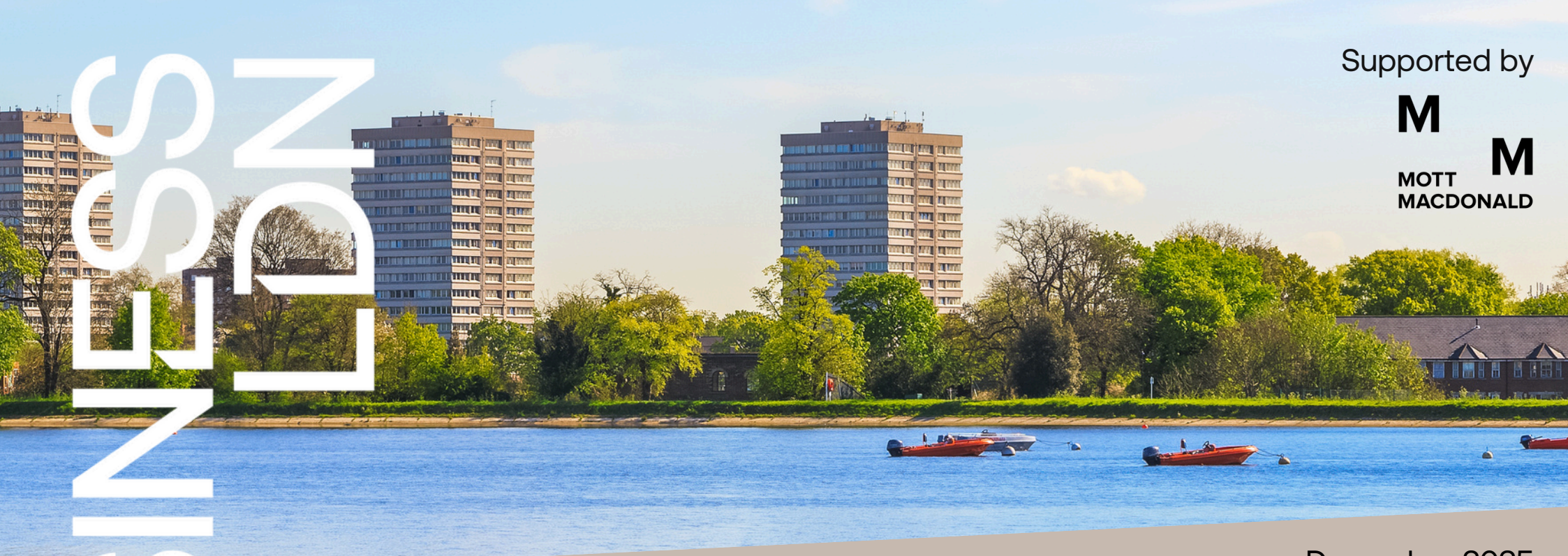

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Driving investment in London's water infrastructure

The need for a portfolio-based approach

INTRODUCTION

London and the whole of the UK require substantial investment in new and existing water and drainage infrastructure. Without this investment, basic quality-of-life factors could be impacted, such as a shortage of drinking water during the next decade[1] and a risk of increased surface water flooding incidents.[2]

Multiple sectors, including agriculture, transport, and energy, significantly impact the water environment. However, there is currently no effective cross-sector approach to managing these pressures. This is why a new 'portfolio-based approach' to water infrastructure is needed. This approach identifies the interdependencies between organisations with an interest in investment in the water sector and allocates investment risk accordingly, while also more equitably reflecting the relative impacts of different sectors. In doing so, it could help unlock much-needed private investment at scale and position London to attract a greater share of the global private capital seeking infrastructure opportunities.

1 Set out what investment is needed in London's water and flood resilience infrastructure, and by what timescale it is required.

2 Adopt a systems perspective by mapping out and understanding the risks related to water management and flood resilience, recognising the interdependencies between different sectors.

3 Establish the right regulatory frameworks to support and incentivise a portfolio-based approach.

4 Increase the efficiency of capital allocation and realise opportunities to diversify financing sources by better allocating risk and return.

A portfolio-based approach aligns with the findings of the Independent Water Commission's (Cunliffe Review) final report, published in July 2025, which urges a shift to more holistic, systems-based water management to coordinate supply, wastewater, environmental protection, and infrastructure investment within an integrated long-term framework. For London to achieve this approach, four steps must be followed:

The following sections address the key challenges highlighted in the four steps above.

Section one: The scale of investment need

As London's population continues to grow, from around 9 million today to potentially 11 million by 2050,[3] demand for water and wastewater treatment is placing immense pressure on an ageing network of pipe infrastructure, reservoirs, and treatment facilities.

Thames Water, London's largest water utility, has outlined capital investment needs of over **£18 billion** from 2025 to 2030 alone.[4] This funding is aimed at addressing critical challenges, including leakage reduction (with daily losses exceeding 600 million litres), pollution control, flood resilience, and climate adaptation. The London Infrastructure Plan 2050 estimates that the water sector will require **£46 billion** in investment to 2050 to keep pace with demand[5] with Thames Water forecasting **£22.9 billion** investment in wastewater assets over the same period.[6] To address the need for **an extra 1 billion litres** of water per day by 2050,[7] there are plans for a new reservoir near Abingdon, Oxfordshire, which would serve the capital and wider south east, and which could cost up to £7.5 billion.[8]

Despite the clear need for investment in London's water infrastructure, there is a complex set of challenges that must be navigated for capital to be deployed as set out in Figure One.

Figure One – Challenges to investing in London's water infrastructure

Ageing infrastructure, which requires significant planning to manage disruption	**Urban density and spatial constraints,** which require complex negotiations with multiple stakeholders	**Regulatory and political frameworks** that are not coordinated and fail to recognise London's unique challenges	**Increasing risks from flooding and droughts** caused by more frequent and severe weather events	**Public perception and trust** in the wake of high-profile pollution events and leakage	**Workforce and skills shortages,** which are exacerbated by high costs of housing in London

Section two: Adopting a systems perspective

Adopting a systems perspective[9] could enable a more holistic understanding and management of water-related challenges in the capital by recognising the interconnections and dependencies across London's entire water system, and by allocating risk more equitably among the organisations that influence it. It could also unlock new investment opportunities and help London to attract a higher share of international investment in infrastructure.

The Independent Water Commission was clear on the need for a systems perspective, recommending the creation of nine regional water system planning authorities, which would embed investment planning in a 25-year National Water Strategy, with input from diverse stakeholders, including local authorities, agriculture, and community groups.

What is a portfolio?

A portfolio refers to a collection of assets, projects, or investments made by a company, organisation, or individual, which work together to deliver a range of enhancements across the water system, including water security, flood resilience, and nature recovery.

The portfolio may include physical infrastructure such as water treatment plants or pipelines, or nature-based interventions such as wetlands, or water efficiency measures. This diversity allows different financing options to target the investments that best align with their objectives and requirements.

A recent pilot undertaken by the Greater London Authority (GLA) demonstrated how to begin to develop a portfolio-based approach to managing London's water infrastructure. The subregional integrated water management strategy: East London (July 2023) identified interventions that addressed flooding, water supply, and impacts on nature in East London.[10]

The London Climate Resilience review endorsed the approach, calling for its wider implementation, which is now underway.[11] The GLA and Thames Water are developing a market-based approach for the financing and delivery of Sustainable urban Drainage systems.[12] Further case study examples of a portfolio-based approach in London and across the UK are provided in section four.

A portfolio-based approach can help to unlock investment in the following ways:

Figure Two – How a portfolio approach can unlock investment

The failure to aggregate complementary projects across catchments, organisations, and sectors results in insufficient investment coming forward.

A portfolio approach helps to address this by moving away from relying on a single infrastructure solution, and instead integrates projects across the sector to reduce overall risk and drive scale.

Investors need a clear long-term, city-wide investment plan to assess the viability and potential returns of their investments. Without this, they may perceive higher risks and uncertainties.

A portfolio approach helps overcome this by presenting a diversified, integrated set of investments that builds confidence in stable long-term returns.

Currently, there is limited information on shared risks, such as how other sectors and services depend on, and influence, London's water security and flood resilience. By requiring multiple projects and strategies to be tracked together, a portfolio approach incentivises the creation of shared data platforms on supply, demand, finance, performance, and risks. These platforms improve transparency, make interdependencies clearer, and help build investor confidence.

In recent years, the regulatory framework has grown increasingly complex and has not taken sufficient account of long-term asset health. By simplifying regulation and adopting a longer-term outlook, regulation could better enable and incentivise a diverse mix of water management solutions: for example, introducing multi-asset management period settlements would help align regulatory incentives with the longer-term investment horizons of capital.

Integrating water projects with related sectors – such as energy, waste, transport, housing, and health – can help to reveal local interdependencies, reduce silos, and build an evidence base to coordinate investment.

Section three: Establishing the right regulatory framework

The water sector operates within a wider regulatory environment that has not kept pace with the industry's evolution. It fails to incentivise long-term, integrated, catchment-based solutions or adequately address London's unique challenges.[13] To address the challenges facing water security and flood resilience in a city as complex and diverse as London, regulation must evolve to reflect interconnected risks and support more collaborative, adaptive partnerships.

The recently published Independent Water Commission, chaired by Sir Jon Cunliffe, has proposed a welcome, transformative shift towards a portfolio-based approach to water management through the establishment of Regional Water System Planners. These new entities would oversee integrated, long-term planning of water and wastewater infrastructure across England, aligning with river basin regions and incorporating inputs from various non-water sectors.

The Government should implement the recommendations of the Independent Water Commission in the forthcoming Water Reform Bill.

Summary of the Independent Water Commission's final report, the Cunliffe Review

Single integrated regulator: abolishing Ofwat, merging it with the Drinking Water Inspectorate, and bringing in functions from the Environment Agency and Natural England.

Long-term strategic and regional planning: a new National Water Strategy in both England and Wales, with a minimum 25-year horizon.

Strengthened consumer protection: establishing a mandatory national social tariff for low-income households, and reforming customer service regulation.

Better environmental safeguards: shifting towards more transparent, intelligence-led environment monitoring, reforming water quality rules, and simplifying environmental standards.

Resilience and financial stability: push for better asset health mapping, statutory resilience standards, and clearer accountability for investment.

Section four: Better allocation of risk and return – case studies

The two case studies below demonstrate how a portfolio-based approach can improve transparency, enable more effective risk-sharing, and foster collaboration – ultimately delivering greater cost-effectiveness than the previous siloed interventions of multiple actors.

Case study one: Thames Water Smarter Water Catchments (SWC)

Between 2020 and 2025, Thames Water trialled its SWC initiative in the Crane (West London), Chess (Buckinghamshire and Hertfordshire), and Evenlode (Oxfordshire) catchments. This collaborative, community-focused approach aimed to build local understanding and deliver high-impact environmental interventions through a systems perspective, tackling the root causes of water quality and flow issues by working with local stakeholders.

Funded as a pilot through the 2019 price review, it successfully attracted £4 of external investment for every £1 invested by Thames Water and delivered significant ecological improvements – most notably in the River Crane, recognised by the Environment Agency as the only London catchment likely to reach 'Good Ecological Status'.

Thames Water aimed to extend the SWC approach to additional river catchments during the 2025–30 price review period. However, regulatory constraints prevented its inclusion in the business plan, as the initiative could not be directly linked to specific environmental obligations set out in the Water Industry National Environment Programme.[14]

Case study two: Aire Resilience Company (ARC)

Following £500 million of damages from the 2015 Boxing Day floods in Leeds, the Leeds Flood Alleviation Scheme was created, combining hard engineering with natural flood management to extend resilience against climate change impacts.

ARC, a not-for-profit Community Interest Company, was founded through a joint effort by Leeds City Council, the Environment Agency, The Rivers Trust, Yorkshire Wildlife Trust, and Yorkshire Water.

The ARC financed and delivered natural flood management measures, such as tree planting and soil management. By blending public grants for capital spending with private investment for ongoing maintenance, ARC enables long-term flood risk reduction.

Working with landowners through annual contracts and service agreements with local buyers, ARC demonstrates a scalable model for funding multi-stakeholder natural flood management projects for resilient, future-proof flood management.[15]

Section five: Recommendations

Adopting a portfolio approach will require coordinated interventions from multiple actors across the water sector in London and the wider UK. Most of these interventions are medium- to long-term in nature and inherently complex. However, taken together, these measures have the potential to be transformative – delivering lasting improvements in how London's critical water supply is planned and financed, more equitably reflecting the relative impacts of different sectors, and attracting new global capital to the city.

Recommendation	Description	Actor	Term
Transition from siloed interventions to a portfolio-based approach	Identify the interdependencies between actors with an interest in investment in the water sector and allocate investment risk accordingly. This will help to achieve the scale of investment required for water security and flood resilience in London and the wider UK.	Water companies, investors, regulator, local authorities	Short
Enhance risk understanding and transparency	Enhance understanding of water and flood risks from a systems perspective, acting on the findings of the Independent Water Commission to create integrated 25-year water and wastewater plans that coordinate cross-sector investments and align with environmental and economic goals.	Water companies, investors, regulator, local authorities	Medium
Aggregate and blend projects	Develop strategies to aggregate, scale, and blend projects to create appealing risk and return opportunities for investors.	Water companies	Medium
Diversify financing sources	Increase the transparency of risk reporting and clear communication about potential returns, which can unlock diversified financing sources and reduce reliance on customer bills.	Water companies, investors, regulator, local authorities	Medium
Evolve regulatory frameworks	Adapt regulatory frameworks to support and enable a portfolio-based approach. Introduce more flexibility to allow for risk to better inform return and to incentivise innovative catchment-based partnerships in line with the findings of the Independent Water Commission.	Regulator	Long

This policy briefing was produced by BusinessLDN with support from Mott MacDonald, the global engineering, development and management consultancy.

Endnotes

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3. Greater London Authority, City Intelligence Unit (2020) https://data.london.gov.uk/demography/population-and-household-projections/
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7. Thames Water, Water Resources Management Plan 2020–2100, https://www.thameswater.co.uk/media-library/home/about-us/regulation/water-resources/water-resources-management-plan-overview.pdf
8. The Guardian, Thames Water says Abingdon reservoir could cost up to £7.5 billion (August 2025) https://www.theguardian.com/business/2025/aug/14/thames-water-says-new-abingdon-reservoir-could-cost-bill-payers-up-to-75bn
9. A systems perspective to water management views water as part of an interconnected network of natural, social, and economic systems, managing it holistically to balance needs, anticipate impacts, and build long-term resilience.
10. Subregional integrated water management strategy, East London (July 2023) https://www.london.gov.uk/sites/default/files/2023-07/Sub-regional%20integrated%20water%20management%20strategy%20East%20London%20-%20July%202023.pdf
11. London Climate Resilience Review (July 2024) https://www.london.gov.uk/sites/default/files/2024-07/The_London_Climate_Resillience_Review_July_2024_FA.pdf
12. Ofwat, developing a market-based approach to deliver SuDS through street works (2025) https://waterinnovation.challenges.org/winners/market-based-approach-suds/
13. A water catchment is an area of land through which water from any form of precipitation (such as rain, melting snow, or ice) drains into a body of water (such as a river, lake, or reservoir, or even into underground water supplies – 'groundwater'). It could be a very large area, such as an estuary and any associated coastal waters, or it could be relatively small – for example, the catchment of a tributary river.
14. Thames Water, Smarter Water Catchments, https://www.thameswater.co.uk/media-library/home/about-us/responsibility/smarter-water-catchments/smarter-water-catchments.pdf
15. Leeds City Council: Leeds launches the pioneering Aire Resilience Company (June 2025) https://news.leeds.gov.uk/news/leeds-launches-the-pioneering-aire-resilience-company-to-tackle-flood-risk-and-the-climate-emergency

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OUR MISSION

AT BUSINESSLDN, OUR MISSION IS TO MAKE LONDON THE BEST CITY IN THE WORLD IN WHICH TO DO BUSINESS, WORKING WITH AND FOR THE WHOLE UK.

We work to deliver the bigger picture, campaigning to tackle today's challenges and to secure the future promise of London.

We harness the power of our members, from sectors that span the economy, to shape the future of the capital so Londoners thrive and businesses prosper. We support business to succeed – locally, nationally, globally. We link up with other cities around the UK, to ensure the capital supports a thriving country.

We campaigned for the creation of the office of London Mayor and Transport for London, for the Elizabeth Line, for congestion charging, and we incubated Teach First.

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