


# Water Infrastructure First

A policy white paper for unlocking sustainable growth

A RESEARCH PARTNERSHIP BETWEEN

**The Housing & Finance Institute | SDS Infrastructure**

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INTRODUCTION

*"Water is fundamental to life; it is our world's most precious asset, yet it also represents a challenge on so many different levels. Society and nature demand a whole water solution that will address this whole water challenge and I am both excited and confident that Water Infrastructure First will be instrumental in helping achieve this."*

**Patrick Cullen**
CEO of SDS Infrastructure

**This major report, *Water Infrastructure First*, is the result of a research partnership between the Housing & Finance Institute and SDS Infrastructure.**

It calls for a new approach to water – with water infrastructure planned, sustainably funded and delivered earlier in new housing developments, a retrofit revolution to make water conservation as commonplace as recycling and to take back local and national control over water.

Around half of the country, some 30 million people, are subject to water controls coming into November 2026, with tougher measures proposed owing to severe water shortages in a number of areas caused by failing water infrastructure and drier summers. Surface water flooding and river pollution are matters of increasing concern as winters become wetter.

Tens of thousands of new homes are being held up or stopped entirely by failing legacy water infrastructure unable to cope with the new supplies required. It doesn't need to be this way.

This Report sets out a far-reaching plan to make water work for everyone:

A new Water Infrastructure First model for major developments and new towns would see specialist water operators design, fund, build and operate integrated water infrastructure upfront with a long-term stewardship model that could be funded by long-term institutional investment.

End-to-end engineered water solutions that can capture and clean surface water and remove pollutants should be encouraged as these systems can prevent surface water flooding, reduce wastewater capacity requirements and improve river health.

There are the proven technical and engineering solutions already available to store and reuse water, making clean water go further and protecting the environment too. These are the key ingredients for a 'retrofit revolution' for households and businesses.

The report welcomes moves by the Government to legislate on water next year and sets out ideas for the proposed Regional Water Councils that would put the 'Devo into Defra' so that housebuilding and new business development can be unlocked, supporting growth, people and the environment to thrive.

**Natalie Elphicke Ross OBE**
Chair of the Housing & Finance Institute

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# Water Infrastructure First: unlocking sustainable growth

## Executive Summary

The UK's water infrastructure is failing and it is damaging economic growth and our way of life.

Water rationing is already commonplace. In 2026, around 30 million people became subject to restrictions in their household water use and these so-called level 2 measures, 'hosepipe bans', look set to continue for some time. By mid-November, three water companies had made applications to the Government for more severe rationing – level 3 restrictions for some business users. At least one water company has confirmed that it is making active preparations for Level 4, extreme drought, measures. This is the highest level. If granted, it is the power to stop water running into household taps and require householders to line up in the streets to get water from mobile water tankers and standpipes.

Meanwhile, tens of thousands of new homes are being held up or stopped entirely by failing legacy water infrastructure that is unable to cope with new supplies for drinking water or to deal with wastewater. This impacts on the growth of local areas and new homes that are desperately needed.

With the water industry's regulatory capital value assessed at over £100 billion, many people may wonder how this industry could have come to such a pass. The fact that such extreme restrictions are even being considered is a failure of basic water management. This is not something that people should have to think about in a world-leading economy. It is the result of a lack of effective water regulation and inadequate planning, delivery and investment of water infrastructure over many years, together with a failure to adopt at pace the proven solutions to tackle many of these issues.

Every step of the water journey requires improvement – from water availability to water storage, water capture and reuse as well as the treatment of wastewater to reduce the impact of flooding on homes and the wider environment. For too long, water challenges have been treated as separate and stand-alone. But a whole water solution is now needed to build a stronger water system, where people, communities, the economy and the environment can all thrive.

The new Water Infrastructure First approach set out in this paper would see these issues addressed at every level.

### *Water Infrastructure First for new developments*

A Water Infrastructure First approach for new developments would enable water to be fully planned at the outset for water efficient homes and for developments as a whole.

A new Water Infrastructure First delivery model for major developments and new towns would see water systems planned and installed ahead of other aspects of housing and business developments in larger sites. These could attract upfront institutional investment funding in partnership with a regulated independent water provider ready to deliver. Water supply, wastewater treatment, reuse, and environmental management would be designed as a single integrated system at the place level. This new approach would align long-term investment, regulatory compliance and environmental stewardship to promote sustainable water.

Developments would be designed around proven methods for the capture, conservation and reuse of water, while also reducing water waste. This would ensure that new residential and business developments could make use of the latest and best water technology, engineering and manufacturing solutions from the outset.

In too many places, large incumbent, heavily indebted water companies with rigid investment plans are unable to provide water resources on time and can hold back new housing and business development. This has resulted in independent regulated water companies or NAVs now providing around one in five of all new development connections. These ‘nimble NAVs’ should have a level playing field to operate in any area of the country and be able to take forward and provide water for new developments. NAVs should be encouraged to innovate to capture and reuse water, to manage surface water and to reduce the requirement for mains water.

New developments could include the latest water conservation technology. This could include the latest taps and showers along with intelligent water butts that can capture rainwater and manage surface water along with watering plants and gardens, rather than old-fashioned outside taps that draw on scarce and expensive drinking water. Communal water capture and reuse should be taken forward where possible and safe to do so. However, measures for water conservation should be rigorously assessed against household ‘liveability’ measures to meet everyday family needs and avoid any hidden rationing that can adversely impact on day-to-day living standards.

Environmental stewardship for the entire development should be built in from the beginning. Where possible, rather than empty and ugly attenuation ponds, water should be captured, used to benefit the environment, including to provide water features that enhance community amenity and increase biodiversity.

*Water that works for everyone*

Water needs to work for everyone, meaning that householders and businesses should be incentivised to capture, conserve and reuse water on the one hand, while reducing wastewater on the other. That means a 'retrofit revolution' to change the way in which existing water is managed and used.

That could include simple easy to follow information for householders on water conservation, incentives available and faster modern smart meter roll outs. More needs to be done to most effectively and directly communicate with customers. That could include regular based water usage information as well as more effective direct text and digital communications. Against the backdrop of mistrust in water companies, and generalised communications from water companies, there is much more to be done before water conservation becomes as commonplace as recycling. This would help to ensure that householders have the information and incentivisation to conserve and reuse water – and save money.

The biggest gain in household recycling is likely to come from upgrades to kitchens and bathrooms. Up to 10% of owner occupiers upgrade their kitchens and bathroom each year. Focusing incentives to improve water conservation and reuse on kitchen and bathroom renewal could make a huge difference in just a few years.

Water reuse systems should also be promoted as part of those planned retrofits. Toilets account for around a quarter of daily water use – the reuse of treated and filtered water (such as rainwater or bathwater) to flush toilets would make a dramatic difference. With clear quality standards for such water, take up could be greatly increased thereby saving on bills as well as alleviating pressure on water resources – particularly in areas where water resources are under pressure.

Water conservation retrofitting should be actively encouraged. Householders and businesses could be offered strong incentives to capture and reuse surface water rather than it going into the wastewater and sewage system. Reducing wastewater, particularly surface water from rain, also matters because it reduces the pressure on sewers, meaning cleaner rivers and less flooding.

The biggest users of general public water are the ones without any requirement or incentive to change - that's the largest water-using businesses. It will greatly surprise many that around 1% of business customers are responsible for about half of business water use, that's equivalent to around 15% of England's entire public water supply – equivalent to the consumption of over 9 million households. That matters because the effect is that established businesses restrict new businesses and new homes, as well as impacting on general public availability of water in some areas. This indirect transfer of water constraints to the general public and new development is creating an unequal balancing of costs and risks. This should be addressed as a priority.

The use of water by every large UK business should be publicly available on an open register. There should be a corresponding restoration of tax incentives for business investment in water conservation from water capture and reuse to the reduction of wastewater, including through soakaways. Accordingly, an enhanced and straightforward capital allowances scheme that is simple and easy to use should be implemented to encourage businesses to invest in water efficiency and environmental improvements, with annual reporting requirements to demonstrate improvements in water efficiency and water conservation.

### *Restoring local and national control over water*

Reform needs to ensure there is enough water to go round, so water rationing can be ended for good. The Government is rightly acting to make changes. The upcoming Water Bill is set to be the most significant regulatory and oversight change in decades.

Building on recently announced proposals for river basin based water boards, a new scheme should be introduced where elected Mayors and local leaders are placed in driving seat for the future of water infrastructure and water provision in their basin region through Regional Water Councils (RWCs).

RWCs should be made up of mayors and other local elected leaders, along with consumer and business representation that will be able to shape the water investment and infrastructure plans for their region in order to promote economic development and growth along with community water resilience.

Extending emerging government proposals, RWCs should be more than simply advisory. They should incorporate regional water planning with access to information from DEFRA and the new water regulator. They should have the ability to demand Ministerial intervention if water companies or the new national water regulator are failing to provide the water infrastructure that is planned for, or needed for, their region. The Regional Water Plan could set the resources footprint for the new spatial development strategies and local plans, ensuring effective and streamlined alignment of constraints, capacity and investment opportunities.

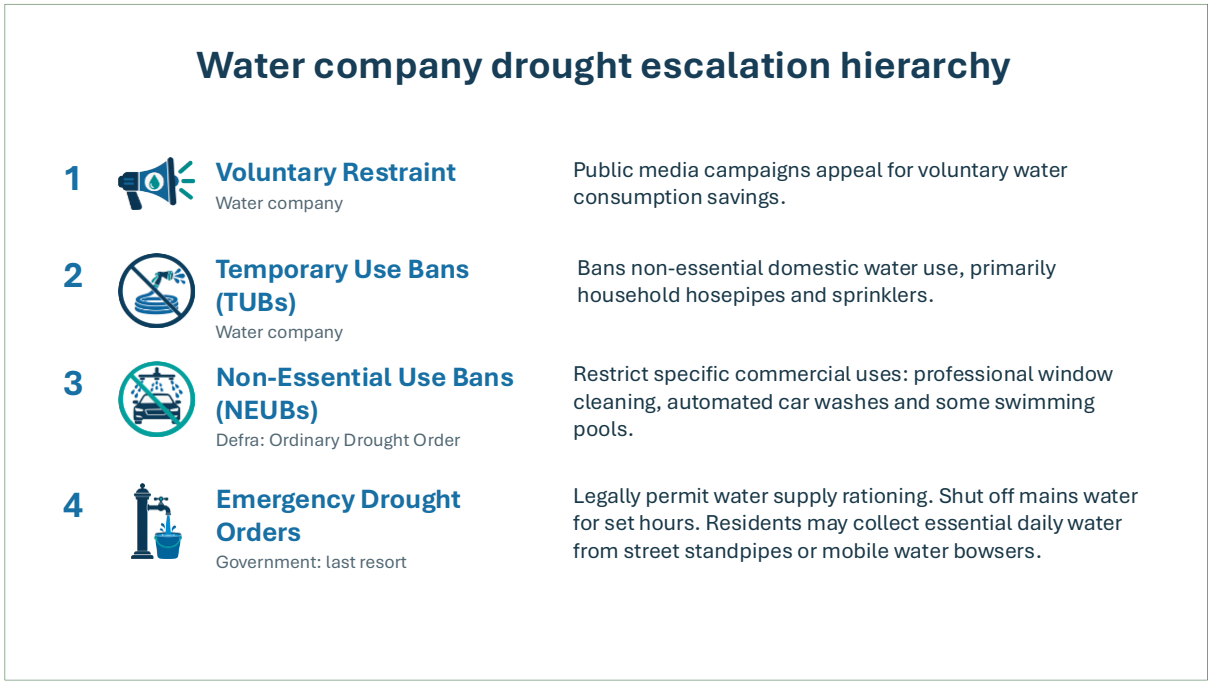
### *A brighter future for water*

Making water use and infrastructure fit for our times can end the scourge of water rationing and save money. It can reduce flooding and river pollution, improve the environment as well as speed economic growth and housebuilding. Making the most of the latest water technology would not only build a brighter future for water, it could make the UK a water leader in Europe and beyond.

# Setting the Context: Why is a new approach for water needed?

## Impact of drought and water use bans on households and businesses

I. There are four levels of water rationing in the UK[1]. The first level is encouraging people to use less, called Voluntary Restraint. Level 2 is Temporary Use Bans (TUBs), more familiarly known as 'hosepipe bans'. The next stage, Level 3, is the more serious Non-Essential Use Bans (NEUBs). These are authorised by the government (Secretary of State for DEFRA) through an Ordinary Drought Order. NEUBs restrict specific commercial water uses. The final stage is Level 4, Emergency Drought Orders. This final stage permits water companies to ration water supply in order to protect critical infrastructure.




II. This year, 2026, has seen the most widespread level of water control restrictions on record across England and Wales due to incidents of drought and severe drought. After an extended drought period over the Summer, those controls are set to continue for some time. The Environment Agency reported[2] that over 30 million people in England were affected by restrictions to their home water use due to hosepipe bans (TUBs), over half the country's population.

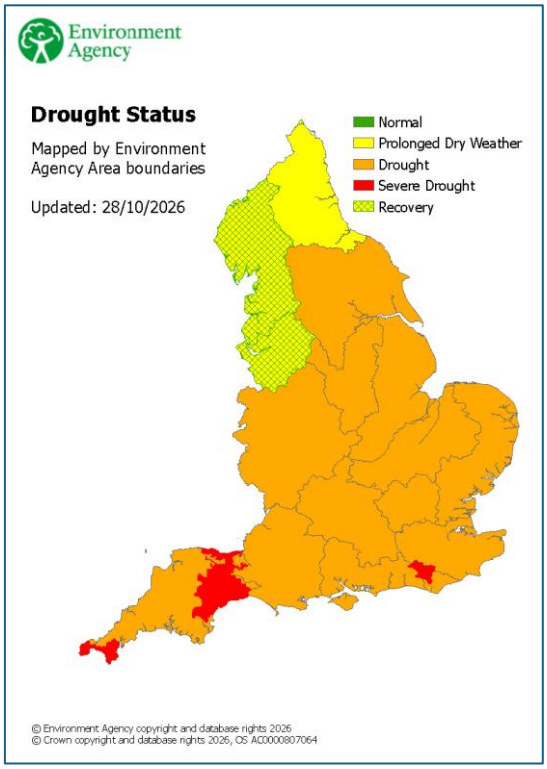



**Figure 1: Environment Agency drought map (as at 28 October 2026)[3]**

***Source: Environment Agency (2026), Dry weather and drought in England: 23 to 29 October 2026.***

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III. While droughts are a natural feature of the UK climate, they are becoming more frequent. As well as increasing in frequency, the intensity has also escalated. In October 2026, the government officially declared a "Severe Drought" for parts of the South East and South West (including Cornwall, Devon, Dorset, Somerset, East Sussex, and West Sussex). This followed the driest April to September in over a century for those regions.[4]

IV. As at mid-November, household use restrictions look set to continue for millions of people[5]. However, in some areas the current level of restriction is unlikely to be enough to tackle water shortages. As a result, some water companies have applied for the next level of business usage controls to be put in place, the Drought Order or Non-Essential Use Bans (NEUBs)[6]. In addition, concerns have been raised about the impact on agriculture with the Environment Agency warning in relation to agricultural seasonal abstraction “The headline is that without more than 100% of long-term average rainfall over the winter refill period, not all areas will be expected to completely refill winter storage reservoirs, with particular concerns in West Midlands, East Anglia and Devon and Cornwall Areas.”[7]

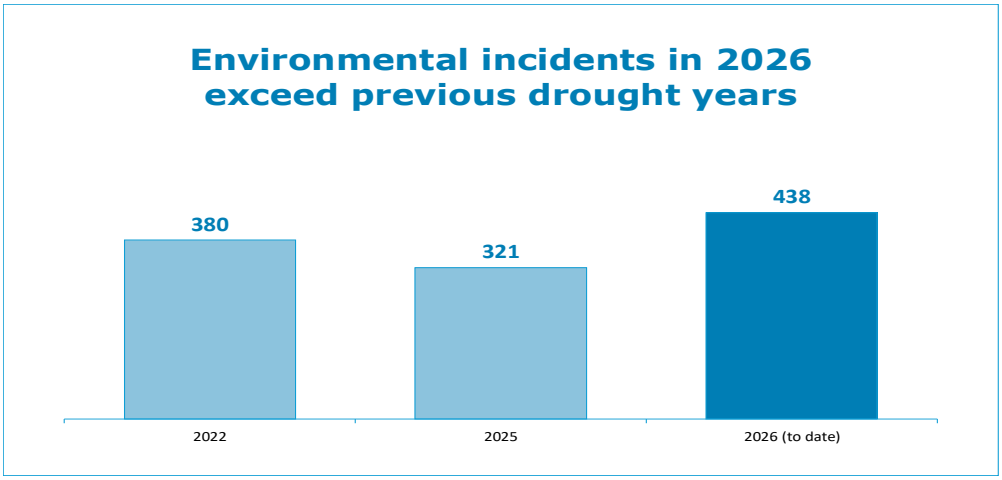
V. For some time there have been warnings that Level 4 measures could be required. In 2018 the National Infrastructure Commission, an HM Treasury independent expert body, assessed that there was a 1% annual probability, equivalent to a one in four chance of drought before 2050, with an associated cost in emergency water supply assessed as up to £40 billion[8].

"'Drought' is defined for this report as a period of such low rainfall that companies have to impose restrictions on households' water supply ('Level 4' restrictions), by providing water only at certain times of the day ('rota cuts') or through temporary taps ('standpipes') in the streets. The likelihood of a drought occurring is measured by its annual probability. Typically, the lower the chance of a drought occurring, the worse the drought is likely to be. The probabilities mentioned in this report are:

- 1% annual probability: 1 in 4 chance of drought by 2050; this is used as a proxy for the worst drought recorded in recent history (also referred to as 'worst historic drought')
- 0.5% annual probability: 1 in 7 chance of drought by 2050 ('severe drought')
- 0.2% annual probability: 1 in 17 chance of drought by 2050 ('extreme drought')"

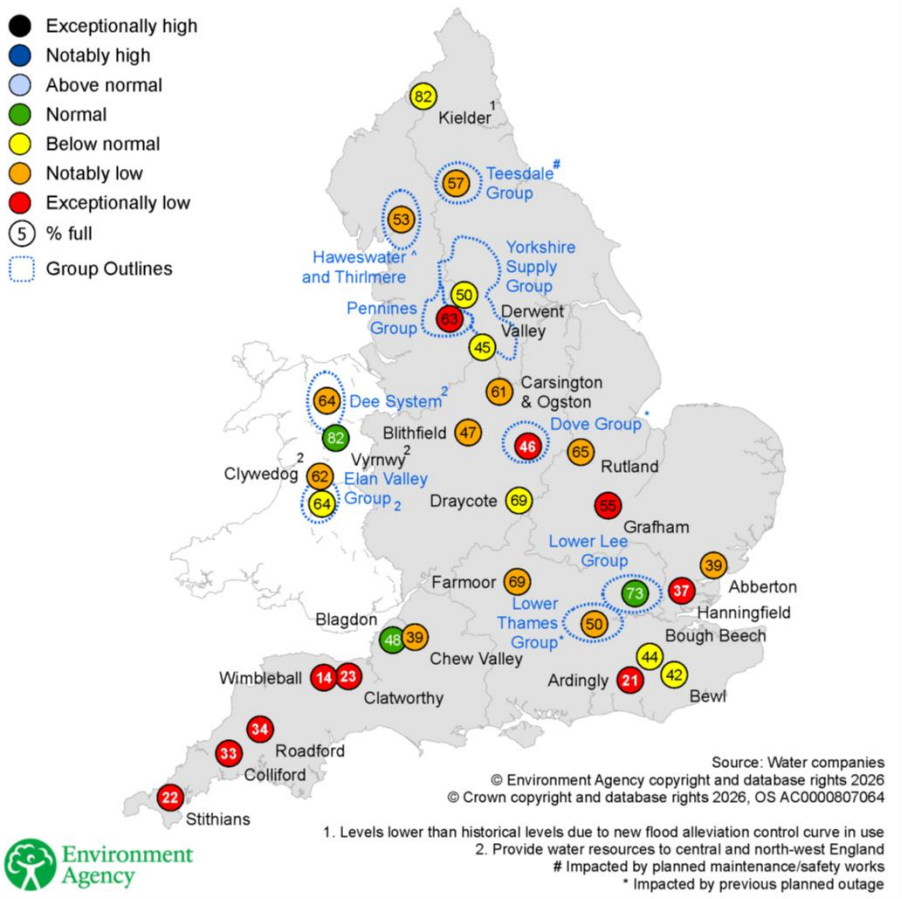
*Extract from The National Infrastructure Commission's Report "Preparing for a Drier Future" (2018), HM Government*

VI. The severity of the 2026 drought has also seen more recorded environmental incidents caused by drought and dry weather. As of October 2026, the Environment Agency had recorded a total of 438 confirmed environmental incidents caused by drought and dry weather for 2026 to date, exceeding the totals from the two previous drought years of 2022 (380 incidents) and 2025 (321 incidents).[9] However, where Level 3 measures are put in place, the affected water companies can then apply for overriding licences to allow water abstraction below their usual permitted levels in order to avoid Level Four measures. That in turn could have a consequent impact on river health and other environmental consequences.




*Source: Environment Agency (2026), Dry weather and drought in England weekly reports (as at 19 November 2026). Contains public sector information licensed under the Open Government Licence v3.0.*

VII. The impact of this pattern of increased frequency together with dry intensity is that reservoirs are not able fully to refill over Winter periods – that has meant that by mid-October 2026, national reservoir storage had dropped to 54% of its total capacity—approximately 21% below the long-term average for the time of year. As of late October, ten reservoir groups were officially classified as "exceptionally low". [10]




*Environment Agency Note: Reservoir stocks at key individual and groups of reservoirs for week ending 27 October 2026 as a percentage of total capacity and classed relative to an analysis of historic values.*
*Note: Classes shown may not necessarily relate to control curves or triggers for drought actions. As well as for public water supply, some reservoirs are drawn down to provide flood storage, river compensation flows or for reservoir safety inspections. In some cases, current reservoir operating rules may differ from historic ones.*

*Source: Environment Agency (2026), Dry weather and drought in England: 23 to 29 October 2026 (reservoir data from water companies). © Environment Agency copyright and database rights 2026. Licensed under the Open Government Licence v3.0. Base mapping © Crown copyright and database rights 2026, Ordnance Survey AC0000807064.*

VIII. With the continuing severe stress on water reserves, applications for 'Level 3' water measures[11], non-essential use bans, have been made by South East Water (2 October 2026), South West Water (6 October 2026) and Wessex Water (6 November 2026)[12].

**Wessex Water NEUB Ban Request for these activities***

(in addition to current TUB/ hosepipe bans for households)

The Drought Order would allow Wessex Water to prohibit and limit the use of water within their supply area by non-household customers for the purposes below:

- Watering outdoor plants on commercial properties using a hosepipe
- Filling or maintaining a non-domestic swimming or paddling pool
- Filling or maintaining a non-domestic pond using a hosepipe
- Cleaning non-domestic premises using a hosepipe
- Cleaning a window of a non-domestic building using a hosepipe
- Operating a mechanical vehicle washer
- Cleaning any vehicle, boat, aircraft or railway rolling stock using a hosepipe
- Cleaning industrial plant using a hosepipe
- Suppressing dust using a hosepipe
- Operating a cistern in any building that is unoccupied and closed

IX. If the Level 3 measures are insufficient or not granted, South East Water[13] have confirmed that they have started "implementing, or we are planning for" extreme drought measures, including static tanks and bowsers and rota cuts.[14]

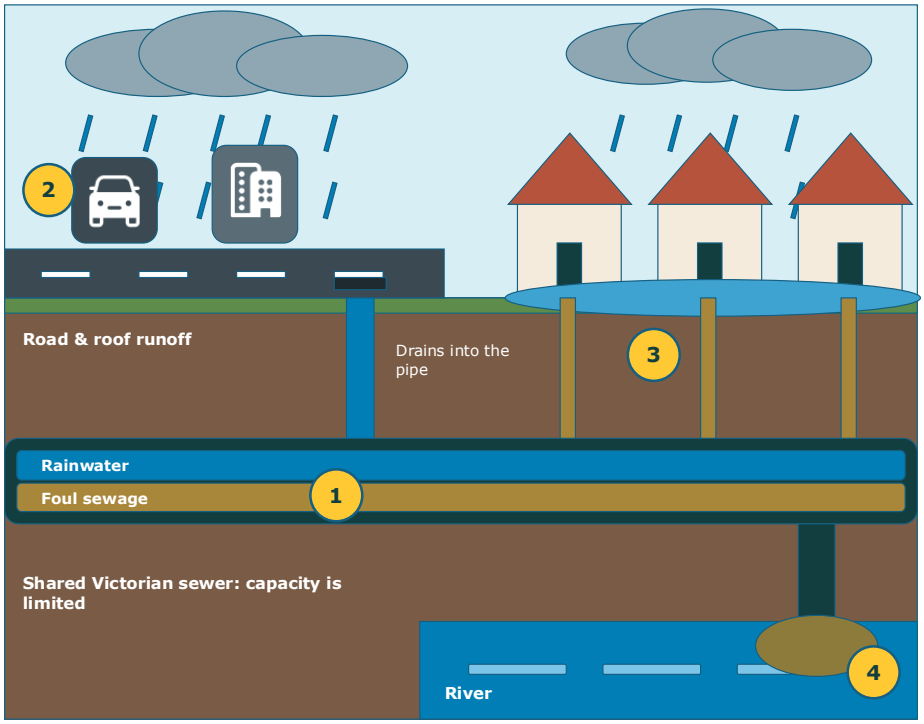
## Surface water flooding and storm discharges

X. At the same time that the UK has experienced severe drought, flooding has also become more frequent and severe in recent years. Recent Met Office data confirms that the period from October 2022 to March 2024 was the wettest 18-month stretch in England since records began over 180 years ago.[15] Excess rainwater that overwhelms drainage systems is a growing concern, with the Environment Agency now estimating that around 4.6 million properties in England are in areas at risk of surface water flooding.[16] In turn, these events are too often overwhelming legacy combined sewers and causing domestic sewage flooding and storm overflow discharges.

XI. Tackling the incidence of sewage flooding and storm overflow discharges can be particularly challenging in some parts of the country due to the modern day legacy of a remarkable piece of Victorian engineering. The combined sewer was a clever solution for its time. Diverting polluted water through a series of single large pipes that take sewage and surface water away from its source, Joseph Bazalgette is rightly remembered as one of the UK's great public health and water management pioneers.

## The combined sewer bottleneck

Bazalgette's Victorian network design carries rainwater and foul sewage in the same pipes




**1 Two flows, one network**

Rainwater and foul sewage share the same pipes, so they compete for limited capacity.

**2 More runoff, heavier rain**

Tarmac, roads and concrete send more runoff into drains. Climate change can increase rainfall intensity and frequency.

**3 Flooding above ground**

When the sewer fills, water can back up into streets, homes and businesses, causing damage and public health risks.

**4 Overflows to rivers**

Combined sewer outflows release mixed rainwater and raw sewage into rivers, limiting backup into homes and businesses.

**Heavy rain rapidly uses up the shared pipe's capacity**

XII. However, over time, increases in population and urbanisation have resulted in these combined Bazalgette-style systems being increasingly vulnerable to being overwhelmed. Bazalgette's design had within it safety valves built in - when the pipes get too full, the water is diverted away from homes and into nearby water courses- rivers and seas. Sometimes those safety valves are not enough or do not work as expected, for example due to mechanical or digital operational failure, leaving individual houses or areas swamped with sewage water that is harmful to health and the home. However, the safety valve mechanism is also recognised to cause harm to water environments– with raw sewage risking health issues (for example if contaminated and swam in) and damaging more sensitive ecologies.

XIII. More modern wastewater systems, for the last fifty years or so, have separated wastewater and surface water run-off. Today, the requirement for dual-pipe systems is set out in the Water Industry Act 1991 and Building Regulations (Part H). Building Regulations (Part H) contain the requirements for new developments to keep surface water and foul water separate. The statutory position is further developed under the National Planning Policy Framework and specific guidance around Sustainable Urban Drainage.

XIV. Developers have adapted well to the requirements to design sustainable drainage into new developments and there is scope to go further with water management in housing developments. Additionally, there have been some notable improvements at reducing the impact of repeated sewage overflow into homes and surface water flooding in established communities, such as Deal in Kent and the Isle of Wight. As such, there is both the technology and understanding of how to do more to tackle surface water capture and reduce flooding to protect homes, businesses and the environment.

# Section One: Water Infrastructure First for New Developments

## Water infrastructure to unblock housebuilding

1.1. Water has emerged as a significant blocker of UK housing delivery. However, there is no single water challenge. In some areas the water blocker is scarcity – there simply isn't enough available water to meet consumer and business needs. Research (*Public First*, January 2025) has found that water scarcity alone could leave 61,600 homes unbuilt across the East and Southeast, resulting in a £25 billion economic shortfall[17].

1.2. In other areas, it is a lack of wastewater capacity. There is not enough space in drainage systems to absorb and treat additional household and business waste. An October 2025 investigation by Building Journal[18] highlighted how severe the wastewater blockage has become at the planning stage. Planning documents revealed that Anglian Water was actively objecting to, or requesting delays to, development in 26 out of 56 catchments. The report quoted senior development figures stating that the lack of wastewater infrastructure is a "major blockage in the housing pipeline" that developers cannot control themselves. In 2025, the Home Builders Federation (HBF)[19], identified that nearly 30,000 new homes, including 7,000 affordable homes, were blocked from being built due to inadequate wastewater infrastructure, in spite of developers paying over £2.3 billion to water companies over the previous five years.

1.3. Meanwhile, a much larger number of homes have been held up by environmental regulations linked to wastewater. In affected areas, this prohibits any development going ahead unless it can demonstrate that it is 'nutrient neutral' within a water catchment area, which essentially means that the impact of the development would not increase the level of nutrients (nitrogen and/or phosphorus)[20]. At the height of this ongoing issue, the HBF estimated that 160,000 homes were unable to secure planning permission. This regulatory bottleneck had stalled an estimated 41,000 new homes each year.[21] This has added to both practical delivery challenges and undermined the financial viability of sites.

1.4. However, using less water in and less wastewater for treatment out is currently complicated and difficult for housebuilders to achieve. This is principally due to the mismatch between planning, regulatory and investment regimes for water, local government and housing. This is a longstanding issue, as highlighted in the Housing & Finance Institute's Better Connections (2017)[22] which noted "*The legal framework requiring when utilities need to be connected to a home and for a*

*development is extremely weak. The inability to require major utilities to connect in a timely and business-like fashion causes delay and cost*."

1.5. A lack of strategic and design alignment for major water infrastructure leaves too many sites delayed or stopped. Over the last decade there has not been an effective alignment of these sectors by national government and the relevant regulators. Indeed in spite of some evidence of collaborative working across government in recent times, this remains a significant structural challenge, which is explored further in Part Three of this Report - Restoring local and national control over water.

1.6. Additionally, a more recent challenge has arisen – the cross-application of water, environment, energy and building regulatory requirements that are often inconsistent and sometimes contradictory:

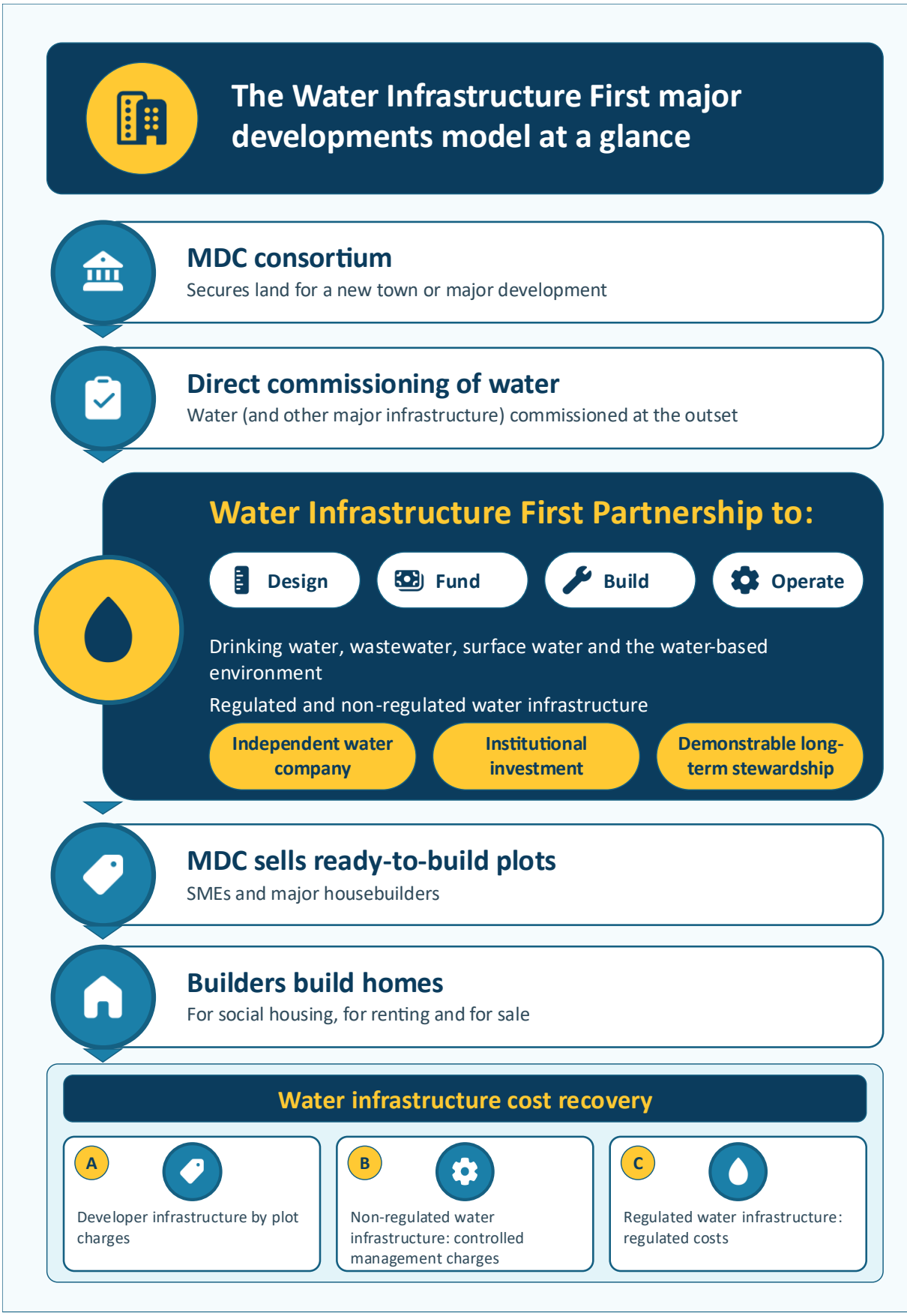
i) Aspects of water conservation that have been promoted by local and national planning, such as water harvesting and reuse systems cannot be delivered by regulated water providers under current water law.
ii) Practical measures to reduce water use, such as low use water heads, can fall foul of the liveability requirements of residents, undermining their effectiveness when homes are occupied, for example where they are removed.
iii) Sustainable flooding management and Biodiversity Net Gain requirements can pull in different directions, for example where attenuation ponds are left 'dry' (drained away to empty) to meet sustainable drainage requirements and so detract from the biodiversity and nature benefits of 'wet' (partly filled) ponds.
iv) New energy and carbon requirements set out in the Future Homes Standard can create concerns around adverse water safety outcomes unless managed very carefully, due to water storage and temperature technical issues.
v) Maximising water efficiency can require increases in energy use, for example through the use of pumps for drainage or reuse, that can count against energy requirements.

1.7. Currently the loading of individually well-meaning but disparate regulatory rules and requirements contributes to increased costs, creates technical complexity and challenges to viability. It is important that water helps to solve, rather than constrain housebuilding, and that costs and burdens are appropriately managed across the whole development and wider water footprint. Accordingly, there is a need for a more coherent approach to various regulatory and reporting requirements for the environment, water, energy and carbon and construction.

1.8. Recognising that the carbon goals and water conservation goals can work against each other in some circumstances, a total water efficiency measure could be introduced that reflects whole site measures as well as individual household efficiency. This could include a combined rating of EWPC (energy and water performance certificate) to best reflect a successful combined target of energy and water that is more realistic and affordable for the priorities and settings of a particular area.

1.9. With some further changes set out in this paper, significant improvements could be made to water availability and wastewater management without adding a new regulatory and construction cost burden. The government's 'A new vision for water'[23] (January 2026), outlined a new direction for regulating the water industry to be enshrined in an upcoming 'Water Bill'. This bill is currently expected to start its legislative journey in the first part of 2027. Meanwhile, the new National Planning Policy Framework[24] (August 2026) places a greater focus on the long-term stewardship of infrastructure together with a stronger emphasis on integrated and sustainable water systems within the planning process for developments.

1.10. The Cunliffe Independent Water Commission Report 2025 ('the Cunliffe Report') identifies that the independent regulated water companies ('NAVs') "*connect around one in 5 new homes to the water supply, supporting competition and innovation in the sector*."[25] When allowed to compete at scale on a national basis with the incumbent water companies (as identified in the Cunliffe Report), they are uniquely well placed to take forward a Water Infrastructure First approach harnessing expertise, alternative long-term stewardship funding and an innovative problem-solving mindset.


The Water Infrastructure First major developments model at a glance
MDC consortium
Secures land for a new town or major development
Direct commissioning of water
Water (and other major infrastructure) commissioned at the outset
Water Infrastructure First Partnership to:
Design
Fund
Build
Operate
Drinking water, wastewater, surface water and the water-based environment
Regulated and non-regulated water infrastructure
Independent water company
Institutional investment
Demonstrable long-term stewardship
MDC sells ready-to-build plots
SMEs and major housebuilders
Builders build homes
For social housing, for renting and for sale
Water infrastructure cost recovery
A
Developer infrastructure by plot charges
B
Non-regulated water infrastructure: controlled management charges
C
Regulated water infrastructure: regulated costs

## The Water Infrastructure First Major Developments Model

1.11. The Water Infrastructure First approach for major developments and new towns is a practical approach where modern water technology can unlock housing growth. This includes in water stressed areas where whole water systems can be put in place to secure reduced water demand while improving long term environmental stewardship alongside housing and growth. Government policies now require developments to be infrastructure led, climate resilient and environmentally positive. The Water Infrastructure First approach has been designed to meet those requirements. Applying end-to-end sustainable water planning can capture and clean surface water and remove pollutants and so prevent surface water flooding, reduce wastewater capacity requirements and improve river health.

1.12. Under the Water Infrastructure First major developments model, the major developments consortium (MDC) will secure land for a new town or major development. It will then directly commission the water and other infrastructure to be provided. The water infrastructure partnership of the NAV and institutional investor would design, fund, build and operate the water infrastructure for the long-term. This would include drinking water, wastewater and surface water management together with the environmental water impact.

The water infrastructure costs could be recovered through (a) initial infrastructure plot charges; (b) water charges for non-regulated activities (water management charges); (c) water charges for regulated activities (regulated water charges).

The MDM then sells off 'ready-to-build' plots of land to housebuilders – unlocking access for SMEs as well as major housebuilders.

1.13. This Water Infrastructure First approach would work equally well for a public purpose consortium (such as a Mayoral development corporation) as for a private enterprise consortium (such as a traditional major housebuilder masterplanned development).

1.14. The independent water companies (NAVs) are uniquely placed to take forward the Water Infrastructure First approach. As the Cunliffe Report noted:

*"New Appointments and Variations (NAVs), introduced in 1991, were designed to enhance competition in the water industry. NAVs allow a new entrant company to replace an incumbent water and sewerage company in a specific area and are mainly used by larger housing developers to supply new sites with water services, sewerage services, or both. Currently NAVs connect around one in 5 new homes to the water supply, supporting competition and innovation in the sector."*[26]

However, as the Cunliffe Report further notes, to fully unlock this National NAV potential, regulatory and competition restrictions must be addressed[27]. This will be an important component in the upcoming Water Bill.

# Water Infrastructure First

Eight core principles

## 1 Planned

Water systems are planned ahead of other aspects of the development, providing certainty for planners, residents and developers alike and guaranteeing statutory compliant management by regulated independent water companies.

## 2 Integrated

Water supply, wastewater treatment, reuse, liveability and environmental management are designed as a single integrated system at the place level.

## 3 Affordable

Upfront specialist water planning strengthens developer affordability. For applicable schemes, dedicated funding can be secured through long term institutional investment repaid over time.

## 4 Scalable

A scalable model caters for water provision from villages to new towns – and that provision can be expanded at the pace of delivery for larger developments.

## 5 Dependable

Many water projects can be delivered in a way that is not dependent on incumbent water providers, enabling housing delivery to be accelerated flexibly and independently of the major national water investment timetables.

## 6 Protective

The natural water environment can be better protected and enhanced through an end-to-end whole water approach that can remove pollutants before they get into waterways.

## 7 Liveable

Water systems, appliances and adaptions are considered in the round so that residents are assured of a reliable water and wastewater experience that meets everyday living without excessive rationing or a limited living environment.

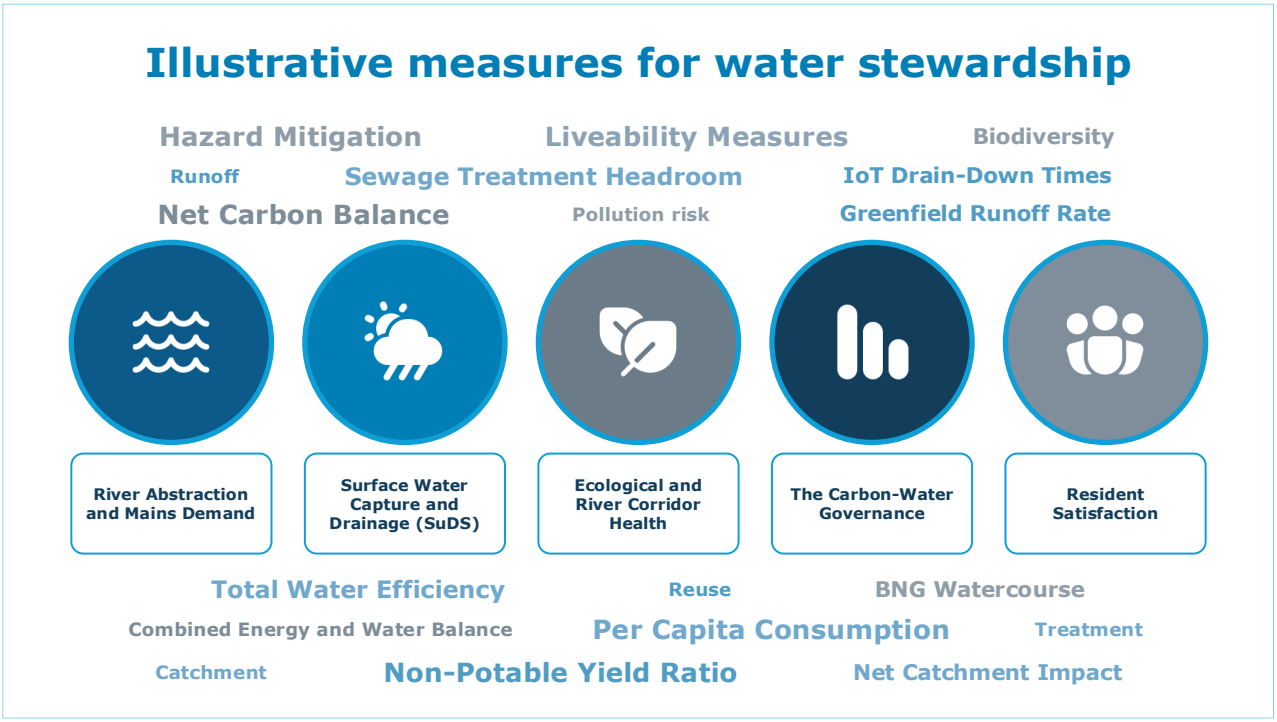
## 8 Accountable

Accountable to residents and the wider public through measurable and published stewardship metrics for the long-term.

## Water Infrastructure First: Stewardship and Sustainability for the long term

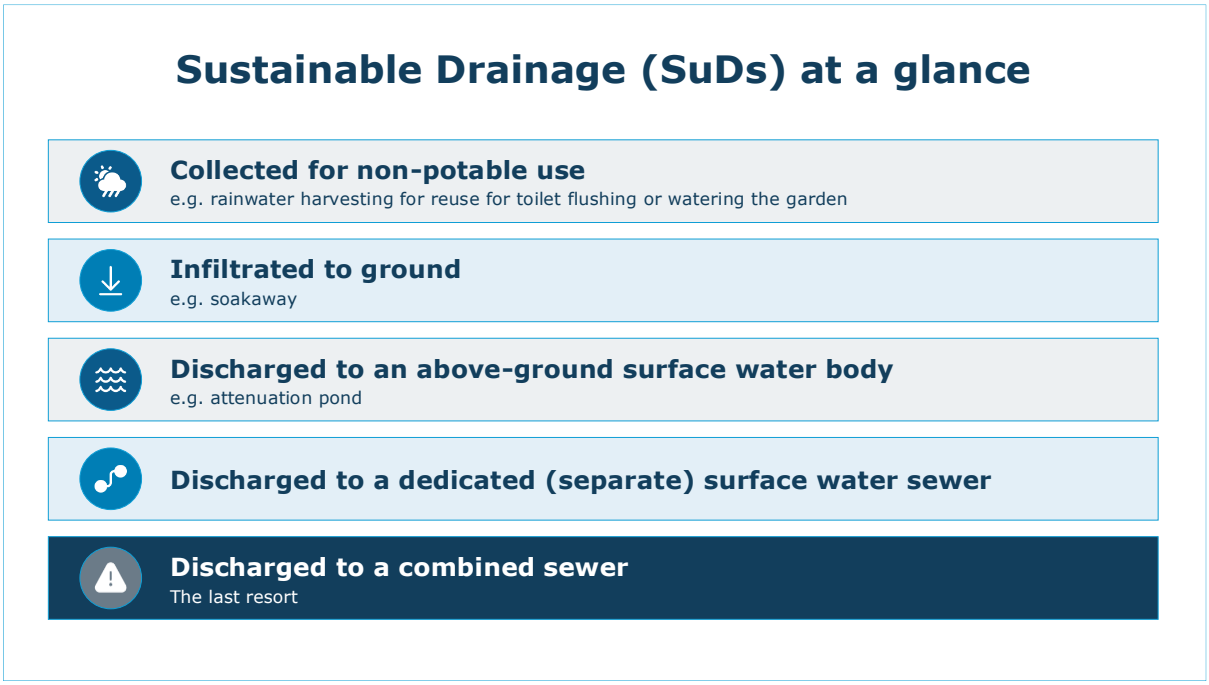
1.15. By aligning long-term stewardship with water based development, the Water Infrastructure First approach can attract long-term sustainability investment. With the ambition of working with pension funds and others who have a commitment to meeting sustainability goals, water can play a bigger role in ESG and sustainability investment. The investment structure of Water Infrastructure First would see a move away from the highly indebted ('geared') funding structures of the incumbent water companies that have seen much criticism in recent years.

1.16. The technical capability to monitor and report on water health and performance currently exists. However, it is not brought together, accessible or made available to the community or other interested stakeholders. A sustainability fund in investing the water infrastructure first approach will require reporting that evidences water sustainability metrics.



## Water Infrastructure First at Site and Home Level

1.17. Developers have adapted well to the requirements of managing surface water in developments, in particular the requirement for developments to comply with Sustainable Drainage Systems (SuDS). This has developed over time and now the National Planning Policy Framework requires sustainable drainage to be designed in accordance with the National Standards for Sustainable Drainage Systems, which set out a strict "hierarchy" for surface water runoff from new developments[28].



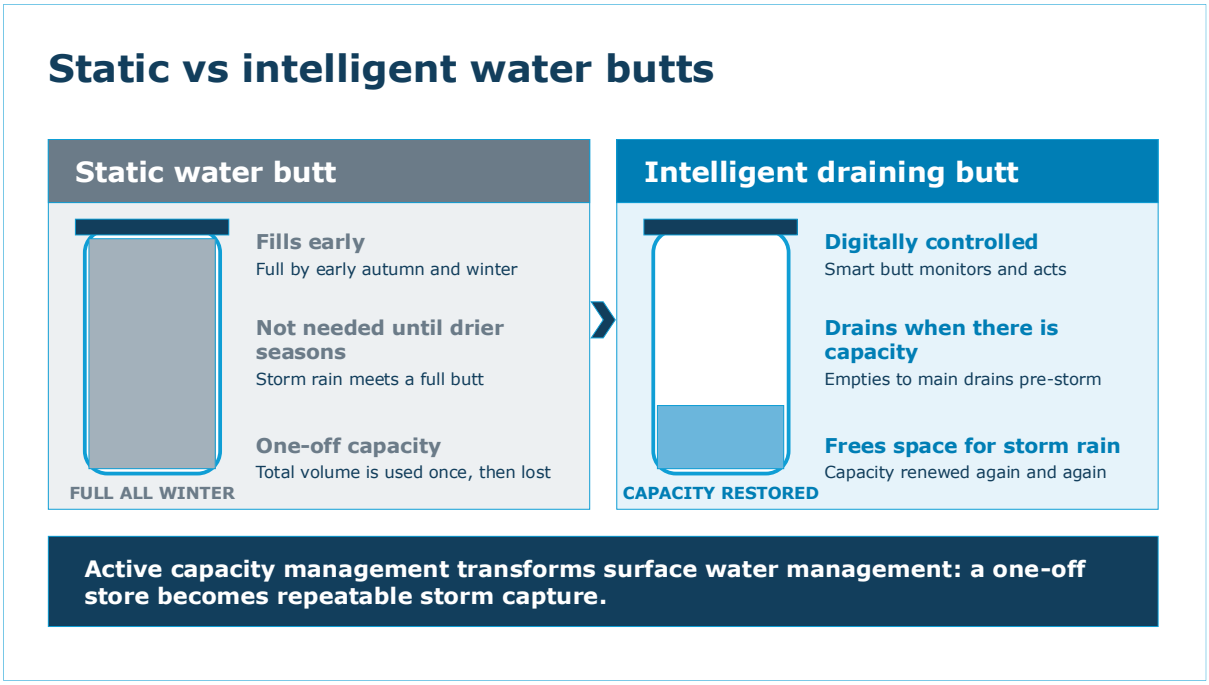

1.18. However, in spite of the SuDs hierarchy, household features to manage surface water capture and reuse has been one of slow adoption, in spite of well-established manufacturing solutions such as water butts and rainwater harvesting and greywater (e.g. bathwater) reuse systems. At the heart of this issue is not intent, it is understanding, application and restriction – the understanding of what the different measures can and cannot do, the application of the detailed calculation of water measures in development and current restrictions on the management of reuse systems within a household context. These are detailed matters that need to be addressed including through the provision of additional technical guidance to local authorities.

1.19. One example of this issue is technical guidance that counts water consumption in a new home design. The application of the relevant technical guidance means that a combined bath and over-bath shower are each counted as if they were two separate water consumption devices. As a result, housebuilders will have a better water rating if they only put in a bath and not a combined bath-shower, even though a shower over the bath can help reduce individual water use, and many

householders prefer this arrangement in their bathrooms. This measure has created further friction by over-sized hot water storage tanks being required for meeting energy measures[29]

1.20. Another example is the water butt. It is sensible for every house to have a water butt as part of a general population approach to good practice for water conservation, as has now long been the case with recycling. That applies to existing houses, business landscaping and municipal assets like leisure centres and parks as much as for new developments. However, a number of councils are now requiring water butts are installed in all new homes and garden level flats and some councils are refusing to sign off a development as complete unless each water butt is present[30] whether or not it effectively contributes to water capture and control for storm and surface water management.

1.21. Static water butts are not the most effective at managing storm water capture for the obvious reason – they fill up in the early stages of the autumn and winter months and are not needed until drier seasons. The total capacity of a static butt is therefore a one-off amount that is typically 100-200 litres. However, intelligent draining water butts are digitally controlled smart water butts that can discharge into main drains when there is capacity, freeing up the capacity in the water butt for storm rainwater capture. This type of active capacity management transforms the surface water management capability while also fulfilling the traditional function of holding reuse water for garden watering. Research undertaken by SDS has shown that their Intellistorm® smart water butt is equivalent in draining and refilling capacity to up to 85 traditional static water butts of the same size, and that can make a demonstrable difference to managing surface water flooding.



1.22. This water capture approach can be connected across an estate and also linked to other water storage tanks within the development. This can apply to a new build development or an area-based retrofit. This in turn may reduce the requirements for man-made attenuation ponds and the associated land required for these measures. Investing in smart, plot-level water capture can pay for itself by reducing the earthworks and land requirements, as well as reduce maintenance liabilities associated with attenuation ponds for residents.

**Illustrative Impact of house based water capture across a new development**

A typical 100 home new build development, with circa 22,000 sq m of impermeable surface requirement for roads, footpaths, homes and associated parking, requires approximately 24.5$m^3$ per property of surface water attenuation to constrain any run-off to green field levels.

This is normally delivered through the inclusion of man-made ponds, which require excavation and the costs of removal of waste material from the development as well as the provision of land on which they are provided.

By using an intelligent draining water butt attached to all downpipes on homes and garages, there is the potential to capture and store at least 1$m^3$ of water per home.

Whilst relatively small in terms of the total attenuation per home required, this alternative attenuation would reduce the land area required for the man-made ponds by approximately 150 sq m, enabling an increased number of homes to be constructed on the same total land area (+1.5%) and a lower cost incurred for groundworks and future maintenance.

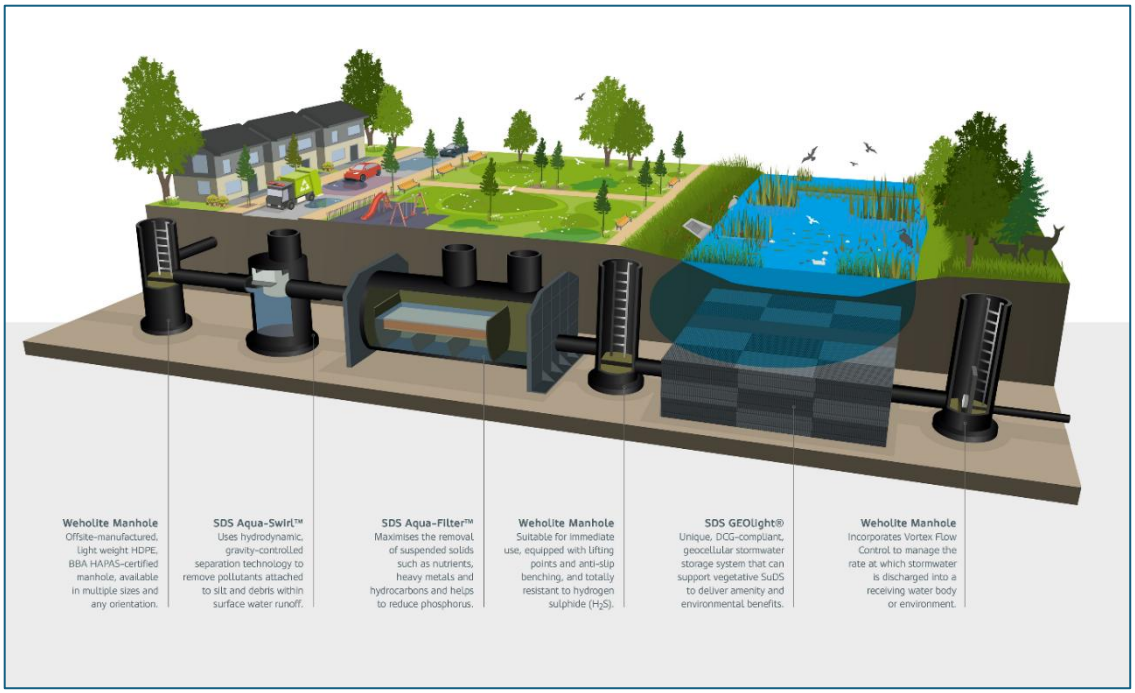
A reasonable assessment of the value gain for a semi-rural or urban edge development of 100 homes is approximately £120,000 alongside a reduced carbon footprint from less excavation work and a lower requirement for removal of waste material from the site. It also means an additional home can be provided rather than two homes removed from the planned allocation.

*Nature Based Attenuation Ponds*

1.23. Where SuDs measures include man-made attenuation ponds that can be land hungry and reduce development viability by taking away potential housing plots. There is a current tension between ‘wet’ ponds and ‘dry’ ponds. ‘Dry’ ponds act essentially as a water capture and soakaway feature. As such, they have limited

ecology and diversity value and may be visually unattractive in dry periods. ‘Wet’ ponds have attenuation facilities that have mechanical or digital support to ensure that they remain topped up (similar to the intelligent water butt) but have necessary capacity of meet attenuation requirements, can sustain and support local ecology and increase biodiversity. They are likely to have natural filtration benefits that are important for local water health in some locations, for example filtering road or other pollutants and then supporting safe discharge to protected chalk streams or other sensitive environments. Wet ponds are more attractive to developers as land sacrificed for this purpose can meet otherwise competing objectives around biodiversity net gain as well as greatly improving community amenity. In either case whether wet or dry, the cost of maintaining the attenuation facilities for new developments falls on the estate management company– in other words a continuing financial and operational management cost to be met by residents through estate charges.

1.24. Currently, different local authorities are specifying different requirements for wet and dry attenuation ponds. Some authorities actively encourage wet ponds for biodiversity reasons, while others effectively prohibit them favouring the dry pond approach. For the latter, the same technology that can keep the wet pond topped up can also meet dry requirements, by having water storage tanks underground. In some areas, the underlying ground type will be more determinative of the solution, for example clay or sandstone. There is benefit in better guidance and information for local authorities around this issue so that the water infrastructure can best meet the natural conditions and take a whole water context across a new development.




**Example of whole site attenuation and water capture for a 'wet' pond**

**Case Study: Wren's Nest, South Sebastopol, Wales (Taylor Wimpey/SDS)**
**Integrated surface water management for large developments**

'Wren's Nest' is a 27-acre, third construction phase of the 'Edlogan Wharf' development, which lies within the Afon Lwyd valley in the borough of Torfaen. It is one of eight parcels of land in a 244-acre development which will take an estimated 10 to 12 years to construct and, upon completion, will comprise 1,200 homes, a village green, sports pitches and play areas, cycle and leisure trails, allotments and extensive areas of green space including woodland and conservation grassland.

A survey of the site's geology identified that the scope for natural infiltration (absorption) of surface water was limited. Surface water runoff is either discharged into the Canal or carried by one of the on-site streams to finally discharge into the main rivers of either the Afon Lwyd or the Blaen Bran.

The SuDS system was required to ensure that, despite the redevelopment of former grass and woodland into impermeable areas as a result of the development, the hydrological status quo is retained. This means that the rate and volume of surface water runoff leaving the development should maintain the balance to before the new development occurred.

To prevent flooding of the development by surface water and protect multiple local water courses from pollution in the event of significant sewer flooding from extreme rainfall events, a bespoke drainage system was installed early in the build programme. This drainage system ensures the site remains flood risk free, and creates new habitats for nature conservation, whilst still retaining the six existing streams and canal which span the site.

The technical solution involved multiple GEOlight® storage tanks, totalling in excess of 8,000$m^3$ capacity, installed over a five year period. Excess surface water is captured by two GEOlight® tanks, together capable of storing over half a million litres, which can be accessed by three 1.5 metre diameter Weholite HDPE manholes, positioned at each end, and in the centre, of the two attenuation tanks.

Whilst pre-existing streams and canal habitats have been retained, the construction of new balancing ponds and swales provides additional attenuation features, whose natural bio-cleaning mechanisms can break down hydrocarbon pollutants, as well as creating attractive features for residents.

## Water recycling

1.25. The UK has one of the lowest reuse levels for water. The availability and implementation of alternative water systems is commonplace in many European countries and internationally. England, despite parts of it being classed as seriously water stressed, reuses only around 0.09%[31] of its treated wastewater, compared with an EU average of 2.4%[32] and an impressive 90% in Cyprus.[33]

1.26. While the technology and manufacturing solutions are readily available in the UK to have safe water recycling, unfortunately there is regulatory dissonance on water reuse. On the one hand, the NPPF promotes water systems that address scarcity , which could include water reuse schemes. On the other hand, some water stressed areas have had reuse systems installed only for these schemes to have been prevented from becoming operational due to water regulations. An important pilot scheme is being rolled out now in Eddington in Cambridgeshire to assure water safety for a combined reuse system for rainwater and surface water that can be carefully filtered and then pumped into toilet and washing machine use. This pilot programme should inform potential legal and regulatory changes to allow greater application of reuse systems. Changes are currently expected to be made in the upcoming Water Bill to modernise the UK regulations in order to support greater water reuse. In addition, other pilot programmes are underway to see how agriculture can adapt to reuse water more extensively and effectively. There has been effective Parliamentary engagement with the water and housebuilding industries to seek to resolve this longstanding legal and regulatory issue for water reuse, for example with significant work having been undertaken on it by Julia Buckley MP.

1.27. The Cunliffe Report highlights successful reuse systems including in Holland Park developed and installed by SDS for the CPC Group/ChapmanBDSP.

[34]Box 35 – Water re-use infrastructure – case studies …

**Greywater recycling, Holland Park, London, UK In October 2020**

25 new homes were built in Kensington, London. Planning and building control regulations had set a limit of 110 litres of mains water per person, per day. Wastewater from baths and showers is collected into a holding tank, pumped through a pre-filter system, dosed with low-levels of chlorine and passed through ultrafilters. This delivers 2.1m$^3$ of greywater each day, sufficient to flush all toilets on the development which equates to 70% of the peak demand.

1.28. Similar SDS technology that the company installed in the Holland Park example showcased in the Cunliffe Report has been used in a landmark Barratt Z house built in Salford. This case study demonstrates the important environmental and ecological benefit from integrating rainwater reuse in new build designs.

**Case Study: The Barratt Z House, Salford University (Barratt/SDS)**

This unique Zero Carbon concept home by Barratt is located on the premises of Salford University and is the first house in the UK designed to showcase an "A to Z" of modern green home developments. There are a range of forward looking sustainable technologies in the house, which is occupied and monitored to assess its performance. The development includes a biodiversity garden with nests for bats and swifts, a wildlife pond, hedgehog highways and a green wall. Expertise from the RSPB has been sought to help promote wildlife and nature at the house, with the garden area achieving the organisation's gold rating.

The SDS rainwater recycling system supplies the UK's first zero carbon home providing dedicated irrigation for one of the site's key ecological features, its green wall.

1.29. Treatment of rainwater, greywater (such as bath and shower water) and combined rainwater and greywater systems require different treatment levels as detailed in standards and regulatory requirements. Toilet water (known as blackwater) is not recycled for household purposes and must always be separately piped away from recycling or drinking water.

1.30. Ensuring that there is appropriate understanding, skills, installation and long-term monitoring and maintenance of these systems is important. A Water Infrastructure First approach will ensure that from the planning to the long term maintenance, the correct approach is in place.

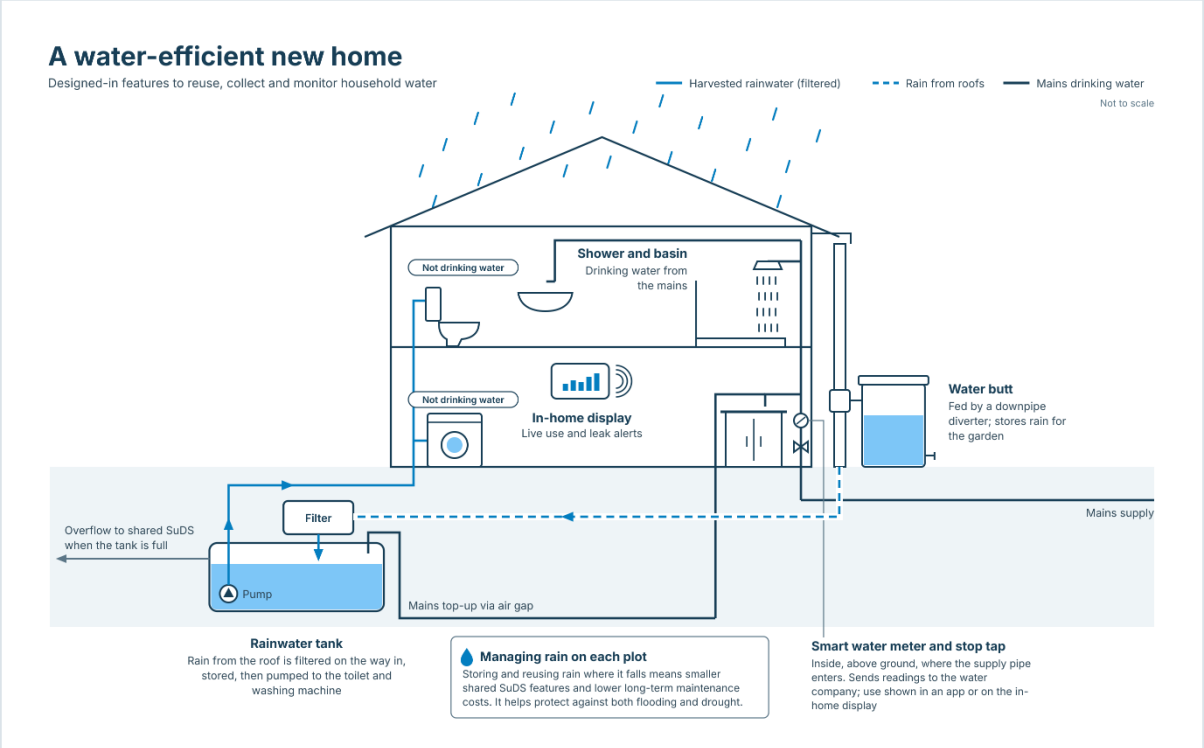
## Water Infrastructure First for Homes and Businesses

### *The Water Efficient Home*

1.31. The UK has come a long way in making our homes more energy efficient over the last few decades. Solar panels, home batteries and electric vehicles are now widely recognised features of an energy-efficient home, and the Department for Energy Security and Net Zero recently reported that solar panel installations had passed two million units.[35] This was not always the case. Solar panels were once widely regarded as unsightly but greater awareness of climate change, the savings available, as well as different design interfaces and changes to building rules have now made solar panels commonplace. Creating water-efficient homes can be expected to take a similar journey towards everyday acceptance.

1.32. In water scarce areas, it should be recognised that water conservation may need to edge carbon in order to preserve liveability and water safety standards for people. A concern is that where liveability is affected by water measures, residents may override the measures, such as replacing water efficient shower heads or household appliances, such as washing machines. Monitoring and securing resident satisfaction will support the overall water sustainability objectives.

1.33. At the beginning of the journey for the water-efficient home is an understanding of what is possible and what difference it could make.



1.34. The diagram shows a new-build home with some water efficient measures. These include:

i) **Rainwater collection:** gutters and downpipes carry rain from the roof into storage.

ii) **Underground rainwater tank:** rain from the downpipe passes through a filter into this tank in the garden; a pump then supplies the WC and washing machine.

iii) **Mains back-up:** when the tank runs low, a back-up unit tops it up from the mains through an air gap. This keeps rainwater from ever flowing back into the drinking water supply. Some homes go further with a hybrid system, in which greywater from showers, baths and basins is treated and then added to the same tank, reducing the need for mains top-up, although in that case the tank's overflow would normally go to the foul sewer rather than to SuDS.

iv) **Overflow to shared SuDS:** once the tank is full, excess water flows to the development's shared sustainable drainage, easing pressure on local sewers. As rain is stored and reused on each plot, these shared features can be smaller and cheaper to maintain.

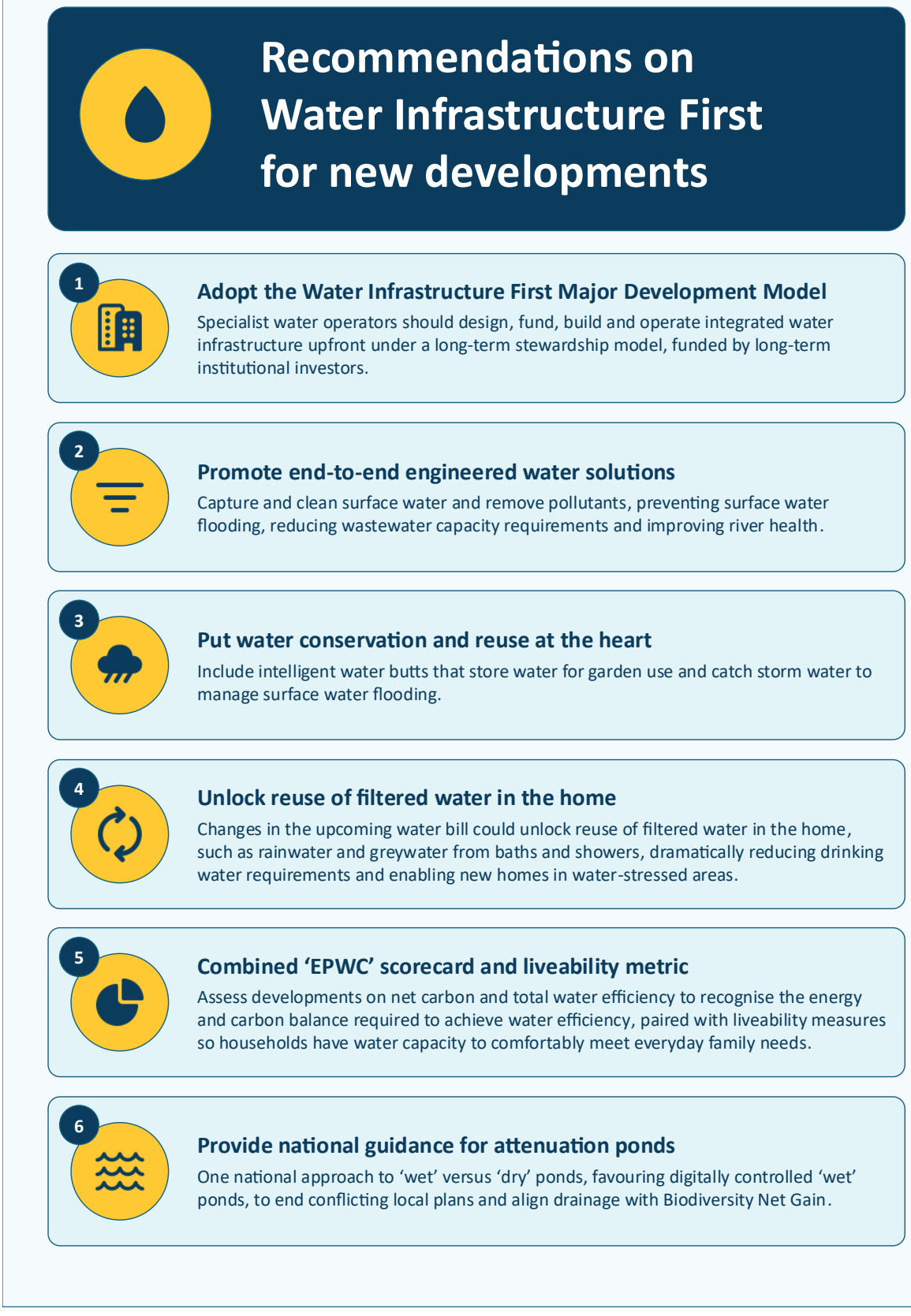
v) **Water butt:** a diverter on the downpipe fills a water butt for watering the garden. Once the butt is full, rain carries on down the pipe to the rainwater tank.

vi) **Smart water meter and in-home display:** a meter inside the home, situated above the ground where the supply pipe enters, sends readings to the water company. Residents can see their live use and leak alerts on an in-home display or app.

1.35. In September 2025 the Government consulted on requiring water-saving fittings, such as aerated taps, efficient showerheads and dual-flush toilets, in all new homes. These measures are intended to make savings of around 20 litres per person per day. A reduction of this scale could unlock around 1,000 additional homes for every 5,250 built in areas of water scarcity.[36]

1.36. New regulations had been expected that would label everyday appliances, such as washing machines and dishwashers, with mandatory water efficiency labels in addition to energy labels. Unfortunately, the Government have not included these requirements in its latest position on 2 October 2026.[37] Labelling only now looks set to cover taps, toilets, urinals and non-electric showers.[38]

## Recommendations on Water Infrastructure First for new developments



# Section Two: Making Water Work for Everyone

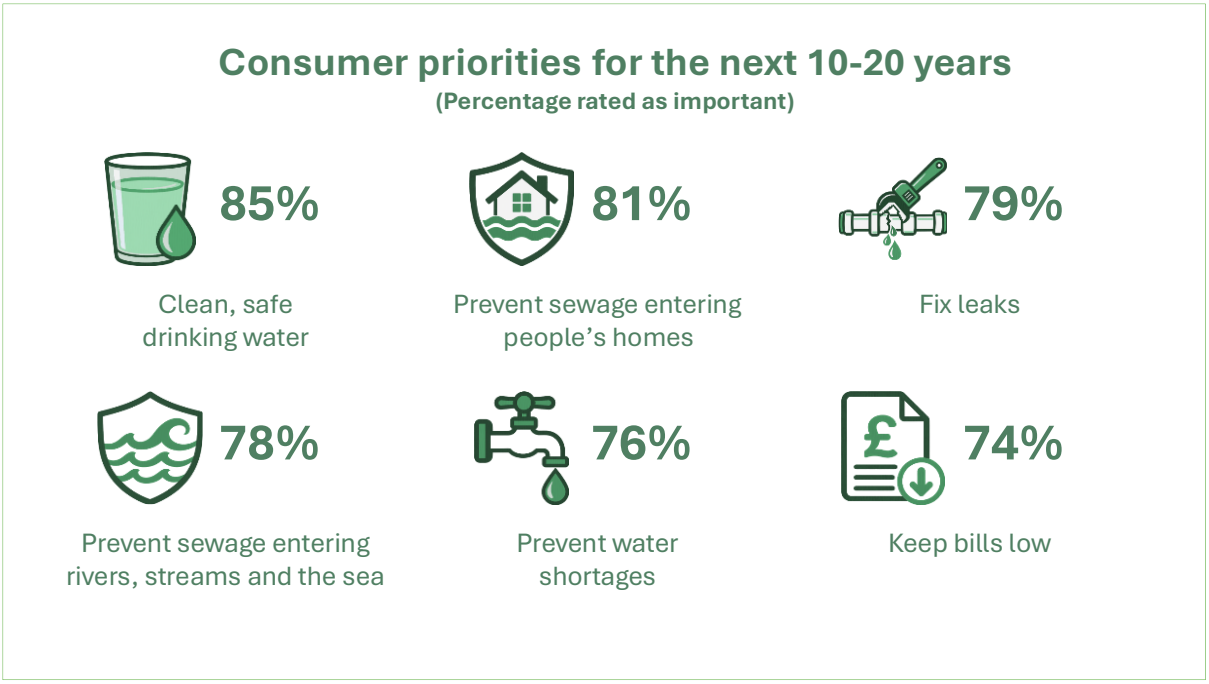
## Water that works for householders

2.

2.1. Reducing avoidable household demand can free up capacity for new homes, but only if people know how much water they use, why it matters and the contribution they can make to water conservation. This matters because many of the water efficient measures outlined in this paper require the direct installation of equipment into people's homes. Making water use visible, and giving households the information and incentives to act, is therefore an essential part of making water work for everyone.

2.2. Water companies face a mounting crisis of public confidence. Environmental pollution, leaking infrastructure and rising bills have put the sector under intense public scrutiny. This has been compounded by perceptions of excessive executive bonuses, unsustainable corporate debt and profiteering, further undermining trust.[39]

2.3. While public concerns about the water industry are wide-ranging, householders' most immediate priorities centre on the reliable delivery of core services to their homes. Research for the Consumer Council for Water and Ofwat, the services bill payers most often rated as highly important were clean, safe drinking water (90%); preventing sewage flooding inside the home (86%); and keeping pipes and sewers in good working order (84%).[40] This focus on essential services persists even when householders look further ahead. Asked about their priorities for the next 10 to 20 years, people continued to place greatest importance on clean, safe drinking water (85%); preventing sewage entering people's homes (81%); fixing leaks (79%); preventing sewage entering rivers, streams and the sea (78%); avoiding water shortages (76%); and keeping bills low (74%).[41] Wider environmental considerations, such as reducing carbon emissions, limiting water abstraction from environmentally sensitive rivers and meeting the needs of future generations, were ranked lower.




**Ofwat and CCW, Customer Spotlight Wave 3 (fieldwork November–December 2025)**

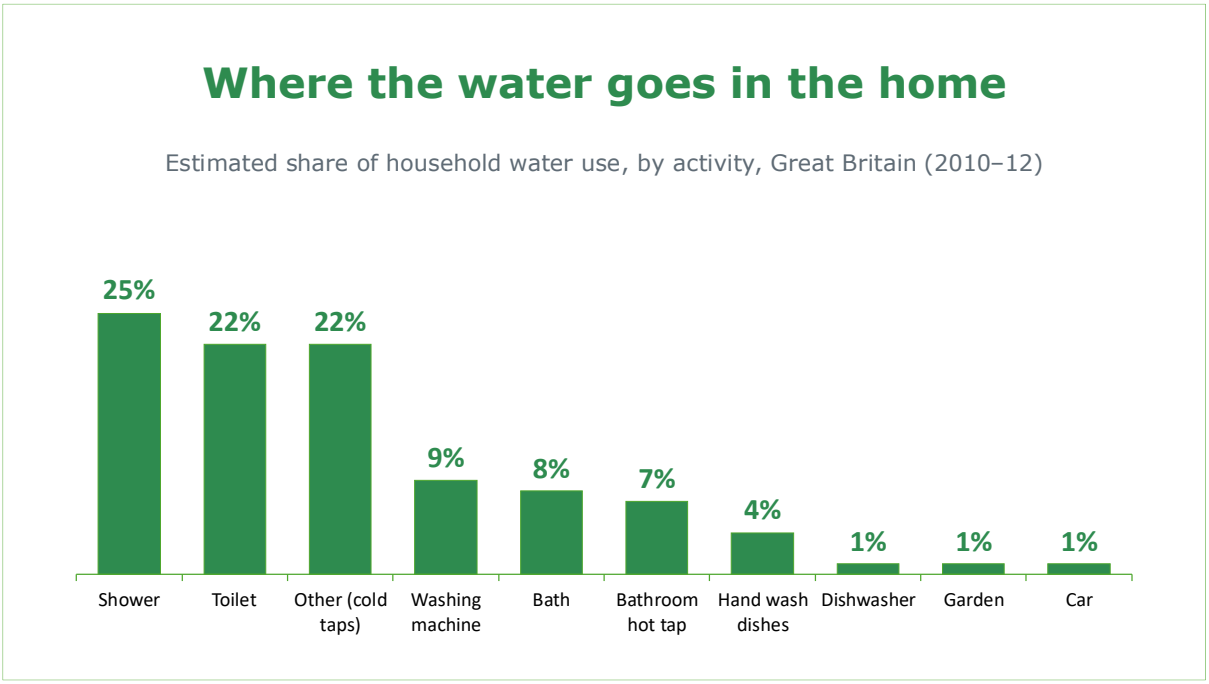
2.4. The high ranking of clean drinking water by householders is interesting, given that the Drinking Water Inspectorate (DWI) stated reports that public water supply compliance with drinking water regulations in England is close to 100%. In their most recent report (published July 2026), the DWI confirmed that compliance with strict safety standards was 99.97%[42]. However, it warned that the provision of safe drinking water cannot be taken for granted, highlighting asset health and resilience as areas of concern: [43]

> *"Our water supply system is under pressure from a range of long-term and interconnected threats. Systemic changes are needed to enable the water industry to become more resilient and to support long-term investment decisions. Legacy issues such as lead pipes and nickel in domestic dwellings, PFAS and other environmental threats, as well as infrastructure, asset health, security and operational technology, remain critical issues. The Inspectorate has worked closely with Ofwat through the five-yearly price review to ensure there is adequate investment in these areas, but much remains to be done to improve asset health and resilience."*
>
> Chief Inspector of Drinking Water, July 2026

## Public understanding and water awareness

2.5. As basic water supply has failed in some areas, there has been a backlash against development as well as anger at the water companies. Making water work for everyone requires households to play a more active role in conserving, capturing and reusing water. Yet public understanding remains limited, both of personal water consumption and of the wider importance of water conservation. Addressing this is essential if more efficient household water use is to be achieved.

2.6. In practice, many householders have little sense of what their everyday water consumption looks like, nor do they know which household activities account for the greatest share of water use. People in England and Wales substantially underestimate how much water they use: on average, respondents to a recent survey estimated daily consumption at just 30 litres per person, against an actual average of nearly 140 litres (around four and a half times more).[44] There is a lack of awareness as to where water goes; many mistakenly identify washing machines as the biggest users of water in the home, and hugely underestimate the amount of water used by toilets.[45] Without a clear understanding of how much water common household activities require, householders are less able to assess their overall consumption or identify where they could make meaningful reductions and save money.




46

2.7. By contrast, householders have a much greater understanding of energy and electricity in household settings. Consumers routinely identify cost-efficient swaps, such as using an air fryer instead of an oven or using an electric blanket or hot water bottle instead of turning up the central heating.[47] There are likely two key reasons behind this:

i) Sharp increases in energy bills have forced households to pay closer attention to their energy use out of financial necessity. By comparison, water bills represent a smaller share of household expenditure and are not always metered, providing less financial incentive to reduce consumption. Water supply and related services account for around 1.2% of household spending in 2026, compared with 3.2% for electricity, gas and other fuels. At the height of the energy crisis in 2023, energy's share was more than five times that of water (4.9% against 0.9%).[48] Costs shape household behaviour and financial incentives for water conservation and reuse could encourage more efficient water use.

ii) Water has long been seen as an abundant resource in the UK. The wet climate and historically reliable supplies mean there has not been great public concern in the past. As a result, conserving water is less ingrained in everyday habits and behaviours than it is in hotter, drier, countries. But frequent rain does not necessarily mean high rainfall overall. London receives around 615 mm a year on average, roughly half the 1,213 mm recorded in Sydney, Australia, despite having more rainy days.[49]

2.8. The perception of abundance is compounded by a wider disconnect between water use and the environment. Research by Ofwat and the Consumer Council for Water (CCW) highlighted that members of the public do not link water use to broader climate and environmental patterns, to the point that reducing water use is not seen as a pro-environmental behaviour.[50] This is particularly challenging in the context of summer drought followed by Winter water abundance, where the consequences of water use are less immediately visible to householders than the impacts of flooding and sewage discharges on homes and health, which make the need for action more apparent.

2.9. This disconnect is evident in public attitudes to water scarcity. A 2025 Ipsos survey found that only 1 in 5 Britons were extremely or very concerned about droughts and water shortages in their area.[51] This may reflect a tendency to see water shortages as temporary issues, rather than an ongoing concern. A recent YouGov survey found that over half (53%) of adults in England and Wales considered water shortages to be temporary problems linked to hot weather.[52] The public's relaxed attitude to drought may also influence their willingness to comply with water efficiency measures. An Ipsos survey found that only 49% of Britons were willing to comply with a hosepipe ban if one were introduced.[53]

2.10. There is some evidence that the exceptionally hot, dry, summer of 2026 has raised public awareness, but this is insufficient to suggest the underlying knowledge gap has been addressed. Over 4 in 5 adults (86%) reported taking at least one action to cut back on the amount of water they use in the past month (in surveys carried out July–September 2026).[54] Garden water use shows the clearest change: the proportion of adults who reported using less tap water in the garden was higher in August (48%) than in July (36%), coinciding with the imposition of water use restrictions across parts of England and Wales.[55] Experience of drought may also be shaping expectations: 40% of adults reported being affected by drought in the past 12 months, and 69% expect water shortages to affect them over the next ten years.[56]

2.11. However, awareness of local restrictions lagged behind. In July, around 1 in 8 adults (12%) reported that there were currently water use restrictions in their local area, 76% said there were no water use restrictions, and 12% did not know.[57] By August, as restrictions spread, 40% reported restrictions in their area, but 9% still did not know.[58] People were aware of the issue in general, but many did not know what applied locally.

2.12. Effective and responsible communication is critical as the evidence suggests that awareness of a restriction is closely associated with a change in behaviour. Across July to September 2026, 63% of adults who reported water use restrictions in their local area said they had used less tap water in the garden, compared with 38% of those who reported none; those who did not know whether restrictions applied behaved almost identically to those who believed there were none (35%)[59] . Uncertainty was highest among younger adults: in August, 16% of 16 to 29 year olds did not know whether restrictions applied, compared with 5% of those aged 70 and over.[60]

2.13. Water companies in drought-affected areas have a statutory duty to promote the efficient use of water by their customers,[61] and their drought plans must explain how they will communicate with customers at each stage of a drought.[62] However, the legal minimum notice for a hosepipe ban is publication in two local newspapers and on the company's website.[63] This places considerable responsibility on water companies to decide how best to reach and inform their customers. South East Water's approach suggests that this responsibility is not being adequately discharged. Despite being called before Parliament twice to explain local water supply issues,[64] South East Water appears to have made limited use of non-digital communication with households during the summer of 2026. It issued two press releases announcing its hosepipe bans, in June and July,[65] before then applying to the Secretary of State for a drought order imposing a Non-Essential Use Ban in Sussex (a 'Level 3' restriction).[66] Its published FAQs indicate that customers subject to the summer hosepipe restrictions were

contacted by email, with letters reserved for some exempt customers, although it says it 'emailed or sent a letter' to customers when it changed the Sussex restrictions in October.[67] At a Consumer Council for Water accountability session in June 2026, residents asked the company to strengthen its non-digital communications.[68] Instead, the company chose to rely largely on digital and broadcast channels, including its website, email and social media.[69] These approaches may be convenient and cost less for South East Water, but they risk failing to reach many customers. South East Water's 2022 to 2027 drought plan does not commit to sending letters until it reaches 'severe drought' (its Level 3), offering direct mail only 'where appropriate' at the moderate drought stage before that. Nor does its communication plan make any specific provision for contacting vulnerable households directly, beyond updating the organisations that represent them by newsletter, letter or email.[70] It has since committed to reviewing its communications with customers.[71]

## The importance of simple, easy to follow information

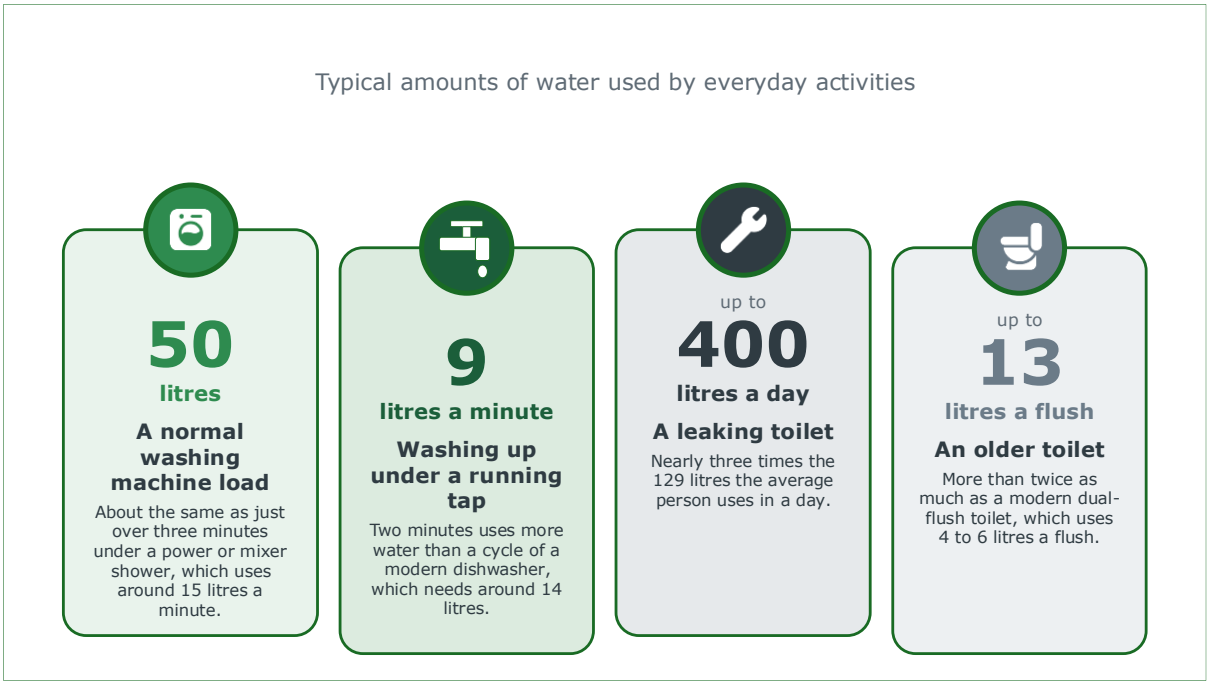
2.14. Effective communication should go beyond notifying householders about restrictions; it should help them understand why conserving water matters and how they can reduce their own use. Targeted public information campaigns show how clear, practical messages can encourage changes in behaviour.

2.15. Northumbrian Water's "Bin the Wipe" campaign, launched in 2020, combined information about the problems caused by flushing wipes with direct engagement with householders through door-to-door visits. In hotspot areas, the water company have said that the campaign reduced blockages by 52%, internal flooding by 57%[72], and external flooding by 60%.[73] Its approach was so successful that it has since been taken forward as a national campaign coordinated by Water UK.[74]

2.16. Bin the Wipe offers a useful lesson: rather than asking householders to understand the full complexity of the water system, it focuses on a specific action and explains why it matters. A similar approach could be applied to water efficiency, particularly in water-stressed areas, by starting with high-use household activities or appliances and giving householders a clear, practical information on what to do to conserve water. However, local success does not automatically translate into national change: Ofwat and CCW survey evidence shows that the proportion of people in England and Wales who say they flush wipes down the toilet most or every time rose from 8% in 2021 to 13% in 2025, an increase of 5 percentage points, despite the campaign becoming national in scope.[75]

2.17. While targeted campaigns can encourage specific actions, making water conservation part of everyday life will require a longer-term shift in public attitudes. The history of recycling offers a useful example of how behaviour can change over time. Efforts to make recycling part of everyday life have had considerable success: the average recycling rate for English local authorities was around 43% in 2024 up from around 27% in 2005/06.[76] The national Recycle Now campaign used consistent messaging, a recognisable logo and materials that councils could adapt for local audiences.[77] But the message was backed by practical action: households were given recycling bins, told what they could recycle, and provided with collections.

2.18. Public awareness helped make recycling a familiar and socially accepted behaviour, but awareness did not always translate into action. Around 90% of people reported participating in recycling, even when the proportion of household waste actually recycled was considerably lower.[78] Campaigns helped establish recycling as a social norm, while practical measures made it easier for households to participate. For water conservation, the lesson is that consistent messaging must be matched by practical action people can take to turn awareness into everyday habits; awareness is not the same as understanding, and understanding is not the same as behaviour change. Campaigns should therefore be concentrated first in water-stressed areas, where reducing demand can do most to conserve water as well as to support new housing and business growth, but should be a national endeavour, delivered locally, in the same way as recycling.



## In Depth: Consumer Behaviour

In recent years, customer attitude shows an increasing loss of trust in water companies and a reduced commitment to water conservation. The three waves of CCW and Ofwat's Customer Spotlight research[79] show how satisfaction, trust, understanding and water-use behaviours have been changing between 2021 and 2025.

### Overall summary

- Satisfaction fell in each wave between 2021 and 2025, while trust dropped sharply between 2021 and 2023, with only a slight recovery by 2025.
- The proportion who say they try to use less water stays very high (87–91%), but reported negative water behaviours such as washing cars with a hosepipe and flushing wipes have become more common.

### Key findings

Satisfaction with water and wastewater services has declined steadily across the three Customer Spotlight waves. Satisfaction with water services fell from 65% in 2021 to 58% in 2023 and 55% in 2025, while satisfaction with wastewater services dropped from 56% to 49% and then 47%. Recommendation also weakened, from 71% to 65%, suggesting that the deterioration is broad rather than confined to one aspect of service.[80]

Measures of trust and perceived value show a similar pattern, although there was a modest recovery in some areas in 2025. Agreement that services provide value for money fell from 29% in 2021 to 22% in 2023 before rising to 25% in 2025, while trust that companies will do what is right for the environment moved from 31% to 23% and then 28%. However, 40% still believe companies are more interested in profits than good service, compared with 33% in 2021, indicating that the underlying reputational challenge remains.[81]

Consumer understanding remains weak and appears to be deteriorating. In 2025, 32% wrongly believed they could switch water company, up from 25% in 2023, and only 47% knew that educating customers on how to use less water is a water company responsibility, down from 54% in 2023.[82] This matters because limited understanding of responsibilities, support and the structure of the sector may constrain both informed consumer choices and effective engagement.

At the same time, householders are interacting with water companies more often. The proportion contacting their company in the previous year rose from 24% in 2021 to 28% in 2023 and 35% in 2025.[83] Increased contact may create opportunities to improve understanding and demonstrate good service, but it may also reflect more problems or concerns; the trend therefore needs to be considered alongside falling satisfaction and continuing distrust.

There are signs of a gap between stated intentions and reported behaviour. The proportion saying they try to use less water at home remained very high at 87% in 2025, only slightly below 90% in 2021 and 91% in 2023. However, less sustainable behaviours became more common: washing cars with a hose, filling hot tubs and flushing wipes all increased, with the proportion flushing wipes most or every time rising from 8% to 13%.[84]

The separate Water Matters tracker reinforces this mixed picture. Confidence in the sector and affordability has weakened, while concern about scarcity appears to have grown. In 2025–26, only 34% believed there was plenty of water available locally (down from 49% a year earlier), and 52% were confident that their supply would remain available without restrictions in the longer term (down from 61%).[85] Overall, householders appear increasingly aware of pressure on water resources but are not consistently converting that concern into everyday behaviour, leaving companies and policymakers with a dual task: rebuild trust through visible service and value, while making water-saving expectations simpler, more relevant and easier to act upon.

| | Wave 1 (2021) | Wave 2 (2023) | Wave 3 (2025) | Change since 2021 (percentage point)[86] |
|---|---|---|---|---|
| Say they try to use less water at home | 90% | 91% | 87% | −3 |
| Rate “no water shortages” as important | 79% | 80% | 76% | −3 |
| Would recommend their water company | 71% | 69% | 65% | −6 |
| Satisfied with water services | 65% | 58% | 55% | −10 |
| Satisfied with wastewater services | 56% | 49% | 47% | −9 |
| Think companies more interested in profits than service | 33% | 40% | 40% | 7 |
| Contacted water company in the past year | 24% | 28% | 35% | 11 |
| Agree their company provides a good service | 40% | 31% | 33% | −7 |
| Wrongly think they can switch water company | 26% | 25% | 32% | 6 |
| Trust company to do what’s right for the environment | 31% | 23% | 28% | −3 |
| Agree services are value for money | 29% | 22% | 25% | −4 |
| Flush wipes most or every time | 8% | 10% | 13% | 5 |

*Source: CCW and Ofwat Customer Spotlight Research Finding. Customer Spotlight is a survey of adults in England and Wales carried out every two years for Ofwat and the Consumer Council for Water. Wave 1 was carried out in November–December 2021, Wave 2 in December 2023 and Wave 3 in November–December 2025, with each report published the following year. Years in this section refer to when the survey was carried out.”*

### Making better use of smart meters

2.19. While public information campaigns can explain the need to conserve water, smart meters directly help households understand their own consumption. They show how much water is used day to day and how this responds to changes in behaviour. Water companies in England aim to install smart meters in around 51% of households and 55% of non-household properties by 2030;[87] currently, around 65% of households are metered, around one in five households have a smart meter, and just over 16% of non-household properties have a smart meter.[88] This rollout should be supported and accelerated, particularly in water-stressed areas.

2.20. Smart meters make a real difference. For example, Thames Water found that installing a smart meter in a previously unmetered home reduced consumption by around 13%.[89] Waterwise estimates that they could save 450 million litres of water a day by 2050.[90] However, the rollout will need to be communicated carefully. In a quantitative survey of 2,153 people, 62% supported the rollout, with 35% of people reporting that they expected their bills to fall. However, 27% expected their bills to rise as a result of metering. Meanwhile a number of participants were concerned about surveillance.[91] Given the low trust in water companies,[92] it is important to explain clearly why smart meters are needed and how they benefit householders with water conservation and lower bills.

2.21. However, smart metering is only as useful as the information it provides to householders. Research by CCW suggests that some customers are unaware they even have a smart water meter, particularly if it was fitted before they moved into the property.[93] This may partly reflect householders' greater familiarity with electricity smart meters, which typically provide readings through an in-home display.[94] Most water smart meters currently lack this feature, making it harder for customers to monitor their usage. This problem is compounded by the fact that water meters are often fitted in underground chambers outside the property, typically in the pavement at the boundary,[95] while consumption data may only be accessible through online accounts that are difficult to find or navigate. Readings can also be delayed by a few days rather than available in real time.[96]

2.22. This needs to change so that smart meters work better for householders. Improving access to meaningful, timely consumption data should therefore be a priority alongside expanding smart meter coverage. The technology is already capable of producing better information than many customers currently see. Arqiva's smart-metering network, for example, can provide hourly readings and can be configured to collect readings every 15 minutes.[97] In the non-household market, MOSL's Smart Meter Read Hub, launched in April 2026, is now making it easier for wholesalers and retailers to share smart-meter readings.[98] The challenge is making that information more useful and accessible to the customer.

At a minimum, all householders should have a simple way to view and understand their water use, whether through an app, online portal or, where technically feasible, an in-home display. This should allow them to track daily consumption, identify unusual changes and respond more quickly to potential leaks. Without this, much of the potential saving from smart metering, and the capacity it could release for new homes, will go unrealised.

2.23. However, older people and others who may be less confident using apps or online portals could be disadvantaged if consumption data is only available digitally.[99] Regular paper letters sent every three to six months could help ensure these householders are not left behind, while also encouraging modest reductions in water use among all households. A UK trial with South East Water customers found that paper feedback reports were effective in reducing household water use, whereas emailed reports had no detectable effect.[100] UK trials have found that personalised home-usage reports combining practical advice with comparisons against similar households can reduce water consumption.[101] It is clear that more needs to be done to most effectively and directly communicate with customers. That could mean regular based water usage information as well as more effective direct text and digital communications.

## Promoting water reuse and wastewater reduction

2.24. Better education is a key component of improving water use but, as the comparison with energy bills demonstrates, costs strongly shape consumer behaviour. Evidence gathered for Ofwat's water-efficiency campaign suggests that water conservation becomes more compelling when it is made personal: lower costs and practical benefits.[102] Environmental responsibility may command agreement in principle, but agreement alone does not reliably change daily behaviour.

2.25. Subsidising water-efficient infrastructure would boost uptake. In CCW's 2026 research, one participant said they would install water butts if they were subsidised, describing it as "something that you don't get round to if there's no pressure to do it".[103] Free home visits provide a practical way to overcome this barrier, as measures can be fitted for households rather than relying on them to arrange the work themselves. However, financial incentives are not always the main issue: savings may already exist, but householders are often unaware of them.

2.26. A useful example is the removal of surface-water drainage charges. Customers whose properties drain surface water to a soakaway rather than the public sewer may be eligible to have the charge removed from their water bill. CCW advised customers in 2016 to check their bills and, if they were still being charged, to

contact their sewerage company, which “may not be aware you have a soak-away”.[104] Current Ofwat guidance similarly states that customers must apply to their company, with evidence, for the reduction.[105] The incentive to reduce wastewater exists but few are aware of this and it needs to be incentivised and promoted.

2.27. The savings can be meaningful. A 2026–27 comparison of eleven sewerage companies shows annual surface-water drainage charges ranging from £24.48 a year (Severn Trent, for homes other than detached and semi-detached houses) to £118.33 (Hafren Dyfrdwy, for detached houses).[106] For new developments, capturing surface water rebates for the site as a whole into management companies could reduce future bills for managing surface water features over time.

### Focus on Community Retrofit: Wastewater Case Study

Retrofit can be supported by water companies funding and designing precision SuDS, smart water butts, and rainwater harvesting. This "slows the flow" and prevents surface water from entering the legacy combined sewer. By removing the rainwater, capacity in the combined pipe is freed up, so reducing surface water flooding.

This approach has been evidenced in two pilot areas – the Isle of Wight and Deal, both in the Southern Water area. The Deal Water Action Taskforce (Deal-WAT) was formed in 2021 and led by the local MP (Natalie Elphicke) and Southern Water, supported by Ofwat and the local councils at country and district levels to address severe, recurrent storm water sewage flooding into homes in Deal. Detailed research and mapping of the area revealed that the town's drainage network is split between two fundamentally different engineering systems. Part of Deal is served by a legacy combined sewer system, where the flooding was occurring. Other parts of the Deal area are served by a dual-pipe system.

It was not affordable or feasible to dig up historic Deal and replace the Bazalgette-style pipes with a dual network so Deal-WAT's strategy[107] focused on ‘slowing the flow’. The taskforce deployed intelligent solar-powered water butts, rain gardens and larger street planters. By intercepting rainwater at the roofline and holding it back during storms, these interventions separated the water above ground, prevented it from rushing into the combined sewer and overwhelming the historic network.

Deal-Wat had a pioneering approach to engage the local community in the water system solutions. Around 70 residents in Deal signed up for trials to install rain garden planters and solar-powered intelligent water butts[108]. Unlike traditional water butts, these devices pioneered by SDS are equipped with technology that allows them to automatically drain their stored water ahead of forecasted rainfall. This ensures

maximum storage capacity is available during the storm, heavily controlling the runoff of surface water.

The plot-level interventions were paired with mechanical improvements. Kent County Council installed high-capacity highway gullies to remove rainwater from the roads. Southern Water upgraded a problematic 90-degree flap valve in the sewer system to improve flow as well as strengthening the capacity to move water between below-ground storage tanks using high-tech digital engineering, thereby creating additional storage capacity at peak times

The Deal project resulted in significant reductions to home sewage flooding and the impact of storm overflow watercourse discharges.

Similar concurrent trials on the Isle of Wight saw 132 properties adopt slow-drain water butts, which also resulted in a significant, measurable reduction in storm overflow spills during a pilot period.[109]

## A Water Retrofit Revolution

2.28. While steps to unblock developments through a water infrastructure first approach will help support housebuilding, the greater prize is action to support sustainable water conservation – making water work for everyone. With new homes adding less than 1% to England's housing stock each year (0.8% in 2024–25),[110] new developments alone cannot deliver the scale or pace of change needed to address water challenges. As with energy and net zero, tackling water challenges must be a national priority. It requires a shared national journey, including effective retrofit solutions across existing homes. While water retrofit presents different challenges, a combination of communal and individual measures can improve water efficiency, reduce demand for treated drinking water, reduce surface water run-off and increase water reuse. These measures can conserve water, deliver benefits for householders and help to reduce household bills.

2.29. In existing homes, the biggest savings can be among the cheapest. Personal washing and toilet flushing together account for almost two-thirds of household water use.[111] A single leaking toilet can waste 200–400 litres a day, much more than an average person uses.[112] Between 4% and 10% of toilets leak.[113] Leak-detection strips are often free from water companies and a repair kit costs around £20–30.[114] Fixing such leaks can save a metered household approximately £250–300 a year.[115] Raising awareness and helping action to be taken could be a win for water conservation as well as financial win for householders.

2.30. Water-efficient showerheads and tap aerators, which water companies sometimes give away, can save around 9,000 and 5,000 litres a year respectively,[116] and because they cut hot water use, they can lower energy bills too.[117] As appliances are replaced, there are more efficient applications than can help households choose more efficient washing machines and dishwashers.[118]

2.31. Water butts may save less, at around 1,000 litres a year,[119] but they are helpful in the summer months, where outdoor watering drives peaks in demand.[120] Slow-release designs also ease pressure on sewers. Free home visits to install water saving devices can help too.

2.32. Water conservation retrofit measures should be encouraged so that it becomes as commonplace as recycling. A particular focus should be on kitchen and bathroom refits. Industry research indicates that around one in ten home owners may be looking to renovate their kitchen and bathroom in any year. Over the two-year period covering 2024 and 2025, industry sources reported that around 10% of owner-occupier households either bought a new fitted kitchen or moved into a newly built home, with around one million new kitchens fitted[121]. With evidence of consumers spending on kitchens, bathrooms and household appliances, this could be an important area to target for water conservation measures. This could include financial incentives to improve water conservation and reuse on domestic kitchen and bathroom renewal - which could make a huge difference in just a few years.

# Recommendations on water that works for everyone: Water Action for Consumers

1

### Accelerate smart data and accessible information

Speed up the rollout of smart meters linked to in-home displays, paired with clear public information campaigns.

2

### Incentivise appliance upgrades upon renewal

Introduce financial incentives for water-efficient taps and showers and water-smart washing machines and dishwashers, making the most of the kitchen and bathroom renewal cycle to accelerate retrofit and secure early water-conservation benefits.

3

### Targeted programmes in water-stressed areas

Provide free home visits in water-stressed communities to install leak repair kits, tap aerators and water-efficient showerheads, with reliable trades advice on water conservation measures.

4

### Deploy active surface water capture and cut costs

Encourage smart water butts and rain gardens and reward households through direct surface-water drainage rebates.

5

### Establish standards for residential water reuse

Create clear regulatory quality and installation standards, including enhanced industry training, to confidently increase water reuse for toilet flushing, which accounts for a quarter of daily use.

## Water that works for Business

2.33. Efforts to manage water demand must look beyond households. Businesses account for between a fifth (on Defra's figures) and 30% (on MOSL's) of public water supply use in England.[122]A small minority of business sites account for a disproportionate share of this demand: around 1% of business customers are responsible for about half of business water use, equivalent to 15% of England's public water supply - the equivalent consumption of over 9 million households.[123] Promoting water conservation in businesses users offers a significant opportunity to free up capacity for domestic consumption, reduce pressure of water resources and enable housing and commercial growth in water-stressed areas.

2.34. Ofwat has sought to improve transparency by pressing regulated water companies to publish more operational and performance data.[124] Unfortunately, that does not provide visibility over the water consumed by individual business customers, for which public disclosure remains very limited and fragmented.

2.35. Introducing transparency can be achieved as the underlying data already exists; MOSL publishes a dashboard mapping the top 1% of business supply points (individual sites), which use over half the water used by businesses, with each site's postcode and the responsible wholesaler and retailer.[125] However, the identity of the businesses using the water, and what they use it for, is not currently publicly available. It should be, as should more accessible information on water abstracted by businesses. The Environment Agency holds licence and return data for abstractors but the information is fragmented rather than compiled into an accessible way to show which businesses are using how much water. As much of the underlying information is already collected, a reporting requirement would simplify and build on existing market data rather than create an entirely new reporting system.

2.36. Identifying the businesses that use the most water would allow action to be targeted where it could have the greatest impact. It would help distinguish between businesses that genuinely need large volumes of water and those who use water inefficiently. The key question should not simply be how much water a business uses, but how much it actually needs. Large businesses are already required to report on their energy use,[126] and there is an equally strong case for reporting on water, given it is a limited natural resource. Waterwise has recommended mandatory reporting for the top 1% of business water users, requiring them to report every three years on their efforts to reduce consumption.[127]

2.37. This issue was recognised by the Cunliffe Report, which noted that the five largest oil refineries in England and Wales are all highly dependent on water. This included the refinery at Fawley, which is located in a highly water stressed Southern Water area of Hampshire where level three water restrictions are under currently being sought and are pending ministerial approval.

2.38. The Cunliffe Report observed as follows[128]:

> "Box 36 – Water usage in industry
>
> The largest five oil refineries in England and Wales (Fawley, Pembroke, Stanlow, Prax Lindsey and Humber) are all highly dependent on water. These five sites are all ranked in the top 7 highest consuming users in the non-household market, consuming a total of 93 Megalitres of water per day or 3.6% of the total in the non-household market. Oil refineries are an example of an industrial sector where the majority of water 'consumed' is actually used for cooling purposes.
>
> Chemicals are then added to water supplies on site to the water to remove minerals to avoid damage to tanks from the cooling water. This cooling water will then flow into the sewerage system as wastewater. This essentially clean water will in many cases discharge into combined sewer systems, adding to the challenges of overloaded sewers. Oil refineries are critical national infrastructure, so their water supply will be prioritised in a water shortage - even if houses have no water. They also use a lot of water, many of them are on 'bulk tariffs', which means that their water gets cheaper the more they use – there may be limited incentives to reduce usage."

2.39. Encouraging business transparency would support greater debate on whether such water use is in fact required or whether greater water reuse can be achieved. Particularly to reduce the call on water stressed areas and the pressures of wastewater on sewage. Public disclosure would be likely to encourage businesses to take water conservation more seriously. It would improve efficiency, while giving mayors and regional water planners a clearer picture to address water inefficiency and to introduce new methods to reduce water consumption, that would free up capacity for housing and economic growth.

2.40. While business use should be published, so too should businesses be incentivised to conserve water. First in terms of annual ESG reporting so that they would be able to showcase the improvements they have made, but also through tax incentives to conserve water and reduce wastewater. In previous years there were tax incentives to make such investment and they should be reintroduced but made simple and easy to use. Reinstating generous tax allowances for water conservation, reuse and capture installations, alongside targeted financial support, could help make these investments commercially viable and encourage businesses to reduce their reliance on mains water as well as reduce wastewater pressure.[129]

2.41. The opportunities for reducing consumption can be different from those available to households. Commercial premises can make greater use of greywater harvesting and reuse, for example for toilet flushing, as greywater reuse is easier to manage safely in a business setting than at home.[130] Tax incentives would encourage business to consider what is possible.

2.42. Data centres illustrate this point. Although they account for a relatively small share of business demand, around half of data centres surveyed by techUK use water for cooling, and drinking water is often the only commercial option available to them from UK water suppliers.[131] Closed-loop cooling systems using non-potable (i.e. not of drinking-water quality) sources, such as treated wastewater or harvested rainwater, could, on the water-treatment company Veolia's estimate, reduce freshwater use by as much as 50–70%.[132] Likewise, as the Cunliffe Report identifies there may be opportunities for established industries, like oil refineries to do more to recycle and reuse water.

2.43. Identifying the greatest opportunities for savings requires transparency of water use across all businesses. Data centres may have attracted considerable public and media scrutiny, but they are estimated to account for just 0.2% of mains water supplied to non-household customers in England,[133] though this share may grow as new facilities are built. The attention given to data centres therefore risks obscuring the much wider challenge: businesses across many other sectors also account for significant water use, yet attract far less scrutiny. It also risks pitting new industries against established industries, when older industries may have significantly greater ability to conserve water.

2.44. The Government's approach to business water use reflects this imbalance in scrutiny. The Data Centre Covenant, published alongside the Autumn 2026 Budget, introduced specific expectations for strategic data centres receiving government support to manage and report their water use. Those seeking faster

grid connections and other government support must commit to “minimise water use and publish annual energy and water consumption reports”, and to “minimise demand for public water supplies” through technologies such as closed-loop water systems.[134]

2.45. The Covenant offers the sort of transparency and water efficiency encouragement that is needed to make a difference. Other businesses and industries are encouraged, but not required, to follow suit. The Covenant’s expected local investment is for locally agreed priorities, with transport, parks and town centres given as examples rather than mandated priorities. Water infrastructure is therefore not excluded, but neither is investment in it specifically required. The Government has also said it will set out more on responsible water use in a Written Ministerial Statement.[135] While these commitments are welcome, they apply only to data centres and are conditional on receiving government support, with no equivalent expectations for other major business water users. The Government should apply the Covenant’s principles to all large businesses for reporting, water conservation and incentivise making investment to deliver improvements.

Recommendations on water that works for everyone:
Water Action for Businesses



# Section Three: Restoring Local and National Control over Water

## Background: A fragmented and complex system for water planning

3.

3.1. Water planning in the UK is hugely complex. There are multiple layers of operations, including a number of River Basin Districts[136], over 100 River Catchments, 16 water service areas[137], 300+ local authorities the majority of which are operating in two tier planning areas together with 9 National Park authorities[138]. In addition, there is a separate council role of Local Highways Authority together with National Highways covering aspects of road and surface water drainage. There are 121 local internal drainage boards. There are national regulators including the Water regulators in the Water Services Regulation Authority (Ofwat) and the Drinking Water Inspectorate (DWI), the Environment Agency and Natural England. Responsibility for planning, delivery and monitoring of water matters sits primarily between two significant government departments, the Department for the Environment, Food and Rural Affairs (DEFRA) and the Ministry of Housing, Communities and Local Government (MHCLG).

3.2. This complexity is translated into a series of frameworks, guidance and plans that shape water supply, including:

i) Nationally, the Environment Agency's National Framework for Water Resources, updated in 2025, sets out how England will secure a resilient water supply over the long term while protecting the environment, providing the framework within which water companies, regional water resources groups, regulators and planners prepare their water resource plans.

ii) The Strategic Policy Statement issued by the Secretary of State for Environment, Food and Rural Affairs sets out the Government's priorities for Ofwat's regulation of the water sector in England. Ofwat must have regard to the Strategic Policy Statement for water when setting price controls and approving water company investment programmes. Those investment programmes, in turn, determine much of the water infrastructure priorities, published before each five-year water price review.

iii) At regional level, River Basin Management Plans, approved by the Secretary of State, shape water regulation and planning in their areas, building on smaller catchment plans.

iv) A new tier of Regional Water Resources Groups bringing together water companies around water resource systems and supply now produce Regional Water Resource Plans.

v) Water companies have a duty, every 5 years, to produce Water Resource Management Plans setting out how they will supply water over the next 25 years.

vi) Individually, water companies develop more than 9 separate plans as part of business planning including resource management and environmental protection and are required to have regard to a further 18 plans covering flood risk, local growth and nature recovery.

vii) More locally, 100+ catchment-based partnerships bring together stakeholders to develop local improvement initiatives.

## Background: A fragmented and complex system for local development planning

3.3. For new developments including the planning permissions for water infrastructure as well as for residential and business developments, there are another separate set of rules operating at national, regional and local levels operated by a range of national, regional and local levels of decision-making. These are primarily determined under national legislation set by MHCLG, but the DEFRA agencies of the Environment Agency and Natural England are two powerful components to planning permission being granted or delivered.

3.4. Key among these include:

i) The new National Planning Policy Framework published on 17 August 2026. This significantly strengthens support for water infrastructure compared with the 2024 version, with new dedicated policies placing water at the "heart of future development".[139]

ii) "Securing Clean Energy and Water", chapter 10 of the NPPF, requires local plans to be informed by early engagement including with water companies and to understand water supply, drainage and wastewater capacity before allocating growth and housing sites, while giving substantial weight to development proposals that increase or improve supply or capacity for existing users, 'though applicants should not be required to demonstrate the need for water infrastructure developments'.[140] It makes water "part of growth planning, not just development consenting".[141] Meanwhile building regulations part G provides guidance on the supply of water to a property,

including water safety, hot water supply, sanitation and water efficiency and consumption. [142]

iii) a key component of the Planning and Infrastructure Act 2025 was to reintroduce spatial planning across the country. Spatial development strategies are to be produced at the regional level of mayoral or strategic authorities with rollout across England by 2029. While not allocating sites, spatial development strategies are intended to coordinate the infrastructure needed to support housing and economic growth, looking ahead at least 20 years. These strategies will identify strategic infrastructure requirements and will become local investment frameworks to deliver funding to build them.

iv) Local Plans will need to be in conformity with these new spatial development strategies. Further detail is provided in part PM1 of the NPPF: "Spatial development strategies should set a positive vision for future growth and change at a sub-regional scale and provide a clear spatial framework for investment and growth, including for new housing. Their content should be genuinely strategic in nature and allow for more detailed issues to be considered and addressed through other parts of the development plan."

v) How this should be approached is also prescribed in the NPPF: "Setting out the type, extent and broad location of strategic infrastructure needed to enable development and serve existing communities, including transport, social infrastructure, waste infrastructure, utilities provision (including renewable and low carbon energy, electricity network, telecommunications and water and wastewater infrastructure) and flood risk management schemes. The spatial development strategy should also make provision for infrastructure that is committed to in the 10 Year Infrastructure Strategy, sectoral spatial plans and any planned strategic infrastructure identified in local transport plans."

vi) The Local Plan, produced by the Local Planning Authority, remains the primary local document when in place. Plans must be developed in accordance with the NPPF, with the new NPPF strengthening the case for development. Capacity should also be assessed locally in water supply and wastewater and groundwater management.

vii) Finally, development proposals for individual sites are made in accordance with the NPPF, including under the Local Plan.

## A New Vision for Water: The Water White Paper

3.5. Responding to the Cunliffe Report, the Government's Water White Paper commits to providing "clearer strategic direction across the water system, combined with a streamlined and consolidated approach to regional water planning"[143].

3.6. Consolidating existing water industry plans and processes into two core planning frameworks for the water environment and for water supply as recommended by the Cunliffe Report, the Government proposes a joined-up regional water planning function to support "delivery of national strategic objectives such as the economic growth mission, house building targets and nature recovery, whilst enabling regional and local priorities to be realised"[144]. Each regional plan would "set out investment priorities to meet national water and growth objectives"[145].

3.7. In doing so, the Government is looking to rationalise and better align existing planning functions and resource, "simplifying engagement for stakeholders, such as water companies, catchment partnerships, local authorities and others, and ensuring a more coherent system"[146]. The detail is still to be seen with publication of the Government's resulting Water Bill, expected in early 2027.

## Securing administrative alignment

3.8. The Government's recognition of the importance of planning and resource alignment is welcome. However, it is by no means straightforward and has become a source of intense discussion and debate in the water, local government and housebuilding sectors since the Government's announcement in early November 2026.

3.9. At the core of the challenge is that there are two powerful Government departments with different priorities and responsibilities, the Ministry of Housing, Communities and Local Government (MHCLG) on the one hand, and the Department for Environment, Food and Rural Affairs on the other (DEFRA). The policies, decisions and directives of each can be conflicting and even damaging to the objectives of the other. The example of nutrient neutrality serves as an example, as does the prioritisation for the water investment programme, both sitting on the DEFRA side of the ledger. MHCLG's own planning guidance may not support water conservation in the most effective way, as set out in part one of this Report.

3.10. Additionally, DEFRA has its powerful regulators and other bodies, while MHCLG's plan process is decided at local and regional level. The local and regional authorities do not fit within the water regulatory or water company footprint. Water decisions are not confined to municipal administrative boundaries. Within each

water area, there are multiple layers of elected representatives who carry out different functions –such as Members of Parliament, borough and district councils, county and unitary councils, combined and mayoral authorities as well as local planning authorities. Local government structures are themselves undergoing extensive and separate reform.

3.11. The impact of these different systems and responsibilities can be significant. Where water infrastructure is not planned for or investment not made, development is held up, affecting national and local growth. Homes not being built adds to national housing pressures and can prevent people from having a roof over their head, drive up prices for renting and buying and can stop household formation, including delays to having children. Regional and local leaders with ambitious plans for their areas find that they are not in control of the implementation of those plans, lacking the levers to ensure that water keeps pace with area ambition.

3.12. However, when water companies were nationalised, it was specially intended to create a separation from them being nationally owned and controlled – an independent regulatory environment where their operations and performance was not unduly impacted by political inference, backstopped by Government Ministers residual powers relating to the most impactful outcomes to citizens, such as corporate failure and water rationing. Keeping appropriate financial and operational independence is required in order to keep billions of pounds of funding secured by water companies in the private finance and equity markets off the UK Government's balance sheet. Companies that are seen to be unduly subject to political influence can find it difficult or expensive to raise the private funding needed to meet their corporate and investment priorities.

3.13. Against the operational independence has been a regrettable turn of regulatory weaknesses and poor operational performance, leading to a degrading of public trust. Not all water companies are the same it must be said. However, as noted in the previous section of this Report, the public is not impressed.

3.14. As such, the upcoming Water Bill faces a significant balancing act. How to restore public confidence, strengthen accountability to national and local governments and drive through required improvements in the sector, while also respecting operational independence of water companies so that they remain off balance sheet to the national finances. It must do this while also navigating its impact on the built environment and meeting pressures around the natural environment.

## Putting the Devo into DEFRA

3.15. Against the backdrop of local government reorganisation and devolution, together with a renewed focus on strategic and spatial planning for water and developments, there is a huge opportunity for national and local control over water to be restored in a way that could help rebalance the democratic and administrative requirements while ensuring corporate operational independence is maintained. This will ensure there is a focus on the provision of water where it is needed by communities by setting the framework and plans, rather than leaving it all up to water companies and regulators to decide what is most convenient for them.

3.16. At the national level, this could mean Ministers setting the long-term strategic direction of Government's priorities to deliver the water for householders and the economic growth that is needed. But it also means putting local leaders in the driving seat with the remit and information for water systems planning in their region. This would not risk the independence of the water companies any more than the local plan process does for housebuilders. It is appropriate for a national and local framework for all planning, and that should include water planning.

3.17. For too long water planning has been top down with communities having little say. Instead, water planning and provision has been largely down to large incumbent water companies who have become increasingly distrusted by the public in recent years. That needs to change so that communities can directly and democratically shape their development by putting locally elected leaders in the driving seat on new Regional Water Councils ('RWCs').

3.18. Through their water planning, the RWCs could also provide the evidence base and context for the development of new spatial development strategies led by mayors and strategic authorities. Regional Water Councils work on a wider river basin footprint and will need to consolidate priorities across two or more mayoral or strategic authority areas, identifying wider regional solutions where appropriate, but enabling local variation. Water company business and investment plans would then reflect and deliver according to these priorities that have been set.

3.19. Through new RWCs, water companies could be held to account for their performance and a directive would be provided for growth to ensure that future water needs can be met alongside existing provision, while businesses and householders would be more closely involved in shaping regional priorities.

3.20. This approach would build on the work undertaken in the Cunliffe Report but make it more aligned with existing political and administrative responsibilities. The Cunliffe Report identified that while there was a lot of national regulation, it was very top down and communities had little say. There was, he considered, a "missing middle" in water governance – a gap between top-down national strategy and bottom-up local implementation. To bridge this gap, the Cunliffe Report proposed new regional water system planning authorities or 'regional water authorities'[147] based on English national river basins, with one covering the whole of Wales.

3.21. The Starmer Government was cool on the Cunliffe Report's 'missing middle' proposals. However, under the new Burnham Government, devolution and local decision making has been prioritised. Accordingly, on 5 November 2026, the new Government set out plans to adopt the regional model proposed by the Cunliffe Report, with Regional Water Councils ('RWCs'), which was reinforced by a later ministerial statement.[148]

3.22. The Government has said that the RWCs are to be advisory only at present with MPs, mayors, local leaders and other regional stakeholders having an "inform" and "provide input" role[149] into their development. The Government's proposals represent a huge opportunity to improve water planning governance. However, taking the opportunity to put mayors and local leaders in the driving seat could accelerate the planning and delivery of much needed water infrastructure, growth and construction. Mayors' own powers could be deployed to good effect to complement this new system – with Mayor's fast-tracking developments, including regional reservoirs, where they align with the new regional water plans. Consideration should be given to beefing up Mayoral powers to ask for 'water scarcity zones' to be declared by Ministers so that an area qualifies for additional targeted retrofit and other support.

# New Regional Water Councils – proposals at a glance



## Putting regional Water Councils in the driving seat

3.23. *RWCs must have real power*: The danger of RWCs being initially advisory is that they will have no teeth and end up being ignored. However, the opportunity of a new scheme where local elected leaders, businesses and householders can shape and direct the future of water infrastructure and water provision in their basin region is a huge one. There have been good examples of Mayors and Ministers[150] effectively redirecting resources to secure and accelerate water infrastructure delivery for specific prioritised areas, for example in Manchester and East Anglia. This approach would build on these principles to ensure that every area could be similarly empowered.

3.24. *RWCs should work with the water systems planning powers*: The remit of RWCs should be to work with the water systems planner recommended by the Cunliffe Report and have access to information from DEFRA and the new water regulator. They should be able actively to shape and direct water planning as well as to hold water companies to account. RWCs should have the power to demand Ministerial intervention if water companies or the new water regulator are failing to deliver on the water infrastructure that is needed for their region.

3.25. *RWCs should support the delivery of spatial development strategies*: guiding local water infrastructure investment, with mayors and local leaders sitting on the RWCs, shaping regional water plans and holding water companies to account for their local delivery. RWCs could provide the evidence base required for effective spatial planning to enable investment and growth priorities to be aligned.

3.26. *RWCs should have a wide remit*: The remit of RWCs should include the promotion of economic development and growth (aligned to spatial development strategies above), community water resilience, water capture, conservation, reuse and wastewater reduction in their regions. Locally elected leaders would spearhead water communications and the promotion of responsible use and water conservation incentives in their communities.

3.27. *RWCs could fill the missing middle within a national framework*: RWCs would operate within a new national framework. This means they would put together a water plan to shape their particular region in line with the national long term strategic direction framework, including to prioritise economic and housing growth, working on a wider river basin footprint and identifying wider regional water solutions where appropriate, but enabling local variation. The plan should be drawn up in consultation with water companies and the new water regulator, for Ministers to sign off.

3.28. *Openness and community accountability*: For many years, water planning and regulation has been remote, opaque and communities have had very little say. RWCs made up of mayors and other local elected leaders, along with consumer and business representation, will enable a broad involvement in the shaping of water investment and infrastructure plans for each region. Issues will be decided upon in a more open and democratic way where residents of a community will be able to have a say.

3.29. *Governance that enables considered prioritisation*: It is important to recognise that water is deeply interconnected and there are many cross- cutting interests. These interests are not always aligned and there have always been trade-offs. With RWCs there can be the governance for trade offs and prioritisation to be openly, fairly and frankly managed and discussed.

3.30. Accordingly, RWCs will be able to address questions such as the balance to be struck between river health and drinking water abstraction in their areas. Whether water scarcity should block new housing or business developments, or whether water capture including reservoir investment should be increased or whether existing water users should be required to reduce their consumption. Stronger, open governance would also enable particular local authority leaders who wish to have more water for the development of their areas to be able to openly make their case.

3.31. The competing trade-offs will not always be easily resolved. Many decisions will inevitably be finely balanced and RWCs will not always be able to agree. Yet such matters must be resolved and therefore, where RWCs cannot agree internally due to competing community interests within the region, there must be a backstop where Government Ministers will have the final say within the context of the national framework.

3.32. *Regional water plans that communities are more prepared to trust:* Under the current system, there is little trust in water companies or water planning. This has led to proposals for new water infrastructure being contested by communities and consequently subject to delay. The development of new reservoirs – needed to alleviate water shortages – and other important water infrastructure projects have in a number of cases been delayed by community opposition.

3.33. With their democratic accountability and increased openness, RWCs would be in a strong position to develop Regional Water Plans. These could have direct planning powers for the provision of water infrastructure as well as setting a footprint for the local planning system requirements for spatial development strategies and local plans. They would ensure the delivery of water infrastructure as well as a more effective and streamlined alignment of constraints, capacity and investment opportunities.

3.34. Putting Regional Water Councils in the driving seat along with water systems planning and real power would enable the development of badly needed water infrastructure to be delivered much more quickly to support local growth. The RWCs would have a democratic backstop that would enable them to hear, consider and make choices in relation to the provision and use of water in their regions.

3.35. Water systems planning would become better understood, as would the importance of water conservation and responsible water use through communications led by democratically elected officials. Meanwhile economic development and required housing would be better supported by water systems planning which would provide more jobs and prosperity to communities.

## Recommendations on restoring local and national control over water



# About the Report

Water Infrastructure First is a research collaboration between the Housing & Finance Institute and SDS Infrastructure. It is intended to inform policymakers, industry and householders about the context of water challenges and opportunities for change.

The research team would like to acknowledge the guidance by and discussion with others, while noting that any findings, observations, comments or inaccuracies remain the responsibility of the Housing & Finance Institute. The recommendations and views set out in this Report are those of the Housing & Finance Institute and should not be attributed to any other organisation or individuals:

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### About the Housing & Finance Institute

The Housing & Finance Institute is an independent not-for-profit organisation with expertise to work with industry and the public sector to deliver a step-change in housebuilding, housing delivery, asset management and finance. In its research work, the Housing & Finance Institute seeks to advance applied research at the intersection of housing, finance and public service delivery for better homes, stronger communities and lasting impact. Its work is designed to generate practical, investable and scalable solutions to some of the most pressing challenges facing housing and infrastructure in the United Kingdom. www.thehfi.uk

### About SDS Infrastructure

SDS Infrastructure specialises in engineering innovative and cost-effective water management systems, ensuring that, from the point at which rainfall first meets the ground to its final destination, surface water runoff can be collected, treated, stored and reused or released safely, efficiently and sustainably.

SDS Infrastructure is part of the SDS Water group of companies, who together deliver total water security through the provision of truly integrated, end-to-end water management solutions - from flood prevention, environment protection and drought mitigation, to water supply, sewerage treatment and asset management. https://sdsinfrastructure.com/

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