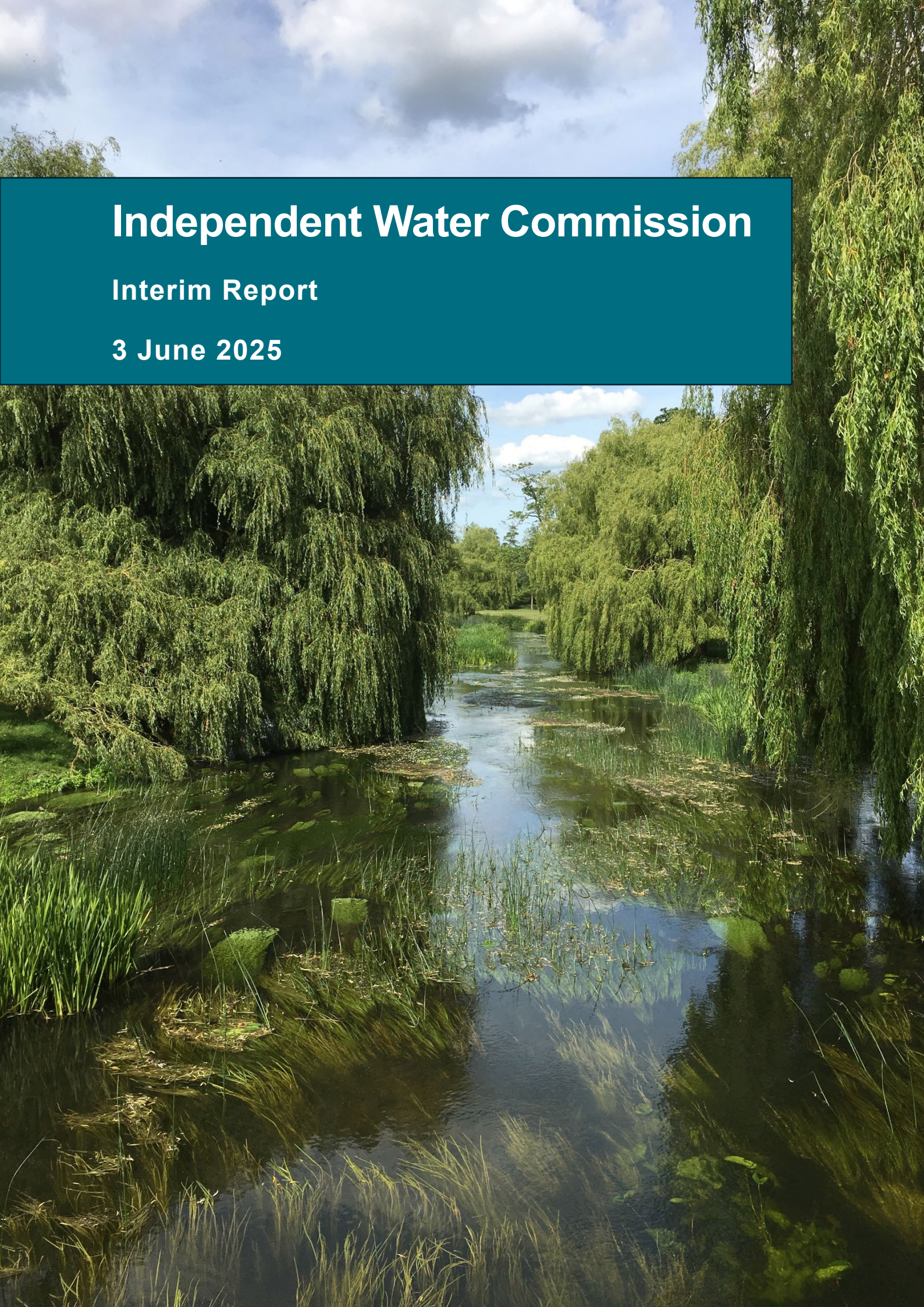

Independent Water Commission

Interim Report

3 June 2025

Contents

Foreword

The provision of water, and the quality of our natural water environment, affects everyone.

Consequently, the benefits at stake from a reset of the water sector could not be larger – for people, and for protecting the environment. My goal, in leading the Independent Water Commission, is to provide credible recommendations that will help to realise those benefits.

When we launched our Call for Evidence earlier this year, we did so with a clear intention: to listen carefully, think rigorously, and grasp the scale of challenge and opportunity facing the water sectors in England and Wales. The volume and quality of responses exceeded expectations. From community groups and environmental organisations to industry leaders, investors and economists, the strength of feeling was evident. What we heard was clear: the current system is not delivering what people expect and need.

Public trust in the water sector has been shaken – by pollution, financial difficulties, mismanagement, infrastructure failures, and by a sense that decisions affecting people's daily lives are made too far from their communities, that local voices are lost. Restoring that public trust is paramount.

The Commission's final report, in the summer, will have our full conclusions and recommendations across the range of issues that have been raised with us. This interim report sets out our preliminary conclusions in a number of key areas that we believe have to be at the centre of reforming the system.

First, the sector needs a clearer and more consistent long-term direction – one that aligns environmental ambition, the provision of water supply and wastewater removal, and the expectations of customers. Too often, policy has been shaped by short-term pressures rather than by sustained, coherent planning. A credible reset must be grounded in a long-term strategic vision that is sustained over political and regulatory cycles. This is also important to support smoothing of customer bills over time, avoiding the spikes we have seen in the most recent price review. And it must be supported by a more effective planning framework – in England, at the regional water system level; in Wales, at the national level – reflecting local priorities and respecting local voice while maintaining national coherence; and better integrating all of the sectors that impact on and interact with the water environment, including farmers.

Second, we believe the legislative framework that underpins the sector must be revisited. Over the years, a complex layering of statutory duties and regulatory

obligations has created a system that can be difficult to navigate, both for those delivering services and those holding them to account. A streamlined, and more focused legislative framework could clarify lines of responsibility and remove any ambiguity around purpose. As part of this, it would be an opportunity to update the legislation to take account of the latest science and consider whether its objectives need to be broadened, for example, to include public health. And we see a role for constrained discretion within the regulatory framework — flexibility to support decisions that allow for innovation, such as nature-based solutions, while maintaining clear accountability. Such an approach can help unlock both environmental and economic objectives and support long-term investment in a more adaptive sector.

Third, the model of regulation must be fundamentally strengthened and rebalanced. We believe a more supervisory approach to water companies is needed — one that combines strategic oversight with a deep understanding of company-specific contexts. This means earlier, more active engagement by regulators to identify and address emerging risks, and to assess capability. And it means a regulator better able to support turnaround where performance is falling short. Such an approach can build regulatory confidence, improve delivery outcomes, and restore legitimacy in the eyes of customers and the public. With respect to customers, the consumer voice should be strengthened and affordability measures implemented to ensure customers get what they have paid for and vulnerable customers are supported.

Fourth, the water companies must be made more attractive to stable, long-term investors. As effective monopolies providing an essential public good, it is appropriate that water companies should present relatively low risks and consequently offer relatively low returns. However, to attract such long-term investors, willing to make the substantial future investment we need, risks also need to be lower than they are presently. In large part, this means restoring confidence in the stability and predictability of the regulatory system. But the industry also has a major part to play and there are also lessons from other sectors – for example, around governance and management responsibilities – we should explore.

And finally, water infrastructure resilience must be brought to the fore. Climate shocks, ageing assets, and rising demand mean the system faces growing pressure. Resilience must be treated not as a technical afterthought but as a strategic imperative. An infrastructure resilience and asset health framework is required to ensure that we do not just fix failures when they occur but rather responsibly plan for the long-term condition and performance of critical assets.

We do not underestimate the scale of the challenge. But the case for a reset — of how we plan, regulate, and govern water in England and Wales — is compelling. This report outlines our direction of travel, and the scale and nature of the change necessary, and sets the stage for our final report.

We are grateful to all those who have shared their insights so far, and the constructive way in which they have done so, and we look forward to continuing the conversation as we prepare our final report.

Sir Jon Cunliffe, June 2025

Executive Summary

1. The Independent Water Commission was established by the UK and Welsh governments on 23 October 2024. Its objective is to provide recommendations for a fundamental 'reset' of the water sector – to restore public confidence in the sector and its regulation, to ensure action to attract the investment needed to clean up the waterways of England and Wales, and to establish a framework that will meet the water demands of the future.

2. The Terms of Reference of the Commission are wide, multi-dimensional, and detailed. They include the strategic management and planning for the water system as a whole, the regulation of the water industry, the performance and resilience of water companies and consumer protection. As set out in the Terms of Reference, in looking at the water industry the Commission has been tasked to focus on reforms to improve the privatised regulated model. It will not make recommendations that impact Price Review 2024 and it will not make recommendations specific to any individual water companies.[1]

3. There is no simple, single change, no matter how radical, that will deliver the fundamental 'reset' of the water sector that is the governments' objective. The current position derives from a complex and interlocking set of issues which need to be addressed concurrently.

4. This interim report therefore sets out the Commission's preliminary conclusions in 5 key inter-related areas where, based on its evidence and engagement to date, major and ambitious change is needed. This report is not exhaustive: a number of important issues on which thinking is at an earlier stage are not covered. These will be included in the final report, which the Commission aims to publish in the summer. This will set out further conclusions and detailed recommendations across all the Terms of Reference, and will also cover the timing and implementation of the reforms proposed.

5. Since the launch of the Commission, we have engaged extensively – holding over 150 meetings with multiple stakeholders that have an interest in the water sector. The Commission has been greatly encouraged by the extent to which – on all sides of the debate – stakeholders have been prepared to engage constructively with our work. While there are many different and strongly held views, there is a powerful consensus that the current system is not working well and that change is needed.

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[1] Independent Water Commission, 'Independent commission on the water sector regulatory system: terms of reference', 2024

6. Our Call for Evidence, which closed on 23 April 2025, has elicited more than 50,000 responses, demonstrating the strength of feeling on the issues facing our water system. Initial analysis of these responses is provided at **Annex A**. The Commission is continuing to evaluate these responses, alongside the range of evidence received through our engagement with environmental non-governmental organisations (eNGOs), water companies, regulators, investors, politicians, and international partners, among others. As such, our thinking will continue to evolve between now and the publication of the final report.

7. The 5 areas covered in this interim report are: i) strategic direction and planning ii) the legislative framework, iii) regulatory reform, iv) company structures, ownership, governance and management, and v) infrastructure and asset health.

Strategic direction and planning (Section 1)

Strategic direction (Section 1a)

8. The Commission's view is that there is a need for clearer, long-term strategic direction from government in England and in Wales on what is needed from the water system. Balancing the different pressures on water – including from the water industry, agriculture, land-use, energy, transport and development – while protecting our water environment and providing a plentiful water supply, requires direction and guidance on objectives, priorities and trade-offs that only government can make.

9. Currently, government strategy for the water sector has been communicated through a range of different documents, such as the Plan for Water in England (introduced for the first time in 2023) and the Water Strategy for Wales (published in 2015) in Wales.[2] These documents have lacked clear prioritisation and costing of objectives over the short- and long-term, alongside insufficient focus on sectors beyond the water industry.

10. In addition, short-term guidance targeted at the water industry is primarily provided through the UK and Welsh Strategic Policy Statements (SPS) to Ofwat, published roughly every five years.[3] As the vehicle for delivering government strategy for the water industry, the SPS has limitations. It is directed only at Ofwat – the economic regulator for the water industry – and

[2] Defra, 'Plan for Water: our integrated plan for delivering clean and plentiful water', 2023; Llywodraeth Cymru Welsh Government, 'Water Strategy for Wales', 2015
[3] Defra, 'Strategic policy statement for Ofwat - GOV.UK', 2022; Llywodraeth Cymru Welsh Government, 'Written Statement: Strategic Priorities and Objectives Statement for Ofwat (SPS) (6 July 2022) | GOV.WALES', 2022

so does not apply to the environmental regulators in England and in Wales, the Drinking Water Inspectorate (DWI), nor the respective water systems more broadly. Where it does apply, it lacks clear prioritisation, measurable targets and accountability.[4]

11. The Commission is considering options for UK and Welsh governments to set a clearer, more coherent long-term vision and direction for the water system. Setting such a strategic plan should include clearer direction on objectives, priorities and milestones for the achievement of longer-term targets. Where there are trade-offs, government needs to give high level guidance to the regulators on how to balance objectives.

Water Systems Planning (Section 1b)

12. Water in England and Wales comprises a number of discrete regional water systems. Only government can set the overarching strategic goals and priorities for water but 'system planning', the translation of those goals into investment and improvement, needs to happen predominantly at the regional level. It should involve the regional and local actors that put demands on the water system.

13. 'System planning' for water is not a new activity. At present, in England, a range of planning mechanisms exist at both the national and regional levels directed predominantly at the water industry. In Wales, planning is primarily undertaken at a national scale, developed with some key stakeholders.[5] In both cases, however, the Commission has heard that engagement with key regional and local actors is weak and the local voice is lost in the system.

14. The Commission's view is that, in England, systems planning should, in the main, be done at a regional level to allow local requirements on water supply and water environment to be more effectively considered, siloed decision-making avoided, and mutual benefits unlocked. Currently in England, 'system planning' is primarily carried out by the Environment Agency (EA) through a variety of processes that are complex, expensive, non-transparent and very heavily focused on the water industry.

15. In the Commission's view, there is, for England, a strong case that the current system planning functions should in future be carried out by better and stronger regional water system planning arrangements that involve all the sectors that have an impact on quality and quantity of water in a regional water system, including local authorities. This will enable a more

[4] Defra, 'Summary of responses and government response', 2022
[5] Ofwat, 'Price Reviews' (viewed 22 May 2025)

comprehensive approach to addressing the various sources of pollution that are damaging the water environment. The Commission is exploring a range of options for how such arrangements might best be organised. They could, for example, involve committees within an existing regulatory body or more freestanding bodies. They should be clearly connected to local voice and draw on local catchment-based partnerships. It is crucial that such regional water system arrangements have real authority in relation to water industry investment and to water related resources directed at other sectors.

16. The Commission is also considering the appropriate scale at which regional water system planning could be undertaken in England. Our current thinking is that it could be most practical for these to be mapped to hydrological boundaries, such as river basins. However, the Commission is also considering how to bring in a strong and influential role for local authorities. Effective, close engagement with local government and local democracy is essential for ensuring greater coherence, given local authorities' planning and economic development responsibilities. It can also strengthen local ownership in the management of water, ultimately bringing decisions on water closer to the people who live and work there.

17. In assessing how best to take regional water system planning forward, ahead of the final report, the Commission is drawing on examples of effective planning mechanisms elsewhere, such as those for energy, flooding and HMG’s local government reforms in England.

18. In Wales, the Commission recognises that other changes to the system planning function will be more appropriate, recognising the smaller population, geographical scale and the different institutional set-up. The Commission is considering if a systems planning arrangement could operate across the whole of Wales. To be successful, this would need to be truly cross-sectoral, involving all those who interact with and impact on the water environment and supply, as well as local groups with detailed knowledge of their river catchments, aquifers and associated coastlines.

19. The Commission’s view is that, as part of these changes in both England and in Wales, the current water industry business planning processes must also be simplified and rationalised – to improve transparency and ultimately accountability for the delivery of outcomes. Current planning and processes do not cater effectively for longer term planning.

20. The Commission will make detailed recommendations in relation to these proposals on strategic direction and systems planning in its final report.

Legislative framework (Section 2)

21. A strong legislative framework is important for ensuring that management of water meets the requirements expected by society. These requirements have increased and become more complex over time. They include the quality and safety of our drinking water and the reliability of its provision, the environmental quality of our rivers and coasts, the protection of water consumers and the delivery of sustainable economic growth.

22. Successive, and often piecemeal, legislative changes in England and in Wales over past decades have led to a highly complex legislative framework for water and a proliferation of legal requirements relating to water supply and water quality. In the Commission's view, in line with the view of Dan Corry's report ('Delivering economic growth and nature recovery: an independent review of Defra's regulatory landscape', 2 April 2025), many key elements of the legislative framework are badly in need of review and rationalisation.[6]

23. Rationalisation will require a major exercise, well beyond the scope of this Commission. The Commission is, however, considering a number of key objectives which could be set for such a review. An important task will be to remove overlapping and contradictory requirements. A review should also aim to update the legislation in line with the current science and consider best practice in other jurisdictions. The review should include the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (WFD) and consider whether its objectives should be broadened. A particular focus should be whether to include public health objectives within the framework for certain areas given the increasing importance of the recreational use of water. The Urban Wastewater Treatment (England and Wales) Regulations 1994 should also be a priority for review.

24. The Commission also recognises that a lack of flexibility in the legislative framework is likely to be limiting innovation in the water sector, including the use of 'nature-based solutions', and growth outcomes. The Commission is exploring ways to address this, including the Corry Report's recommendation to establish a legal or policy framework to support the exercise of 'constrained discretion' by regulators in England and Wales. This would be with a view to aiding the delivery of a range of environmental, economic and other public policy objectives.

[6] Independent Review of Defra's regulatory landscape, 'Delivering economic growth and nature recovery: an independent review of Defra's regulatory landscape', 2025

Regulatory Reform (Section 3)

25. Effective regulation is essential for protecting public interest in a system where private companies are producing essential public goods such as water and wastewater services and where they are effectively regional monopolies.

26. The current regulatory system for the water industry in England and Wales, both the regulation of water quality and quantity and the regulation of price and service, has largely lost public trust.[7] Nor, in many respects, is it delivering the desired outcomes. This is with the exception of the DWI which is, for the most part, highly effective and has overseen England and Wales maintaining world-leading drinking water standards.[8]

27. With regards to economic regulation, the Commission has heard concerns that Ofwat's 'one-size-fits-all' approach (which assesses companies' efficiency and costs predominantly against industry-wide benchmarks derived in large part from econometric modelling) does not take sufficient account of company-specific conditions and challenges.[9] Ofwat's regulation is also perceived to have lacked adequate oversight of delivery and financial engineering by some firms. In the view of many investors and companies, economic regulation has become overly adversarial and unpredictable.[10]

28. The Commission recognises, in a system of regional monopoly companies, the necessity for an objective, industry-wide benchmarking framework to protect customers from misuse of monopoly power in relation to price and service levels and to set incentives for efficiency improvement. However, there are limits to how accurate such a benchmarking framework and econometric tools can be and the extent to which these can be relied upon. This is particularly true for the water industry in which water firms face very different challenges (for example, geography, hydrology, demography and history) and for which the public policy objectives have become more complex and demanding.

29. The Commission's view is that a fundamental strengthening and rebalancing of the current approach to economic regulation is required. This should entail the development of a strong company-specific 'supervisory' function in the economic regulator alongside its econometric benchmarking function. It

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[7] Call For Evidence response analysis, '93% of respondents rated the performance of the water regulatory framework poorly or very poorly', 2025
[8] Environmental Performance Index, '2024 Environmental Performance Index - Unsafe drinking water' (viewed 22 May 2025)
[9] Water company engagement with the Commission
[10] Investor and water company engagement with the Commission

should be the responsibility of the supervisory function to develop a strong, judgement-based, senior-level understanding of, and engagement with, each individual firm. This would enable the regulator to better understand its challenges, support positive company action and intervene early to address actions that run counter to the public interest. Price and objective-setting by the economic regulator should be based equally on industry-wide benchmarking and a company-specific judgement that takes into account whether a company has improved or deteriorated relative to its previous performance, as well as relative to an industry-wide benchmark.

30. Building a strong supervisory function along these lines is not simply a question of providing the economic regulator with more data for closer monitoring. Indeed, it should aim to simplify the regulator's engagement with companies. It will demand significant change in the culture, capacity and capability of the economic regulator and to its governance.[11] In particular, it will require strong, high calibre engineering and financial 'engineering' expertise. It will also require that the economic regulator has the powers and tools, as well as the understanding, to intervene both when companies do not behave in the public interest and, conversely, to support them when it is in the public interest to do so. In this respect, the Commission sees a strong case for the regulator to have tools to ensure that water company owners support the public interest. This could include consideration of whether Ofwat need any additional tools to direct companies and intervene in changes of ownership of water companies.

31. Turning to environmental regulation, the Commission recognises the significant concerns from the public that the environmental regulatory framework is not delivering the outcomes we want to see. The Commission has heard that the ability of the environmental regulators in England and Wales (EA and Natural Resources Wales (NRW), respectively) to enforce compliance with standards has been compromised by capacity and capability challenges.[12] Some action is already in train to address these. The Commission is exploring, among other things, how environmental regulation can be strengthened and modernised, including taking advantage of digital monitoring and permitting technologies to improve regulator capability and efficiency. In addition, the system planning and legislative review proposals set out in this interim report should allow the environmental regulator to

[11] For example, Ofwat annual reports show that prior to 2005, Ofwat had a Chief Engineer on the Board.
[12] UK Parliament, 'Water quality in rivers - Environmental Audit Committee', 2022; Senedd Cymru Welsh Parliament, 'Natural Resources Wales – Annual Scrutiny 2022-23', 2023

focus more on monitoring and enforcement and support a less risk-averse culture where that is appropriate.

32. The Commission has heard concerns that customers are increasingly dissatisfied with the provision of water and wastewater services by their water companies and that this is amplified by concerns about affordability, with bills due to rise on average by £31 per year, each year, before inflation from 2024-25 through to 2029-30.[13] Through its wider proposals for reform, the Commission is looking at how the water system can better deliver the outcomes that consumers want, in particular, environmental and public health outcomes in addition to reliability of service provision. Given recent bill increases and the likely increase in the cost of providing water and wastewater services over the longer term, the Commission welcomes the new powers the Government has taken to enable reform of affordability schemes, including social tariffs, and its commitment to take action to address water poverty across England. The Commission is also looking at more specific options to strengthen customer protections, and customer redress schemes. The Commission recognises the need for a strong customer voice and champion, a role currently performed by the Consumer Council for Water (CCW). It is exploring options to strengthen customer voice, including looking at the experiences of other sectors.

33. Finally, a major issue under consideration by the Commission is the organisational structure of regulation and the way in which the regulators interact. The core objectives of these regulators have significantly expanded over time, while specific legal duties have also increased. This expansion has led to overlaps and gaps between the different regulators' responsibilities, to tension between regulatory objectives and to overly complex and expensive processes.

34. The Commission believes there is a need to reform the way in which different public policy objectives are brought together and interact in the current regulatory framework. Options for how this might be done range from rationalising the respective duties and remits of the regulators, and more effective processes for reconciling objectives, to more fundamental, structural options for integrating regulatory remits and functions.

35. This is a highly complex area and the Commission is actively considering all the options and their costs and benefits. It will return to this very important issue with proposals in its final report. Any changes may involve a different approach in England and Wales, taking into account national context.

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[13] Ofwat, 'Final determinations for the 2024 price review – Sector summary', 2024, in 2022-23 prices.

Company Structures, Ownership, Governance and Management (Section 4)

36. Appropriate and strong regulation is a necessary condition to ensure that private companies deliver public goods. But the Commission is also considering how company ownership structures, governance and management have impacted company performance and resilience and how changes in these areas might reinforce the delivery of public goods.

37. On ownership structures, since the water industry in England and Wales was privatised in 1989, there have been material changes in the ownership of water companies, including a trend towards 'private' – i.e. non-publicly listed company – control. Today, 7 of the 10 water and sewerage companies in England and Wales are privately held.[14] The private unlisted company ownership models vary from private equity funds representing a broad range of investors, to direct ownership by institutional investors and international infrastructure companies – or some combination of these.[15] One company, Dŵr Cymru Welsh Water, is owned by a company limited by guarantee and is not for profit.[16]

38. The Commission is still considering the extent to which the difference between ownership models has been a factor in determining company performance and resilience. The government's Terms of Reference excluded public sector purchase of water companies or their assets.[17] The Defra Secretary of State has outlined in public statements that this would be prohibitively expensive, complex and has not necessarily been proven to deliver improved public outcomes. Within the scope of its Terms of Reference, the Commission is evaluating a range of ownership models. The Commission is also considering what can be learned from the experience of other countries.

39. The Commission's current view is that, while there are important differences between listed and unlisted ownership models, the most important determinant of performance and resilience is the 'business model' of the

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[14] 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)

[15] Defra, 'Call for Evidence: Independent Commission on the Water Sector Regulatory System', 2025 (Box 30, page 222)

[16] Dŵr Cymru Welsh Water, 'About us' (viewed 22 May 2025)

[17] Defra and Independent Water Commission, 'Independent commission on the water sector regulatory system: terms of reference', 2024

underlying investors – that is the risks they are prepared to bear, the period and manner in which they aim to take their return and their willingness and ability to increase capital to finance new investment.

40. The water industry needs to have a long-term horizon and be stable over time. As a regulated monopoly utility, the Commission believes that while there may be exceptions (for example, for companies in need of major turnaround), the water industry and its regulatory framework should aim to attract investors seeking low risk, low return investment that is stable over time.

41. The Commission is examining, for its final report, how to restore the stability and predictability of the regulatory system that is necessary to attract such low risk, low return investors. The current regime is not perceived as stable and sufficiently predictable, something which is reflected in Moody's downgrading of the UK regulatory regime for water from Aaa to Aa in 2018, and to A in 2024.[18]

42. The Commission believes the introduction of a long-term strategic plan at government level, as set out above, should help address some concerns around long-term stability.

43. The Commission also recognises that high volatility in returns is not conducive to attracting long term, low risk, low return investors. It is exploring how regulatory mechanisms could be developed to narrow the variability of returns, reducing both the upside and downside risks to investors. As noted above, the Commission is also examining whether the economic regulator needs additional tools to ensure that water company owners pursuing their private interest do not act against the public interest. This includes in relation the financial management of companies.

44. The Commission has considered whether further changes to corporate governance would be appropriate. Given the changes currently in train on company Articles of Association, consumer engagement and current requirements on boards it is not minded to go further at this stage. It is, however, looking further at how senior management plays a critical role in shaping company culture, performance and accountability. We are exploring further the duties on management and what can be learned from other sectors, like finance, taking into account the need to ensure that the water

[18] Moody's, 'Moody's downgrade of regulated water utilities', 2024; Moody's, 'Regulated Water Utilities – UK: Ofwat's draft determination increases sector risk', page 4, 2024.

industry can attract and retain high quality management, particularly given the challenges the industry now faces.

Infrastructure and Asset Health (Section 5)

45. Resilient infrastructure is essential to ensure the ongoing provision of services such as safe drinking water and effective wastewater management. Resilience needs to be assessed through a long-term lens, as well as looking at shorter-term serviceability of assets. Resilience cannot be confined to asset health. It also includes assessing and addressing necessary redundancy and potential critical points of failure in systems.

46. The Commission recognises that assessing asset health and resilience in the water industry is more challenging than in many other sectors, particularly given the underground nature of much of the asset base. Notwithstanding this, the Commission's preliminary conclusion is that, taken across the sector as a whole, there is at present an insufficient understanding of the health of water sector assets and the overall resilience of the system.

47. Not all assets have been mapped.[19] Funding for renewal and capital maintenance by Ofwat continues to be based primarily on previous capital maintenance and incidence of asset failure rather an explicit assessment of the condition of assets. Water industry renewal has not been based on a prognostic, longer-term assessment that takes into account likely future stress on assets such as from climate change and population growth. There are no consistent, industry-wide resilience standards against which to assess water industry assets.

48. The Commission sees a strong case for setting a forward-looking infrastructure resilience framework and standards at a national level for England and Wales respectively, with a consistent set of targets applied across all companies. This could include requirements on companies to make forward looking, prognostic, assessments of asset health and provide reports to regulators. Such assessments should inform company plans and funding in price reviews. A more supervisory approach to regulation could support this, including the regulator increasing its engineering capability and developing an in-depth understanding of a company's asset base and investment needs.

49. The Commission is also looking at the related issues around the supply chain for the water industry, most notably the importance of setting out a

[19] Water company engagement with the Commission

long-term view of water industry investment, both so that the supply chain can plan and to ensure the supply chain has capacity. The Commission will address this further in its final report.

Section 1: Strategic Direction and Planning

1a: Strategic Direction

Issues

50. Achieving clean and plentiful water requires clear, long-term strategic direction from government. In any interconnected system, decisions made by any one sector will impact others as well as the outcomes for the system overall. Where these outcomes are important to society, it is essential there is a strategy in place to set shared objectives and guide sectors in their decisions.

51. The water systems in England and Wales are subject to multiple and often conflicting pressures and demands including from the water industry, agriculture, recreation, land-use, transport and development (see Figures 1, 2 and 3). Successful management of the water system is therefore dependent on high level prioritisation, good coordination and effective delivery across a wide range of sectors.

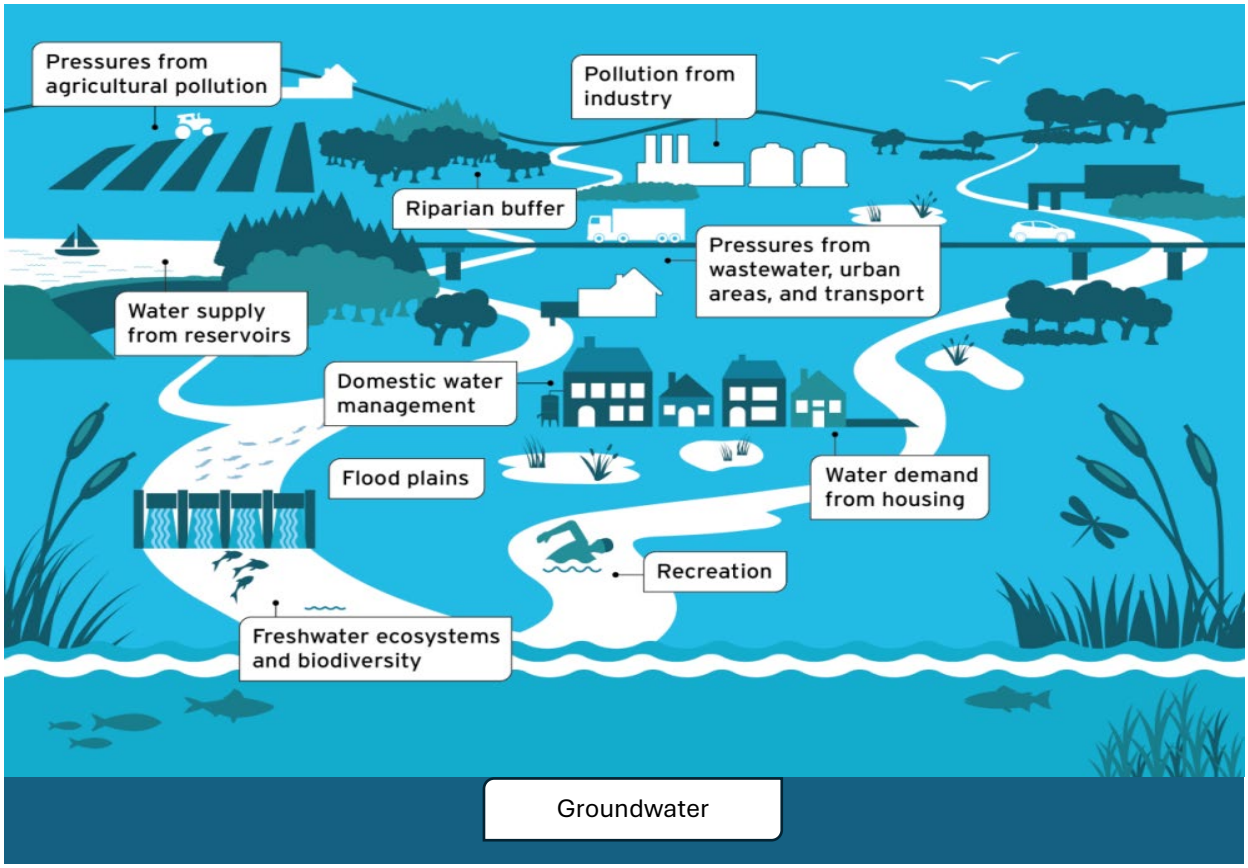
52. The objectives for water in England and Wales cannot be met by just the water industry alone. Other sectors have an increasingly important role to play. In recent years, for example, we have seen the water industry put forward significant investment plans to reduce pollution. As these plans are delivered, achieving environmental targets for water will depend more and more upon reducing the contribution of agriculture to pollution.[20] This is especially true in Wales, where Natural Resources Wales (NRW) has identified that 61% of water bodies in Special Areas of Conservation (SACs) failed phosphorus targets, with phosphorus pollution closely linked to agriculture production.[21]

53. Equally, there are growing environmental, demographic and financial pressures on the water system. For example, the National Infrastructure Commission (NIC) estimates there is a 1 in 4 chance over the next 30 years that large numbers of households in parts of England will have water supplies cut off for an extended period due to severe drought.[22] Such pressures, along with the large range of decision-makers and differing

[20] Environment Agency engagement with the Commission
[21] 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
[22] National Infrastructure Commission, 'Preparing for a drier future - NIC', 2018

demands on the water system, creates a complex landscape for the management of water, with trade-offs needed for different outcomes.

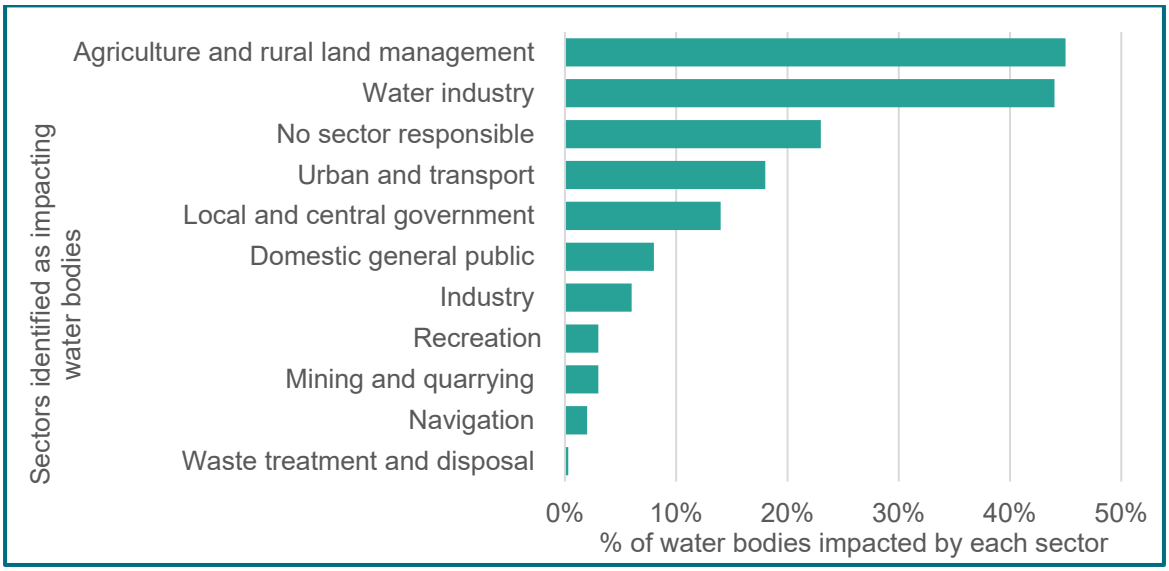
Figure 1: Illustrative image showing various features, pressures, and sectors present within, and impacting on, the water system.



Source: Defra Plan for Water diagram, amended by IWC[23]

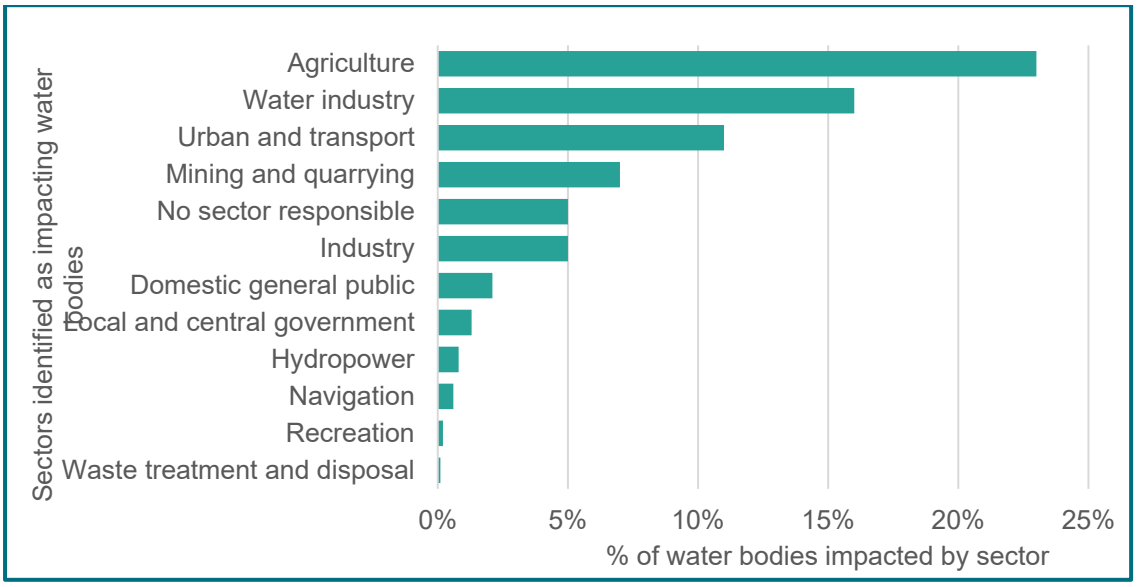
[23] Defra, 'Plan for Water: our integrated plan for delivering clean and plentiful water', 2023; SSWAN, 'Sustainable Solutions for Water and Nature' (viewed 23 May 2025)

Figure 2: Percentage of water bodies impacted environmentally by sector, England, 2019



Source: Independent Commission analysis[24]

Figure 3: Percentage of water bodies impacted environmentally by sector, Wales, 2021



Source: Natural Resources Wales data[25]

[24]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

[25] Analysis provided directly to the Independent Commission by Natural Resources Wales. Data from: Natural Resources Wales

54. The UK and Welsh governments have sought to provide strategic direction on growing environmental, social, and financial pressures and demands on the overall water system – including in the Water Strategy for Wales (2015) and the UK Government's Plan for Water and its Environmental Improvement Plan, both published in 2023.[26] However, the Commission has heard that these plans have not effectively articulated prioritisation or provided accountability mechanisms to ensure they are delivered. [27] Ofwat has commented that, historically, "investment in the sector has been the result of fragmented water company planning and prescriptive environmental investment programmes with relatively little strategic direction from Government".[28]

55. In England, existing strategies have focused heavily on narrow targets, processes and policy decisions, and have not effectively considered costs, articulated priorities or set out system-wide outcomes.[29] Importantly, they contain little-to-no guidance on how regulators should strike a balance between potentially conflicting targets and outcomes, for example, how the regulatory system should balance affordable bills for customers with enabling water companies to deliver the investment needed to meet required environmental standards.

56. In Wales, the 2015 Water Strategy offers a more integrated view of outcomes, but there have been no updates or progress reporting on the strategy and action plan since 2016. The Commission recognises that there is a closer relationship between the Welsh government, water companies, and other sectors, reflecting the collaborative ways of working embedded within the Well-being of Future Generations (Wales) Act 2015. This emphasis on collaboration has led to the adoption of different mechanisms in Wales; for example, the Price Review Forum brings together government, water companies, regulators and customer advocates to inform water company business plans and delivery strategies.[30]

57. In England and Wales, the respective governments also provide strategic direction on a regular footing each price review in the form of a Strategic Policy Statement (SPS).[31] However, this is directed solely towards the economic regulator of the water industry (Ofwat), and there is no equivalent

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[26] Llywodraeth Cymru Welsh Government, 'Water Strategy for Wales', 2015; Defra, 'Plan for Water: our integrated plan for delivering clean and plentiful water', 2023; Defra, 'Environmental Improvement Plan 2023', 2023

[27] Wildlife and Countryside Link/Blueprint for Water response to the Call for Evidence, 2025

[28] Ofwat response to the Call for Evidence, 2025

[29] Wildlife and Countryside Link/Blueprint for Water response to the Call for Evidence, 2025

[30] CCW, 'How will your money be spent on water in Wales' (viewed 22 May 2025)

[31] Ofwat, 'Strategic policy statement for Ofwat', 2022

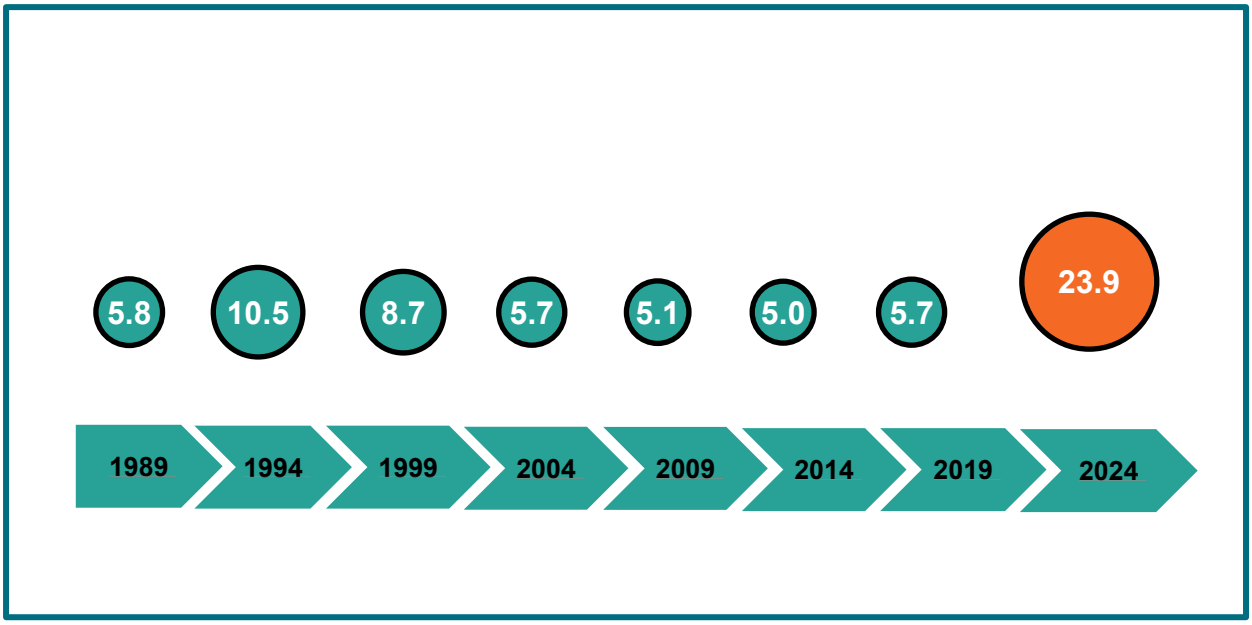
direction for other sectors that have an impact on the water system beyond the water industry. This places more emphasis on the water industry's delivery of environmental outcomes than on other sectors that also place significant demands and pressures on the water system.

58. Moreover, as the vehicle for delivering UK and Welsh government strategies for the economic regulator and the water industry, the SPS framework is limited. It is not outcome focused and covers only the five years of the forthcoming price review period, rather than a longer term, strategic horizon.

59. As a result, we have seen issues of backloading of delivery of environmental outcomes and episodes of 'feast and famine' across price review periods.

60. This is an issue that is clearly illustrated by the profile of expenditure on environmental enhancement over recent price reviews. Figure 4 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 more than fourfold to almost £24 billion in Price Review 2024.

Figure 4: Estimated historical environmental expenditure allowances (WINEP/NEP), England & Wales, 1989 to 2030, £billion, 2022-23 prices



Source: Ofwat[32]

[32] 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.

61. The lack of strategic direction for the water system has also been clearly highlighted by the lack of progress on the Good Ecological Status (GES) objectives set by the Water Framework Directive (WFD) Regulations regarding water quality.[33] The ambition is for 75% and 94% of surface water bodies in England and in Wales respectively to achieve 'GES' by 2027. However, at the last classification (2019 in England and 2021 in Wales), only 16% of water bodies assessed in England and 40% in Wales reached this standard or better.[34] There is no published plan for this past 2027 and, given current progress, the 2027 objective will be missed. The Commission has heard that implementation of the WFD regime has suffered from a lack of strategic prioritisation of objectives leading to short-term prioritisation of cost-savings over environmental outcomes, poor integration of all sectors that impact the water environment, and a lack of interim milestones to guide progress towards the long-term target.[35]

Preliminary conclusions

62. Meeting and managing the pressures and demands on the water system entails setting out priorities and timescales, assessing costs, and resolving tensions. At present, these issues are resolved by the unplanned – and often unintended – interplay between siloed guidance and policy, over-lapping and under-lapping legislative requirements on parts of the system, and the complex interaction of regulators with different remits.

63. Setting strategic guidance and balancing the demands and needs of the water sector as a whole is a task only national governments can perform. It is not an easy one. It necessarily involves interdepartmental consultation and coordination and the balancing of different objectives and interests. The Commission is considering how the UK and Welsh governments can offer greater clarity over their vision for the water system, for example, in the form of new government-led, long-term national water strategies in England and in Wales.

64. Given the competing pressures on water, the Commission is considering whether such strategies should be on a statutory basis and involve public consultation, and how granular they should be. There is an argument that they do not need to be – and should not be – overly detailed or prescriptive. However, they should be able to set out strategic choices, for example, the broad balance between investment and improvement by different sectors

[33] The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017
[34] Environment Agency, 'B3: State of the water environment', 2019; Cyfoeth Naturiol Cymru Natural Resources Wales 'River basin management plans 2015-2021', 2021
[35] Environmental non-governmental organisation engagement with the Commission

and for different objectives, including overall affordability. In Wales, this would need to be set within the context of the sustainable development framework established under the Well-being of Future Generations (Wales) Act 2015 and the sustainable management of natural resources as established by the Environment (Wales) Act 2016, as well as the Welsh government's plans to introduce biodiversity targets for Wales.

65. The strategies should have a long-term horizon to facilitate infrastructure delivery, by allowing sectors and their supply chains to forward plan. And they should provide not only long-term targets but also guidance on costs and benefits and on the speed and profile of the path to achieve those targets, including interim targets. This is important to hold actors to account for progress over time and avoid the issues that have been raised about backloading delivery.[36]

66. The Commission is further considering how long-term strategies for the water system could take a delivery-focused approach, with accountability mechanisms for reporting on progress towards targets. This would help to resolve issues around backloading by underpinning long-term goals with short-term sector-specific delivery expectations. The Commission has heard clearly how interconnected the water system can be. A delivery-focused approach could help ensure action across all relevant sectors that impact the water system.

67. For example, to support delivery against national water strategies, the UK and Welsh governments could set strategic directions for every price review that apply to all water regulators rather than to the economic regulator alone. These could replace the current SPSs to Ofwat and could provide guiding principles to support systems planning and industry planning processes leading into the price review periods. And they could set SMART, outcome-focused milestones for what is required to be met in the next funding period, to deliver against long-term targets in each government's national water strategy and legislation.[37]

68. These 5-yearly strategic directions could outline and, where necessary, give guidance on the high-level ordering of the government's respective priorities to provide direction to regulatory decision making for the next funding period. This would create a clear decision-making framework to guide action within each review cycle to deliver against the long-term objectives set out in the national water strategies and would empower regulators to use discretion

[36] Regulator and industry expert engagement with the Commission
[37] SMART targets are goal-setting goals that are Specific, Measurable, Achievable, Realistic, and Time-bound

when faced with trade-offs. On this, the Commission has heard clearly from the water regulators that exercising greater discretion requires clear articulation from government of their desired outcomes.[38] Hence, as discussed further in Section 2: Legislative Framework, government will need to provide overarching guidance on how that discretion should be applied. Ultimately, however, decisions would be placed with the regulatory bodies with the expertise to best make them.

69. Crucially, while the government should not be involved in the detailed setting of water bills, there is a strong case that guidance provided to regulators should include the broad envelope of cost that the nations can afford, whether funded by taxpayers or billpayers, and the smoothing of bills through time.

70. Setting long-term strategies is a complex task – more complex than for other sectors given the breadth and sometimes conflicting nature of the public policy objectives (including environmental quality, public health, economic growth and development) that are relevant to water. Yet examples of strategic direction and guidance exist in other areas and can be built upon.

71. As part of its final report, the Commission will provide further reflections on how new National Water Strategies, supported by a reformed approach to the SPS, could be designed to be most effective in setting a coherent, long-term vision for the water systems in England and Wales, including to better involve other sectors impacting on, and interacting with, the water environment.

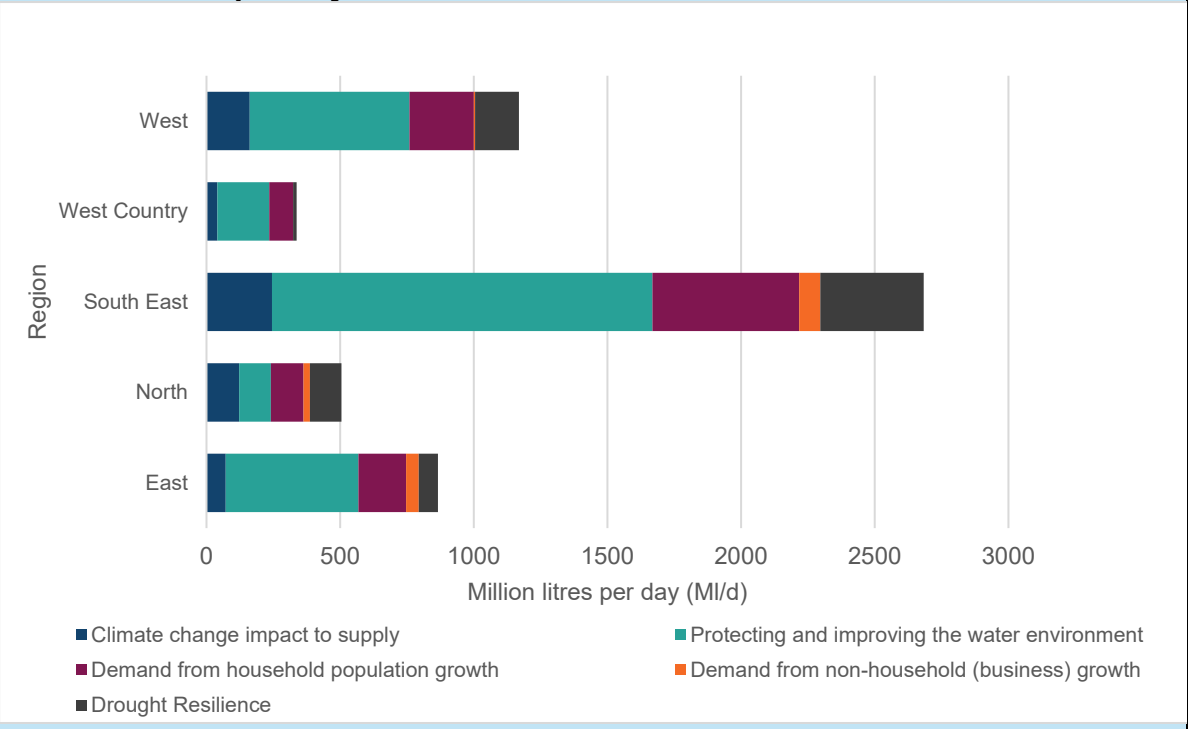
Box 1– Tackling long-term pressures for resilient water supply

Secure and resilient supplies of water are essential to public health, economic growth and the environment. Nothing happens without water.

Climate change, population growth and environmental pressures are impacting on the resilience, sustainability, quality and security of existing sources of water. By 2050, it is anticipated that the public water supply in England and Wales would experience a shortfall exceeding 4.8 billion litres per day (4,860 Ml/d) and 32 million litres per day (32 Ml/d) respectively if water company Water Resources Management Plans (WRMPs) were not delivered.[39] Figure 5 shows the key drivers of projected total water need in 2050 in England.

[38] Regulator engagement with the Commission
[39] Environment Agency, 'A summary of England's revised draft regional and water resources management plans', 2024; Cyfoeth Naturiol Cymru Natural Resources Wales analysis provided through engagement with Commission

Figure 5: Predicted drivers of 2050 total daily water need by region, England, in million litres per day



Source: Environment Agency data[40]

As we close on one of the driest springs in over a century,[41] with one region of England in drought, [42] the Commission recognises the need for action in this area, including by consumers. Despite increasing concerns over water scarcity, most customers do not believe that this will impact them. Consumer Council for Water's Water Matters 2025 report found that 83% of customers believe that there are plenty or moderate levels of water available in their area, and that 61% remain confident that water supplies will be available without restriction in the long term.[43]

Managing our long-term water supply requires end users of water, both domestic consumers and industry, to manage demand. The Commission has received significant input through the Call for Evidence on interventions to support demand management including tackling leakage, behaviour change, new charging structures to incentivise efficient water usage and new infrastructure to drive the reuse of water.

[40] Presented by region as defined by England's 5 regional water resources groups which bring together water companies, key water users and other stakeholders operating in region. These include Water Resources Data from: Environment Agency, 'A summary of England's revised draft regional and water resources management plans', 2024
[41] Met Office, 'With just days to go, how close are we to breaking spring records?', 2025
[42] BBC News, 'Drought declared across north-west England due to low water supply', 2025
[43] CCW, 'Water Matters 2025', 2025

The Commission's emerging conclusions on strategic direction and systems planning seek to support the planning and delivery of long-term, resilient water supplies, by facilitating concerted and coordinated action from government, industry and water users. Long-term government-led strategies will need to consider and manage supply needs and set out a clear framework for delivery.

With respect to infrastructure delivery, ongoing work by Ofwat through the Regulators' Alliance for Progressing Infrastructure Development (RAPID) programme is welcome as is recent government action to speed up the delivery of two major reservoirs.[44] Looking forward, water companies need to be ambitious in the development of new water supply options in their business plans, and the delivery of these plans needs to be supported by effective action from governments and regulators.

The Commission will report further on interventions to support the long-term resilience of water supplies in its final report.

1b: Water Systems Planning

Issues

72. Water in England and Wales is comprised of a set of regional water systems – river basins, aquifers and associated coastlines. Unlike other systems, such as energy, there is no national water grid. Water and wastewater cannot be transferred across the country as easily as electrons or gas molecules. Users access water from their regional systems for drinking, for waste disposal and for recreation.

73. While only government can set the overarching strategic goals and priorities for water, 'system planning' – that is translating those goals into investment and improvement across sectors - must involve sub-government level actors, recognising the regional nature of our water systems and the diversity of demands we put on them.

74. At present, there is a complex patchwork of system planning and management arrangements in England and Wales that does not effectively bring together all the demands on regional water systems, the challenges that need to be met and all the actors that have an impact on water. The Commission has heard that local voices are lost in the system.

75. There are also varying levels of coordination between national water planning and regional or more local actions. In England, in recent years, regional water resources groups have been formed, designed to help coordination between companies' Water Resource Management Plans

[44] Defra and Emma Hardy MP, 'Government steps in to build first major reservoirs in 30 years', 2025

(WRMPs) and the cross-sectoral goals in England's National Framework for Water Resources.[45] This is with a view to supporting England's long-term water needs, improving resilience to drought and minimising interruptions to water supplies. However, these are focused only on cross regional water resources.

76. In both England and Wales, River Basin Management Plans (RBMPs) set out how environmental objectives will be met in each river basin, shaping aspects of water regulation and planning. For the water industry, they drive action through the WINEP in England and the NEP in Wales, which sets out the measures that water companies must take to fulfil environmental obligations. However, RBMPs have largely failed to drive action in other sectors that depend upon and impact the water system, particularly agriculture. Nor are key players, such as local authorities, sufficiently engaged in the determination of priorities at the regional water system level, or beneath that, at the catchment level. 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 to implement and enforce them.[46] This governance gap, often referred to as the 'missing middle', creates a disconnect between national ambition and local action, and limits cross-sector contribution to meeting water system objectives.[47]

77. Overall, while there is a degree of engagement across sectors at a regional level, there are no broader formal regional water system arrangements with authority on investment and other planning that bring together the necessary range of actors who have an interest in and affect water outcomes. Consequently, there is a lack of a deliverable cross-sector planning across the water system. This can lead to sub-optimal outcomes, as set out in the case of England in Box 2.

[45] Environment Agency, 'National Framework for Water Resources 2020: meeting our future water needs', 2020
[46] Office for Environmental Protection, 'A review of implementation of the Water Framework Directive Regulations and River Basin Management Planning in England', 2024
[47] The Rivers Trust, 'State of our Rivers Report', 2024

Box 2 – 'Water neutrality' in north Sussex [48]

In parts of the country, a lack of joined-up water system planning has been a significant barrier to local development.

In north Sussex, the Commission has heard that local authorities are affected by 'water neutrality,' which requires local planning authorities to ensure that new development does not increase groundwater abstraction. This requirement was introduced by Natural England to prevent harm to habitats. As a result, local authorities have seen significant delays to delivering essential infrastructure such as new schools and housing.[49] There have been decades of under-delivery in Southern Water's WRMPs, which have contributed to these water resource issues. The EA and Southern Water have had disagreements about whether the company's abstraction licence should be revoked in the affected area, with Southern Water saying that keeping the licence in their WRMP is in line with legislation.

This demonstrates the complexity of water system planning at a local level, with regulators, local governments, and water companies all facing different, often competing, incentives. The absence of a clear decision-maker and robust accountability mechanisms for delivery, combined with poor communication between actors in the system and a failure to account for broader requirements and costs, has undermined delivery of local priorities.[50] The burden of water neutrality has fallen mainly on local planning authorities and the development sector despite most of the levers to address underlying issues being outside of their control. It is clear that a lack of coherent systems planning can undermine local growth and development, damage the environment, and waste valuable regulator and local authority time and resources.

[48] Submission from Local Planning Authorities in north Sussex
[49] Submission from Local Planning Authorities in north Sussex
[50] Engagement between Local Planning Authorities in North Sussex and the Commission

Box 3 – Regional Water Planning: Manchester

While sub-national authorities currently have a limited formal role in the current water framework, Greater Manchester Combined Authority (GMCA) have demonstrated how 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, the water company for the region, founded on a memorandum of understanding across these three partners. The partnership is bringing together funding from different sectors, such as transport, regeneration, and private sources, to plan, operate and maintain all aspects of Manchester's water system in a people-focused way.

This demonstrates how systems planning at a regional level can drive integrated, long-term planning in the water system.[51]

78. In Wales, the lack of regional water planning arrangements appears to have been less of an issue. The smaller national population and geographic scale has enabled a greater adoption of nationally led groups that work collaboratively with key stakeholders. For example, the Better River Quality Taskforce is a nationally led group comprising representatives from the Welsh government, NRW, Welsh water companies and independent advisory bodies to develop coordinated action to address the impacts of storm overflows in Wales.[52]

79. However, while this approach appears to have been more effective in providing strategic oversight and driving more efficient use of resources, there remains a need to bridge national planning and local implementation as well as to introduce greater catchment-scale planning.

80. In England and Wales, water companies, environmental non-governmental organisations (eNGOs), and consumer groups have all commented to the Commission that they find the current planning processes too complex, opaque, unmanageable and, in places, overwhelming to engage with.[53] As part of these processes, companies first have detailed interaction with the EA, NRW and the Drinking Water Inspectorate (DWI) that begins five years before the Ofwat final determination of the funding that will be provided through water bills, which itself requires intensive engagement. This means

[51] Greater Manchester Combined Authority, 'Integrated Water Management Plan', 2023
[52] Cyfoeth Naturiol Cymru Natural Resources Wales, 'Wales Better River Quality Taskforce', 2022; Llywodraeth Cymru Welsh Government, Wales Better River Quality Taskforce: What we do (viewed 22 May 2025)
[53] Water UK response to the Call for Evidence, 2025

that considerations of affordability and cost efficiency are not integrated throughout the planning process. Environmental regulators set requirements with only limited information on what it will cost to deliver those interventions. Processes and methodologies for conducting optioneering and cost-benefit analysis kick in too late in the price review process and are, in any case, inconsistent.[54]

81. Furthermore, the different plans have different levels of accountability, each with their own consultation mechanisms, which differ widely. They also have different time horizons, with the WINEP in England and NEP in Wales focusing mostly on the next five years, and WRMPs and more recent Drainage and Wastewater Management Plans (DWMPs) having 25-year time horizons. The water industry estimates it spent £250 million on business planning overall in the last price review.[55]

82. The Commission has further heard that WRMPs do not sufficiently drive solutions, while DWMPs and Long-Term Delivery Strategies have not had clear pull-through to funding mechanisms to achieve their aims.[56] Where there are opportunities to collaborate between the plans, such as when predicting growth for water resources demand and wastewater treatment capacity, the plan timelines are often misaligned so that joining up has not been possible. We have also heard that companies use different methodologies or assumptions for common issues, for example, on climate change or population growth (and that this can even happen within companies).[57]

83. The Commission has also heard that completion deadlines and funding certainty for plans are often not sufficiently informed by the anticipated duration of a project. On the WINEP in England, for example, the EA has set completion dates to the end of the Asset Management Plan (AMP) period, even when projects or classes of projects may be delivered one or two years earlier. This may contribute to a 'boom-and-bust', back-ended delivery profile for water company investments.[58]

84. The scale of investments will increase in the coming years and planning needs to facilitate the use of innovative techniques, including many with

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[54] Regulator and industry expert engagement with the Commission
[55] Water UK Call for Evidence response, 2025
[56] 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; Water UK Call for Evidence response, 2025
[57] Regulator engagement with the Commission
[58] WINEP19 data shows that 37% of actions had a completion date of 2024 or 2025, while WINEP24 data shows that 29% of actions have a completion date of 2029 or 2030.

nature-based elements. These will often take longer than one AMP period to complete. Some large projects have been taken out of the regular planning cycles by structures like Direct Procurement for Customers (DPC) and The Regulators' Alliance for Progressing Infrastructure Development (RAPID), or as one-offs like the Thames Tideway Tunnel - reflecting the fact that they need more than five years to deliver.[59] However, the use of these models is limited by regulator capacity to maintain necessary oversight and focuses only on the very largest schemes. This means that projects requiring six or seven years of delivery are only funded for the first five years with no certainty provided for the remainder of the project. At Price Review 2024, Ofwat allowed 'multi-AMP' delivery for specific parts of two companies' business plans, although the Commission understands that this was an ad-hoc arrangement that was bespoke to the needs of those projects.

Preliminary conclusions

Governance of planning for water

85. The Commission is clear that only Government can set the overarching strategic goals and priorities for water and, where appropriate, national standards. It is apparent, however, that translating those goals into investment and improvement cannot be done solely at the government level and needs to better involve sectors and authorities outside the water industry. While there are clearly some major projects, particularly around future water resources, which require more top-down coordination and oversight, the Commission is exploring how planning for water in England could be conducted more effectively at the level of the regional water system. The Commission is also exploring how planning could be improved in Wales, where a different solution may be necessary given differences in geography and demography.

86. For England, there appears to be a strong case that system planning functions should be carried out by better and stronger regional water system planning arrangements that involve all the sectors that have an impact on the quality and quantity of water in a regional water system, including local authorities.

87. There are a range of options for how this might best be done, which the Commission is exploring. Such arrangements could, for example, involve

[59] 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. RAPID – The Regulators' Alliance for Progressing Infrastructure Development, a partnership made up of the 3 water regulators – Ofwat, the Environment Agency and the Drinking Water Inspectorate.

committees within an existing regulatory body, or more freestanding bodies. They should draw on local catchment-based partnerships, building on the network of such partnerships that now exist and receive Defra support, to allow for a stronger local voice and local engagement.

88. To be effective, it is crucial that such regional water system planning arrangements have real agency and authority in the system. The Commission is exploring the extent of such authority and agency: our current view is that it would need to cover the determination of investment priorities and necessary improvement actions across sectors. The water quality regulators (EA, NRW and DWI) would need to have a clear voice in relation to decisions made by systems planners, given statutory requirements, national standards, the links to their permitting and licensing functions, and their technical expertise. There is also a very strong case for the economic regulator for the water industry to have a clear voice too in the planning process given that water industry improvements are funded by bill payers and the importance of bringing cost into decisions on options.

89. To have reach beyond the water industry, such regional water system arrangements would need some degree of authority in relation to non-water industry funding streams and decision-making for sectors that have an impact on water - for example, the portion of the Environmental Land Management Schemes and other government spending (such as on transport and farming) that relates to water. The EA's Regional Flood & Coastal Committees may offer helpful experience here.[60] Regional water system arrangements could also have some responsibility for channelling private investment such as through strategic mitigation schemes where they exist or are likely to develop in future, in line with recent developments in the Planning and Infrastructure Bill and the Corry Report's recommendations for England.[61]

90. Spatial scale and accountability are key considerations for such water system planning arrangements. One very important benefit of regional arrangements, particularly if transparent and linked strongly to more local, catchment-based partnerships, is the greater connection of planning decisions to 'place', engendering a greater sense of ownership and greater accountability.

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[60] Environment Agency, 'Regional Flood and Coastal Committees (RFCCs)', 2024

[61] Ministry of Housing, Communities & Local Government (MHCLG), 'Guide to the Planning and Infrastructure Bill', last updated April 2024; Independent review of Defra's regulatory landscape, 'Delivering economic growth and nature recovery: an independent review of Defra' s regulatory landscape', 2025

91. Greater integration with local government and local democracy and, at the extreme, devolution to local government, would maximise these connections. It would also go with the grain of the government's devolution policies. However, the water systems of England do not map well onto local government boundaries at any scale. Additionally, the overarching objective of better management of water argues strongly for water system planning below the national level in England to be organised around hydrological boundaries such as river basins and their catchments. The Commission is exploring further how local engagement and accountability might best be balanced with comprehensive and coherent management of regional water systems, including whether – within a common framework – different solutions may be needed for different areas.

92. The Commission is also considering how water companies, which have their own geographical boundaries, might engage with regional planning arrangements when compiling their overall business plans.

93. Finally, while much can and should be done below the national level, the Commission is also considering the need for a national coordination function in England, within Defra or led by Defra. This would ensure consistency with national level target and goals, as well as provide an escalation route where necessary. It is important that regional decisions add up to the achievement of national goals, such as targets for water quality and drought resilience. A national function might also include guidance on methodologies.

94. In Wales, the Commission believes the argument is stronger for planning to be conducted at a national level, but there needs to be greater involvement of local, including catchment-based, organisations and other sectors – in particular, the agricultural sector. For example, Wales Environment Link has reflected on the opportunities in Wales for catchment partnership working to improve the long-term approach to planning at a local and national level.[62] Nutrient Management Boards are an example of how national, regional and local partners can play a role in delivering environmental planning in river catchments and reduce pollution in SACs.[63] The Commission believes a stronger connection to local democracy will also be important. This could build on precedents such as Future Wales: The National Plan 2040, an example of national policy that enables and empowers regional and local

[62] Wales Environment Link submission to the Commission, 2025
[63] Cyngor Sir Gâr Carmarthenshire Country Council, 'Position Paper: Nutrient Management Boards', 2024

democracy to tailor their approach to meet national goals and reflects the unique challenges and opportunities of their communities.[64]

95. This approach would take into account the smaller population and geographic scale of Wales. A Welsh systems planner could be responsible for developing a short- and long-term strategic plan to sustain and protect the water system(s) in Wales. The planner would need to consider Welsh priorities and align with and deliver against legal requirements set by the Welsh government. As in England, it would need some degree of authority in relation to non-water industry funding streams for sectors that have an impact on water, such as the Water Quality Capital Programme, Sustainable Drainage grant funding and the wider range of rural grants that impact on water. A systems planner with effective alignment between water planning and spatial planning would allow for a whole system approach where environmental sustainability and infrastructure development complement each other, preventing conflicts and ensuring that agreed-upon development plans remain viable while safeguarding water resources.

96. The Commission believes that mechanisms for effective cross-border collaboration between English and Welsh systems planners should be established given that shared hydrology will be impacted by pressures and demands on both sides of the border. Tackling challenges in cross-border catchments, such as the River Wye, will require coordinated action from systems planners in both England and Wales.

[64]Llywodraeth Cymru Welsh Government, 'Future Wales: The National Plan 2040 – Planning Aid Wales', 2021

Box 4 – Sustainable Drainage Systems: Llanelli and Gowerton

Innovative, nature-based solutions can be more cost effective in the long-term with wider benefits for nature and society.[65]

Dŵr Cymru Welsh Water have invested £115 million between 2012 and 2020 in their RainScape scheme in Llanelli and Gowerton to reduce sewer flooding and pollution and create greener communities. This programme of sustainable drainage schemes has involved implementing nature-based solutions such as trees, green basins, and planters, as well as porous pavements and rainwater pipes.

Their efforts have resulted in 1.5 million cubic metres of rainwater each year being redirected into local rivers and watercourses, or removed completely, rather than needing to be pumped and treated in the sewer network. By planting almost 10,000 plants and trees, the RainScape scheme also brought benefits to biodiversity through habitat creation as well as increasing the amenity of the local area and mitigating surface water flooding. Implementation of the programme required a working partnership between Dŵr Cymru Welsh Water, local government, people and businesses.[66]

A systems planner could help to support the partnerships required to mainstream these multi-benefit local solutions, similar to those seen in Llanelli and Gowerton, across England and Wales.

Rationalising water industry investment planning and funding processes

97. A broader, more regionally focused approach to water system planning would benefit the water industry, enabling better partnership with other actors and facilitating a clearer, more priority-based distribution of improvements across sectors and greater cost efficiency of solutions (see Box 3 and 4). For this to be successful, it is important that water industry planning assessment and optioneering processes are strengthened to encourage water companies to exploit the wider range of possibilities.

98. In the Commission's view, there is considerable scope to improve and rationalise the processes for the planning and funding of water industry investment. We anticipate this will be an essential and very substantial element of regional water system planning. The Commission is exploring

[65] N Sneddon and others, 'Understanding the value and limits of nature-based solutions to climate change and other global challenges', 2020
[66] Dŵr Cymru Welsh Water, 'Rainscape Llanelli' (viewed 22 May 2025)

changes to reduce the current number of plans - for example, possibly streamlining into a single plan or a single plan for wastewater and a single plan for water resources - while using common metrics and standards.

99. Rationalisation should also extend to the horizons for water industry planning. At present, the WINEP and NEP are extremely detailed for what needs to be done over the next 5-year price review period but mostly silent on what should happen thereafter. The WRMPs, meanwhile, have a 25-year target with limited specificity on what should happen in the next 5-year price review period. The new DWMPs, which overlap in some areas with the WINEP but are less granular, will have 5-, 10- and 25-year targets.

100. The Commission's view is that all systems planning needs not only to set out in detail what is to be done and funded in the immediate price review period but also give a well-grounded picture of the future. This should include some degree of assurance on the funding of what is likely to be needed in the following price review period alongside a picture, albeit less detailed, of what will be needed over the much longer term. In some areas, such as long-term infrastructure renewal, a much longer default funding horizon may be appropriate – see Section 5: Infrastructure and Asset Health.

101. Changes to planning horizons do not in and of themselves require a change to the duration of the price review period. In the Commission's view, 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. There are mechanisms within the current 5-year cycle for giving assurance on funding beyond the 5-year horizon and the Commission is exploring how these might be developed further.

102. As part of its final report, the Commission will provide further detail and recommendations on how better and stronger regional planning arrangements might be achieved, including their relationship with the water sector regulators, and the nature of the plans they would be expected to produce. The Commission will also provide further views on related improvements to water industry business planning, including increasing flexibility within the 5-year cycle, strengthening the approach to economic assessments and optioneering, and streamlining the plans produced by industry.

Section 2: Legislative Framework

Issues

103. 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 set out in legislation in relation to water companies, the regulators and governments. The Commission's Call for Evidence included a list of around 80 items of water legislation applying in England and in Wales.

104. The Water Industry Act 1991 and the Water Resources Act 1991 are the statutory pillars of the privatised model. Following privatisation, the Bathing Waters (Classifications) Regulations 1991 were introduced, implementing the 1976 European Economic Community Bathing Water Directive. The Urban Wastewater Treatment (England and Wales) Regulations 1994 (UWWTR 1994) were also brought into force. These respectively drove significant investment by water companies at the time in coastal and urban sewage treatment works.

105. In the 2000s, there were further legislative changes, including the introduction of regulations implementing the Water Framework Directive (WFD) in 2003. This created a new framework for managing the chemical and ecological quality of the water system as a whole. As noted in Section 1a: Strategic Direction, the WFD Regulations have an overarching objective for 75% of surface water bodies in England and 94% of surface water bodies in Wales to meet 'Good Ecological Status' (GES) by 2027. There is no target date in the WFD past 2027.[67]

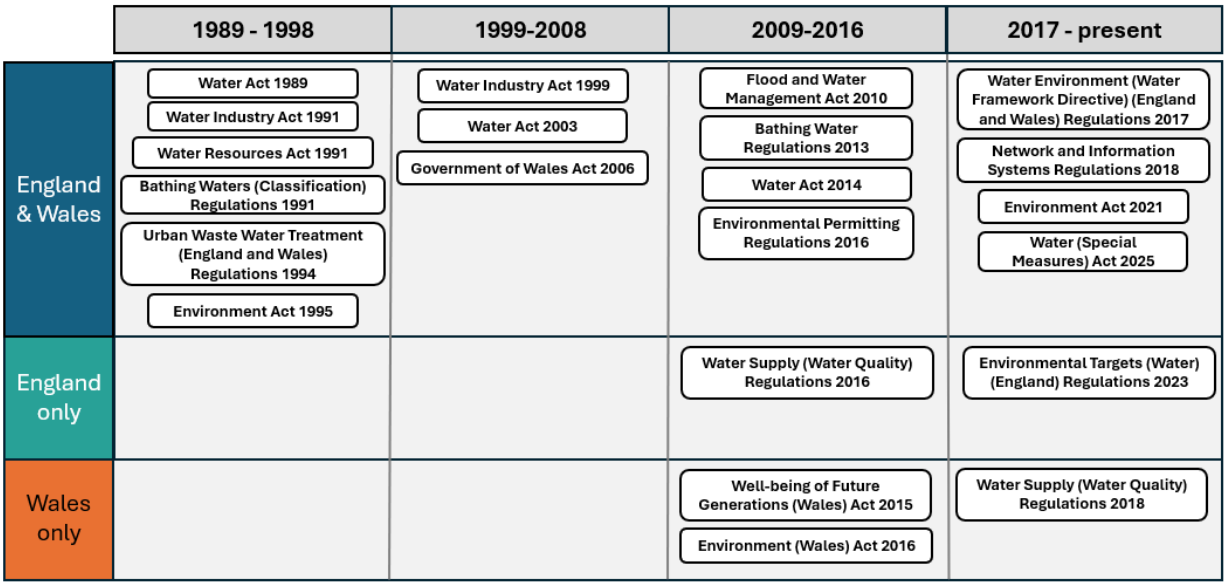
106. In the 2010s, other legislative changes included additional duties for Ofwat through the Water Act 2014, updates to the bathing water framework through the introduction of the Bathing Water Regulations 2013 and the Water Supply (Water Quality) Regulations 2016, and the Network and Information Systems Regulations 2018, which resulted in the Drinking Water Inspectorate (DWI) taking on responsibilities for overseeing water infrastructure cyber security.[68] In Wales, key elements of the regulatory landscape for water and natural resource management, were established by the Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016. This included making changes to the organisational

[67] Office for Environmental Protection, 'A review of implementation of the Water Framework Directive Regulations and River Basin Management Planning in England', 2024
[68] Water Act 2014; The Network and Information Systems Regulations 2018

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, ecosystem and biodiversity.[69]

107. Since 2020, there has been significant legislation to strengthen the environmental expectations on companies, including the Environment Act 2021, which set new and more stringent targets for pollution reduction and monitoring.

Figure 6: Key elements of the legislative framework over time



108. The Commission has heard from water companies, investors, the environmental non-governmental organisations (eNGOs) community and regulators that the legislative framework is now an overly complex, difficult-to-navigate regime that lacks clarity and focus on key priorities. The recent Corry Report identified similar issues.[70] We have received substantial and specific feedback regarding the number of different pieces of applicable legislation and the difficulty operating within the legislative environment.[71] For example, the Environment Agency (EA) commented that the legislative landscape is "complex and layered with inconsistencies between the protections, powers, duties, requirements and charging frameworks".[72] And Water UK observed that "new environmental legislation has been

[69] Well-being of Future Generations (Wales) Act 2015; Environment (Wales) Act 2016
[70] Independent review of Defra's regulatory landscape, 'Delivering economic growth and nature recovery: An independent review of Defra's regulatory landscape', 2025
[71] Water company, regulators, and others engagement with the Commission; Environment Agency response to the Call for Evidence, 2025
[72] Environment Agency engagement with the Commission

incrementally added over time with no common purpose or clear end-goal in mind" leading "to inconsistencies and incoherence of the body of law as a whole".[73]

109. Some stakeholders have highlighted that a key driver of complexity is the misalignment between statutory requirements, guidance and other elements of the regulatory framework, such as performance assessments and incentives, which results in a lack of clarity about the overall intended outcomes. The regulations and requirements in relation to storm overflows is one such example that has been raised with the Commission. Water companies in England are now subject to two regulatory regimes – compliance both with legal duties under the UWWTR 1994 and the Water Industry Act 1991 and with requirements under the Storm Overflows Discharge Reduction Plan emerging from the Environment Act 2021.

110. The Commission has also received critical commentary from regulators, eNGOs and the water companies on the inflexibility and overly prescriptive nature of much of the legislative framework. This can act against the delivery of cost-effective solutions and risks limiting innovation and the use of solutions that have wider benefits, such as nature-based solutions. It can also act against an ability to consider environmental and other benefits in the round, for example, it can create limitations on strategic solutions at a regional or catchment level that would otherwise have the potential to ensure environmental objectives are met, while enabling other outcomes of significant public interest, such as economic growth.

111. Water UK, for example, commented that "legislation and regulation are stifling innovation and failing to adequately address all the pressures on the water system". The EA and Ofwat, meanwhile, both referred to the potential for the legislative framework to be improved to better take account of the costs and benefits of intervention, including by encouraging more consistent use of economic appraisal and providing clarity on the need to evaluate the benefits that environmental investment provides to people and the economy.[74]

[73] Water UK response to the Call for Evidence, 2025

[74] Ofwat response to the Call for Evidence, 2025 "…Encourages consistent and widespread use of economic appraisal for the environment programme, including that the EA/NRW could be required to give further consideration to costs.", 2025; Environment Agency response to the Call for Evidence: "Further strengthening of environmental legislation could give clarity to developers and industry of the requirements to evaluate the benefits that nature provides to people and the economy."

Box 5– Environment Agency case studies on difficulties deciding trade-offs under current legislation

The EA has noted that "environmental trade-offs are difficult… given the high level of environmental protection afforded by, for example, the WFD regulations."

For example, the EA noted that "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 EA suggested that this designation and "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."

The EA also provided a case study relating to the addition of final treated effluent discharge from Minworth Wastewater Treatment Works into the Grand Union Canal. The EA suggested that although "early monitoring and modelling work shows that adding the final treated effluent discharge from Minworth Wastewater Treatment Works will improve the water quality concentrations in the Grand Union Canal of approximately 30 substances… without further intervention and treatment, the proposal would not be able to be permitted as the assessment indicates a small proportion of substances in the discharge could cause a deterioration under the Water Environment (Water Framework Directive) Regulations."

The EA has suggested that "if legislation allowed for a decision to be made that assessed local impact versus overall benefit [they] could potentially determine that proposals are an improvement overall and a longer-term plan to address any failures could be made." The EA's response suggests reforms to Regulation 19(1) WFD Regulations could potentially enable it to be used in situations such as these.

Source: Environment Agency[75]

Preliminary Conclusions

112. The Commission sees a strong case for review and rationalisation of the legislative framework for water. The Commission recognises the role that ambitious targets in environmental legislation have played in driving improvement and the importance of maintaining ambition. However, many of the Corry Report's conclusions about the broader Defra regulatory landscape are relevant to water, for example, a disconnect between the

[75] Environment Agency response to the Call for Evidence, 2025

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 UK government's ambition for the water sector, including its Environment Act 2021 targets and those set out in the Environmental Improvement Plan.

113. This includes, for example, the WFD Regulations.[76] The Commission agrees with the Corry Report's conclusion that there is scope for reform to ensure it delivers long-term stability and clarity and reflects the needs of customers and the environment. The Commission has similarly heard from the EA that the regulations could be updated "with a view to reducing administrative burden while maintaining the high level of environmental ambition".[77]

114. For Wales, 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, and the sustainable use of natural resources, as set out in the Environment (Wales) Act 2016. The Commission has heard from NRW that "much of the existing legal framework has not seen significant review, and in some cases has become outdated… with the legal landscape contradicting the aspiration for a sustainable future".[78]

115. 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. The Commission is, however, considering for its final report what should be the priority areas for review and the objectives that might underpin the exercise beyond improving consistency, coherence and making the framework easier to navigate.

116. Changes to the WFD will be necessary given there is no statutory deadline for environmental improvements relating to good ecological or good chemical status after 2027. The Commission's view is that there is a case for reviewing not just the current chemical and ecological targets and deadlines, but also whether the water quality framework has sufficiently broad objectives. In particular, given the growth and importance of the recreational use of water in England and Wales, there is a strong case for considering the inclusion of objectives for public health in certain water bodies alongside

[76] Independent Review of Defra's regulatory landscape, 'Delivering economic growth and nature recovery: an independent review of Defra's regulatory landscape', 2025
[77] Environment Agency engagement with the Commission
[78] Cyfoeth Naturiol Cymru Natural Resources Wales response to the Call for Evidence, 2025.

chemical and ecological quality. [79] Consideration of costs and benefits will be necessary for any changes in WFD objectives.

117. Other important areas for legislative reform may include the UWWTR 1994. The EU has recently updated the Urban Wastewater Treatment Directive to introduce stricter treatment requirements to address public health as well as environmental concerns. In addition, while England and Wales have world-leading drinking water standards, the Commission has heard of the need to update drinking water regulations to ensure that public health continues to be protected from existing and emerging contaminants.

118. The current inflexibility in the regulatory system is in large part the product of the legislative framework – though regulatory culture also plays a part – and can only be addressed at the statutory level. A review of the legislative framework should therefore, as the Corry Report has suggested, also take forward the concept of 'constrained discretion' for the regulators.[80] If done right, such discretion could support greater innovation, better overall environmental solutions, greater prioritisation at the local level and unblock opportunities for economic growth. Importantly, to be effective and to avoid undermining the primary purpose of the statute, this would require clear and careful specification and delineation of the area and scope of discretion, the factors that should determine its use, and the attendant arrangements for transparency and accountability.

119. Proportionate provision for constrained discretion would 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, better consideration of wider benefits (such as nature-based solutions) and unblocking of opportunities for regional economic growth where there is significant public interest. Arrangements for constrained discretion could also provide improved mechanisms for escalation to government where the outcomes its sets as priorities for the regulators are in conflict. The Commission has heard initial feedback from NRW that the sustainable development principles embedded within the Well-being of Future Generations (Wales) Act may already provide positive examples of consideration of wider benefits. It is therefore considering whether the Act

[79] 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).
[80] Independent review of Defra's regulatory landscape, 'Delivering economic growth and nature recovery: An independent review of Defra's regulatory landscape', 2025

may provide a framework for building greater constrained discretion in Wales.[81]

120. The Commission is also interested in the scope for improving how the legislation 'works'; for example, reviewing how changes in environmental improvement are considered in the current WFD assessment of water bodies. The Commission has heard evidence that there may be other assessment frameworks that would better reflect progress being achieved within, as well as challenges facing, specific water bodies, bearing in mind the importance of retaining a clear measure of the overall health of water bodies to support transparency and drive investment and action. The WFD is onshored EU legislation and its structure and mechanisms reflect in part the requirements for legislation that has to be implemented in different jurisdictions and monitored for inter-jurisdictional consistency.

121. An improved legislative framework should respect the legislative and policy differences between Wales and England. Though the greater part of the legislative framework applies in both England and Wales, 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.

122. As part of its final report, the Commission will make further recommendations on areas of focus for a review of water sector legislation, including the WFD and UWWTR 1994. The Commission has also heard views on whether the concept of 'extended producer responsibility' could apply to the water sector to better support the management of pollutants upstream. This will be discussed in the final report, alongside further reflections on how a 'constrained discretion' framework for water sector regulations could be operationalised.

[81] Cyfoeth Naturiol Cymru Natural Resources Wales engagement with the Commission

Section 3: Regulatory Reform

123. Privatisation of the water sector was accompanied by the establishment of a new regulatory model to oversee the newly privatised water companies, with the UK and Welsh governments responsible for setting policy priorities and the overall strategic framework within which the regulators must operate. Three regulators were established under the Water Act 1989 and the Water Industry Act 1991:
    a. The Director General of Water Services and the Office of Water Services (Ofwat) - the economic regulator
    b. 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
    c. The Drinking Water Inspectorate (DWI) – the drinking water regulator

124. Ofwat is responsible for economic regulation of the water industry in England and Wales. 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 to set price controls for the sector. Ofwat also performs functions related to water company performance and oversight, ensuring companies comply with core statutory duties and their licence conditions.

125. 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. The EA has a statutory aim to protect or enhance the environment, contributing towards the objective of achieving sustainable development. NRW's core purpose is to sustainably manage natural resources. Both regulators also have responsibilities for planning for the water system, including the production of River Basin Management Plans, as well as a duty to secure compliance with environmental objectives set out in those plans.[82]

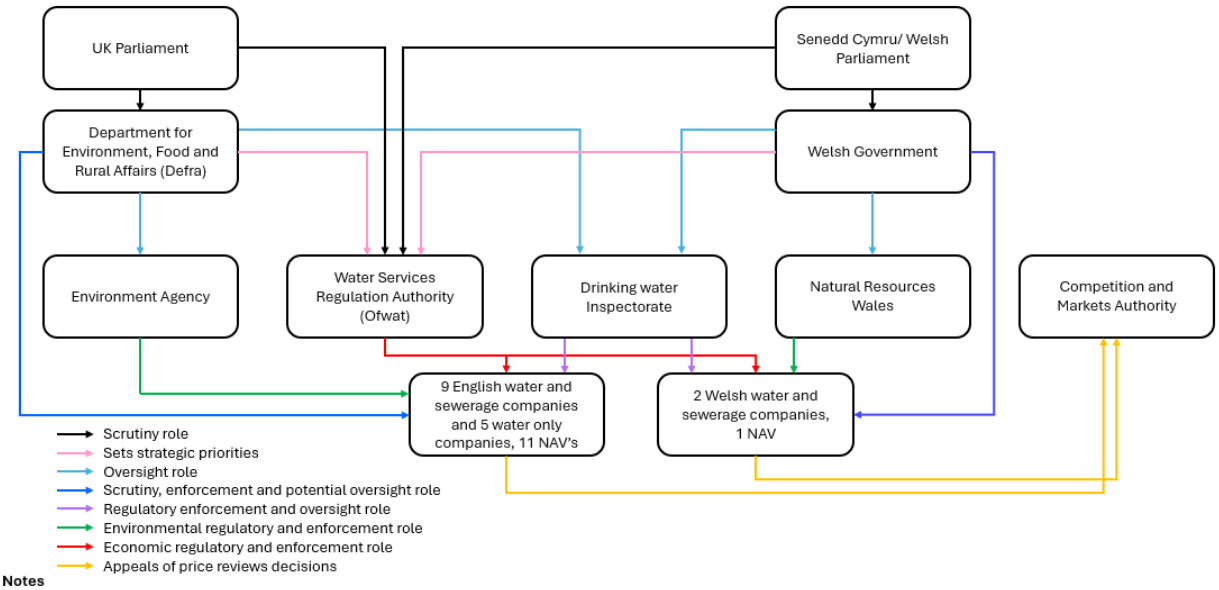
126. The DWI exercises power and duties to assess and enforce drinking water quality on behalf of the Secretary of State and the Welsh Ministers, to provide assurance that safe and acceptable drinking water is supplied to those receiving a public water supply. The DWI, headed up by the Chief

[82] The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Inspector of Drinking Water, currently sits as a business unit within Defra, although it is operationally independent.

127. While not a formal regulator, the Consumer Council for Water (CCW) plays an important role in the water sector regulatory landscape. The CCW is a non-departmental public body established on 1 October 2005 under the Water Act 2003 to represent consumers of water and sewerage services in England and Wales. It replaced WaterVoice committees, which were part of Ofwat, to become an independent statutory consumer body.[83] The CCW provide free advice and guidance to customers, including support for customers who have not been able to resolve a complaint against their water company. Their work is informed by research, which they use to champion the interests of consumers and influence water companies, governments and regulators.

Figure 7: 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 [84]

128. The duties and functions of the water sector regulators have developed over time as the system has evolved and as the legislative framework has grown in both scale and complexity, as covered in Section 2: Legislative Framework. Ofwat's role has also expanded over time due to government and Parliament adding new duties. In 2014, the UK Parliament legislated to

[83] Water Act 2003

[84] National Audit Office, 'The economic regulation of the water sector', 2015

provide Ofwat with a new primary duty related to resilience. And in 2024, the UK government extended the Growth Duty to Ofwat. 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.

129. On economic regulation, 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.[85] This model of price controls sets revenues companies can receive, and therefore bills customers pay, over a 5-year period. It also provides incentives for water companies to deliver efficiency-driven cost reductions. Ofwat uses the price review to provide allowances for 'base' (for instance operational) spending (largely based on past spending, modelling future cost drivers, and setting a benchmark for 'efficient" costs); 'enhancement' (such as new investment) spending (based on Ofwat's assessment of companies' business plans); and the Weighted Average Cost of Capital (WACC), a benchmark for the remuneration of equity and debt (based on Ofwat's estimate of the cost of equity and debt and its assumption about the notional level of gearing).

130. Ofwat has developed and expanded its model of price regulation materially over time. A notable development was the introduction of 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. Initially, ODIs were focused on factors closely related to customer service and investment in water company infrastructure, with only two mandatory performance commitments (the service incentive mechanism and leakage), while other performance commitments were bespoke and set according to customer feedback. They have since been developed extensively, with companies now being rewarded and penalised for performance against a broader range of common ODIs, with more ambitious performance commitment levels and with higher rewards and penalties. A much wider set of ODIs are set by Ofwat and on an industry-wide basis, with fewer bespoke company specific measures. Ofwat further added Price Control Deliverables (PCDs) at Price Review 2024 to reward and penalise companies for the delivery of specific investment projects.

[85] S Littlechild, 'Regulation of British Telecommunications' Profitability', 1983

131. Ofwat's approach to price regulation is primarily based on econometric modelling to inform the setting, for each parameter, of a single benchmark for the 'notionally efficient company' that then applies to all companies. 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 6.4% of base expenditure in Price Review 2024, and just 0.6% in Price Review 2019.[86] For Price Review 2014, Ofwat produced only a total expenditure figure, of which cost adjustments accounted for 5%).[87] Ofwat also uses a more qualitative approach for agreeing enhancement allowances for projects that are more unique or markedly different to other companies.

132. In addition to, and separate from, engagement with companies through price regulation and economic incentives, Ofwat has recently begun to monitor companies more closely and regularly. This has involved strengthened oversight and monitoring of companies' performance across the sector, a new approach to company turnaround, proposals to better understand asset conditions, financial monitoring, and monitoring firms against Ofwat's Board Leadership, Transparency and Governance Principles 2019.[88]

133. With respect to the environmental regulators, growing concern about wastewater pollution has resulted in an increased focus on monitoring and enforcement of water industry operations. This includes, for example, new responsibilities introduced by the Environment Act 2021 for the EA to publish annual summaries of storm overflow data. 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.

134. The DWI's responsibilities have also grown. For example, the Network and Information Systems Regulations 2018 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

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[86] Calculated using: Ofwat, 'PR24 final determinations: Expenditure allowances', 2024; Ofwat, 'PR24 redeterminations: Expenditure allowances: common issues', 2025
[87] Calculated using: Ofwat, 'Final price control determination notice: policy chapter A3 – wholesale water and wastewater costs and revenues', 2014
[88] Ofwat, 'Board Leadership' (viewed 29 May 2025); Ofwat,' Board leadership, transparency and governance – principles', 2019

overseeing the Security and Emergency Measures Direction (SEMD) in 2022.

135. There have been some reforms in recent years to enhance the protection for customers against poor service. For example, in 2019, Ofwat introduced a financial and reputational incentive (C-Mex) for companies to improve service provision. The UK government, meanwhile, recently updated the Guaranteed Standards Scheme (GSS) to strengthen redress for customers that have experienced service failures; it will introduce these enhanced standards in England later in 2025.[89] The Welsh Government has also indicated that it will pursue amendments in due course.

136. In addition, Ofwat introduced a customer-focused licence condition in 2024 to strengthen existing guidance on customer protections. This licence condition, which sets out the principles for the high standards of customer service that companies are expected to deliver, protects all households in England and Wales, as well as non-household customers in Wales. Furthermore, this summer, Ofwat will publish a statutory consultation on a new rule requiring water companies in England and Wales to involve consumers in their decisions. This consultation will build on their Autumn 2024 policy consultation on the WSMA 2025 rules and will set out their proposed requirements of water companies in this area.

137. Given recent bill increases and the likely increase in the cost of providing water and wastewater services over the longer term[90], the Commission welcomes the new powers the UK Government has taken to enable reform of affordability schemes, including social tariffs, and its commitment to take action to address water poverty across England. The WSMA 2025 inserted new provisions into the Water Industry Act 1991 to allow costs associated with making special provision in charges schemes to be shared across companies. This could enable government to design new affordability schemes for water customers with more equitable outcomes. The Commission is aware that following the WSMA 2025, the government is working with industry to keep the current support schemes under review and is exploring options to improve affordability support for vulnerable customers. The Commission will comment further on this as part of its final report.

Issues

138. Overall, the Commission has heard consistently and from a wide range of stakeholders that trust in the regulatory framework for water has been

[89] Defra, 'Summary of responses and government response', 2024
[90] Ofwat, Ofwat-submission-to-Independent-Water-Commission-23-Apr-2025-FOR-PUBLICATION.pdf

severely eroded. 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.

Economic Regulation

139. Ofwat's response to the Call for Evidence noted that public trust has been significantly undermined, which has "led to falling confidence in the adequacy of the planning and regulatory framework for the sector, and in its ability to hold companies to account to comply with their obligations."[91] High profile financial resilience issues at Thames Water, as well as public dissatisfaction over dividend and executive pay (which has been seen as rewarding poor performance) have exacerbated issues of public trust.[92] Investors and companies also note an increasingly adversarial relationship with Ofwat.[93]

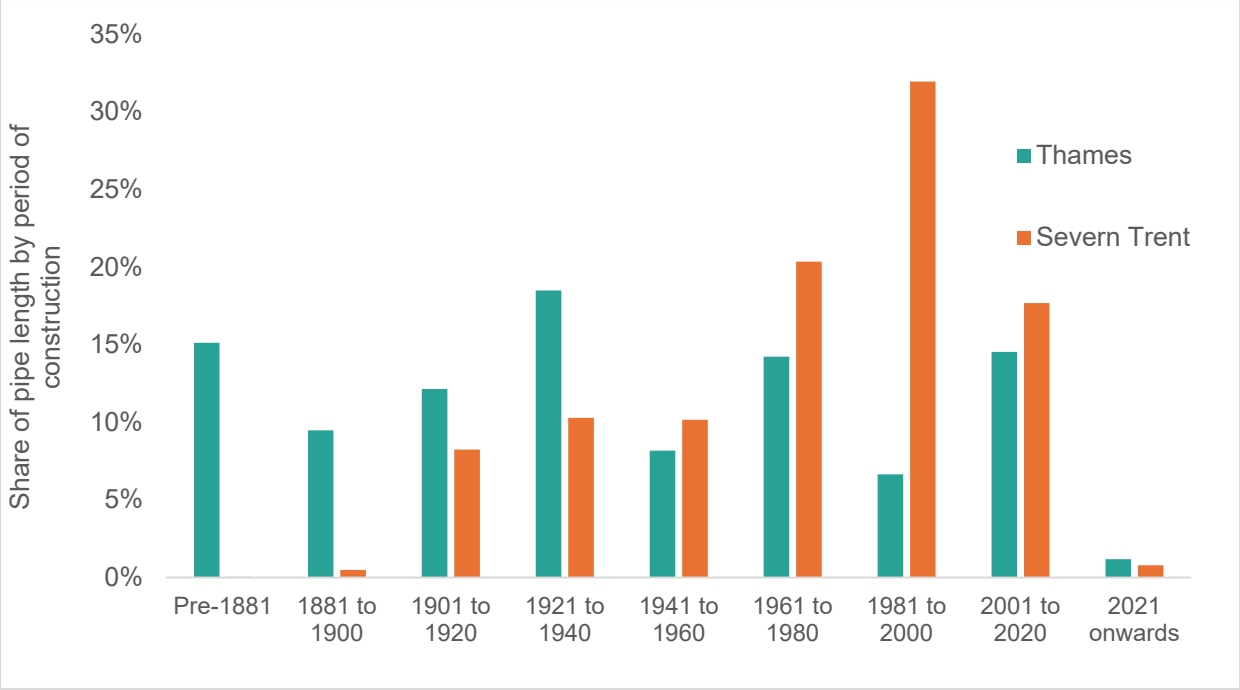
140. Stakeholders have noted that Ofwat's price review has become increasingly complex over time and questioned whether this and the level of documentation entailed creates a disproportionate administrative burden and distracts from both the management and oversight of water companies in the delivery of key public goods. Stephen Littlechild noted in his submission to the The Competition and Markets Authority (CMA) on Ofwat price determinations in 2020, that what he had envisaged at the time of the privatisations as a short period of effort for company and regulator had become, "a situation where, for all UK regulated water and energy network companies, the price setting process routinely takes about five years, is indeed an ongoing never-ending process. It is like purgatory - "a place or state of temporary suffering or misery" - except that it is no longer temporary: it is a place or state of permanent suffering or misery".[94]

141. The Commission has also heard concerns about Ofwat's overreliance on econometric based modelling to set benchmarks for the notionally efficient water company against which all companies are then assessed. Stakeholders have noted that, while English and Welsh water companies are regional monopolies, they are also regionally very different (for instance, on geography, hydrology, demography and history). Figure 8 illustrates this point by showing the difference in pipe age between Thames Water and Severn Trent Water assets, with Severn Trent having a younger average age of pipe, suggesting that companies will face different challenges on

[91] Ofwat response to the Call for Evidence, 2025
[92] Ofwat response to the Call for Evidence, 2025
[93] Water company and investor engagement with the Commission
[94] Stephen Littlechild, 'Submission to the CMA on Ofwat Price Determinations', 2020

asset maintenance going forward due to their asset endowment. Figure 9 further shows the drivers of water demand by 2050, broken down by broad geographical region, which will have different scales of impact per water company.

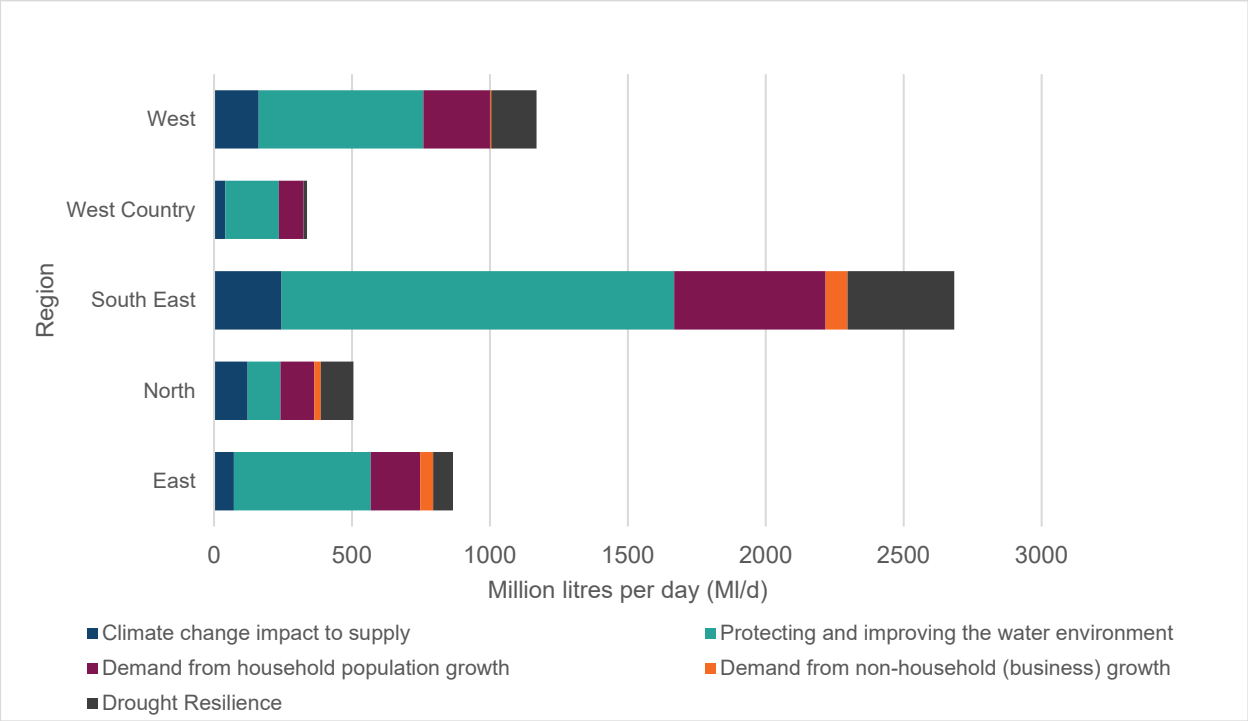
Figure 8: Pipe age comparison – Thames and Severn Trent



Source: Ofwat[95]

[95] Ofwat, '[PR24 Mains Conditions data]', 2024

Figure 9: Predicted drivers of 2050 total daily water need by region, England, in million litres per day



Source: Environment Agency data[96]

142. The Commission has also heard that benchmarking has sometimes had the effect of holding companies back rather than enabling them to improve. Stakeholders have expressed concerns about a 'doom loop' – where companies that struggle in performance are benchmarked against higher performing companies, resulting in lower funding, and limiting their ability to turn around performance.[97] This, it has been argued, has been exacerbated by a lack of regulatory flexibility, for example, in enforcement actions.[98]

143. Relatedly, investors have commented that aspects of the price review process, including uncertainty caused by long-running enforcement activity, and the amount of capital put at risk by the growth in ODIs, has made returns more volatile. This, it has been argued, is disincentivising low-risk, low-return long-term investors from investing in the sector (this is discussed

[96] Presented by region as defined by England's 5 regional water resources groups which bring together water companies, key water users and other stakeholders operating in region. These include Water Resources Data from: Environment Agency, 'A summary of England's revised draft regional and water resources management plans', 2024
[97] Water UK response to the Call for Evidence, 2025
[98] Call for Evidence engagement and responses

further in Section 4: Company Structures, Ownership, Governance and Management).

144. Stakeholders in Wales have further noted that Ofwat do not sufficiently take account of Welsh priorities in their regulatory approach. For example, Ofwat continues to drive towards reducing the number of Combined Storm Overflow spills in Wales, rather than driving compliance to reduce overall harms, which is the Welsh Government and Natural Resource Wales's (NRWs) stated objective.

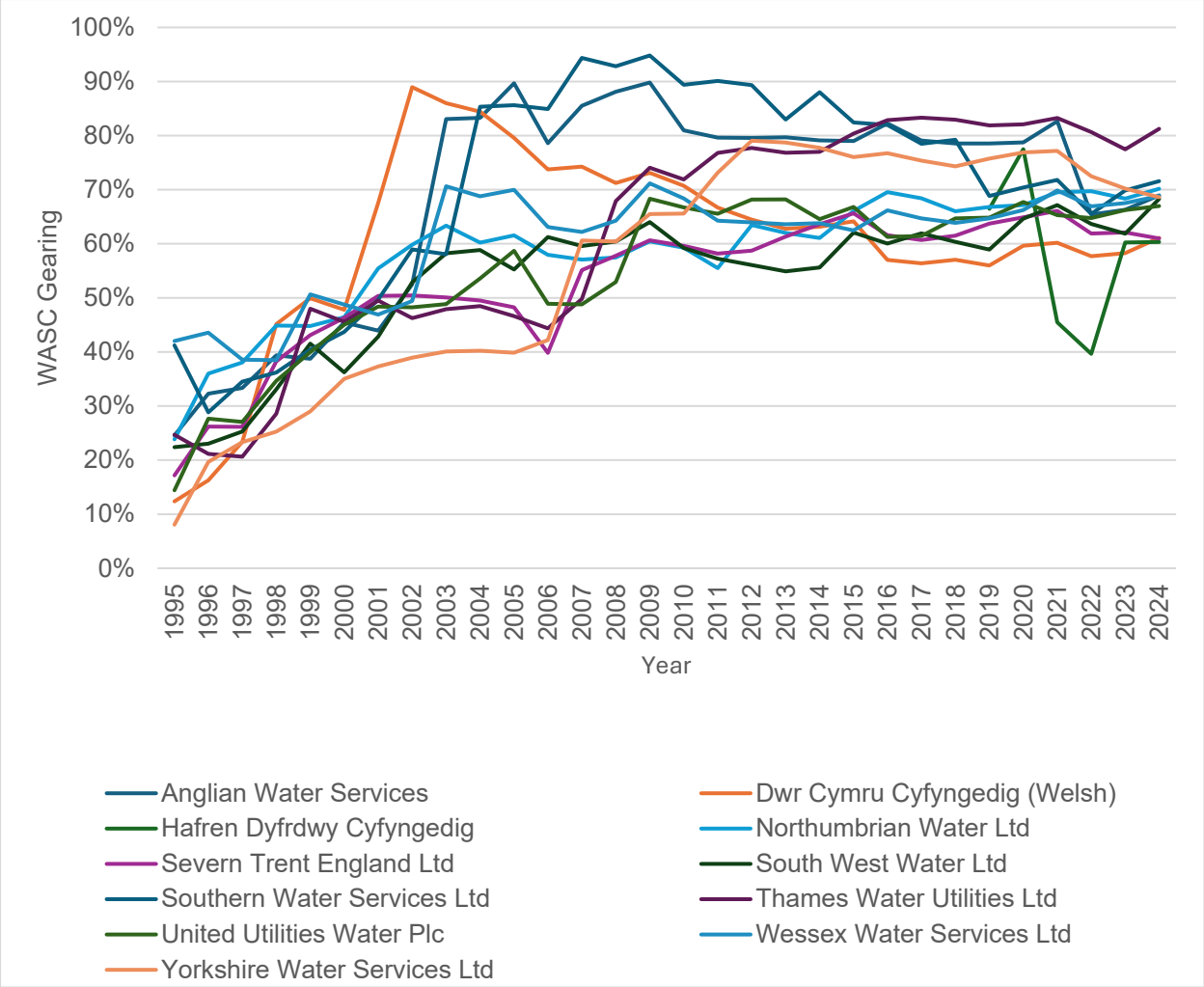
145. Water companies complain about Ofwat's approach being overly mechanistic, of a lack of clarity about whether and how Ofwat uses the information submitted and, more generally, of Ofwat having a lack of understanding of their specific circumstances. Companies note that Ofwat do engage at a senior level, both at regular intervals and when requested, but that engagement is not informed by a deep understanding of companies' specific circumstances. Companies have also noted that engagement at lower levels can be limited, and that this was a conscious decision by Ofwat to reduce the risk of regulatory capture.[99]

146. Meanwhile, other stakeholders note that some companies built up high levels of debt and introduced complex financial engineering in the 1990s and 2000s. There have also been complaints about high levels of dividend and executive pay, which do not necessarily reflect performance. The Commission understands Ofwat has not always had the tools to effectively scrutinise and understand the implications of companies' actions.[100]

147. The Commission has heard extensive commentary on how company decision-making on debt has not always been in the public interest and how high levels of debt relative to equity has impaired some companies' resilience and created problems for the future (Figure 10).[101] More generally, the Commission has heard about the challenges over-leverage and complex debt structures can create (for example, by resulting in a focus on financial rather than operational management, and limiting the attractiveness of the sector to investment).[102]

[99] Water company engagement with the Commission
[100] Environmental non-governmental organisation engagement with the Commission
[101] Ofwat data provided to the Commission
[102] Engagement with the Commission

Figure 10: Evolution of gearing, England & Wales, WASCs, 1995 to 2024, %



Source: Ofwat[103]

Environmental Regulation

148. The Commission has heard the ability of the environmental regulators to enforce compliance with standards has been compromised by capacity, capability and cultural challenges.[104] Stakeholders have also highlighted concerns around a perceived lack of enforcement action, as well as gaps in areas of environmental oversight.[105]

149. With respect to capacity, the Commission has heard specific and strong concerns about the impact of budget cuts on the environmental regulators'

[103] Ofwat data shared with the Commission. Calculated as industry net debt divided by regulatory capital value. Hafren Dyfrdwy Cyfyngedig was formed in 2018 so data from thereafter is shown above.
[104] Environmental non-governmental organisation responses to the Call for Evidence
[105] Environmental non-governmental organisation responses to the Call for Evidence

monitoring and inspection functions. 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. [106] There have been significant steps in recent years to increase regulator funding including, for example, through updating the charging scheme in England by which the EA recovers the cost of its activities for the water industry. This is enabling the EA to recruit 500 staff including environment officers, data analysts and enforcement specialists.[107] NRW, meanwhile, has recently conducted a strategic review of charges to increase fees paid by the water industry and to therefore ensure the costs of delivering regulatory activity are better recovered from those they regulate[108]. Nonetheless, concerns around NRW's resourcing seem to be persisting with a Senedd Committee recently questioning "NRWs 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."[109]

150. Regarding capability, a key issue raised in relation to the EA is its continued use of legacy IT systems and inability to take advantage of advances in technology.[110] The Commission understands this is limiting the organisation's ability to take advantage of new data streams coming online, for example, from real-time monitors at storm overflows and wastewater treatment works. These data streams can be utilised to drive intelligence led inspections and audits of water industry assets. The EA has recognised this and has launched a Water Industry Regulation Transformation Programme with a view to improving its digital and technological capabilities.[111] If successful, it is argued that this will support a shift to more efficient, intelligence-led regulation. NRW has also 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.[112]

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[106] UK Parliament, 'Environment Agency: Enforcement Budget', 2022; Cyfoeth Naturiol Cymru Natural Resource Wales, 'CCEI Committee, Natural Resources Wales - Annual Scrutiny 2023-24', 2024
[107] Defra, Environment Agency, and The Rt Hon Steve Barclay MP, 'Inspection surge to crack down on water sector pollution', 2024
[108] Cyfoeth Naturiol Cymru Natural Resources Wales, 'Consultation on our regulatory fees and charges for 2023/2024', 2023
[109] Senedd Cymru Welsh Parliament Climate Change, Environment, and Infrastructure Committee, 'Natural Resources Wales: Annual scrutiny 2024-25', 2025
[110] Environment Agency, 'A new approach to ensure regulators and regulations support growth', 2025
[111] Environment Agency, 'Water Industry Regulation Transformation', 2025
[112] Cyfoeth Naturiol Cymru Natural Resources Wales response to the Call for Evidence, 2025

151. Beyond digital skills, the Commission has heard of the challenges facing the environmental regulators in attracting, recruiting and retaining specialists including hydrologists, industry experts and skilled regulators and planners.

152. The Commission has also heard concerns about the flexibility, culture and responsiveness of the environmental regulators to local needs. The recent Corry review for Defra, for example, identified concerns around a tendency for the regulators to 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'.[113]

153. Concerns have also been raised about a general culture of risk aversion sometimes hampering the use of innovative and nature-based solutions, compounding the issues with regulatory inflexibility described in Section 2: Legislative Framework. The EA, for example, has recently taken the decision to withdraw support for catchment nutrient balancing investment in Price Review 2024[114], due to concerns about a lack of evidence regarding the efficacy of such interventions.[115] In their responses to the Commission's Call for Evidence several Environmental Non-Governmental Organisations (eNGOs) have highlighted concerns in this area. The Rivers Trust has pointed out how 'current regulatory process and inflexibility results in missed opportunities to deliver solutions that maximise benefits to people and nature and deliver cost-effectiveness for customers'.[116] Wales Environment Link, meanwhile, has called for more long-term thinking to maximise outcomes and allow innovative solutions to be developed.[117]

154. In addition, the Commission has heard of potential gaps in the extent of oversight by the EA and NRW. This includes management of sludge and abstraction which both have significant impacts on the water environment. While sludge practices are currently regulated through the UWWTR and abstraction through the Water Resources Act, both currently fall outside of the environmental permitting regime in England and Wales. This limits the

[113] Independent Review of Defra's regulatory landscape, 'Delivering economic growth and nature recovery: an independent review of Defra's regulatory landscape', 2025
[114] Catchment Nutrient Balancing is a mechanism by which water companies can offset phosphorous pollution from their wastewater operations by paying another sector to reduce pollution on their behalf.
[115] Environment Agency engagement with the Commission; The UK Water Report, K Loveday, 'EA set to withdraw "ineffective and unworkable" catchment nutrient balancing', 2025
[116] The River's Trust, 'A new Integrated Catchment Governance Framework for delivery of the EIP', 2025
[117] Wales Environment Link submission to the Commission, 2025

regulatory tools available to oversee how abstraction and use of sludge are managed.[118]

155. With respect to enforcement of environmental non-compliance, the Commission has heard that funding challenges within the environmental regulators have limited their ability to keep up with the poor performance in the industry in the past.[119] Others have argued that there are cultural issues within the regulators, that disincentivise enforcement action.[120] Where enforcement action is taken, we have heard that investigations and prosecutions are not timely.[121] This is not solely due to the action or capacity of the regulator but due, in some instances, to the behaviour of companies in delaying processes and wider factors affecting the criminal justice system.

156. In Wales, the Commission has heard that the financial disincentive to pursue enforcement action through the criminal justice system is problematic. Although costs can be recovered, NRW do not always consider that costs awarded by the courts cover the actual costs of lengthy criminal investigation and prosecution. NRW have noted 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.[122]

157. For the EA, the situation has improved. 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 and the introduction of new powers through the WSMA 2025.[123] However, there remain concerns about water industry cooperation with investigations and the pace at which investigations can be resolved.

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[118] Afonydd cymru Caring for Welsh Rivers, 'Abstraction' (viewed 1 June 2025); Afonydd cymru Caring for Welsh Rivers, 'Stop Anaerobic Digesters Polluting Our Rivers' (viewed 1 June 2025); Blueprint for Water, 'Blueprint for Water briefing on the abstraction reform consultation: why and how you can respond', 2013; J Benton and others, 'Using microbes to remove microplastics from wastewater and sewage sludge', 2024; Responses to the Call for Evidence

[119] Wildlife and Countryside Link, 'Smarter Regulations and the Regulatory Landscape call for evidence – Link evidence', 2024: WildFish response to the Call for Evidence, 2025

[120] Environmental non-governmental organisation responses to the Call for Evidence, Afonydd cymru Caring for Welsh Rivers, 'New Report Shows More Welsh Water Wastewater Failure' (viewed 2 June 2025)

[121] Environmental non-governmental organisation responses to the Call for Evidence; River Action and Surfers Against Sewage, Joint Submission to the Independent Water Commission, 2025

[122] Engagement with the Commission

[123] Defra, Environment Agency and The Rt Hon Steve Reed OBE MP, 'Record 81 criminal investigations launched into water companies under Government crackdown', 2025

Drinking Water Regulation

158. The DWI, for the most part, attracts little adverse commentary. Stakeholders largely perceive it as highly effective, commanding respect from the industry and other relevant stakeholders.[124] England and Wales have world leading drinking water standards. Water companies consistently meet the stringent regulatory standards for drinking water, with 99.97% of samples in England and 99.96% of samples in Wales complying with the regulatory standards in 2023.[125]

159. However, given its critical role in protecting the public by assuring the safety of the nation's drinking water, questions have been raised about whether the DWI (currently a business unit within Defra) has sufficient authority and independence, particularly given changing pressures that will pose additional regulatory challenges for the DWI in future.[126] This includes, but is not limited to, impacts of climate change, infrastructure development, population growth and demand management, as well as external threats posed by cyber and physical security of assets. In addition, there are some indications that public concerns about the pollution of rivers may erroneously be affecting public confidence in the safety of drinking water, potentially amplified by social media misinformation.[127]

Consumer Protection and Affordability

160. Despite the success in England and Wales in the delivery of clean, reliable water supplies at what has been a relatively modest cost, evidence suggests that consumers are unsatisfied with their water companies.

161. Customers' 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.[128] Customer complaints to water companies rose by 10% in 2023-24, while stage 2 complaints – those that were not resolved by the company at the first attempt – rose by 20%.[129] Furthermore, 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.[130] The report

[124] Engagement with the Commission
[125] Defra, 'Drinking water quality in England: a triennial report (2020 to 2022)', 2024; Drinking Water Inspectorate, 'Drinking Water 2023- The Chief Inspector's report for drinking water in Wales', 2023
[126] Engagement with the Commission
[127] Drinking Water Inspectorate response to the Call for Evidence, 2025
[128] CCW, 'Water Matters 2025', 2025
[129] CCW, 'Household complaint handling report 2024', 2024
[130] CCW, 'Water Mark 2024', 2024

highlighted how poor communication placed added stress on customers effected, requiring them to spend even more time waiting on the phone and repeating information they had already shared.[131]

162. The Commission has heard that the current framework for protecting consumers, which balances economic incentives with guidance and standard setting to drive water company behaviour may be ineffective. Ofwat's introduction of the C-Mex economic incentive, described above, has not led to improvements, with average scores declining every year to date.[132] CCW have also raised concerns with the Commission over the implementation of the C-Mex metrics. They argue that high volumes of complaints are evidence of a poor experience for many customers and can be an indicator of more fundamental problems. As such, CCW believe that a measure of the volume of customer complaints should be introduced to the C-Mex metric.[133]

163. In addition to concerns about the provision of services, stakeholders have noted affordability concerns for the poorest in society. Overall, for 2025-26, the average bill in England and Wales is forecast to be £603, which equates to approximately £1.65 per day, an increase of 26% from 2024-25.[134] 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.[135] Furthermore, as of March 2024, just over 2.5 million household customers were in payment arrears, each owing on average £822.[136]

164. The Commission has heard of a need for a more consistent approach across water companies to support vulnerable customers through social tariffs. All companies offer a voluntary social tariff to support low-income families, with 1.6 million customers enrolled in these schemes.[137] However, there are significant variations in the eligibility criteria and level of support offered across the regions. This variation results in people in similar circumstances receiving significantly different levels of support, depending on what part of the country they live in. In addition, CCW estimate that 2 million customers

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[131] CCW and Ofwat, 'Customer experiences of sewer flooding', 2022
[132] Ofwat, 'Accent Report for Ofwat: C-Mex and D-Mex', 2024
[133] CCW response to the Call for Evidence, 2025
[134] In nominal prices. Water UK, 'Annual average bill changes 2025 -2026' (viewed 30 May 2025)
[135] Citizens Advice, 'Barriers to Access: Why water and broadband social tariffs aren't reaching struggling households', 2025
[136] Ofwat, 'Analysis of household customer debt', 2025
[137] CCW, 'Water Mark 2024', 2024

may not be getting the financial support that they are entitled to due to low awareness of the support available and the complex and inconsistent eligibility criteria.[138]

165. Finally, the Commission has heard that there are limits in the ability of the consumer advocate, CCW, to be a strong and effective voice for consumers. For example, while CCW has the power to investigate a water company for any matter related to the interest of consumers, they have no powers of enforcement. This contrasts with consumer protection frameworks in other sectors, like energy, where there is an Ombudsman with powers to order remedial action following an investigation, which can be enforced in court.

166. The CCW has raised concerns about possible duplication between its remit and Ofwat's, for example, in relation to consumer research creating confusion in the regulatory landscape, risking the customer voice 'getting lost'.[139]

Regulatory system

167. 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. Some have argued that there is inherent tension between the economic, environmental and public health remits of the regulators.

168. For example, as noted in the Call for Evidence, the environmental regulator works with companies to identify technically feasible Water Industry National Environment Programme (WINEP) and National Environment Programme (NEP) options that meet the required environmental objectives and achieve the widest environmental benefits as part of the price review process. The EA and NRW are not required to scrutinise costs as part of this exercise, nor do they have full oversight of water company delivery capacity to assess whether delivery is likely to be technically feasible within the forthcoming Asset Management Period (AMP). It is the responsibility of Ofwat to challenge schemes on the basis of cost efficiency, however Ofwat cannot reject schemes or refuse to fund them if the environmental regulators says

[138] CCW, 'Households urged to tap into water company support ahead of utility bill rises', 2023; Citizens Advice, 'Barriers to Access: Why water and broadband social tariffs aren't reaching struggling households', 2025
[139] CCW response to the Call for Evidence, 2025

that they are required to achieve objectives set out in law, even if they are considered to be not cost-beneficial or undeliverable. There are flaws in this approach in that the economic regulator is not sufficiently involved in environmental optioneering processes when they occur to ensure that cost and deliverability are fully taken into account.

169. The overlapping remits of water industry regulators also seem to have made it harder to establish a 'single version of the truth' on water company performance in some areas with dual performance assessment frameworks in Ofwat, and in the EA and NRW on environmental metrics.[140]

170. The current framework also has overlapping remits for enforcement. Stakeholders have cited the Urban Wastewater Treatment (England and Wales) Regulations 1994 as an example where complexity has been created in relation to the overlapping responsibilities of the regulators, particularly in the context of storm overflows.[141]

171. The Commission has heard that this is burdensome for some water companies, and may create contradictions, potentially obscuring accountability and responsibility within the regulatory framework[142].

172. In addition to overlaps, the Commission has heard that there may be gaps in oversight, particularly of infrastructure delivery. The Commission has heard how Ofwat's shift to a more 'outcomes-based' approach to regulation from Price Review 2014, following the Gray review, led to less checking whether outputs that had been funded at the price review had actually been delivered. The National Audit Office, meanwhile has highlighted that the EA lacks powers to monitor delivery of environmental improvement projects and take action if a company is off track – 'out of the 8,780 actions in the Price Review 2019 control period that water companies said have been completed so far, EA conducted site inspections on 1%'.[143] This is also a concern that has been raised by the NRW in its response to the Call for Evidence.[144] As set out in Section 5: Infrastructure and Asset Health, there are also concerns around limited regulatory oversight of water industry maintenance and asset health, though Ofwat has attempted to address this through the introduction of Price Control Deliverables at Price Review 2024, which are output-based and incentivise companies to deliver.[145]

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[140] Water UK response to Call for Evidence, 2025
[141] CCW response to the Call for Evidence, 2025
[142] Engagement with the Commission
[143] National Audit Office, 'Regulating for investment and outcomes in the water sector', 2025
[144] Natural Resources Wales response to the Call for Evidence, 2025
[145] Ofwat, 'PR24 final determinations: Price control deliverables appendix', 2025

Preliminary Conclusions

173. Effective regulation is essential for protecting public interest in a system where private companies are producing essential public goods, such as water and wastewater services, and where they are effectively regional monopolies. It is the regulatory system that creates the incentives – both positive and negative – to ensure the private company thrives when it delivers the public goods and fails to thrive when it does not.

174. The current regulatory system for the water industry in England and Wales has largely lost public trust. In many respects, it is not delivering the desired outcomes. We see this most clearly in relation to the environmental performance and the financial challenges facing a number of water and sewerage companies.[146]

175. The reasons for this are complex, interlocking and have emerged over time. They include issues concerning capacity and capability of the regulators, the complexity of the underlying legislative framework, the interaction of conflicting remits and drawbacks that have become apparent in some of the regulatory approaches that have been pursued.

176. As noted by Ofwat 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".[147]

Economic Regulation

177. To prevent the abuse of monopoly power, either in pricing or service levels, it is important to have an objective, comparative framework that seeks to establish benchmarks for what costs – and hence bills – should be for an 'efficient' company. This is the current approach used by Ofwat in determining allowances and incentives (both positive and negative) for water companies in England and Wales. The Commission will comment in its final report on a number of detailed issues in relation to the operation of such an approach, such as how base, enhancement and WACC allowances are set.

178. However, it is clear to the Commission at this stage, that there are limits to how precise and accurate a benchmarking framework and econometric tools can be and the extent to which it can be relied upon. In the Commission's view, differences between water companies limit the weight that can be put

[146] Environment Agency, 'Environmental performance assessment (EPA) star ratings 2011 to 2023', 2024; Ofwat, 'Monitoring Financial Resilience report 2023-24', 2024
[147] Ofwat response to the Call for Evidence, 2025

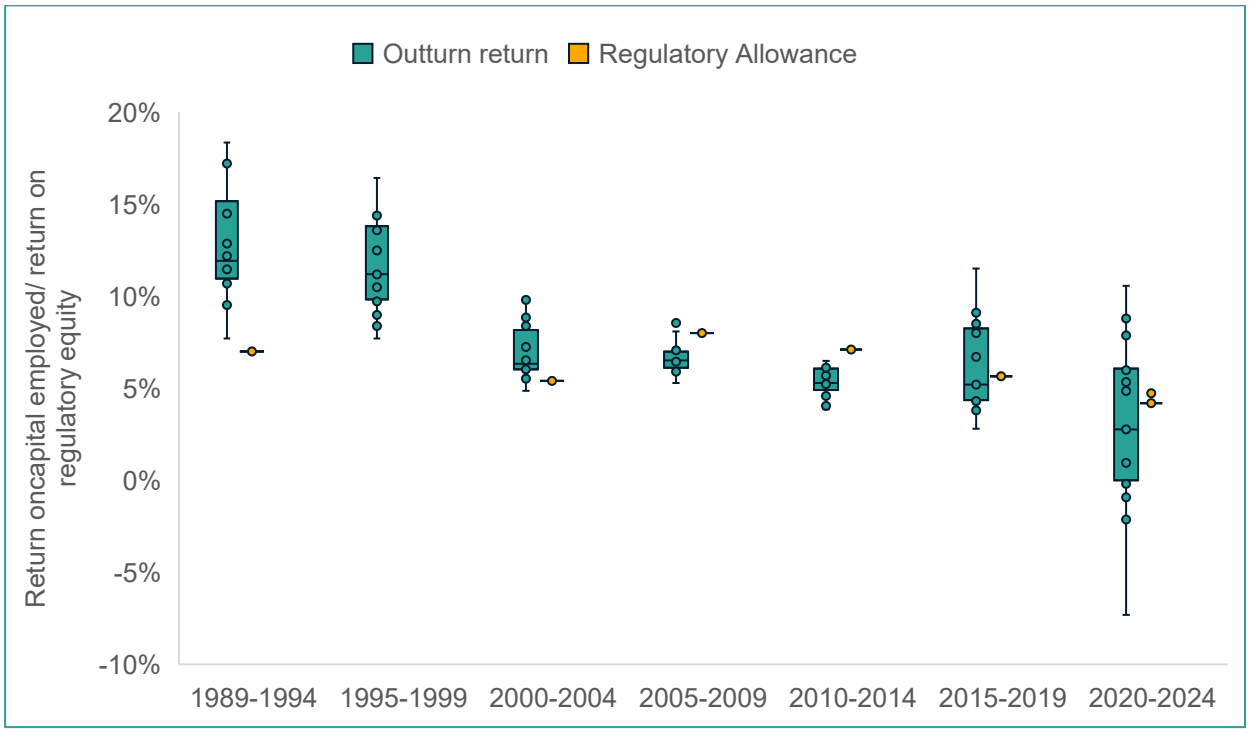
on a modelled comparative benchmarking approach when assessing whether individual company costs are reasonable, whether the company is improving efficiency, and whether the company's performance overall is satisfactory. At the same time, Ofwat has had to develop additional tools to deal with issues like financial resilience that cannot be easily addressed within an econometric approach.

179. As the demands on water companies have widened and requirements become tighter, water industry stakeholders have claimed that it is difficult to turn around performance within this framework. Thames and Southern have often scored lower than average on environmental performance assessment over the last 10 years and both having financial resilience issues in recent years.[148] There is some indication that differences between top performing and poor performing companies have increased over time, with the spread of return on regulatory equity widening at Price Review 2014 and 2019 (Figure 11).[149] It has been claimed that both the funding determined through benchmarking and enforcement penalties may have exacerbated these performance differences by making it more challenging for firms to invest to meet required operational standards.[150]

180. Between 2020/21 to 2023/24 Southern and Thames received ODI penalties of £204m and £226m respectively.[151] Southern Water also received a £126m penalty from Ofwat in 2019 and a £90m fine from the EA in 2021.[152] Thames received a £123m penalty from Ofwat this year.[153] Whilst the penalties and fines were for underperformance relative to regulator expectations as well as wrongdoing, there remains the question of how constructive they are in turning around poor performance at a time when the industry needs to attract significant investment.

[148] Environment Agency, 'Environmental performance assessment (EPA) star ratings 2011 to 2023', 2024; Ofwat, 'Monitoring financial resilience' (viewed 2 June 2025)
[149] The return on regulatory equity depends on its own performance and financing choices. Where a company outperforms Ofwat's allowed costs or expected service levels it will earn a higher equity return, and where a company underperforms it will earn a lower return
[150] Water company investors engagement with the Commission
[151] Ofwat, 'Data for the Water Company Performance Report 2023-24', 2024. Prices adjusted from 2017/18 to 2022/23 CPIH
[152] In nominal terms. Environment Agency, 'Record £90m fine for Southern Water following EA prosecution', 2021
[153] In nominal terms. Ofwat, 'Ofwat fines Thames Water nearly £123m following two investigations into the company', 2025

Figure 11: Estimated return on capital employed/return on regulatory equity, since privatisation, England & Wales, WASCs & WOCs, %



Source: Independent Commission analysis[154]

Note: Two allowed returns (orange dots) are shown in the 2020-2024 period as the CMA allowed a slightly higher return on regulated equity for companies that appealed the PR19 Final Determination.

181. It is the Commission's view that a fundamental strengthening and rebalancing of the approach to economic regulation in the water system is required. Ofwat's current approach places excessive reliance on econometric modelling based on (largely historic) sectoral benchmarking and does not sufficiently integrate an appraisal of the individual circumstances of water companies in England and Wales.[155]

182. Ofwat's heavy dependence on periodic price reviews and comparative assessment to set the incentives – rewards and penalties – for companies, appears to have also militated against the close and more continuous engagement between the regulator and the regulated. Absent such

[154]Before 2015 this is based on return on capital employed values from Ofwat financial performance and expenditure of the water companies in England and Wales reports. After 2015 return on regulated equity from Ofwat's monitoring and financial resilience reports has been used. Note that these are different metrics and therefore are not directly comparable. Return on capital employed does not capture financing out or underperformance. The regulatory allowance shows the cost of equity allowance for each period going back to privatisation. Ofwat, 'Financial performance and expenditure' (viewed 30 May 2025); Ofwat, 'Monitoring financial resilience' (viewed 30 May 2025)
[155] Engagement with the Commission

engagement, it is difficult to establish a deep understanding of a company, to make judgements about its performance and prospects, and take prompt action where necessary.

183. As noted above, Ofwat has in recent years taken steps to address this and now has more tools (for example, financial resilience monitoring) as well as proposals to better understand asset conditions and a new approach to company turnaround. But in the Commission's view a more fundamental shift is needed.

184. The Commission believes there is a need to balance the modelled comparative benchmarking approach to economic regulation with much greater company specific assessment and engagement with more emphasis on the supervision of individual companies. Such a supervisory approach would sit alongside assessment based on model derived benchmarks, helping to make regulation more intelligent and specific to the company rather than making regulation more burdensome. It would address two areas in which the current system appears in need of reinforcement.

185. First by providing a deeper understanding of a company, the quality of its governance and management and the operational and financial challenges it faces, incentives and penalties can better and more realistically be set to improve performance over time. Setting incentives against industry wide benchmarks is important; but it is also important to set incentives for improvement relative to a company's past performance. Ofwat already sets a number of incentives on a company-specific basis; a more supervisory approach would enable Ofwat to further tailor its decisions to companies' specific circumstances.

186. Second, a supervisory function focussed on individual companies will reinforce the regulator's ability to act quickly and effectively to spot emerging problems and ensure companies take the necessary action to address them. This would address the concern of eNGOs, Parliamentarians and others that Ofwat have not been effective and have had to play 'catch-up' in their oversight of water companies. By intervening earlier, and on a fully-informed basis, a supervisory approach can work with companies to achieve better public outcomes more quickly and at a lower aggregate cost all round.

187. Developing a supervisory approach would be similar to developments in Ofgem's regulation; Ofgem moved to a more supervisory approach in its regulation of the retail market in 2023, particularly in relation to financial resilience.

188. The Commission's view is that while Ofwat has taken some important steps in this direction, such a development of Ofwat's approach would require robust underpinning and a major shift in Ofwat's approach. The Commission

is considering for its final report how such a function might best be established. For example, the regulator's existing duties could be extended to give them a formal statutory 'duty to supervise', as for example exists for the Financial Conduct Authority (FCA) and Prudential Regulation Authority (PRA) which each regulator supports with a clear public statement of its approach to supervision.[156]

189. The Commission is also considering further the capacity, capability and tools such a function would need, for example the importance of strong engineering and financial expertise and how these would be reflected in senior management and board structures. It will also need the right tools. Ofwat's regulatory toolkit has been strengthened materially in recent years, particularly in relation to financial resilience, but the Commission is assessing whether more needs to be done for example on capital structures given the risks that water companies bear.

190. Finally, the Commission is of the view that a more formal framework for supporting companies to turnaround performance may be needed, to avoid a future 'doom loop'. A supervisory approach to regulation would enable this. This would include greater opportunities for regulatory flexibility, where companies make defined commitments to address wrongdoing and improve governance. This would enhance the existing approach under which Ofwat is able to accept regulatory undertakings offered by water companies and allow them to direct companies to redress harms and defer penalties subject to completed restorative action. This sort of regulatory flexibility – combined with powers of direction and enforcement – is key to a judgment-based approach and has been used by the FCA, for example, to support firms as they transition to meeting new legal requirements.

Environmental Regulation

191. The Commission is clear that the water sector regulators need to be properly resourced to carry out their functions. There is a need for a stable and consistent approach to funding to provide certainty on regulatory functions into the future and to build confidence that desired levels of regulatory oversight will endure. This is essential for rebuilding public trust. The Commission recognises that interventions by the UK government, including through the WSMA 2025 recently mean that all costs in relation to EA water industry operations can be recovered. As noted above, NRW has recently

[156] Financial Conduct Authority 'Our approach to supervision', 2024; Bank of England, Prudential Regulation Authority, 'The Prudential Regulation Authority's approach to banking supervision', 2023

conducted a strategic review of charges to ensure the costs of regulatory activity are recovered.

192. There is also a need to ensure the regulators are equipped with the right skills – including engineering, digital, regulatory and financial. The Commission is aware of suggestions, including those set out in the Corry Report, for the regulators to have more targeted pay flexibility to recruit and retain specialist staff and will consider this and other resource and capability issues in our final report.[157]

193. EA and NRW will need to better exploit technology, including recent advances, if they are to deliver their functions effectively in the future. The Commission has sympathy with the view that greater use of artificial intelligence and digitisation may better facilitate operational supervision by enabling greater intelligence-led environmental regulation, supporting on the ground inspections of assets. Some action is already in train to address this; but the Commission is exploring, among other things, how environmental regulation can be strengthened and modernised, including taking advantage of digital monitoring and permitting technologies to improve regulator capability and efficiency. The EA's Water Industry Regulation Transformation Programme is a step in the right direction and NRW are currently developing a digital reform programme. The argument for ambition in this area is strong given the range of interventions where data analytics can support regulation – from automated monitoring of water company activity and the water environment, though to facilitating innovative permitting and digital enforcement and compliance tools.

194. The Commission has heard concerns in respect of operator self-monitoring and is considering the case and options for reform. It will comment on this further as part of its final report.

195. The Commission's preliminary conclusions on systems planning and regulatory discretion, outlined in Section 1b: Water Systems Planning, are intended to support a shift within regulators to support more innovation in the sector, including encouraging further trials of nature-based solutions and a greater focus on the breadth of sectors impacting on the water system.

196. On enforcement, regulators need to take proportionate action where companies fail to comply with requirements. The Commission welcomes recent reforms introduced through the WSMA 2025 in relation to the civil

[157] Independent review of Defra's regulatory landscape, Delivering economic growth and nature recovery: An independent review of Defra's regulatory landscape, 2025; Water UK response to the Call for Evidence, 2025

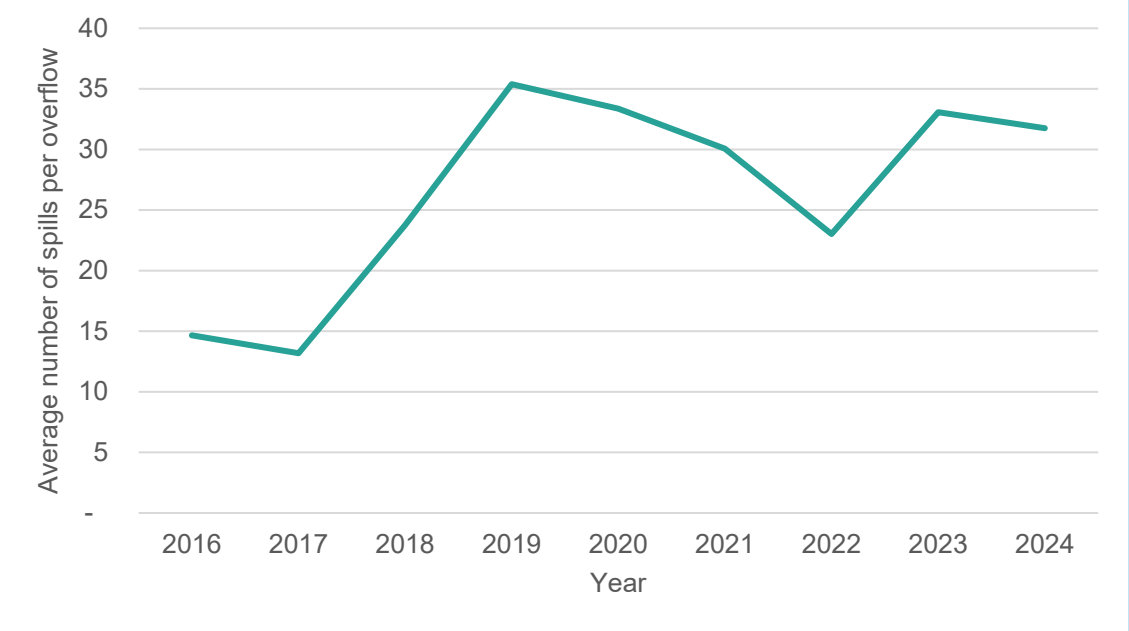
penalties enforcement regime to expand the regulator's toolkit and enable swifter enforcement action. These reforms should help to address the concerns that the Commission has heard that enforcement approaches by the EA have been too slow and sometimes too reliant on lengthy court prosecution. This has in turn led to concerns from the public that action is not being taken by the regulator and has created greater uncertainty for investors. In Wales, the commission encourages the Welsh Government to continue to explore the implementation of the WSMA 2025 provisions to expand NRW's regulatory toolkit. As part of its final report, the Commission will consider any further interventions to support enforcement to be delivered more swiftly through the regulatory system and the Courts.

Box 6 – Regulatory interventions to tackle sewage pollution

In recent years, the issue of sewage discharges into the UK's waterways has gained significant public and political attention, with a particular focus on the use of storm overflows.[158] While storm overflows have been used as part of the combined sewage system for many years (in line with original Victorian design), they have recently come to the sharp attention of the public. Figure 11 shows that the average number of spills per overflow (with spill data) in England was 31.8 in 2024 compared to 33.1 in 2023 and 32.6 in 2020. In 2024, the EA noted that storm overflow spill counts and duration remain unacceptably high.

Monitoring data started to be published annually by the EA from 2021 and has been translated into live sewage maps, such as that run by Surfers Against Sewage.[159] Videos and photos shared on social media of sewage spills have demonstrated the scale of spills by water companies.

Figure 12: Average number of spills per overflow in England, 2016-2024.



Source: Environment Agency data[160]

In addition to signposting where discharges were happening, these information sources highlighted potential non-compliance by water companies. Alongside high-profile investigations by the regulators (such as Ofwat's 2019 investigation into Southern Water) and increased public scrutiny of the financial affairs of some

[158]Environment Agency, 'Storm overflow spill data shows performance is totally unacceptable', 2023
[159] Surfers Against Sewage, 'Live Sewage Map' (viewed 30 May 2025)
[160] Environment Agency, 'Event Duration Monitoring - Storm Overflows - Annual Returns' (viewed 30 May 2025)

companies (including Thames Water), public trust in water and sewerage companies has been seriously eroded.[161]

The strength and breadth of public feeling on the current volume and frequency of sewage discharges has been felt at many levels. It is regularly the subject of parliamentary debate, media scrutiny and even television documentaries.[162] The public has named visible pollution in the water (including sewage) and sewage being discharged by companies as their top concerns for the water environment.[163]

In response, the Commission's reform recommendations will aim at restoring public confidence in the sector by addressing stakeholder concerns and building transparency and accountability in the industry framework. Rebuilding trust requires addressing and improving issues such as gaps and overlaps in regulatory oversight, cooperation between regulators and water companies, and overall accountability of regulators – which the Commission aims to improve.

However, pollution caused by untreated sewage makes up only a portion pressures affecting the water environment, and pollution from other sources significantly affects water bodies. The Commission's recommendations on systems planning will seek to drive action by these other sectors.

Drinking Water Regulation

197. The Commission is further considering whether interventions may be required to provide the DWI with the capability and regulatory toolkit it needs to maintain its effective regulation of drinking water quality and to deal with emerging and future challenges, including cyber security issues. We will consider this further as part of the final report.

Consumer protection and affordability

198. The Commission is of the view that more needs to be done to rebuild consumer satisfaction with water and wastewater services.

199. Part of this depends on issues mentioned elsewhere in the Commission's interim report. For example, the need to rebuild public trust in the water sector is dependent on reforms to the regulatory framework and behaviour of companies. The Commission's preliminary conclusions around the need for

[161]Ofwat, 'Customer trust and satisfaction in water companies falling in latest Ofwat and CCW research', 2024; Ofwat, 'PN 21/19: Ofwat confirms Southern Water will pay £126m following investigation', 2019; Ofwat, 'Thames, debt and water sector finance', 2023
[162]UK Parliament, 'Storm Overflow Spillage', 2023; BBC News, ''How much sewage is spilled into rivers, lakes and the sea near you?', 2025; BBC One- Panorama, 'The Water Pollution Cover-Up', 2023
[163] Information Shared through Environment Agency Engagement with the Commission

improved long-term planning, with a better up-front understanding of costs should help to smooth the evolution of bills over time. And the Commission's consideration of legislative reform to support environmental and public health outcomes is intended to better deliver the outcomes customers want to see.

200. The introduction of the customer-focused licence condition described above is welcome but will require sufficient resource and expertise within the regulators to enforce. Its implementation is broadly in line with the more supervisory approach to regulation that the Commission is recommending. Additional regulatory oversight should enable the delivery of improved outcomes for consumers.

201. The Commission is also looking at how to more effectively support customers who are struggling to pay their bills. This includes looking at options to strengthen social tariffs and to tailor water bills to better reflect household consumption. As mentioned above, the Commission will consider this further as part of its final report, recognising that this is an area the UK government is keeping under review following the introduction of powers into the WSMA 2025.

202. The Commission recognises the importance of a strong, consumer voice and is exploring whether the current arrangements can be strengthened, and what can be learned from the experience of other sectors, including dispute resolution and consumer redress mechanisms. The Commission welcomes work to better embed consumers in water companies' decision-making following the introduction of new provisions in the WSMA 2025.

Possible structural reform of the regulatory landscape

203. A major issue under consideration by the Commission is the structure of the regulatory framework and the way in which regulators with different remits interact.

204. 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, capability and challenges across the full range of its duties and activities covered in its Appointment (Licence). This includes financial and operational areas (including assurance over project delivery) and culture & governance.

205. 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. Given the strong underlying public and political pressures on the economic regulator in relation to bills, the current structures have the potential to lead to undue

pressure on costs not determined by the quality regulators, such as maintenance, and the under provision of revenue for projects which the quality regulators have deemed necessary.

206. Setting high-level strategic priorities at the UK and Welsh government level alongside a broad outline for the evolution of bills over time, as set out in Section 1a: Strategic Direction, will ease such pressures and tensions, as will strengthening water systems planning arrangements.

207. But the Commission believes there is also a need to reform the way in which different public policy objectives are brought together and interact in the current regulatory framework. Options for how this might be done range from rationalising the respective duties and remits of the regulators, and more effective processes for reconciling objectives to more fundamental, structural options for integrating regulatory remits and functions.

208. The Commission recognises that the context is different in England and Wales. Water is a devolved matter. NRW has a broader and different range of functions relative to the EA. Moreover, as noted above, the Welsh government has set out its strategic objectives for Wales which differ to those that apply in England. The regulatory landscape for water in Wales needs to be able to reflect effectively the Welsh Government's objectives and priorities. The Commission recognises therefore that different regulatory structural solutions may be needed in Wales.

209. This is a highly complex area and the Commission is actively considering all the options and their costs and benefits. It will return to this very important issue with proposals in its final report.

210. Additional areas not covered in detail by the Commission in this interim report, but which we are intending to cover in the final report include Operator Self-Monitoring, gaps in environmental regulatory oversight and options for improving approaches to environmental enforcement. The final report will also provide a more detailed prescription of what a supervisory approach should involve and deliver, as well as reflections and conclusions on the methodology and incentives within the price review process, for example the WACC, ODIs and PCDs, and the appeals process. We will also cover issues relating to the Special Administration Regime, customer bills and protections, as well as long-term requirements for drinking water and water supply.

Section 4: Company Structures, Ownership, Governance and Management

Company ownership and performance

211. Appropriate and strong regulation is the fundamental means of ensuring that private companies deliver public goods and act in accordance with the public interest alongside the private interest. Economic and water quality regulation encompass both the 'hard' rules with which companies' managers must comply (and the sanctions if they fail to do so) and the incentives which reward companies for overperformance and penalise them for underperformance.

212. There are, however, also 'internal' factors within a private company, which drive company performance and actions, such as ownership structures, governance, management, and culture. This section focuses on the extent to which such factors have affected performance and how changes might reinforce the incentives created by regulation.

213. Since the water industry in England and Wales was privatised in 1989, there have been material changes in the ownership of water companies (Box 7). At the point of privatisation, all water and sewerage companies were publicly listed: their shares could be bought and sold by the public on public markets, such as the London Stock Exchange, and they were subject to the governance and transparency requirements for publicly listed companies.[164] In the decades that have followed privatisation, 7 of the 10 water and sewerage companies in England and Wales have become 'private': their shares are no longer available for purchase and sale on public marketplaces and they are no longer subject to publicly listed company governance and transparency requirements.[165]

214. While the 10 water and sewerage companies (WASCs) created at privatisation still exist today, the number of water-only companies (WOCs) has reduced following consolidation, from 29 at privatisation in 1989 to 5 today.[166] 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

[164] Ofwat, 'The development of the water industry in England and Wales', 2006
[165] 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.
[166] Water Services Association, 'Waterfacts '89', 1989

companies occurring in 1988.[167] WOCs have followed a similar trend to WASCs in terms of de-listing, with 4 of 5 of them being privately owned.

Box 7 – The evolution of the water company ownership

Initial public listing

At the point of privatisation, the water and sewerage companies were all listed on the London Stock Exchange:

- 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.[168]
- Government also retained a temporary golden share. 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.[169]
- Following privatisation 46.9% of the shares were held by the retail public, 39.3% by institutional investors and 13.9% by overseas bidders.[170] Many retail investors subsequently sold their shares.

Move to Private Control

After the government's golden share was allowed to lapse in 1995, individual investors were able to acquire increasing numbers of shares in companies and take controlling interests. This was in part due to the steep increase in capital values through the 1990s, which meant initial shareholders opted to take the gain and sell out.[171]

The following years from around 1995 to 2008 saw substantial and frequent churn in the ownership of water companies. A number of utility providers entered and exited the market, as in the case of Lyonnaise des Eaux acquisition Northumbrian Water (1995), Scottish Power's acquisition of Southern (1996), Enron's acquisition of Wessex (1998), and RWE's acquisition of Thames (2000).[172]

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[167] UK Parliament, 'Water Companies (Foreign Control)', 1989
[168] UK Parliament, 'Water Companies', 1989
[169] Ofwat, 'The development of the water industry in England and Wales', 2006
[170] UK Parliament, 'Water Privatisation', 1989
[171] Ofwat's first director observed in the Price Review 94 determinations that "initial capital values in 1989 […] amounted to £8 billion […] by 31 March 1995, this value will have increased to £16 billion". Ofwat, 'Future Charges for Water and Sewerage Services- The outcome of the Period Review', 1994
[172] Information sourced from Bureau van Dijk, company websites, company annual reports, and Ofwat archives

Between 2006 and 2008 investment consortia entered the sector. These consortia consisted of various groupings of private equity firms, none of whom had overall control of the stake, and which included investment funds, pension funds, and asset managers. Anglian, Yorkshire, Southern and Thames Water were all acquired by consortia between 2006 and 2008.[173] By 2008, 7 of the 10 water and sewerage companies in England and Wales had moved from public listing to private unlisted companies.

These acquisitions reflected broader trends towards private markets through the 1990s and 2000s. The 1990s were considered a 'golden decade' for private equity, with private equity emerging as a distinct industry, characterised by particular strategies, including leveraged buy-outs, which raised the gearing of companies and relatively short horizon for returns.[174]

Evolution in investor types

Over the 2010s and 2020s, the 7 water and sewerage companies which delisted between 1995 and 2008 have remained in private ownership, but these ownership models still reflect different strategies. For example:

- Northumbrian Water – which did relist for a period between 2003 and 2011 – and Wessex Water are each owned by global infrastructure specialists. The investors at Wessex and Northumbrian have been the primary shareholders since 2002 and 2011. Both of these infrastructure companies are ultimately listed on stock exchanges in their home countries.[175]

- Anglian, Yorkshire, Thames, and Southern are still owned by shareholder groups, which include consortia. There appears to be a trend away from large consortia, with these groups instead being comprised of relatively small numbers of large shareholders. These primary shareholders include asset managers, private equity infrastructure funds, pension funds, and sovereign wealth funds.[176]

- Dŵr Cymru Welsh Water has a distinct ownership history. The Welsh Water Authority, like water companies in England, was privatised and subsequently floated on the stock market. However, following financial difficulties in the early 2000s, was sold for £1 to Glas Cymru: a company limited by guarantee, with no shareholders and profits reinvested for

[173] Information sourced from Bureau van Dijk, company websites, company annual reports, and Ofwat archives
[174] Accordian, 'Twenty-five years of change in private equity', 2016
[175] Defra, 'Call for Evidence: Independent Commission on the Water Sector Regulatory System', 2025 (Box 30, page 222);
[176] Southern Water, 'Who owns Southern Water and how is it funded' (viewed 2 June 2025); Anglian Water, 'Group structure' (viewed 2 June 2025); Kelda Group, 'Kelda Group's Investors - Kelda Group' (viewed 2 June 2025); Thames Water, 'Our structure | Governance and Legal | About Us | Thames Water' (viewed 2 June 2025)

public benefit. Dŵr Cymru Welsh Water is the only not for profit water company in England and Wales.[177]

3 groups (Severn, Pennon and United Utilities) remain publicly listed. While their shares are traded on public markets, their shareholder base includes a number of investor types that also invest through private equity, for example, asset managers, sovereign wealth funds.[178]

215. These changes have coincided with a significant churn in the underlying investor base, as different types of investors have entered and exited the sector and invested through a wider range of vehicles. This has reflected broader trends in capital markets over the decades since privatisation.

216. The shareholders of publicly listed companies encompass a broad range of investors. Institutional investors represent a significant portion of ownership across companies such as Pennon, United Utilities, and Severn Trent, with major asset managers featuring prominently among the top shareholders.[179] The owners of private unlisted companies vary from private equity funds, representing a broad range of investors, to direct ownership by institutional investors or international infrastructure companies – or some combination thereof. Many of the private shareholders or shareholders in private funds that own water companies also own shares in the publicly listed companies.[180]

Investor appetite

217. An important influence on the risks and returns available to investors in water companies, and hence on their appetite to invest, are the powers and policies exercised by Ofwat.

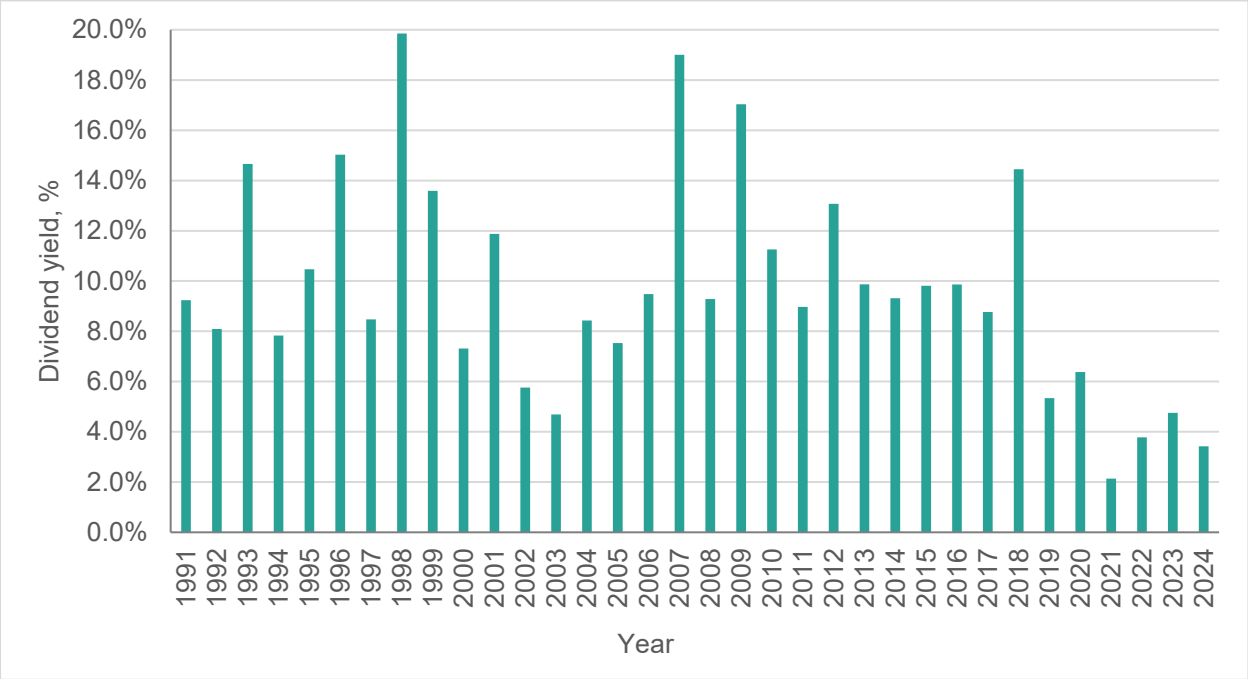
218. Ofwat affects the returns companies receive through setting base and enhancement allowances, which includes an allowance for the cost of capital, as detailed in Section 3: Regulatory Reform. Ofwat further influences how much risk investors should bear through its setting of performance incentives and sanctions in its price reviews. Its approach appears to have

[177] University of Oxford, 'Case Study: Welsh Water', 2021
[178] Severn Trent, 'Our shares | Shareholder centre | Severn Trent Plc' (viewed 2 June 2025); Pennon Group, 'Water and wastewater | Pennon Group PLC' (viewed 2 June 2025); United Utilities, 'Investor guide | United Utilities - Corporate' (viewed 2 June 2025)
[179] 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.
[180] Dieter Helm, 'Who owns the water companies?', 2018

changed over time. From Price Review 2014 onwards, Ofwat has put an increasing amount of investor returns 'at risk'.[181]

219. Ofwat has also strengthened controls on company dividends over time. In 2023, for example, Ofwat implemented new requirements on companies, along with enforcement powers, to maintain policies that link dividends to performance. Ofwat also raised the threshold at which companies must pause dividends for financial resilience reasons.[182] Figure 13 shows how dividend yields have changed over time. It is notable that dividends have fallen in recent years, although Ofwat note this has coincided with an increase in returns through Regulatory Capital Value (RCV) growth, though such returns are only realised by investors following a sale.

Figure 13: Dividend yield since privatisation, England & Wales, WASCs & WOCs, 1991 to 2024, %



Source: Independent Commission Analysis[183]

[181] For example, the introduction of Outcome Delivery Incentives at PR14 to encourage companies to focus companies on delivery through rewards and penalties, as well as reflecting consumer preferences. Ofwat, 'Setting price controls for 2015-20 – final methodology and expectations for companies' business plans', 2013

[182] Ofwat, 'Ofwat announces new powers on water company dividends', 2023

[183] Calculated using a consistent methodology with Ofwat's Monitoring Financial Resilience reports. Statutory dividends data from Returns and dividends - Ofwat had been used and unpublished Ofwat RCV and gearing data provided directly to the Independent Commission

220. Ofwat can also comment on a change of control at a water company. Companies are required under licences to obtain a legally enforceable undertaking from their ultimate controller.[184] Undertakings require ultimate controllers to provide companies information necessary to comply with their legal obligations; and prohibit ultimate controllers from taking action which may cause a breach of obligations. Water companies are required to inform Ofwat of arrangements which may result in a change in their ultimate controller. Ofwat can then conduct an assessment of a new ultimate controller's operational and financial capability. Where concerns are identified, Ofwat may strengthen licence conditions to address these, although Ofwat cannot block prospective owners from buying equity in a company.[185]

221. Ofwat can block company requests to significantly restructure themselves, where this necessitates a change to licence conditions. For example, in 2000, Ofwat rejected a request from Kelda, the owner of Yorkshire Water, to turn the company into a customer-owned mutual company on the grounds that such a change would not be in the interests of customers. [186]

Corporate governance and accountability

222. There have also been recent changes in company governance. Ofwat first introduced board leadership, transparency and governance principles in 2014; these were then updated in 2019.[187] 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.[188] Meeting these principles is not a requirement, although companies are required under licences to meet certain minimum objectives on board leadership, transparency and governance.[189]

223. Following engagement with the UK government in July 2024, all but one water and sewerage company has also updated their Articles of Association,

[184] Ultimate Controller defined in water company licences 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".
[185] Ofwat, 'Consultation on the change of ownership for Southern Water Services Limited', 2022
[186] Ofwat, 'The development of the water industry in England and Wales', 2006
[187] Ofwat, 'Board leadership, transparency and governance – principles', 2019
[188] Ofwat, 'Board leadership, transparency and governance – principles', 2019
[189] Ofwat, 'Board leadership, transparency and governance – principles', 2019

the purposes and rules governing each company, to make the interests of customers and the environment a primary objective.[190]

224. Most recently, the Water (Special Measures) Act 2025 (WSMA 2025) has enabled Ofwat to issue new rules requiring companies to have arrangements for involving consumers in certain decisions that have a material effect on consumer interests.[82] The precise nature will be for Ofwat to determine when it draws up the rules, but the legislation notes that it may include a requirement for persons representing the interests of consumers to be members of a board, committee or panel.[191] The WSMA 2025 has also given Ofwat powers to introduce a fit and proper person test for water company executives, and to ban bonuses for water company executives where water companies fail to meet required standards relating to consumer matters, the environment, financial resilience or criminal liability.[192]

225. Water companies are required to hold a licence to operate in England and Wales, either as an undertaker or a licensee. The WASCs and WOCs operate the public water networks and are water 'undertakers'. Following the opening of the business retail market to competition in 2017, there are also companies that provide supplies of water and sewerage services to non-household customers without operating the public networks – these are 'licensees'. Licence conditions vary depending on whether the company is an undertaker or a licensee and specific company circumstances, but they commonly include conditions on transparency (for example, provision of information to customers and to Ofwat), and on finances (for example, accounts to produce, restrictions on transactions with owners and other associated companies). They also set out the circumstances in which licences can be revoked.[193]

Issues

Company ownership and performance

226. The Commission has heard conflicting views from stakeholders on the need for change within the current privatised ownership model. Some stakeholders have expressed support for a move towards public listing, noting potential benefits from transparency and market discipline. Others have argued that moving the industry to public markets would incur

[190] Defra, The Water Services Regulation Authority, and The Rt Hon Steve Reed OBE MP, 'Government announces first steps to reform water sector', 2024; Defra engagement with the Commission
[191] Water Industry Act 1991
[192] Water (Special Measures) Act 2025
[193] Ofwat, 'Licences and licensees' (viewed 30 May 2025)

significant costs, and that it may not be possible to raise sufficient equity on public markets to finance future investment.[194] Likewise, some stakeholders have highlighted models from abroad, such as municipal ownership or regional water authorities, and public ownership with private operation models such as exist in some European countries. Some have advocated for a move to an alternative ownership model such as not-for-profit, public benefit or Community Interest Companies, noting potential accountability and public trust benefits, as well as higher transparency and reduced financing costs.[195] Other stakeholders have acknowledged there does not appear to be a strong relationship between not-for-profit and operational performance, and the inability to raise equity in a not-for-profit may make funding significant investment challenging, as well as reducing incentives for innovation and efficiency.

227. The Commission has also heard comments on appropriate types of owners in the water industry. For example, there has been significant commentary on short term decisions that, it is argued, were made by private equity owners and which were counter to the public interest.[196] Others have pointed out that it is not straightforward to differentiate ownership models by simple definitions such as listed or unlisted, particularly as the investment models of the underlying investors have evolved.[197] For example, institutional investors which operate over long time-horizons, have traditionally invested in companies through the purchase of publicly issued equity. However, reflecting broader market trends, these investors are increasingly investing in infrastructure via private equity funds.

Investor appetite

228. Long-term institutional investors, such as pension, sovereign wealth and infrastructure funds, are generally considered to be 'low risk-low return' investors, prioritising stable returns. Such investors have consistently expressed to the Commission their view that there is capacity in both public and private markets to finance infrastructure investment.

229. However, they argue, the level and volatility of returns in the water sector is substantially limiting appetite to invest. The Commission has consistently heard that given the scale of the return at risk and the nature of the risks, investors no longer perceive investment in the water sector as either a 'fair

[194] Dieter Helm, 'No-regret Water Reforms', 2025
[195] River Action and Surfers Against Sewage, Joint Submission to the Independent Water Commission, 2025
[196] River Action and Surfers Against Sewage, Joint Submission to the Independent Water Commission, 2025
[197] Investor engagement with the Commission

bet' or as 'low risk-low return'. Such investors have been clear they would be willing to accept lower upside returns in exchange for greater stability over downside risks.[198]

230. An important factor bearing down on investor sentiment appears to be the lack of a clear long-term strategy and guidance on trade-offs (for example, between environmental objectives and water bills) from government on the sector. The Commission has heard that this has damaged certainty over future returns. This, it is argued, is reinforced by an unbalanced government and media narrative on the sector, which has highlighted failures without acknowledging success or challenges. Half of the respondents to the Call for Evidence commented on the negative effect on investment of the political and media portrayal of the water industry.

231. Investors have further expressed particular concern about the volatility and unpredictability of the regulatory regime. This is reflected 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.[199]

232. Investors have also highlighted the increasing amount of risk they have been asked to bear through economic regulation. This is both in relation to the overall revenue companies are allowed to raise from water bills and the way in which the outcome delivery incentive mechanisms, which have put increasingly large amounts of revenue at risk, are calibrated. For example, investors have been critical of a purported downward skew in Ofwat's methodology at recent price reviews.[200] Meanwhile, Ofwat have observed that, alongside the regulatory regime, companies' financial decision-making also has a part to play in determining the attractiveness of the water to industry. For example, they point to increased debt levels driving lower company-by-company credit ratings.[201] Ofwat have acknowledged that operational performance was a source of downside skew over Price Review 2019, but note they have taken recalibration steps at Price Review 2024 to ensure a balanced package.[202]

Corporate governance and accountability

233. The Commission has also heard a variety of views on the governance of water companies. Some respondents have suggested making water

[198] Investor engagement with the Commission
[199] Moody's, 'Moody's downgrade of regulated water utilities', 2024; Moody's, 'Regulated Water Utilities – UK: Ofwat's draft determination increases sector risk', page 4, 2024.
[200] Investor engagement with the Commission
[201] Ofwat engagement with the Commission
[202] Ofwat response to the Call for Evidence, 2025

company boards act in the public interest by having representatives of stakeholder interests on the board, such as environmental experts, consumers, or local government (such as a mayor).[203] However, some companies have argued that this would not be consistent with board members' duties or with the effective operation of the board.

234. The Commission has also heard views about the accountability of water companies. Some have suggested increasing accountability by having expiry dates on water company licences (rather than the current 25 year notice period). [204]

Preliminary Conclusions

Company ownership and performance

235. The Commission's Call for Evidence set out preliminary analysis that suggested no clear, consistent causal link between ownership models and water company performance on a range of metrics and called, specifically, for more evidence on this issue. The Commission is still evaluating this issue. Its current view is that the evidence may suggest that listed models may score more highly on public trust, due perhaps to greater transparency, and that, in the past, private equity models have led to higher levels of gearing. It will return to this question in its final report.

236. While the Commission is looking at lessons from other countries, it is not, in line with its Terms of Reference, exploring the public ownership models that have been suggested or the use of public funds to purchase water company assets or to compensate owners for the transfer of their assets to other ownership models. The Defra Secretary of State has outlined in public statements that this would be prohibitively expensive, complex and has not necessarily been proven to deliver improved public outcomes. In line with the scope of the Terms of Reference, the Commission is evaluating the benefits and risks of other forms of ownership models such as the Welsh Water not-for-profit model or Community Interest Companies in cases where transfer can be achieved, as it was for Welsh Water, without the use of public funds and without detriment to users and to the public interest.[205] This could

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[203] Tim Farron MP letter to Sir Jon Cunliffe, 9 April 2025
River Action and Surfers Against Sewage, Joint Submission to the Independent Water Commission, 2025

[205] Ofwat rejected a similar proposal by Kelda Group, the parent company of Yorkshire Water, in 2000 to convert Yorkshire Water into a customer-owned mutual company. The proposal was rejected on the grounds that it did not clearly benefit customers in either reducing bills or improving service; that customers were not consulted appropriately; that customers would bear future risk directly; and that there was not sufficient independence of the mutual company from Kelda.

include the possibility of transfer to such models following a Special Administration Regime scheme. The Commission will give its conclusions on this issue in its final report.

237. The Commission's overarching view is that the most important determinant of how ownership affects performance is the investment model of the underlying investors – for instance the horizon over which they wish to take out their return, the form of that return (for example capital appreciation through sale versus dividends), their risk preferences and the extent they are willing and able to put in more capital over time to finance additional investment.

Investor appetite

238. While there may be exceptions (for example, for companies in need of major turn-around), 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. It is further of the view that the lack of clear government strategy, a negative political and public narrative and Ofwat's approach to economic regulation have made the sector less attractive to such investors.

239. The Commission recognises the importance of moving to a more positive and balanced presentation of the water industry, given the challenges it faces such as the increase in standards, climate change and population growth. It notes that, in general, the public's view of their local water company is more positive than their view of industry as a whole, which has very likely been damaged badly in recent years by the struggles of the worst performing companies. However, the Commission's view is that the current perceptions of the industry are also due to a general failure of the industry to meet the public's expectations, and that moving to a more positive political and public narrative can only happen as performance improves and the confidence in the sector and its regulation is rebuilt.

240. Some responsibility for returning the sector to a stable investment environment rests with government. As discussed in Section 1a: Strategic Direction, only government has the powers and level of oversight to set overarching strategic goals for the sector. The Commission believes that the introduction of long-term strategic direction issued by government, with clear guidance to the regulators on priorities and trade-offs should help address concerns around long-term stability.

241. The Commission is considering whether the Government should set a high-level objective of ensuring stability and predictability in the regulatory system for water. This objective could reference a number of indicators, including the restoration of the regulatory regime's AAA rating by the credit rating

agencies. The Commission also agrees that the rating agencies' assessment of regulatory stability and predictability is only one component of their methodology, and additional action may be needed by companies themselves to improve the attractiveness of the sector.

242. The Commission is also exploring regulatory mechanisms to narrow the variability of returns to investors. For example, changes could be made to the price review process to reduce the amount of returns that are put 'at risk' through economic regulation, and to allow more effectively for changes in circumstance. Such mechanisms already exist in the Ofwat framework, and the Commission is considering further how these might be developed to make the sector more attractive to investors who seek low return and low risk. The Commission recognises that such changes could reduce incentives for improvement, by reducing opportunities to overperform and that this needs to be considered alongside the risks of driving long-term investors from the sector, to be replaced by investors with higher risk tolerances and higher demands for quick returns.

Corporate governance and accountability

243. The Commission is also considering questions around company governance, transparency and accountability. The Commission recognises that there are already major reforms in train in this area, with water companies making changes to the Articles of Association that set out their fundamental purposes.[206] While it is too early to assess the impact this will have on the actions of boards and management, Anglian, who changed theirs in 2019[207], have noted that it has supported purpose-led decision making. The Commission is considering whether Ofwat could strengthen this by including a requirement in licence conditions or via their board leadership, transparency and governance principles.

244. On board membership, in considering whether to require, for example, 'public interest', local authority or consumer board representation, the Commission believes a balance needs to be struck. Companies are already expected to include independent directors on their boards. Boards and board members have specific duties to the company and need to work effectively to provide the necessary oversight: there are limits to how far this is compatible with representation of multiple stakeholders. Moreover, as noted above, the WSMA 2025 enabled Ofwat to issue new rules requiring

[206] Defra, The Water Services Regulation Authority, and The Rt Hon Steve Reed OBE MP, 'Government announces first steps to reform water sector', 2024

[207] Anglian included public interest in their Articles of Association in July 2019, "legally enshrining public interest within the constitutional make-up of its business".

companies to have arrangements for involving consumers in certain decisions. The Commission's current view, given the changes that are yet to be implemented, is that further changes at this time would not be justified.

245. Alongside board-level governance, and perhaps more importantly, the senior management of water companies, the culture they inculcate and incentives they transmit, have a very significant impact on how a company performs.

246. To set the right culture and performance within a company, the Commission considers that companies need the right leadership, aligned with both the private and public interest, and be accountable for its actions. The regulator has recently been given the power to set rules on remuneration, including bonus payments to senior managers through the WSMA 2025. The Commission recognises the force of public anger and the damage to public trust when bonuses in regulated monopolies are paid for poor performance or incentivise actions that are counter to the public interest. However, too narrow a focus on bonuses can be counterproductive in a number of ways. It can, for example, make it difficult to attract and retain high calibre senior managers.

247. The Commission is examining whether the regulator may require a broader set of tools, less focussed on remuneration, to ensure water company leaders put the right culture and supporting systems in place.

248. In the financial sector, the Senior Managers Regime (SMR) was introduced by Parliament to improve culture and accountability by holding senior managers responsible for the actions of their firms. For example, by taking reasonable steps to ensure compliance with regulatory requirements. The regime is supported by a code of conduct and by the requirement for regulator approval of the appointment to SMR roles.

249. In relation to Ofgem's powers to hold company executives to account, the Department for Energy Security and Net Zero has raised, in its ongoing review of Ofgem, whether the regulator could potentially adopt a 'Senior Managers Regime'. The Commission is likewise exploring whether the SMR holds lessons for the water industry and the case for introducing all or some of its elements for key senior management roles in water companies. Again, this needs to be approached carefully given the need to attract high-quality individuals to these roles, especially for poorly performing companies where the risks are higher. Consideration of SMR mechanisms needs to take into account the overall balance between risk and reward for senior managers in water companies, including the new regime for remuneration that Ofwat is in the process of implementing. The Commission will return to this issue in its final report.

250. As part of its final report, the Commission will return to the issues of ownership models, interventions to support the attractiveness of the sector to stable, long-term investors, as well as options to strengthen corporate governance principles. The final report will also consider options to improve financial supervision to support companies' resilience, as well as issues around competition, including the frameworks for New Appointments and Variations (NAVs), the Business Retail Market (BRM), Direct Procurement to Customers (DPC) and the Specified Infrastructure Project Regulations (SIPR).

Section 5: Infrastructure and Asset Health

251. The resilience of water industry infrastructure is essential to ensuring the ongoing provision of safe drinking water and effective wastewater management. Failure to build and maintain infrastructure can place significant constraints on economic growth and damage the environment. Future challenges from climate change, population growth and rising environmental and health standards are expected to place additional pressure on infrastructure. The 2018 UK Climate Projection, for example, is demonstrating a trend towards drier summers on average, which could have implications for the way infrastructure is managed.[208]

252. 'Resilience' is wider than asset health. It encompasses capacity to recover as well as to prevent failure and requires redundancy in the system and the addressing of potential critical points of failure. Achieving resilience requires water companies to understand the risks in their assets and the impact of any failure on customers and the environment, and to have recovery mechanisms in place in case of failure.[209] This, in turn, requires a thorough understanding of their asset base, its condition and the maintenance and renewal necessary to reduce the likelihood of failures.[210]

253. The smooth operation of supply chains is also critical to the water industry, both for the provision of new infrastructure, maintenance and day to day operation. Failures in supply chains can lead to service disruptions with possible impacts on customers and the environment, as well as constraining the deliverability of new infrastructure, which in turn suppresses growth.

Current approach to asset health and infrastructure resilience in England and Wales

254. Water companies in England and in Wales are subject to overarching legal requirements relating to asset health and maintenance. Section 94 of the Water Industry Act 1991 places requirements on water companies to "provide and maintain water and sewerage systems".[211] Section 199 of the

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[208] Met Office, 'UK and Global extreme events – Drought' (viewed 29 May 2025)
[209] Under the Security and Emergency Measures Direction 2022, companies are required to plan for circumstances where, in the event of unavoidable failure, minimum supply is provided by alternative means; Ofwat, 'Supply Interruptions' (viewed 29 May 2025)
[210] Ofwat, 'Operational Resilience' (viewed 29 May 2025)
[211] Section 94 of the Water Industry Act 1991 requires companies to 'improve and extend… and cleanse and maintain' their sewerage system, as well as to 'have regard to its existing and likely future obligations'. Water companies have a statutory requirement to conduct Water Resource Management Plans (WRMPs) which set out how they will achieve a secure supply of water over the long term. The plan includes investment in new infrastructure in order to maintain reliable supplies to customers.

Water Industry Act 1991, requires water companies to map the location of parts of their asset base, albeit with some exemptions for assets built before 1 September 1989.

255. Over time, new legal requirements to address infrastructure resilience have been introduced. The Water Act 2003 introduced a statutory requirement for water companies to produce Water Resource Management Plans, which must set out how they will achieve a secure supply of water for customers over the long term. This was followed by the Environment Act 2021 introducing new requirements for water companies to consider future resilience when planning infrastructure spending through the production of Drainage and Sewerage Management Plans.[212]

256. In addition to statutory requirements, water companies are subject to regulation and financial incentives that address infrastructure resilience. For the purposes of approving maintenance and renewal expenditure and performance target setting in its price review process, Ofwat measures asset health through a series of performance metrics. These metrics, which include sewer collapses, mains' repairs, and unplanned outages, are outcome-based and backward looking so that the revenue companies receive for maintenance and renewal is primarily based on historic maintenance and past levels of failure. Companies must report 'failure' data against these metrics to regulators and Ofwat then sets financial incentives through the Outcome Delivery Incentive framework. [213]

257. The Environment Agency and Natural Resources Wales, meanwhile, is responsible for inspecting permitted assets, although these inspections focus on environmental compliance and not the condition of assets. Non-permitted assets, such as sewers and pipes, are not inspected by any regulator.[214]

258. While not a legal requirement, all water and sewerage companies in England and Wales also currently have in place an asset management framework, which seeks to ensure that their infrastructure delivers on their core duties of supplying drinking water and treating waste. However, these vary in scope

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[212] New section 94A of the Water Industry Act 1991, sewerage undertakers have a statutory obligation to prepare, publish, and maintain a Drainage and Sewerage Management Plan. Within a sewerage undertakers' DSMP, they must address the resilience of their network.

[213] Ofwat, 'Creating tomorrow, together: our final methodology for PR24', 2022; Ofwat, 'Creating tomorrow, together: :Appendix 8 Outcome Delivery Incentives', 2022; Ofwat, 'Operational resilience discussion paper', 2022

[214] The Drinking Water Inspectorate perform inspections to assess drinking water quality and the Environment Agency/Natural Resources Wales inspects permitted assets for environmental compliance. Outside of these responsibilities, however, there are no other inspections on assets undertaken by regulators. Detail on inspections is available in the Independent Water Commission Call for Evidence.

and approach. In many cases, companies choose to align their framework to ISO 55001 – a high-level, international standard for asset management – but this is not ubiquitous or mandatory across the industry.[215]

How requirements are evolving over time

259. Ofwat has taken steps in recent years to improve understanding of asset health. In 2021, Ofwat published an Asset Management Maturity Assessment, with recommendations across a number of areas of asset management including risk management, long-term planning and information management.[216] 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 with the foundations based on ISO 55001.

260. Ofwat has also taken steps to clarify expectations around infrastructure resilience. For example, in December 2024, as part of the Final Determinations for Price Review 2024, Ofwat published a plan to work with the sector to enhance asset health understanding and develop an 'integrated monitoring framework'.[217] This plan includes work to improve data collection, establish priority assets, and begin the development of condition grade definitions and additional asset health metrics.

[215] International Organisation for Standardisation, 'ISO 55001:2024 - Asset management — Asset management system — Requirements', 2024
[216] Ofwathttps://www.ofwat.gov.uk/publication/asset-management-maturity-assessment-insights-and-recommendations/, 'Asset management maturity assessment – insights and recommendations', 2021
[217] Ofwat, 'PR24 final determinations: Roadmap for enhancing asset health understanding in the water sector', 2024

Box 8– Infrastructure resilience – other UK and international approaches to asset maintenance

The Commission is continuing to look at the approaches in asset management and renewal in some other countries.

Scotland

In Scotland, the economic regulator (Water Industry Commission for Scotland - WICS) has given priority and made significant progress in establishing an understanding of the sector's infrastructure to support a shift from short-term asset failure performance targets to long-term asset sustainability. Previously, the WICS followed a similar approach to assessing asset health to Ofwat. Approaches, however, have now diverged markedly, with WICS setting a whole-life cost of asset maintenance and replacement in order to fund a sustainable, long-term level of replacement and investment.[218] WICS have observed that their previous backward looking approach – assessing infrastructure through failure performance monitoring – would not reveal 'cliff edges' in asset health.

As part of this shift towards improved condition monitoring and understanding of expected lives of assets, Scottish Water 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 their current rate of asset replacement is well below the newly calculated long term required replacement rate. The analysis estimated a total replacement cost of £35 billion to replace all assets with a finite expected life. After reviewing the Scottish Water analysis, the WICS has concluded that by 2037 Scottish Water will need to spend £560 million a year for asset replacement.[219]

Netherlands

In the Netherlands one company has integrated the principle of 'Life Cycle Cost Analysis'[220] into their asset management practices to optimise investment decisions and ensure long-term system resilience. This approach looks at the total cost of assets, including construction, operation, maintenance and replacement.[221]

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[218] This followed the Water Industry Commission for Scotland Strategic Review of Charges 2021-2027

[219] Adjusted from 2017/18 to 2022/23 prices using GDP deflators at market prices, and money GDP March 2025 (Spring Statement & Quarterly National Accounts). Cost to replace all assets that are not repaired/refurbished indefinitely. Does not include costs of repair of refurbishment needed to reach an assets' expected life. From Water Industry Commission for Scotland, '2019 Decision Paper, Strategic Review of Charges 2021-2027. Asset Replacement', 2019

[220] RICS, 'Lifecycle costing- Practice Standards' 2016

[221] G Amaya-Santos, N Boelee, A Paulilo, P Lettieri, 'Life cycle assessment and life cycle costing of full-scale ozonation for micropollutants removal from wastewater. Case study in the Netherlands', 2025

Germany

In Germany the 'Drinking Water Ordinance' was updated in 2023 and prohibited the use of legacy lead pipes. Accordingly, all lead pipes and parts must be removed by January 2026, which has increased renewal rates.[222] Germany also published a National Water Strategy in 2023, with specific actions to further develop resilience in water infrastructure. This includes guidelines on how to account for climate resilience and adopt a risk-based approach in the design of infrastructure, as well as developing specific climate adaptation targets for water infrastructure.[223]

Comparisons on international replacement rates

More widely, the Commission has also heard that some countries have a higher rate of mains renewal. One report by Water UK found that the current asset replacement rate for waters mains is around 0.1% annually, 10 times lower than the European average while the replacement rate for wastewater assets is 0.2%, 3 times lower than the European average of 0.6%.[224]

Issues

261. The Commission has heard that there is a lack of underlying condition data for water company assets in England and Wales. Given that the underlying legislation and regulatory framework is not fully prescriptive, English and Welsh companies have taken different approaches to managing their large and complex asset bases. To fill mapping gaps, for instance, the Commission has heard that one company follows a 'map as you go' principle to build up knowledge during routine maintenance, while another maps reactively only on failure of the asset.[225]

262. While Ofwat have published a roadmap for improving the understanding of asset health, it is not mandatory for companies, and it is not clear to what extent companies are engaging. Moreover, although Ofwat noted that they had collected asset condition data on 70% of assets in Price Review 2024, these are at least partially based on failure metrics alone (such as sewer collapses, mains repairs and unplanned outages) rather than providing a prognostic assessment of asset health. The Commission understands that assets included in the 70% are water mains, sewers, and bioresources

[222] Umwelt Bundesamt, 'Distributing drinking water', 2025
[223] Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, 'National Water Strategy- Cabinet Decision of 15 March 2023', page 89 -90, 2023
[224] Water UK, 'Options for a Sustainable Approach to Asset Maintenance and Replacement', 2022
[225] Water company engagement with the Commission

assets.[226] No robust data has been gathered on critical civil structures such as service reservoirs or treatment works.

263. The Commission has heard from the majority of water companies that they consider that Ofwat's funding methodology – again based primarily on previous capital maintenance and incidence of asset failure rather than an explicit and forward-looking assessment of the condition of assets – has not funded them sufficiently to maintain and renew their assets for the longer term. Water UK have pointed to the more frequent replacement rates in other countries to support their argument.[227] Anglian have made similar arguments. In a 2019 paper, they argue that Ofwat's assessment of capital maintenance may not reflect, among other things, the differences between companies in underlying asset age and health.[228] Some companies, such as Thames Water, 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.[229] Ofwat, however, point to increases in capital maintenance allowances since privatisation and stable asset health metrics.[230]

264. The National Infrastructure Commission (NIC) has pointed out that there are no consistent, industry-wide standards against which water industry assets and resilience more broadly can be assessed, encompassing not only their condition, but also factors such as redundancy, back up and single points of failure. The NIC has therefore recommended the development and application of national resilience standards.[231]

265. Echoing the NIC's recommendation, Water UK have also called for well-defined, highly visible, and legally binding outcome-based resilience standards to inform the approach of regulators as well as companies.[232] The National Engineering Policy Centre further told the Commission that resilience is important at the asset level but is even more so at the system level. They recognise that expectations on resilience are changing and that

[226] Ofwat analysis: 70% of net Modern Equivalent Asset Value based on 2013-14 asset values; Ofwat, 'PR24 redeterminations – expenditure allowances – addressing asset health', 2025
[227] Water UK, 'Options for a Sustainable Approach to Asset Maintenance and Replacement', 2022
[228] Anglian Water, H Busch, and J Earwaker, 'Providing Appropriate Regulatory Funding for Capital Maintenance Activity: Ensuring Capital Sustainability and Service Resilience', 2019
[229] Thames Water, 'TMS15 Asset Health Deficit', 2023
[230] Ofwat, 'PR24 redeterminations – expenditure allowances – addressing asset health', 2025
[231] National Infrastructure Commission, 'NIC Resilience Standards Report', 2024
[232] Water UK response to the Call for Evidence, 2025

resilience standards should align priority outcomes for consumers with the need to prepare for future pressures.[233]

266. In response to the Call for Evidence, water and sewerage companies were supportive of the proposal to introduce resilience standards. There was broad support for the proposals set out by the NIC, with one arguing that it should be considered a key priority.[234] Ofwat, in their response, also welcomed the work undertaken by the NIC, and that they are leading engagement across the sector to consider and develop their proposals.[235]

267. In relation to supply chains, the Commission has heard historically, there has been a limited understanding of supply chain constraints when developing business plans. Water companies and supply chain firms have argued that this can lead to delays to delivery of infrastructure due to poor sequencing and coordination of supply chain capacity across a region or the country. Data shows that companies ramp up their expenditure over the course of a 5 year price review; this variation in expenditure could also be disruptive for supply chains.[236]

268. A number of stakeholders, including the NIC, some water companies and supply chain firms have expressed serious doubts as to whether the supply chain has the capacity to undertake the huge increase in investment set out in Price Review 2024. This is in part due to the pressure on some parts of the chain from other sectors where major investment plans are in train. But they also point to the scale of the jump in the level of water industry investment. For example, the combined Water Industry National Environment Programme (WINEP) and National Environment Programme (NEP) averaged around £5.4 billion in the price reviews from 2004 to 2019 before jumping fourfold to almost £24 billion in Price Review 2024 (2022/23 prices).[237]

269. The Commission has also heard estimates that the investment in Price Review 2024 will require an additional 30,000 workforce between 2025 and 2030, which in turn will need the supply chain to scale up recruitment and

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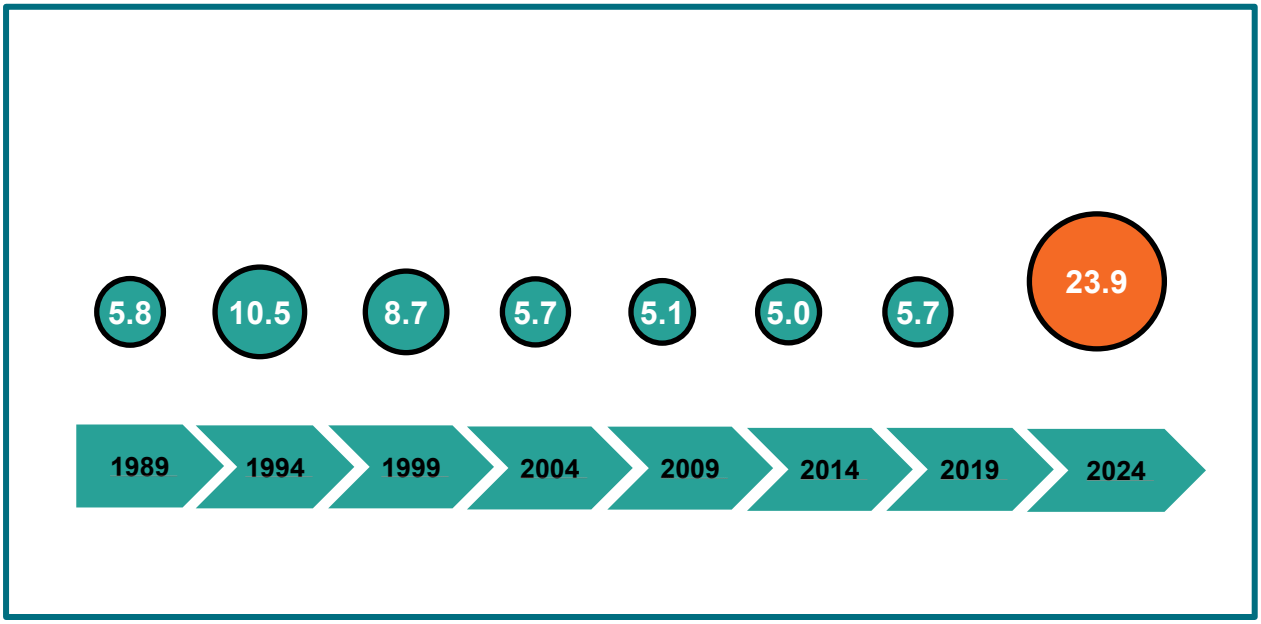
[233] National Engineering Policy Centre response to the Call for Evidence
[234] Water company responses to the Call for Evidence
[235] Ofwat response to the Call for Evidence, 2025
[236] Defra, 'Call for Evidence: Independent Commission on the Water Sector Regulatory System', 2025 (Figure 31, page 202); Ofwat, 'Long-term data series of company costs', 2022
[237] Commission Analysis of Ofwat Data. 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

training.[238] Companies and supply chain firms have commented strongly that the 5 year price review and the investment planning processes do not provide a clear enough picture of investment needs beyond the 5 year price review period and do not give the supply chain the assurance to gear up to meet future demand.

Figure 14: Estimated historical environmental expenditure allowances (WINEP/NEP), England & Wales, 1989 to 2030, £billion, 2022-23 prices



Source: Ofwat[239]

Preliminary Conclusions

270. In the Commission's view, the current overarching legal requirements, regulatory activity and financial incentives do not appear to have led to a sufficient, forward-looking understanding of the health of water industry infrastructure. Assets have not been – and have not been required to be – fully mapped. Ofwat's methodology for funding is backward looking, based on lagging maintenance expenditure and indicators of health. And there are no consistent standards against which companies can assess the health of their assets.

271. As a result, it is not possible to form a clear view on the condition of water industry assets and the adequacy of past renewal and maintenance. The

[238] Water UK, '£104bn investment plan' (viewed 28 May 2025); CIWEM, 'Money, money, money – Ofwat's 'final determinations' explained' (viewed 2 June 2025)
[239] 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

Commission notes the much more frequent renewal rates in other countries and the experience of Scotland, in particular, the increase in expenditure on renewal identified by a more forward looking, prognostic approach the assessment of asset health.

272. The Commission's current view is that there is a strong case for a single, comprehensive infrastructure resilience framework across all water companies in England and Wales, which includes (i) establishment of resilience standards, (ii) a requirement for water companies to gather and report data on their assets and (iii) a more supervisory role for the regulator to enable a better understanding of an individual company's assets and more tailored regulation, including in the setting of allowances and performance targets.

273. Resilience standards should ensure all companies make forward-looking, long-term assessments of asset health and of their ability to recover from disruption to critical infrastructure. They should be outcome focused, rather than focused solely on how long an asset should last, so where assets have back-up or redundancy, that can be factored into the assessment. The framework could also provide guidance for how companies could meet resilience standards without stipulating a particular course of action, to allow companies to identify the most efficient approach.

274. Standards would help to reduce the risk of failures leading to service disruptions and help increase resilience for the ongoing operation of assets.[240] The Commission further understands that there could be 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.

275. To support such a framework, the Commission is also considering whether new requirements are necessary on companies to gather and assess asset condition and report them, at set intervals, to the regulator. This would fill gaps in the existing approach. For example, there are currently limited exemptions to asset mapping requirements where the undertaker is not aware of the existence of a sewer main or if discovering the main is not 'reasonably practicable'.[241]

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[240] Call for Evidence responses and engagement with the Commission including water companies, National Infrastructure Committee and Industry experts

[241] The mapping exemption under section 199(7) of the Water Industry Act 1991 only relates to drains, sewers or disposal mains laid before 1st September 1989.

276. The Commission is of the view that funding for asset assessment, replacement and renewal needs to be assessed through a longer-term lens, which takes into account the condition of assets and the need for system resilience, as well as likely future stresses such as those from climate change and population growth, to ensure appropriate and cost-efficient funding through time. The addition of a more supervisory approach to regulation, including strong engineering expertise, as discussed in Section 3: Regulator Reform, would support this by providing the regulator with a better understanding of company assets and investment needs.

277. The Commission will return to these issues around asset health and resilience in the recommendations in its final report.

278. On the supply chain, the Commission recognises both the importance of setting out a long-term view of water industry investment needs to guide the supply chain, and the importance of factoring supply chain capacity into the planning of water industry capital investment. Unrealistic investment programmes risk generating public disillusion and a 'famine and feast' outcome, as in the WINEP example above, and increasing the cost of improving the system. The changes to the planning processes discussed in Section 2: Legislative Framework, to which the Commission will return to its final report, are intended to address this.

Glossary of terms and acronyms

Asset Health – the condition and performance of physical assets, now and in the future.

Asset Management Maturity Assessment – 2021 publication from Ofwat setting out cross-cutting sector insights gained from assessing companies' asset management maturity.

AMP – Asset Management Plan 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.

Competitively Appointed Provider – a third party appointed by a water company through a competitive tender process under DPC to design, build, finance, operate and maintain new infrastructure.

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.

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.

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.

HMG – His Majesty's Government.

Hydrological – the scientific study of water on Earth, including its movement, distribution and management.

ISO – International Asset Management Standard which, under the International Standardisation Organisation series, sets standards that provide guidance for developing and improving asset management systems.

NAO – National Audit Office.

Natural England – A non-departmental public body in the United Kingdom sponsored by Defra.

NAVs – New Appointments and Variations, limited companies providing a water and/or sewerage service to customers in an area which was previously provided by the incumbent monopoly provider.

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.

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.

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.

OSM – Operator Self-Monitoring, through which water companies must collect and analyse sample of permitted dischargements that are subject to numeric quality limits.

PCD – Price Control Deliverable, sets out Ofwat's expectations for delivery specifically on improvements, funded through enhancement expenditure allowances.

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.

Public goods – a commodity or service that every member of society can use without reducing its availability to others, for example, clean rivers and seas.

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.

RCV - Regulatory Capital Value, a measure of the company's market value plus the value of accumulated capital investment assumed at each price review. RCV has been developed for regulatory purposes and is primarily used in setting price limits.

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.

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 1994 – Urban Wastewater Treatment Regulations, legislation 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/NEP – Water Industry National Environment Programme, a programme of actions which water companies in England follow to improve the environment. National Environment Programme in Wales, a programme outlining the environmental obligations and improvement actions that water companies must undertake in Wales.

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.

WSMA 2025 – Water (Special Measures) Act 2025

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