes to encourage water companies and regulators to seek innovative solutions.<sup>1402</sup>

**Recommendation 83: The UK and Welsh Governments should introduce structured regulatory sandboxes to support innovation uptake.**

1013. **A regulatory sandbox would allow water companies to test new concepts and innovative approaches, potentially in real world conditions, without being subject to the full regulatory burden.** It would also help the regulators gain a clearer understanding of the potential impact of innovative solutions while creating a clear signal that the regulators were supportive of innovative delivery and embedding a culture of innovation. A sandbox should focus on technical and technological innovation with the regulators responsible for its development and ongoing operation, by reviewing and supporting delivery of innovative solutions. The development of the sandbox should be in consultation with water companies, industry bodies, and the supply chain to ensure its effectiveness.
1014. **Some sandboxes operating in other sectors do so without specific legislative frameworks, by taking advantage of the constrained discretion of existing regulatory regimes and legislative frameworks.** Constrained discretion is explored further in Chapter 3 and would likely support further developments of any sandboxes in future, as would a move to more outcomes-based legislation (see Chapter 3). While legislative changes are not essential, it may be challenging to allow the required relaxation of legislation without changes to the law in some specific situations and some sectors' sandboxes have relied upon legislative changes. The regulators will need to assess whether specific statutory underpinning is needed during development, and agreement, of the scope of the sandbox.

<sup>1400</sup> Water company and regulator engagement with the Commission

<sup>1401</sup> International Institute for Sustainable Development, '[Using Technology to Solve Today's Water Challenges](#)', 2018

<sup>1402</sup> [EA](#), [Ofwat](#), United Utilities and Anglian Water responses to the Call for Evidence, 2025



**Box 51: Regulatory sandboxes - lessons from other sectors****Ofgem Energy Regulation Sandbox**

**Ofgem runs two sandbox models- the Energy Regulation Sandbox (ERS) and the Future Regulation Sandbox (FRS)- as part of the Innovation Link service designed to support innovators in the energy sector.** They support businesses to develop innovative energy products, services or business models by helping them navigate regulatory barriers.<sup>1403</sup>

**The sandboxes allow innovators to trial new solutions in a controlled environment, temporarily relaxing certain regulatory requirements while maintaining consumer protection.**<sup>1404</sup> Before progressing a new proposal, Ofgem consider if it meets eligibility criteria including the innovative nature of the proposal; whether the proposal will deliver consumer benefits and protect consumers during the trial; whether existing regulatory barriers inhibit innovation; and if the proposal can be trialled.<sup>1405</sup>

**Since February 2017, Ofgem has supported 12 sandbox trials.**<sup>1406</sup>

Engagement is tailored to each project, and all participants must evaluate their trials and share insights on consumer behaviour, market impact and regulatory challenges.

**The programme has led to some notable successes.** For example, the UK Power Networks (UKPN) used the sandbox to explore a new approach to making electric vehicle (EV) chargepoint connections more affordable. Although the sandbox trial was not completed, the process itself generated valuable insights that contributed to Ofgem changing its regulatory position.<sup>1407</sup>

**Financial Conduct Authority (FCA) and Bank of England (BoE) digital sandbox**

**Legislation was enacted to enable the FCA and BoE to create a framework for testing more transformative innovations, such as the distributed ledger technology (DLT).** This allows the financial regulators, including the FCA and Bank of England, to temporarily waive or modify certain regulations that may otherwise block innovation. The sandbox is seen as a new form of policymaking, where regulators can engage early with innovators on new services and consider whether changes to rules or legislation are required to enable them in future.<sup>1408</sup>

<sup>1403</sup> Ofgem, '[Innovation Hub](#)' (viewed 16 July 2025)

<sup>1404</sup> Ofgem engagement with the Commission

<sup>1405</sup> Ofgem, '[What is a regulatory sandbox](#)' (viewed 16 July 2025)

<sup>1406</sup> Ofgem engagement with the Commission

<sup>1407</sup> UK Power Networks, '[Charge Collective Sandbox Evaluation Report \(redacted\)](#)' (viewed 16 July 2025)

<sup>1408</sup> Bank of England, '[Bank of England and FCA joint approach to the Digital Securities Sandbox](#)', 2024

1015. **The sandbox should offer a range of regulatory flexibilities so that water companies are aware of what flexibility is available to support their proposals while the exact flexibilities used for each proposal will be decided on a case-by-case basis.** This should be supported by published guidance, a structured application process, and early feedback options to enable innovators to better understand and work within the existing regulatory framework.
1016. **The sandbox should also have application criteria, and a regulator-led eligibility and desirability risk assessment conducted for each proposal.** This should consider the companies' previous performance and employ an earned autonomy approach. For instance, companies who can demonstrate strong performance and compliance in specific areas that they are proposing to pilot new approaches in may be trusted to deliver riskier, more innovative approaches, without undue risk to the environment or public health. Engaging lower-performing companies in developing innovative solutions could also drive improvements in their overall performance if a trial results in measurable performance or efficiency gains. Poor overall performance should not automatically prevent water companies from participating in the sandbox.

*Existing innovation funding mechanisms could be improved*

1017. **There is a lack of ringfenced funding for water companies to develop innovative approaches that is not tied to competition.**<sup>1409</sup> The Ofwat Innovation Fund operates on a competitive basis, with funding allocated to projects aligned with themes set by Ofwat, meaning companies are not guaranteed to receive funding. The Commission has also identified concerns about the impact of the Fund, including whether it is large enough compared to programmes in other sectors and therefore whether it provides an effective tool for increasing levels of innovation in the sector.<sup>1410</sup> As such, further consideration of existing funding mechanisms and the need for new ones is required. The energy sector has successfully implemented the Network Innovation Allowance to fund innovation across electricity and gas networks, an approach the regulator could consider adopting.

**Recommendation 84: The regulator in England and Wales should consider whether innovation funding mechanisms for the water industry are sufficient and effective.**

1018. **A full review of the efficacy of the Ofwat Innovation Fund by the regulator in England and Wales would help to ensure the Fund works effectively alongside other innovation recommendations.** Given the recent increase of the fund to £400m, this would enable the regulator to

<sup>1409</sup> Energy Innovation Sector engagement with the Commission

<sup>1410</sup> Water company responses to the Call for Evidence, 2025

come to a view on whether the Fund should continue in its current form and scale when the current round of funding comes to an end in 2030. This should only take place following the current round of the Fund to ensure all lessons are captured.

1019. **A new innovation funding mechanism should be considered through the price control process, similar to the energy sector's Network Innovation Allowance.** Unlike the Ofwat Innovation Fund, this funding mechanism would not be competitively awarded. Instead, it would be pre-allocated to each water company which could then choose which eligible innovation projects to fund, provided they meet criteria set by the regulator. Any new funding mechanism should be ringfenced, ensuring all companies have access to innovation funding to help foster a sustained culture of innovation across the sector. The funding should also require all projects to be documented and shared across all water companies, promoting knowledge sharing and reducing duplication of innovation efforts across the sector.

***A lack of collaboration across the water industry hinders innovation efforts***

1020. **Ofwat's current regulatory approach seeks to generate competitive forces within the sector.** However, this emphasis on competition between companies may inadvertently discourage knowledge sharing and collaboration. In a fully competitive market, companies are naturally disincentivised from sharing knowledge with each other. In the context of water companies, fostering collaboration on innovation, rather than competition, might better serve the public interest, particularly where shared learning and collective progress are essential to addressing sector-wide challenges. Given the current focus of existing water industry bodies, there exists a gap for a body that integrates company experience, broader international experience and developments, academic insights and learnings from the Ofwat Innovation Fund and future regulatory sandboxes.

**Recommendation 85: Water companies should work with Water UK to disseminate innovation learnings across the water industry in England and Wales.**

1021. **Water companies, through Water UK, should consolidate expertise from water companies and academia, draw on international best practices and support the identification of emerging challenges and technological gaps.** A strategic, forward-looking approach should be adopted to anticipate future challenges and guide innovation efforts accordingly.
1022. **Water companies that already collaborate with research institutions and academics should be encouraged to continue doing so.** UKWIR plays a key role in this space by managing research projects that address

the major challenges facing the water industry. It also disseminates findings and practical tools to its members and stakeholders, fostering collaboration and knowledge transfer across the sector.<sup>1411</sup> Spring is a centre of excellence for innovation, dedicated to accelerating knowledge sharing and fostering collaboration across the sector and should continue to develop their approach.<sup>1412</sup>

1023. **While there are strong initiatives already in place, collaboration and knowledge sharing across the sector remains a challenge.** As new insights emerge, such as those from sandbox trials, it is important to share learnings. Active sharing of insights from Ofwat's Innovation Fund, and other innovation funding mechanisms is also critical.

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<sup>1411</sup> UK Water Industry Research, '[30 years of driving the water sector](#)' (viewed 16 July 2025)

<sup>1412</sup> Spring Innovation, '[Accelerating Water Sector Transformation](#)' (viewed 16 July 2025)







## Chapter 8: Implementation

### Scale of change

1024. **Delivering a fundamental reset of the water sector requires transformative change.** The breadth and ambition of the recommendations set out in this report collectively represent a once-in-a-generation reform programme – one capable of supporting consumers by providing a fair service and steering the sector towards long-term sustainability and resilience. It is an opportunity to make the system fit for the long-term, deliver environmental outcomes, restore public and consumer trust in the water system, and provide investors with a fair return on their investment.
1025. **The scale of change proposed in this report is significant.** The recommendations collectively introduce a substantial change load on the water system – one that will be felt across every tier of the water system, water industry and other sectors who interact and operate within the water system.
1026. **Change cannot take place overnight, and it must be planned and implemented carefully.** A reset will require sustained commitment from government, regulators, water companies, investors, and all actors with an interest in the water system, but also a disciplined and clear framework to implement recommendations effectively and in a measured and coordinated way.
1027. **The Commission expects the UK and Welsh governments to respond to its report later this year,** setting out their respective positions to the recommendations in this report.

### Early action

1028. **There is a need to move quickly where possible.** In light of the challenges facing the water system, the public, investors, eNGOs and water companies are keen to see action and change as soon as possible. There are some areas in this report where reform will take time, principally primary legislation is required. And many of the recommendations will require and will benefit from careful and effective engagement with stakeholders.
1029. **However, action in some of these could and should begin quickly. These include:**
- **Regional Water System Boards** – in England, the government could establish informal committees sponsored by the EA as a secretariat, with the Chair appointed by the Defra Secretary of State. These committees would begin to develop regional structures and engagement on regional water priorities ahead of the boards being



formally and legally established through primary legislation. In Wales, the establishment of an enhanced stakeholder forum, building on to the Price Review 2029 Forum model, could be established by the Welsh Government. The Forum would begin to develop a collaborative, stakeholder led approach on water priorities.

- **Supervisory approach** – work could begin within the current regulatory framework to develop a new supervisory function and capability within Ofwat. Legislation would then transfer to the new integrated water regulator in England once legally and formally established. For Wales, this would transfer to the new economic function in Wales once legally and formally established.
- **Social Tariff** – In England, subject to consultation, this could be delivered through secondary legislation under powers provided in the Water (Special Measures) Act 2025. Work on preparing the consultation could start quickly and set about overcoming existing barriers to those vulnerable customers eligible in accessing the financial support on offer with their bills. In Wales, the Welsh Government could review the current voluntary social tariffs offered by the two water companies in Wales, conduct a cost-benefit analysis of introducing a national social tariff and deliver an equality impact assessment to evaluate how different groups would be affected by the change.
- **Development of resilience standards** – the UK and Welsh government could launch a new Working Group, for England and Wales, to develop the infrastructure resilience standards ahead of statutory underpinning via primary legislation. The group should be facilitated by NISTA and include representatives from industry, the regulators in England and Wales and other relevant stakeholders such as engineering firms, Cabinet Office, and the British Standards Institute (BSI). It would undertake work to design the standards in good time, so they could be enacted swiftly following the passing of legislation.
- **Strategic policy statements and directions to regulators** – UK and Welsh governments should issue a new strategic policy statement to Ofwat and strategic directions to EA and Natural Resources Wales setting out how they should support the overall water reform programme during the transition. This should include a transition plan for the sector. This would provide clarity and confidence, particularly to water companies and investors, that governments are gripping the process and allow them to plan effectively for change

- **Reset approach to strategic communications** – UK and Welsh governments should use this review and the decisions on implementation to reset its approach to strategic communications regarding the water industry. Its objective should be to set justifiable criticism within the reform context, but also to show support for the industry as performance improves. The sector's environmental performance should be situated in the broader context of other sector's contributions to achieving environmental objectives, especially where remedial action for past failures is underway.
1030. **As part of early changes, shadow running could also be considered in the implementation of regulator structural changes.** As it is outlined in the Guide to Making Legislation, departments should not normally consume resources or incur expenditure on new services until the relevant legislation has Royal Assent and the department has obtained parliamentary authority. However, where expenditure must be incurred urgently, it may be possible once the legislation has passed Second Reading in the House of Commons. Departments wishing to make appointments to new public sector bodies being set up under specific legislation should wait until the legislation has received Royal Assent, however, 'shadow' bodies may be established to prepare the ground.<sup>1413</sup> In line with this, the Commission suggests the UK and Welsh governments look to establish Shadow Boards for the integrated regulator at the earliest opportunity.
1031. **Ahead of the Shadow Boards being appointed, the UK and Welsh government could establish and chair a joint committee of the regulators.** This joint committee would outline the key issues to be addressed and the likely timetables, in preparation for the establishment of the Shadow Boards. This would help facilitate the early development and design of the integrated water regulator in England and its strategic objectives, and economic function in Wales.
1032. **Chapter 4 details how Ofcom was able to prepare for its formal launch in December 2003, by taking a series of preparatory steps – including establishing a Shadow Content Board and appointing a chairman in advance of formally receiving its full powers.**

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<sup>1413</sup> [2025 Guide to Making Legislation - master version - Google Docs](#) (paragraph 18.7, page 161)

## Box 52 – Ofcom Preparations

**Ofcom formally took over its powers as the single regulator for Communications under the Communications Act 2003.**<sup>1414</sup> However, prior to the passing of the Act, several steps were taken to ensure Ofcom, in its shadow form, was prepared for its full operations upon launch. The UK Government recognised the scale of challenge and change with reforming the regulatory system for communications, not just for the regulatory system but also those being regulated.

**The first step in this process, was the establishment of Ofcom as a preparatory body as part of the Office of Communications Act 2002.**<sup>1415</sup> The ambition was to enable the seamless handover of responsibilities from the legacy regulators to Ofcom as the single regulator, when it would formally receive its full powers at a later date.<sup>1416</sup>

**Ofcom’s Board and key members of the executive committee were appointed while the regulator was operating as a preparatory body.** This included the appointments of Lord Currie of Marylebone as Chairman in August 2002, part-time members of the Board between September and December 2002, and Stephen Carter as Chief Executive in January 2003.<sup>1417, 1418</sup> These appointments supported strategic and operational readiness, and provided external confidence and legitimacy.

**Moreover, Ofcom’s Shadow Content Board was appointed in April 2003.**<sup>1419</sup> This was an important step in preparing for Ofcom’s full operations, as it allowed a governance trial run on one of the key responsibilities for the future regulator, and it ensured diverse perspectives were considered from the outset.

**The Office of Communications Act received Royal Assent on 17 July 2003, and Ofwat began its full operations on 29 December 2003, meeting the UK’s Government’s end of 2003 deadline.**<sup>1420</sup> While the overall timeline was tight, the preparatory steps taken enabled Ofcom to successfully hit the ground running.

<sup>1414</sup> [National Audit Office report \(HC 1175, 2005-06\): The creation of Ofcom: Wider lessons for public sector mergers of regulatory agencies](#)

<sup>1415</sup> [House of Commons - Culture, Media and Sport - Third Report](#)

<sup>1416</sup> [Ofcom | Institute for Government](#)

<sup>1417</sup> [National Audit Office report \(HC 1175, 2005-06\): The creation of Ofcom: Wider lessons for public sector mergers of regulatory agencies](#) (page 8); [House of Commons - Culture, Media and Sport - Minutes of Evidence](#)

<sup>1418</sup> [House of Commons - Culture, Media and Sport - Minutes of Evidence](#)

<sup>1419</sup> [House of Commons - Culture, Media and Sport - Third Report](#)

<sup>1420</sup> [House of Commons - Culture, Media and Sport - Minutes of Evidence](#)

## Legislation

1033. **Many of the reforms proposed require primary legislation to be delivered.** This would be the most significant piece of water legislation in England and Wales since the Water Industry Act 1991.
1034. **Legislation of this nature will take time.** The Commission expects the legislation itself would require at least a year of development, followed by a year in passage through UK Parliament and the Senedd. The Commission assumes the Welsh Government may choose to introduce its own Bill as water is a devolved area.
1035. **The UK and Welsh governments may also want to consult on some of the more substantial recommendations ahead of legislation.** Consultation would need to take place prior to the end of 2025 for implementation to be delivered in a timely manner.
1036. **Annex A includes the full list of recommendations in this report, alongside possible delivery approaches and an initial assessment as to whether primary legislation is required.**
1037. **Overall, while there are 88 recommendations in this report, the Commission believes that the introduction of primary legislation is likely to be centred the following five strategic themes:**
- **Strategic direction and effective planning.** Primary legislation to facilitate clearer and more consistent long-term direction, supported by an effective planning system, which itself would help better integrate all the sectors that impact on and interact with the water environment. Primary legislation would deliver a National Water Strategy for England and Wales respectively, and a comprehensive systems planning framework for England and Wales.
  - **Rationalisation of the legislative framework.** A streamlined, and more focused legislative framework would help to better clarify lines of responsibility and address concerns around ambiguity of purpose. Effective change in this area can only be delivered through primary legislation.
  - **Regulatory Reform.** We believe the recommendations for a new integrated water regulator in England and a new economic regulatory function for NRW in Wales, underpinned with a supervisory approach to regulate individual companies would fundamentally transform the water regulatory landscape. These reforms will require effective planning and underpinning through primary legislation but will provide a platform for effective regulation of the water system.

- **Ensuring water companies are attractive to stable, long-term investment.** While not all recommendations in Chapter 6 require legislative changes, the Commission believes several of the recommendations, such as concluding long-running investigations and enforcement cases as soon as possible, would support confidence in the sector. This in turn will help facilitate an environment where water companies are attractive to stable, long-term investment.
- **Infrastructure and asset health.** Infrastructure resilience should be a strategic imperative for water companies, rather than an afterthought. To achieve this, the understanding of asset health in the water sector must improve. Primary legislation will provide the platform for these changes, including the introduction of statutory resilience standards and requirements on companies to map and assess their assets.

## Water industry transition

1038. **Most recommendations within this report would directly impact the water industry.** This is particularly evident for the proposed changes to business planning processes. For example, the recommendations provided in Chapters 2 and 6 regarding regional system planning, the rationalisation of water industry business plans and strengthening the 5-year Price Review cycle with a 5/10/25 year model, albeit simpler and more beneficial, represent a fundamental change.
1039. **Moreover, the Price Review process is time and resource intensive.** Table 10 sets out the key milestones within the current water industry business planning process for AMP9. The timelines are indicative and based on timings for Price Review 2024. Ofwat are due to publish guidance for Price Review 2029 in quarter 4 of this year, water companies are already undergoing work to prepare their plans. Simultaneously, we also know water companies are focusing on raising equity and debt to finance key projects outlined within Price Review 2024.

**Table 10 – Existing milestones within the water industry business planning process for AMP 9 (assuming no reforms)**

Approx. Date	Milestone
Q3 2025	EA consult on plan for significant water management issues EA Publish first RBMP4 consultation 'Working Together' response handling
Q4 2025	EA consult on WRMP guidance Water companies begin pre-consultation engagement on WRMPs Sewerage undertakers work on DWMPs underway including stakeholder engagement and modelling



Approx. Date	Milestone
Q1 2026	EA publish WRMP guidance and SoS issues direction. The Welsh Government issues direction to NRW
Q2 2026	Ofwat publish initial high-level policy document
Q3 2026	EA and NRW publishes draft RBMPs for consultation (statutory deadline 22 December 2026) EA and NRW consult on draft programmes of measures Government consults on Strategic Policy Statement to Ofwat for Price Review 2029
Q1 2027	Government's Strategic Policy Statement to Ofwat published for Price Review 2029 Water companies publish resource position statements for WRMPs EA make final adjustments to RBMPs following consultation
Q3 2027	Ofwat's draft methodology for Price Review 2029 published for consultation EAs updated RBMPs submitted to SoS
Q4 2027	Water companies submit measures for inclusion in Price Review 29 WINEP (although water companies will likely be developing options from Q2 2026) Sewerage undertakers' draft DWMPs published for consultation Ofwat's final methodology for Price Review 2029 published EA and NRW publishes fourth cycle of RBMPs (statutory deadline 22 December 2027)
Q1 2028	EA issue draft WINEP to water companies Fourth cycle of RBMPs begins (until 2033) Water companies submit draft WRMPs to Secretary of State and Welsh Ministers and water companies consult on draft WRMPs
Q3 2028	Sewerage undertakers publish final DWMPs ahead of Price Review 2029 Water companies publish response to consultation on draft WRMPs – SoS decisions on WRMPs in early 2029
Q1 2029	Water companies develop draft business plans for Price Review 2029
Q2 2029	Ofwat publish draft determinations
Q3 2029	First annual review of statutory DWMP
Q4 2029	Ofwat publish final determinations Water companies publish final business plans for Price Review 2029
Q1 2030	EA publish final WINEP for Price Review 2029 after final determination

## Conclusion

1040. **The interim period prior to changes coming into force could create uncertainty and instability for the water industry, investors and**

**regulators.** The UK and Welsh governments should provide clarity direction and guidance on what they can expect to be introduced or removed, to what timetable, and how it will correlate with existing planning. There should also be ongoing communication between governments, regulators, water companies, investors, consumer groups and other interested stakeholders to facilitate sharing of information and collaboration on reforms.

**Recommendation 86: The UK and Welsh governments should respectively outline transition plans for water regulators, water industry and investors as part of their response to this report.**

1041. **These plans should outline the timeline for change, transitional arrangements for moving from the status quo to suggested reform, and the expectations upon the regulators and water industry.** These transition plans should be given legal underpinning in respect of regulators through an updated Strategic Policy Statement to Ofwat and statutory direction given to the EA and NRW.
1042. **Transitional arrangements will support interactions with other recommended reforms.** For example, it might be necessary for UK and Welsh governments to remove the existing requirement to produce River Basin Management Plans (RMBPs), given the interactions with the new water industry business planning framework. These plans are highly resource intensive. This could be achieved through a pause through legislative means, providing more capacity for the proposed interim shadow bodies to begin preparation of objectives and plans on a non-statutory basis.
1043. **As part of the transition process, a ‘bridging’ Price Review could be considered.** As is outlined in Table 10 and as previously discussed in Chapter 2, the planning process for Price Reviews and producing business plans demands a significant amount of resource across regulators and water companies. It is important that there is sufficient time for the water industry to transition from current to new business planning frameworks and consider and implement any wider reforms. As part of these transition plans, the UK and Welsh governments should consider the timing of price reviews to allow for water companies and the regulatory system to adapt to changes. One option for consideration is a short standalone price control cycle, to act as a bridge between Price Review 2029 and the next price control, which could for example begin in 2031/32 or to extend Price Review 2024. This could allow some recommendations to be implemented in the short-term, and the remainder to be fully implemented ahead of the next full price review. Whichever option the UK and Welsh governments seek to adopt, it will be vital to provide early clarity to water companies, investors and the regulators on the transition.

1044. **Governments should also consider the interconnected nature of recommendations.** For example, recommendations to implement infrastructure resilience standards and the requirements for companies to map their assets and assess asset condition are closely linked. Setting resilience standards can only go so far if assets are not mapped, as it is unclear if standards could be met. Therefore, the Commission should consider the timing and implementation of linked recommendations.

**Recommendation 87: To ensure effective collaborative during implementation, the UK and Welsh governments should establish an implementation advisory group for England and Wales.**

1045. **The advisory group should include a range of stakeholders,** including but not limited to representatives from water companies, investors, academics, and representatives from public health, eNGOs and consumer groups. The group should meet regularly, for example on a quarterly basis. Discussions should encompass key areas of interest and progress against key reforms. This should facilitate the sharing of information and expertise between stakeholders and government, not dissimilar to the productive engagement held between stakeholders and the Commission throughout this review. It will also critically enable government, regulators, water companies, investors, and eNGOs to be kept abreast of progress and key updates against key changes. Such a group could be chaired on a rotating basis by Defra and Welsh Ministers.
1046. **There have been several effective examples for delivering and implementing reforms in other sectors.** For example, the UK Life Sciences Council was established with representatives from government, executives from pharmaceutical companies, and experts from academia to facilitate collaboration and change in the Life Sciences sector.<sup>1421</sup> Furthermore, the Jet Zero Taskforce, made up of government ministers, airline industry leaders, academics, trade bodies, and others, was officially established in late 2024 to enable an action-oriented approach to achieving net-zero aviation emissions by 2050.<sup>1422</sup>

**Recommendation 88: An independent review of the follow up to the Commission's report should be carried out in 2 years' time.**

1047. **This would be an effective mechanism to continue to drive change.** An independent perspective would be able to ascertain the views of governments, water companies, investors, eNGOs and other interested parties to get their perspective of change in an impartial way. The Commission believes this would support change to be delivered in a

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<sup>1421</sup> [UK life sciences sector brings record growth as new Life Sciences Council meets for first time - GOV.UK](#) ; [Life sciences plan aims to support a prevention-focused NHS](#)

<sup>1422</sup> [Jet Zero Taskforce - GOV.UK](#); [Jet Zero Strategy: one year on](#)

collaborative and coordinated way. It would also allow the UK and Welsh governments to remain focused on implementation of the reforms.





## Glossary of terms and acronyms

**AMMA** - Asset Management Maturity Assessment

**AMP** – Asset Management Period, the 5-year regulatory cycle for water companies in England and Wales.

**Base** – the cost allowance Ofwat sets for water companies to cover operating and maintenance expenditure.

**BRM** – Business Retail Market, the competitive water retail market open for businesses, charities and public sector organisations in England.

**Catchment Sensitive Farming** - a joint project between Natural England, the Environment Agency & Defra, which aims to reduce diffuse water pollution from agriculture

**CCW** – Consumer Council for Water

**CMA** – The Competition and Markets Authority, an independent non-ministerial UK Government department which works on competition and consumer protection.

**CNI** – Critical National Infrastructure, those facilities, systems, sites, information, people, networks and processes necessary for a country to function.

**CPIH** – Consumer Prices Index including the owner occupiers' housing costs, an inflation metric measuring the average change in prices of goods and services paid by consumers over time, including housing costs and Council Tax.

**CSO** – Combined Storm Overflow

**Capital maintenance expenditure** – Capital maintenance expenditure refers to the investment required to maintain the operational capability and serviceability of existing assets. It includes the replacement or refurbishment of assets to ensure continued service delivery at current standards.

**Defra** – The Department for Environment, Food and Rural Affairs.

**DPC** – Direct Procurement for Customers, whereby a water or wastewater company competitively tenders for services in relation to delivery of certain large infrastructure projects, resulting in the selection of a third-party competitively appointed provider.

**DWI** – The Drinking Water Inspectorate, formed in 1990 to provide independent assurance that water supplies in England and Wales are safe and drinking water quality is acceptable to consumers.

**DWMPs** – Drainage and Wastewater Management Plans, collaborative long term strategic plans highlighting the known and expected risks for water and sewerage companies.



**EA** – The Environment Agency, an executive non-departmental public body sponsored by Defra.

**EIP** – Environmental Improvement Plan, setting out how Defra will improve our environment in the UK and around the world.

**eNGO** – Environmental Non-Governmental Organisation, non-profit organisations which work to protect the environment.

**Enhancement** – the cost allowance Ofwat sets for water companies to cover new investment expenditure.

**FCA** – The Financial Conduct Authority, a financial regulatory body in the United Kingdom who operate independently of the UK Government.

**FTE** – Full- Time Equivalent, a unit of measurement that indicates the workload of an employee or group of employees in terms of full-time position

**GES** – Good Ecological Status, the default objective for all water bodies which is set by the WFD, defined as a slight variation from undisturbed conditions.

**Highways England** - Operates, maintains and improves England's motorways and major A roads.

**HMG** – His Majesty's Government

**ISO** – International Asset Management Standard which, under the International Standardisation Organisation series, sets standards that provide guidance for developing and improving asset management systems.

**Local Plans** - set planning policies in a local authority area.

**NAO** – National Audit Office

**NIC** – The National Infrastructure Commission, which provides impartial advice to the UK government on infrastructure to shape and develop the national infrastructure assessment.

**NIS** – Network and Information Systems Regulations, which provide legal measures to boost the level of security (both cyber & physical resilience) of network and information systems for the provision of essential services and digital services.

**NISTA** – National Infrastructure and Service Transformation Authority, the successor to the NIC, is a public agency advising the UK Government on infrastructure delivery and improvement.

**NRW** – Natural Resources Wales, a Welsh Government sponsored body which ensures the environment and natural resources of Wales are sustainably maintained and used, now and in the future.

**ODI** – Outcome Delivery Incentive, which provides financial payments to water companies from customers for performing beyond their committed levels of service

and also provides payments from companies to customers for performing below their commitments.

**OEP** – The Office for Environmental Protection, whose role is to protect and improve the environment by holding government and other public authorities to account.

**OSM** – Operator Self-Monitoring, through which water companies must collect and analyse samples of permitted discharges that are subject to numeric quality limits.

**Ofwat** -The Water Services Regulation Authority, a non-ministerial government department established in 1989 when the water and sewerage industry in England and Wales was privatised.

**Price Review** – the process through which water companies set out their plans at the start of every AMP for what they will deliver and how much they will charge customers.

**Price Review Forum** – a forum which issues strategic steers directly to water companies in Wales that provide joint views on the priorities and helps to guide the development of water company business plans.

**PRA** – the Prudential Regulation Authority, which is a UK financial regulatory body, responsible for the prudential regulation and supervision of banks, building societies, credit unions, insurers, and major investment firms. It is part of the Bank of England.

**RAPID** – The Regulators’ Alliance for Progressing Infrastructure Development, a partnership made up of the 3 water regulators – Ofwat, the EA and the DWI.

**RBMPs** – River Basin Management Plans, which set out the locally specific enforcement environmental objectives underpinning water regulation and planning activities.

**River Basin** – the area of land from which all surface water run-off flows through a sequence of streams, rivers and lakes into the sea at a single river mouth or estuary.

**RPI** – Retail Prices Index, an inflation metric measuring the change in the cost of a representative sample of retail goods and services over time.

**SAC** – Special Areas of Conservation, a network of conservation sites which UK and Welsh ministers designate under the Conservation of Habitats and Species Regulations 2017, which will make a significant contribution to conserving key habitats and species.

**SDS** – Spatial Development Strategies provide strategic policies for the development and use of land in the area they cover

**SEMD** – Security and Emergency Measures Direction 2024, a ministerial direction to water and sewerage undertakers and water supply licensees in England and Wales.

**SIPR** – Specified Infrastructure Projects Regulations, which give the Secretary of State for Environment, Food and Rural Affairs, under certain circumstances, the power to specify 7 that an infrastructure project in England and/or Wales must be put out to competitive tender rather than being delivered by the relevant incumbent water or sewerage company.

**SMR** – Senior Managers Regime, applies to the financial sector and seeks to ensure that financial institutions adhere to exemplary standards of governance and accountability.

**SPS** – Strategic Policy Statements, published by the UK and Welsh Governments once per Price Review period to guide Ofwat on its strategic priorities and objectives when carrying out its relevant functions in relation to the water industry.

**Storm Overflow Discharge Reduction Plan** – under this Plan, water companies in England must meet several time-bound targets to limit storm overflow use and eliminate ecological harm from their discharges by 2050.

**Thames Tideway Tunnel** - a newly operational 25-kilometre-long sewer in London to reduce the amount of sewage that flows into the River Thames.

**UWWTR** – Urban Wastewater Treatment Regulations, a directive aimed at protecting the environment and public health from urban and industrial wastewater discharges.

**WASCs** – Water and sewerage companies, which source, treat and transport water to customers and are also responsible for removing and treating wastewater.

**WACC** – Weighted Average Cost of Capital, is a company's average after-tax cost of capital from all sources, including common stock, preferred stock, bonds, and other forms of debt.

**WICS** – Water Industry Commission for Scotland, the economic regulator of Scottish Water and an Executive Non-Departmental Public Body.

**WFD** - The Water Framework Directive, which introduced the RBMP framework to help protect and improve the ecological health of our rivers, lakes, estuaries and coastal and groundwaters.

**WINEP** – Water Industry National Environment Programme, a programme of actions which water companies in England follow to improve the environment.

**WOCs** – water-only companies, which source, treat and transport water to customers.

**WRMPs** - Water Resource Management Plans, which set out how water companies intend to achieve a secure supply of water and a protected and enhanced environment.





## Annex A: List of recommendations with indicative delivery approach and legislative changes

The following table includes the full list of recommendations in Chapters 1 to 8 in the report. The table provides a possible delivery approach for each of the recommendations and an initial assessment as to whether primary legislation would be required to be delivered.

While the Commission has suggested some delivery routes, it is for UK and Welsh governments to decide how to take these recommendations forward and by which route they wish to take forth legislative changes, taking account of existing powers and, in relation to Wales, any legislative competence considerations that may arise.

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
Chapter 1: Strategic Direction for the Water System				
1	<b>The UK and Welsh government should each bring forward a new, long-term, cross-sectoral, and systems-focused National Water Strategy for England and Wales respectively.</b>	Delivery via future Bill.	✓ Yes	England and Wales
2	<b>The UK and Welsh governments should revise the legal framework for the Strategic Policy Statement and replace this with a new Ministerial Statement of Water Industry Priorities (MSWIP), directing all water industry regulatory and systems planner functions.</b>	Delivery via future Bill.	✓ Yes	England and Wales
Chapter 2: Planning				
3	<b>A comprehensive systems planning framework should be introduced for England and Wales,</b>	England: Interim shadow implementation possible through	✓ Yes	England and Wales



Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	<b>with responsibility for integrated and holistic water system planning. In England, the systems planners should be regional – or ‘regional water authorities’. In Wales, the systems planner should be a national authority.</b>	informal EA sponsored regional Committees in short term; statutory underpinning via future Bill for independent regional system planners  Wales: Interim shadow implementation through NRW sponsored committee in short term; statutory underpinning via future Bill.		
4	<b>The 5-year Price Review cycle should be retained, in England and Wales, for setting water bills and company revenues over a 5-year period but water industry investment planning should be conducted on a 5/10/25 year basis with the greater certainty and granularity for the first 5 years, more indicative plans for the following 5 years and higher level indication for the longer term.</b>	Consider a bridging Price Review to allow time to plan 5-10yr window	✓ Yes	England and Wales
5	<b>Water industry planning should be rationalised down from 9 plans into 2 core planning frameworks – ‘Water Environment’ and ‘Water Supply.’ This applies to England and Wales.</b>	Consider a bridging Price Review and phasing to allow development of strategies	✓ Yes	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
6	<b>The national coordinator of the systems planner in England, and the national systems planner in Wales, should take on responsibility for ensuring consistency in scenarios, assumptions, and metrics for water industry planning across the new planning framework.</b>	Implementation through guidance by national coordinator	✗ No	England and Wales
7	<b>The systems planner, with the support of the economic regulator, should require, support, and scrutinise a strengthened approach to option development and cost-benefit analysis across water industry planning frameworks. This applies to England and Wales.</b>	Implementation through guidance by national coordinator	✗ No	England and Wales
<b>Chapter 3: Legislative Framework</b>				
8	<b>The UK and Welsh governments should review the current water legislative framework and amend it accordingly.</b>	Delivery via future Bill as far as possible, followed by subsequent secondary legislation where needed.	✓ Yes	England and Wales
9	<b>The UK and Welsh governments should update and reform the UWWTR 1994 to deliver better outcomes and a more sustainable approach to drainage and wastewater management. This should involve reporting on whether an Extended Producer Responsibility scheme is needed for the water sector to fund necessary improvements.</b>	Delivery via future Bill	✓ Yes	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
10	<b>Government should consider legislative changes to drive a more coherent approach to ‘pre-pipe’ solutions to stop pollutants and rainwater entering the system.</b>	Delivery via future Bill	✓ Yes	England and Wales
11	<b>The UK and Welsh governments should consult on reforms to the WFD Regulations, including broadening the scope to include public health outcomes.</b>	Delivery via future Bill	✓ Yes	England and Wales
12	<b>To facilitate a robust assessment of how public health can be effectively incorporated into a new water framework, the UK and Welsh governments should establish taskforces led by the Chief Medical Officers of England and Wales to review the incorporation of public health better into the legislative framework for water.</b>	Creation of public health taskforces can begin without legislation	✗ No	England and Wales
13	<b>Future water monitoring programs should be reviewed and adequately resourced, to accurately reflect the state of the environment.</b>	Governments to work with regulators.	✗ No	England and Wales
14	<b>In England, the review of the legislative framework should take forward the concept of ‘constrained discretion’ for the regulator. This should also apply to the water systems</b>	Delivery via future Bil	✓ Yes	England





Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	<b>planners, should they sit in an independent body.</b>	Guidance to regulators and systems planners through National Water Strategy and MSWIP. Regulators to make operational, policy and guidance changes.		
15	<b>In Wales, a strengthened constrained discretion framework should build on the discretion already enabled by the sustainable development principle within the Well-being of Future Generations Act.</b>	Guidance to regulators and the systems planner through National Water Strategy and MSWIP.	✗ No	Wales
<b>Chapter 4: Regulator Reform</b>				
16	<b>The UK Government should establish a new integrated regulator in England. This should combine the functions of Ofwat, DWI, and water functions from the Environment Agency and Natural England.</b>	Shadow board could be established ahead of legislation; full delivery via future Bill	✓ Yes	England
17	<b>The Welsh Government should establish a new economic regulatory function in Wales that can align directly with the Welsh Government's strategic direction and guidance. The Commission's view is that the better course, subject to consultation, would be to embed this into NRW alongside the wider regulatory</b>	Consultation proposed with delivery via future Bill	✓ Yes	Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	functions for water in Wales, though a small freestanding body, as in Scotland, might also be considered.			
Chapter 5: Regulation Reform				
18	The regulator should adopt a more 'supervisory approach' to regulating individual companies. This applies to England and Wales.	Interim supervisory capability could be built within Ofwat ahead of transfer to the new regulator; full delivery via future Bill.	✓ Yes	England and Wales
19	The regulator should ensure funding is directed appropriately to renew assets by clearly defining and ring-fencing base capital expenditure (capital maintenance), base operational expenditure and enhancement capital expenditure allowances. This applies to England and Wales.	Regulator to make changes using existing powers.	✗ No	England and Wales
20	Following the establishment of a new methodology for assessing asset condition and expected life, the regulator should consider the merits of linking RCV run-off more closely to the economic depreciation of assets. This applies to England and Wales.	Regulator to make changes using existing powers.	✗ No	England and Wales



Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
21	<b>The regulator should withdraw the quality and ambition assessment (QAA). This applies to England and Wales.</b>	Guidance to be updated to remove requirements relating to the QAA.	✗ No	England and Wales
22	<b>The regulator should review the performance incentives framework, to rationalise the overall number of PCs and make their corresponding ODI rewards, penalties and returns at risk, clear. This applies to England and Wales.</b>	Price Control incentives methodology to be updated.	✗ No	England and Wales
23	<b>UK Government should consider providing the CMA with responsibility to set a common WACC methodology for all UK regulated sectors. This includes the water sector in England and Wales.</b>	Delivery via future Bill.	✓ Yes	England and Wales
24	<b>Defra should change the nature of the CMA dispute process for water companies from redeterminations to a standard appeal procedure, in line with other sectors. This applies to England and Wales.</b>	Delivery via future Bill.	✓ Yes	England and Wales
25	<b>The regulator in England and in Wales should significantly reform the system of Operator Self-Monitoring. It should develop a strengthened approach to monitoring, using greater digitisation, automation, public</b>	EA and NRW to introduce new regulatory approaches and regulator guidance.	✗ No	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	transparency, third-party assurance and intelligence-led inspections.			
26	<b>The UK Government should review the approach to Continuous Water Quality Monitoring. This review should evaluate the effectiveness and value for money of these monitors, with a view to enhancing cost-efficiency through the adoption of technological advancements.</b>	Government led review.	✗ No	England
27	<b>The UK and Welsh governments should tighten regulatory oversight of sludge activity by moving the treatment, storage and use of sludge into the Environmental Permitting Regulations.</b>	Statutory underpinning via secondary legislation	✗ No	England and Wales
28	<b>The UK and Welsh governments should implement the civil sanctions provisions in the Water (Special Measures) Act 2025 that will expand the regulator's toolkit to enable swifter enforcement.</b>	Statutory underpinning via secondary legislation	✗ No	England and Wales
29	<b>The EA should accelerate their efforts to bring resolutions to long-running enforcement cases in consideration of the public interest of delivering justice for any historic offences.</b>	Regulator to engage with industry	✗ No	England
30	<b>The regulator should significantly accelerate the implementation of digital programmes to</b>	Government to work with regulators	✗ No	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	support intelligence-led and transparent enforcement and compliance activities.			
31	<b>The UK and Welsh governments should take steps to ensure full cost recovery from the industry to ensure that the regulatory service is self-sufficient and in line with the polluter pays principle.</b>	Consultation required for charging for any new regulatory functions; possible changes to existing charge powers	 No providing functions considered are within existing powers. Otherwise, primary legislation would be required.	England and Wales
32	<b>The UK and Welsh governments should ensure that their regulators are equipped with sufficient powers, operational flexibility and the ability to recruit and retain high-quality technical staff. This should include establishing the new regulator outside of public sector pay controls.</b>	Delivery via future Bill to establish new regulator outside of public sector pay controls.	 Yes	England and Wales
33	<b>The UK and Welsh Governments should ensure an effective process is in place for regularly reviewing and updating drinking water standards.</b>	Delivery via future Bill	 Yes	England and Wales
34	<b>The UK and Welsh governments should introduce powers to strengthen the regulator's toolkit in relation to drinking water, including an extension of its powers to cover all third-party operators, and powers to directly impose financial penalties.</b>	Delivery via future Bill	 Yes	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
35	<b>The regulator, water industry and UK and Welsh governments should secure and expand Regulation 31 testing services for drinking water products.</b>	Collaboration between water industry, governments and DWI.	✗ No	England and Wales
36	<b>The Commission recommends the UK and Welsh governments improve regulatory oversight of water industry abstraction activity by bringing it under the Environmental Permitting Regime.</b>	Statutory underpinning via secondary legislation	✗ No	England and Wales
37	<b>The UK and Welsh government should accelerate efforts to reduce household water consumption by introducing compulsory smart metering for a wider range of circumstances.</b>	Delivery via future Bill	✓ Yes	England and Wales
38	<b>Tariff structures should be changed to incentivise water efficiency. This could involve removing falling block tariffs for non-household consumption.</b>	Regulatory guidance	✗ No	England and Wales
39	<b>Standards should be issued for the roll-out of smart meters in the non-household market in England and Wales.</b>	Regulatory guidance	✗ No	England and Wales
40	<b>The UK and Welsh governments should work with their regulators to develop a new policy and regulatory framework to drive the adoption of water re-use infrastructure in the household and non-household markets.</b>	Regulatory guidance	✗ No	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
41	<b>The regulator should strengthen the C-Mex incentive to better reflect customer experience and move to a supervisory approach to the monitoring of the customer-focused licence condition.</b>	Regulatory guidance	✗ No	England and Wales
42	<b>The UK Government should consult on the introduction of a national social tariffs with consistent eligibility criteria and levels of support.</b>	Consultation on the introduction of national social tariffs with consistent eligibility criteria and levels of support. Dependent on the outcome of the consultation this change could be delivered through secondary legislation through the Water Special Measures Act 2025.	✗ If national social tariffs are introduced, this can be done through secondary legislation through the Water Special Measures Act 2025.	England
43	<b>The Welsh Government should review existing social tariff schemes provided by the 2 companies in Wales and consider reforms to ensure they are providing equitable outcomes.</b>	Depending on its review, the Welsh Government may need to take powers similar to those taken by the UK Government under the Water Special Measures Act 2025.	✗ No (subject to review)	Wales
44	<b>The UK and Welsh governments should consider whether to convert the Consumer Council for Water into a new mandatory Water Ombudsman.</b>	Statutory underpinning via future Bill.	✓ Yes	England and Wales
45	<b>The government should consider transferring the advocacy functions of CCW to Citizens</b>	Statutory underpinning via future Bill.	✓ Yes	England and Wales



Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	<b>Advice, providing a stronger voice for customers, that the water regulator is required to respond to.</b>			
<b>Chapter 6: Companies</b>				
46	<b>The regulator in England and Wales should adopt an evidence-based process to consider, on a case-by-case basis, whether it would be appropriate for a water company to transition to an alternative ownership model where they request to do so or following a SAR.</b>	Regulatory consideration	✗ No	England and Wales
47	<b>The regulator in England and Wales should have the power to block material changes in control of water companies.</b>	Delivery via future Bill.	✓ Yes	England and Wales
48	<b>The regulator in England and Wales should be provided with powers to direct parent companies and ultimate controllers.</b>	Delivery via future Bill.	✓ Yes	England and Wales
49	<b>The regulator in England and Wales should mirror elements of the Articles of Association in licence conditions to strengthen accountability.</b>	Regulator to consult on potential licence condition change, and issue subsequent guidance	✗ No	England and Wales
50	<b>The regulator in England and Wales should continue current plans to strengthen governance standards and bring its principles</b>	Regulator to update principles for good governance and consider moving into rules using existing	✗ No	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	into line with the UK Corporate Governance Code. Rules should apply to all water companies, listed and unlisted, and create a level playing field in governance and transparency across all companies.	governance and remuneration rule-making power.		
51	<b>A new regime for senior accountability should be established by the UK and Welsh Government. The proposed regime should be subject to public consultation before implementation.</b>	Delivery via future Bill. Regulator to consult on policy statement on how power will be used.	✓ Yes	England and Wales
52	<b>The UK and Welsh Government should include a target relating to the stability of the regulatory model as an objective in its strategic guidance.</b>	Delivery via future Bill.	✓ Yes	England and Wales
53	<b>UK Government should use the opportunity of this review and its decisions on the implementation of the Commission's recommendations to reset its approach to strategic communications regarding the water industry. Its object should be to set justifiable criticism within the context of reform and to show support for the industry as performance improves. The Government should also set the sector's environmental performance in the</b>	UK Government to review approach to strategic communications.	✗ No	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	<b>broader context of the contributions of other sectors to achieving environmental objectives, especially where remedial action for past failures is underway.</b>			
54	<b>The regulators in England and Wales should conclude long-running investigations and enforcement cases as soon as possible as part of a reset of the sector.</b>	Regulator to review enforcement and sanction policy, and consider updates	✗ No	England and Wales
55	<b>The regulator in England and Wales should consider how best to promote the use of environmental bonds.</b>	Regulatory review	✗ No	England and Wales
56	<b>A financial supervision framework should be embedded as part of a broader supervisory model. Within this framework, the regulator in England and Wales should publish a range of risk factors that inform their judgement of a company's financial risk profile.</b>	Regulator to consult on policy statement summarising their approach to financial supervision, as part of broader supervisory model.	✗ No	England and Wales
57	<b>The regulator in England and Wales should have the power to set minimum capital levels for water companies.</b>	Delivery via future Bill.	✓ Yes	England and Wales
58	<b>A formal turnaround regime should be established for the regulator in England and Wales to support turnaround of poorly performing companies. This should enable</b>	Delivery via future Bill.	✓ Yes	England and Wales






Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	both an enhanced power of direction as well as regulatory forbearance.			
59	The regulator in England and Wales should develop and consult on a framework for ensuring companies are prepared for SAR.	Regulator to consult on framework for ensuring companies are prepared for SAR.	✗ No	England and Wales
60	The UK Government should conduct a full post-implementation review of the BRM. The Welsh Government may also wish to consider a post-implementation review of the BRM, although the Commission recognises policy towards the BRM is different in Wales than England.	UK Government to review BRM.	✗ No	England
61	The government and regulator in England and Wales should explore short-term measures to improve the functioning of the BRM.	Delivery via future Bill.	✓ Yes	England and Wales
62	The framework for regulating NAV applications in England should be made more proportionate to support housing growth. The Commission recognises that given different views on the benefits of NAVs, the Welsh Government may decide not to pursue these reforms these reforms.	Delivery via future Bill.	✓ Yes	England
63	The Commission sees a strong case for dropping the requirement for NAVs to produce	Delivery via future Bill.	✓ Yes	England

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	WRMPs and DWMPs given the view of the EA and for changes to the requirements upon them in relation to drinking water testing.			
64	The Commission believes the UK government should monitor NAV market size and risk of fragmentation.	UK Government to review NAV market.	✗ No	England
65	The regulator in England should continue the essential steps that Ofwat is taking to address issues with DPC and SIPR. A full evaluation of both schemes should be undertaken in 5 years when a broader evidence base has been accumulated. The Commission recognises that given different views on the benefits of DPC and SIPR, the Welsh Government may decide not to pursue these reforms.	UK Government to review DPC and SIPR.	✗ No	England
Chapter 7: Infrastructure and Asset Health				
66	Statutory resilience standards, covering system, infrastructure and supply chains, should be developed and adopted for the water industry in England and Wales.	Working group established to include representatives from industry, regulators, and other relevant stakeholders; delivery via future Bill	✓ Yes	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
67	<b>The UK and Welsh Governments should strengthen the requirements on companies to map and assess the health of their assets, and the regulator should ensure metrics for asset health are sufficiently forward-looking.</b>	Delivery via future Bill.	✓ Yes	England and Wales
68	<b>The regulator's oversight of infrastructure resilience and asset health should be strengthened, under its supervisory approach. This should include the appointment of a Chief Engineer on the board of the regulator in England and Wales respectively.</b>	Delivery via future Bill for supervisory framework; appointment of Chief Engineer to Board of the new regulator.	✓ Yes	England and Wales
69	<b>The regulator should conduct a sector-wide risk assessment of critical supply chain dependencies in England and Wales.</b>	Regulator to undertake risk assessment.	✗ No	England and Wales
70	<b>The UK and Welsh Government should strengthen legislation relating to security arrangements for the water industry to ensure it keeps pace with a changing industry.</b>	Delivery via future Bill.	✓ Yes	England and Wales
71	<b>The regulator should be provided with stronger powers for the enforcement of existing security regulations in England and Wales.</b>	Delivery via future Bill.	✓ Yes	England and Wales
72	<b>The role of water companies in the planning process in England should be strengthened to ensure they have sufficient sight and influence</b>	Delivery via future Bill	✓ Yes	England and partial in Wales



Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	over upcoming developments. The 'right to connect' should be reviewed.			
73	<b>Planning processes in England should be updated to support the timely delivery of water industry infrastructure.</b>	Delivery via future Bill	✓ Yes	England
74	<b>Permitted development rights (PDRs) for water companies in England and Wales should be updated to reduce the scale of delivery requiring full planning permission.</b>	Consultation and statutory underpinning via secondary legislation	✗ No	England and Wales
75	<b>RAPID, in England and Wales, should be expanded and strengthened to support strategic infrastructure delivery.</b>	Regulator-led consultation on changes to RAPID scope.	✗ No	England and Wales
76	<b>NISTA should consider how the water industry in England and Wales could move towards standardised practices and further recommend how this could be advanced.</b>	NISTA-led working group with water industry.	✗ No	England and Wales
77	<b>The delivery assurance frameworks (Delivery Plans and Delivery Monitoring Framework) that cover infrastructure capital spending across England and Wales should be reviewed during AMP8 and rationalised.</b>	Regulator-led review of existing frameworks.	✗ No	England and Wales
78	<b>A review of the current PCD framework in England and Wales should be completed before the end of AMP8, to inform a more</b>	Regulator-led review of existing framework.	✗ No	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
	<b>robust and flexible framework, broadly set at programme level spending.</b>			
79	<b>Under the supervisory approach, the regulator in England and Wales should provide assurance on how a company is delivering infrastructure spend.</b>	Delivery via future Bill	 Yes	England and Wales
80	<b>The regulators and systems planners, in England and Wales, should jointly undertake a water industry infrastructure delivery needs assessment against an assessment of supply chain capacity.</b>	Regulator and systems planner to conduct an assessment	 No	England and Wales
81	<b>Water companies, through Water UK, should share best practice on supplier contracts and procurement strategies to help improve water company relationships with the supply chain in England and Wales.</b>	Industry-led initiatives	 No	England and Wales
82	<b>The regulator, under its supervisory function, should gain further assurance from companies in England and Wales on workforce and supply chains to ensure companies can sufficiently deliver.</b>	Developed as part of wider supervisory model	 No	England and Wales
83	<b>The UK and Welsh governments should introduce structured regulatory sandboxes to support innovation uptake</b>	Working group with regulators and industry to develop detailed proposal before implementation.	 No	England and Wales

Number	Recommendation	Delivery approach	Is Primary Legislation required?	Country scope
84	<b>The regulator in England and Wales should consider whether innovation funding mechanisms for the water industry are sufficient and effective.</b>	Consideration of new ringfenced funding mechanism by regulator ahead of PR29.	✗ No	England and Wales
85	<b>Water companies should work with Water UK to disseminate innovation learnings across the water industry in England and Wales.</b>	Industry-led initiatives	✗ No	England and Wales
<b>Chapter 8: Implementation</b>				
86	<b>The UK and Welsh governments should respectively outline transition plans for water regulators, water industry and investors as part of their response to this report.</b>	Transitional plans providing guidance, to be given legal underpinning to regulators through an updated Strategic Policy Statement to Ofwat and legal direction given to the EA.	✗ No	England and Wales
87	<b>To ensure effective collaboration during implementation, the UK and Welsh governments should establish an implementation advisory group for England and Wales.</b>	Collaborative stakeholder group to advise and share updates throughout implementation.	✗ No	England and Wales
88	<b>An independent review of the follow up to the Commission's report should be carried out in 2 years' time.</b>	Government review on implementation	✗ No	England and Wales

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