



Department
for Environment
Food & Rural Affairs

Consultation on measures to reduce personal water use

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Any enquiries regarding this publication should be sent to us at:

Water Services

3rd floor, Seacole Building

2 Marsham Street

London

SW1P 4DFPB

waterservices@defra.gov.uk

www.gov.uk/defra

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Ministerial foreword

In the UK, we take for granted a plentiful supply of clean water. Yet our high population density means the available water per person is actually less than in many Mediterranean countries.

It is clear that the planet and its weather patterns are changing before our eyes. The experience of last summer, where for six weeks daytime temperatures consistently topped 30°C, and crops wilted in parched fields, reinforces the need to make our water supplies more resilient to a warmer climate in the future.

We know that by the 2050s summer temperatures are likely to increase while summer rainfall decreases, leading to increased risks of short duration droughts. The population in England is forecast to grow by over 10 million people over the same period, with a large part of this growth occurring in areas where water is already scarce.

We must therefore act now to ensure the resilience that is needed for the future. We are doing this through a 'twin track' approach to managing water supplies. On the supply side, we need to capture, transfer and store more rainwater. On the demand side, we must reduce leakage, and conserve and use this harvested water more efficiently.

Water companies must lead the way in reducing leakage and encouraging a reduction in consumption. They have significant levers to do this. However, achieving the level of resilience required for the future cannot be met by the water industry alone. Innovation and collaboration across different sectors and government departments will be vital, as will how we all value and use water – we all have a responsibility to use water wisely.

I am pleased to launch this consultation, which seeks views and evidence on the various measures that could be taken to reduce personal water usage.

Thérèse Coffey MP

Parliamentary Under Secretary of State for the Environment



Introduction

Climate change, population increases, environmental requirements and a growing demand for water will mean that, in the future, there will be substantial pressure on surface and groundwater supplies, less water available per person and a significant likelihood of more frequent, severe droughts.

In 2016 Water UK¹ stated that a ‘twin-track’ approach of increasing supply and reducing demand is needed in order to secure the resilience of water supplies over the next 50 years. The National Infrastructure Commission² supported this approach, stating that to maintain the current level of resilience, at least 3,300 million litres per day of additional capacity in the water supply system is required by 2050. The report suggested that this additional capacity should come from one third supply-side measures and two thirds demand management measures.

The National Infrastructure Commission suggested that at even with near universal metering (approximately 90%) and an ambitious leakage programme, we would still need 1,000 megalitres of water per day to come from new infrastructure. Without demand management this would have to be even higher to meet future water needs, and this would put additional costs on to customer bills.

In some parts of the country the volume of water taken from the environment is damaging our ecosystems. The Water Industry National Environment Programme³ estimates that water company abstraction volumes need to be cut by over 700 million litres per day (Ml/d) to address environmental problems. Reducing personal water use helps to reduce the amount of water abstracted from rivers, lakes and groundwater, thereby helping to mitigate damage to ecosystems.

This government is committed to water conservation. In *A Green Future: Our 25 Year Plan to Improve the Environment*⁴, we commit to incentivising greater water efficiency and lower personal water use as part of our overall goal of ensuring ‘clean and plentiful water’. We expect this goal to be achieved in part by water companies taking a long-term approach to balance supply and demand⁵.

The government, the Environment Agency and Ofwat issued guidance to water companies in 2016 on how they should be planning to supply water to a growing population, while protecting and enhancing our environment, including taking appropriate action to respond to climate projections. Water companies are currently revising their plans.

¹ <https://www.water.org.uk/publication/water-resources-long-term-planning/>

² <https://www.nic.org.uk/publications/preparing-for-a-drier-future-englands-water-infrastructure-needs/>

³ <https://data.gov.uk/dataset/a1b25bcb-9d42-4227-9b3a-34782763f0c0/water-industry-national-environment-programme>

⁴ <https://www.gov.uk/government/publications/25-year-environment-plan>

⁵ <https://www.gov.uk/government/publications/strategic-policy-statement-to-ofwat-incorporating-social-and-environmental-guidance>

The government is taking steps to improve water resources planning to ensure that there is better collaboration between water companies and other water using sectors on their water supply resilience. This includes the Environment Agency developing a national framework for water resources, which uses evidence to illustrate the regional and national challenge of water availability. The government has also consulted on legislative improvements to ensure that water companies' plans are informed by effective collaboration.

In 2017 the government issued a strategic policy statement to Ofwat. This statement set out our expectation that Ofwat should challenge the water sector to plan, invest and operate to secure long-term resilience. The statement set out our expectation that companies take account of the full range of pressures on water and wastewater systems and services and select options to deliver the best value for money over the long term, considering the wider costs and benefits to the economy, society and the environment. A part of this is reducing demand on water supplies. We said that we expect companies to cut demand and help customers use water efficiently and that Ofwat should promote ambitious action to reduce leakage and per capita consumption. The statement also made it clear that Ofwat must challenge water companies to go further on customer affordability.

Following the statement Ofwat challenged companies to reduce leakage by 15% by 2025, which the government has fully supported. When eight water companies failed their leakage targets in the summer of 2018, the Secretary of State met with their chief executives to discuss how they would improve their performance. Water companies responded well, proposing an average leakage reduction of 17% by 2025, going beyond Ofwat's target of 15%. The water industry has also committed to reducing leakage by 50% by 2050 at the latest.

Ofwat is now working with water companies to agree their business plans for the next five years. They will challenge water companies through this process on customer bills, efficiency and resilience outcomes. Ofwat's price review determinations must also allow the industry to continue to attract low-cost finance essential to long-term infrastructure investment.

On average, a person in England currently uses 141 litres of water per day. In their plans water companies are forecasting a reduction to 123 litres per person per day on average by 2045⁶. However, this is too high to achieve the recommendations from the National Infrastructure Commission's report. Additionally, over the last few years consumption figures have begun to rise – a trend that needs to be reversed if this planned reduction is going to be achieved. A number of water companies are going much further than 123 litres per person per day, for example Yorkshire Water is aiming for 111 litres per person per day by 2045 and Southern Water has committed to a target of 100 litres per person per day by 2040. However, there is large variation across companies. We want all water companies to have a much greater level of ambition to reduce personal water consumption, providing their customers with the tools to enable this.

⁶ Draft water resource management plans – dry year average

Taking forward an appropriate mix of measures, with the appropriate governance and responsibilities, is vital to achieving long term resilience of our water supplies. This consultation seeks views and evidence on various measures that could be taken forward to reduce personal water use.

Consultation

Building regulations for water consumption

The government is committed to delivering 300,000 homes a year by the mid-2020s and there are major plans for new housing in every part of England. This will have a significant impact on water availability.

Currently all new homes must be built to a water consumption standard of 125 litres per person per day (Part G of the Building Regulations). There is also an optional Building Regulations' requirement of 110 litres per person per day which local authorities in water stressed areas can apply where there is a clear need.⁷ Currently around 100 local planning authorities implement this optional standard.

The Committee on Climate Change's Mitigation and Adaptation Committees⁸ recently recommended that government should review new-build regulation standards to allow local authorities to set more ambitious standards, especially in current and future water-stressed areas.

The report noted:

- *In Wales regulations are somewhat tighter and require that the estimated consumption water in all new homes should not be more than 110 litres per person per day (calculated in accordance with the 'water efficiency calculator for new dwellings').*
- *Requiring all homes in England to be built to 110 litres per person per day is possible under Part G of regulations and would be no additional cost. However, in order to help alleviate future supply-demand deficits much tighter standards are required.*
- *Further savings could be achieved in England with a 'fittings based approach' as modelled for Wales and Scotland where potential water, energy and bill savings of greater water efficiency are modelled in building regulations. Measures required for much tighter standards, such as rainwater harvesting and water re-use are available, more work is needed to understand the current costs and benefits of these measures.*

In July 2018, the Environmental Audit Committee published its report *Heatwaves: adapting to climate change*⁹, which stated that:

A water-saving culture needs to be embedded to ensure that people understand the strain heatwaves place on the water supply and to make [sure] more water is

⁷ [Housing: optional technical standards - GOV.UK](#)

⁸ <https://www.theccc.org.uk/wp-content/uploads/2019/02/UK-housing-Fit-for-the-future-CCC-2019.pdf>

⁹ <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/826/826.pdf>

available during a heatwave. The government should adopt 110 litres per person per day as the mandatory standard in Part G of the building regulations for all new buildings.

Adopting a single, stronger common standard for all new homes could help to embed a water-saving culture throughout England, not only in water stressed areas. It could also provide a clear benchmark for developers

Water efficiency savings not only reduce demand on water, but also have an impact on energy, carbon and bills of metered customers. In 2013 the Energy Saving Trust carried out a study showing how much heating water contributed to energy bills and made the link between water efficiency and carbon and energy bill savings.¹⁰

In his Spring Statement¹¹ the Chancellor of the Exchequer announced that the government will introduce a Future Homes Standard by 2025, so that new build homes are future-proofed with low carbon heating and world-leading levels of energy efficiency. Water efficiency measures are another way in which we can ensure that our homes are fit for the future.

- 1. Do you consider that the current approach in Building Regulations (i.e. a mandatory minimum standard for new homes but with local authorities in water stressed areas having discretion to ask for a higher standard through a Building Regulations Optional Requirement) is effective?**
 - a. Yes
 - b. No
 - c. No view

Please give reasons to support your answer.

- 2. Do you consider that the current minimum standard of 125 litres per person per day and optional requirement of 110 litres per person per day should be changed, and if so what might be an appropriate new standard?**
 - a. Yes
 - b. No
 - c. No view

Please give reasons to support your answer.

- 3. Are there any other issues relevant to using Building Regulations to set water efficiency standards that the government should consider?**

¹⁰ <https://www.energysavingtrust.org.uk/sites/default/files/reports/AtHomewithWater%287%29.pdf>

¹¹ <https://www.gov.uk/government/topical-events/spring-statement-2019>

Whilst amending building regulations would improve the water efficiency of new homes, it would not affect the water efficiency of existing homes. Building Regulations' requirements cannot retrospectively be applied to existing dwellings. Also, there are no powers under Building Regulations to prevent house holders from changing water fittings if they so choose. The Committee on Climate Change report states that for existing homes:

- *Analysis for south east England shows that there are a number of upgrade measures including low-flow taps, click lock kitchen taps, dual-flush WCs and low-flow showers that could be installed at zero additional cost to homes over the lifetime of the equipment.*
- *For these measures, and others such as water efficient dishwasher and washing machines, savings to householders through lower water bills, outweigh any additional costs associated with fitting the water-efficient measures.*
- *There are strong links between water and energy efficiency which could be maximised through upgrades and retrofit, especially by local authorities and housing associations as there is an opportunity to procure water efficient devices to help reduce water and fuel poverty.*

The Committee on Climate Change report recommended that Defra should work with water companies and local authorities to run partnership retrofit and behaviour change programmes in existing homes. Studies in Scotland and Wales have also shown multiple benefits of linking water and energy efficiency policy and retrofits.^{12,13}

- 4. To what extent do you agree or disagree that Government should work with water companies and local authorities to run partnership retrofit and behaviour change programmes in existing homes?**
- a. Strongly agree**
 - b. Slightly agree**
 - c. Neither agree nor disagree**
 - d. Slightly disagree**
 - e. Strongly disagree**
 - f. Don't know**

Please explain your answer

Water efficiency labelling

Water efficiency labelling refers to programmes that assess the amount of water used by fittings, fixtures and appliances and either provide a rating or an indication of whether this is efficient water consumption. The aim is to empower consumers to make choices favouring more water efficient products and incentivise the development of water efficient

¹² Waterwise (2018) <https://www.waterwise.org.uk/delivering-changes-in-scotland/>

¹³ Burton (2013) *Integrating water efficiency into energy programmes – a case study from policy to implementation.*

products. Labelling schemes are often integrated with wider programmes such as building regulations or incentive programmes (e.g. rebates). International experience suggests a well-developed labelling scheme can be a key part of any water efficiency policy.

Last year Defra, alongside a collaborative fund of water companies and the environmental non-government organisation Waterwise, part funded research carried out by the Energy Saving Trust into the costs and benefits of water labelling options.¹⁴

The research evaluated different water labelling options, including government versus industry led schemes and mandatory versus voluntary schemes, in order to identify the most effective and cost effective option and make recommendations for implementation.

The project recommended introducing a government led mandatory label for all water using products which aligns with building regulations and minimum standards. Currently, water efficiency standards for building regulations can either be calculated using a water calculator, with assumptions around occupancy, or by taking a fittings based approach, which sets maximum flow rates for fittings and fixtures at the standard and optional levels. The water calculator approach requires the use of water consumption figures provided from manufacturers' product details. The overall consumption of all the water using products in the dwelling must not exceed the standard. Fittings-based standards look at appliances in turn, and set standards of performance for each that users are likely to find acceptable, while achieving efficiency in energy and water use.

The recommended option from the study would require building developers to use fixtures and fixed appliances that meet certain criteria from the label. This option would also be linked to incremental minimum standards for water using fittings and appliances such that only products above a certain label rating can be sold, whether for new build or retrofit. In this scenario, these minimum standards would be phased in over a ten year timespan. This would potentially be done by making changes to The Water Supply (Water Fittings) Regulations 1999¹⁵, which drive a number of water efficiency measures and regulate against wastage and undue consumption. The analysis found that this option could potentially reduce personal water use by 6.3 litres per person per day within 10 years, to a saving of 31.4 litres per day after 25 years.

An extension to this project is now underway to test some of the cost assumptions made in the project and to explore if a combined water and energy label would or would not work in the UK context. The project is also exploring how the label would link with building regulations and fixtures and fittings regulations.

- 5. To what extent do you agree or disagree that information on water efficiency should be displayed on water using products?**
- a. Strongly agree**
 - b. Slightly agree**

¹⁴ <https://www.waterwise.org.uk/resource/independent-review-of-the-costs-and-benefits-of-water-labelling-options-in-the-uk-summary-report/>

¹⁵ <http://www.legislation.gov.uk/ukxi/1999/1148/made>

- c. Neither agree nor disagree
- d. Slightly disagree
- e. Strongly disagree
- f. Don't know

Please explain your answer

6. To what extent do you agree or disagree that providing information about products' water efficiency changes peoples' purchasing behaviour and reduces their use of water?
- a. Strongly agree
 - b. Slightly agree
 - c. Neither agree nor disagree
 - d. Slightly disagree
 - e. Strongly disagree
 - f. Don't know

Please explain your answer

7. To what extent do you agree or disagree that water efficiency labels should be linked to building standards and minimum standards?
- a. Strongly agree
 - b. Slightly agree
 - c. Neither agree nor disagree
 - d. Slightly disagree
 - e. Strongly disagree
 - f. Don't know

Please explain your answer

8. How else could government or water companies encourage people to use more water efficient devices/appliances at home?

Metering

Metering is an important element in reducing water demand. It helps to monitor water use accurately, has been shown to reduce use and helps to identify leaks. On average metered customers use around 33 litres less water per day than unmetered customers.¹⁶ Currently just over half (52%) of households in England pay for the water they use by metered charging. This is set to rise to 83% by 2045 based on most recent water company

¹⁶ <https://discoverwater.co.uk/amount-we-use>

plans. Most households that do not pay by metered charging currently pay a fixed amount for water for the year based on the rateable value of the home.¹⁷

Current policy leaves individual water companies to decide the best way to manage water demand issues. Water companies must prepare Water Resources Management Plans every five years. The plans set out how they will balance supply and demand for water from people business and the environment. Defra issues guiding principles that explain the key policy priorities the government expects Water Resource Management Plans to address, which companies should follow. For the current round of planning we said that plans must demonstrate how companies will promote water efficiency and leakage control and, where appropriate, increase customer metering, continuing the trend of reducing overall demand for water. Our guiding principles state that we expect water companies to increase metering where appropriate, under the following conditions:

- Water Resources Management Plans should demonstrate that water companies have taken account of the costs and benefits of metering and that the plans have been developed in consultation with their customers. Plans are updated every five years and look ahead a minimum of 25 years.
- The Water Resource Management Plans are subject to public consultation, and scrutiny from the Environment Agency, before the Secretary of State decides whether a company should be allowed to publish its final plan.

All customers in any part of the country may opt to have a meter installed and pay a metered charge. Water companies can also be able to change customers to metered charges when there is a change of occupier. This includes rented properties.

9. To what extent do you agree or disagree that people should pay for water according to how much they use?

- a. Strongly agree**
- b. Slightly agree**
- c. Neither agree nor disagree**
- d. Slightly disagree**
- e. Strongly disagree**
- f. Don't know**

Please explain why.

Water companies can currently install meters in any area, however they are only able to implement compulsory charging by metered volume (also known as universal metering)

¹⁷ Rateable Values were an assessment of the annual rental value of a property. They were used by local authorities for the General Rates system of local tax between 1967 and 1990. In 1990 the General Rates system was replaced by the Community Charge (Poll Tax) and the District Valuer's office was disbanded. Rateable values were last updated in 1990 so any changes to properties since then will not be reflected in the rateable value. All properties built since 1990 have a water meter installed.

under certain conditions. This includes in areas of serious water stress or water scarcity, where they have demonstrated that compulsory metering is a cost effective way of balancing supply and demand, and consulted on their plans with their customers. In universal metering programmes water companies are able to meter any home in the area they serve without first getting permission from the occupier. Companies in an area designated as an area of serious water stress should consider universal metering.

The National Infrastructure Commission recommended that water companies should be allowed to implement compulsory metering beyond water stressed areas by the 2030s, in order to ensure future resilience of the water supply.¹⁸ Their evidence suggested that this could reduce personal water consumption to 118 litres per person per day by 2050. They noted that *“a faster and better planned transition to universal metering could unlock efficiencies and allow for more extensive engagement to help prepare customers.”* However, universal metering is not the only way to increase the number of households who pay according to how much water they use. For example, water companies are able to charge by metered use where a customer has opted to do so, and when there has been a change of occupier.¹⁹

The impact on individual customers' bills of an overall increase in metering would depend on a number of factors. Evidence suggests that an increase in households charged by metered volume would result in decreased water bills for most customers, although others could see their bills increase, for example households that use large amounts of water.

There are significant safeguards in place for the most vulnerable customers, such as social tariffs and payment plans. In their current draft business plans most companies are setting themselves targets to extend the reach of the support they offer to customers. Water UK's summary reveals that by 2025, 1.4 million customers will receive help with their bills, which they estimate is an increase of nearly 90% from the current 760,000.

There are also a series of safeguards in place for the average customer, who might find changes to their bills difficult to manage. These are on three levels:

- Ofwat scrutinise company plans and will not sign off proposals if they don't demonstrate good value for money and have clear regard to vulnerable customers and bill volatility;
- Ofwat set charging scheme rules that state that companies must consider appropriate handling strategies for their customers whose bills are set to increase by more than 5% from the previous year.
- Some companies offer a transition period gradually to spread any increase in costs that customers may experience following the installation of their meters, or a bill comparison period to get used to the new costs before being switched over.

¹⁸ *Preparing for a drier future: England's water infrastructure needs*, National Infrastructure Commission, April 2018

¹⁹ There are also some other conditions that allow compulsory metering, such as the use of any apparatus other than by hand for watering gardens, and if the household has a bath with a capacity greater than 230 litres. See [regulations](#) for full list.

Where a water company has installed a meter on a change of occupier, the new occupier does not have a choice about having a meter and being charged according to the volume they use. Some companies choose to install meters in their area systematically, then issue customers with two bills to show how much they might save if they switched to metered bills. This can be a cost-effective approach to increase the rates of opt-in metering and helps companies to switch over to meters on change of occupier. Anglian Water has taken this approach and Severn Trent Water is planning to do this through its Water Resource Management Plan. We could encourage water companies to take this approach through our guidance for the next round of Water Resource Management Plans, which would come into effect in 2025.

10. To what extent do you agree or disagree that the amount of households charged by metered volume should be increased beyond and/or faster than what is already planned by water companies?

- a. Strongly agree**
- b. Slightly agree**
- c. Neither agree nor disagree**
- d. Slightly disagree**
- e. Strongly disagree**
- f. Don't know**

Please explain why.

11. If you agree that the amount of households charged by metered volume should be increased, what do you think would be the best or most appropriate approach? Do you have suggestions for increasing metering other than what is mentioned above?

12. Are there any other issues we need to consider with regard to increasing metering?

Smart metering

The government does not specify what type of meter a company should install. It is for water companies to assess the cost and benefits of installing smart meters and consult with their customers on their plans. Smart meters differ from regular meters as they are able to send near real time information back to water companies and customers on water usage, rather than the twice-yearly readings that most companies currently perform.

There are benefits to smart metering, such as more efficient and more accurate leak detection and fixing, and it can help customers track and understand their consumption. However, it requires greater upfront investment to install the technology to transmit the information in real time than rolling out manual meters. This might have an impact on customer bills. Some water companies are starting to trial smart meters, including Thames Water and Anglian Water.

On smart metering, the National Infrastructure Commission concluded that, at national level, *“if the wider benefits are considered, quicker and more comprehensive smart metering should result in savings and is at worst cost neutral.”*

13. To what extent do you support or oppose use of smart water meters instead of manual meters?

- a. Strongly support**
- b. Slightly support**
- c. Neither support nor oppose**
- d. Slightly oppose**
- e. Strongly oppose**

Please explain why.

Incentives

Some companies are considering implementing incentives, such as discounts, prizes or community benefits, for reduced water use at a household or community scale to encourage customers to use less water. Some examples of this include:

- In 2018 Southern Water carried out the ‘River Itchen Challenge’, where the proceeds of water savings were shared back with the local community. Through encouraging water savings they were able to donate free swimming lessons to local school children.
- Thames Water have developed a scheme in partnership with Greenredeem for customers with smart meters. This scheme establishes baseline water use for participating households by using previous meter readings over a period of three months. If the household’s ongoing water use is lower than their baseline, they are given online points each week, which they can spend on rewards like shopping vouchers and free coffees. They can also use these points to enter into a monthly prize draw or donate money to charity.

14. To what extent do you support or oppose use of incentives to encourage customers to use less water?

- a. Strongly support**
- b. Slightly support**
- c. Neither support nor oppose**
- d. Slightly oppose**
- e. Strongly oppose**

Please explain why.

15. What incentives could water companies use to reduce customer use of water?

Rainwater harvesting and water reuse

Rainwater harvesting (RWH) and greywater recycling (GWR) could be a way to reduce demand on public water supply.

RWH is the collection of rainwater directly from the surface it falls on. This water would otherwise have gone directly into the drainage system or been lost through evaporation and transpiration. GWR is the collection and treatment of used water from baths, showers and bathroom taps. Once collected, treated and stored it can be used for non-potable purposes. These include toilet flushing, garden watering and clothes washing using a washing machine.

In 2010 the Environment Agency commissioned a study²⁰ jointly with the Energy Saving Trust and National House Building Council Foundation. The study quantified the lifetime carbon footprints of RWH and GWR systems, consisting of embodied carbon and the carbon emitted from operational use; and the contribution of RWH and GWR systems to reducing carbon emissions associated with mains water demand and foul water volumes. The study found that in many cases the carbon emissions from properties that use RWH or GWR were greater than those for properties that used mains water. But the project also found that there was scope to improve the efficiency and design of systems to reduce their carbon footprints.

A study²¹ by Artesia Consulting that was commissioned by Ofwat to explore the long term potential for deep reductions in household water demand suggested that community-scale rainwater harvesting and water reuse schemes could be a no-regret option that could be implemented more widely in the near future without significant innovation.

There have been examples of greywater harvesting on new housing developments in England. In these community level schemes waste water is taken and treated locally to a lesser degree than drinking water and is supplied back to the properties for use in toilet flushing and hosepipes. This is supported by a dual pipe system built into the houses, with one set of pipes for cleaned drinking water, and the other for non-drinking water. Evidence from these housing developments suggests that reusing storm water and treated effluent in this way can have a significant reduction on *per capita* consumption, without a noticeable impact on the users of the water.

16. To what extent do you support or oppose the use of RWH and GWR schemes at individual level?

- a. Strongly support**
- b. Slightly support**
- c. Neither support nor oppose**
- d. Slightly oppose**

²⁰ <https://www.gov.uk/government/publications/energy-and-carbon-implications-of-rainwater-harvesting-and-greywater-recycling>

²¹ <https://www.ofwat.gov.uk/wp-content/uploads/2018/05/The-long-term-potential-for-deep-reductions-in-household-water-demand-report-by-Artesia-Consulting.pdf>

e. Strongly oppose

Please explain why

17. To what extent do you support or oppose the use of RWH and GWR schemes at community scale?

- a. Strongly support**
- b. Slightly support**
- c. Neither support nor oppose**
- d. Slightly oppose**
- e. Strongly oppose**

Please explain why

18. How can government or water companies most effectively encourage people to reuse water in their homes?

Supply pipe leakage

Three millions litres of water leak from pipes every day in England – more than one fifth of total supply. This has a huge impact on the resilience of water supplies. Companies have committed to reducing leakage by an average of 16% by 2025 and halving it by 2050, reducing leakage to 10% of the water entering the distribution system. The government fully welcomes this ambition.

Reducing leakage to 10% of supply will need to involve tackling supply pipe leakage. Currently around 25% of overall leakage is from customers' supply pipes. Supply pipes are the pipes that carry water from company pipework into a property. Supply pipes run from the boundary of the property (where there may be a company stop-tap) up until the first water fitting or stop-tap inside the property. The maintenance and upkeep of these pipes, including leak detection, is currently the responsibility of homeowners.

Customer supply pipe leakage is included in water companies' overall leakage calculation. This has driven companies to investigate how they can support customers to reduce their own leakage. Metering, particularly smart metering, is a significant tool for companies to use to get customers to take action themselves as metering allows leaks to be detected and fixed. There is arguably a strong economic incentive for property owners (or tenants) themselves to ensure that the leak is fixed if they are metered, as this will have a direct impact on their bills.

In 2013 the government consulted on options for the future management of supply pipes²². This explored transferring ownership of supply pipes to water companies. Whilst there was strong support for this option and a range of benefits identified, there was not enough evidence about the range of potential impacts on water bills for various customers and

²² <https://www.gov.uk/government/consultations/future-management-of-private-water-supply-pipes>

geographical regions. The government therefore decided not to carry out further work on transferring ownership.

19. Do you have any evidence/views/comments on the potential impacts on water bills for various customers and geographical regions should the management of supply pipes be transferred to water companies?

The consultation also asked for alternative options to transferring the ownership of supply pipes. Some of the options that came out from the responses were:

- *Increased use of metering and/or smart metering.*
- *National policy for a single continuous pipe from main to wall mounted meter box in new build properties, to address leakage.*
- *Create a mandatory code of practice for water supply companies (rather than voluntary).*
- *Require water supply companies to assist with maintenance and repair.*
- *Voluntary adoption of supply pipes by water supply companies.*
- *Water supply companies to run public relations exercise to identify and address problem pipes and clarify property owner responsibilities.*

20. Of the alternative options above, which is your preferred? Please explain why or if you have other ideas.

21. What other options are available to reduce leakage from customer supply pipes?

Communications and behaviour change

To ensure the resilience of our water supplies, a water-saving culture must be developed throughout England. Water efficiency needs to become embedded across all activities throughout everybody's lives – wasting water should be seen as going against the norm.

Consistent and co-ordinated messages are important for effective communication and vital to developing a water-saving culture. But, there is a lack of consistent messaging and little co-ordinated joint action between water companies. Water saving messages are often only communicated at times of dry weather or drought, when water resources are already stretched. In most of England drought is seen as an exceptional occurrence and there is little awareness of pressure on water resources. There is a need for consistent messaging all year round that helps people to understand the issues of water availability in England and how to save water.

22. What are the main barriers to changing behaviours to reduce personal water use? Please rank your top three options by order of importance:

- a. Insufficient access to support and advice**
- b. Insufficient information about personal water usage**
- c. Insufficient information about water scarcity**

- d. Lack of financial incentive**
- e. Investment in more water efficient equipment is prohibitively expensive**
- f. Difficulty in changing habits**
- g. People feel they are already doing all they can to reduce water use**
- h. Hygiene reasons**
- i. Other (please specify)**

23. Which organisation(s) (if any) should communicate about how to reduce personal water use? Please select all that apply.

- a. Water companies**
- b. Government**
- c. Local government**
- d. Environmental non-governmental organisations, for example environmental charities**
- e. Other – please specify**

Please explain your answer

24. If there are any further matters that you would like to raise or any further information that you would like to provide in relation to measures to reduce personal water use, please give details here.

Call for evidence

25. Please provide evidence regarding what reduction in personal water use could be made by 2050 by using the following measures, plus any others you believe to be relevant:

- a. More ambitious water efficiency standards in building regulations for new homes. The government is interested in understanding the impacts of any changes to standards, including on housing development, the costs of meeting the current standard and costs of meeting higher standards. Please provide any evidence which you have on impacts. Retrofitting existing homes. Defra is keen to understand what level of retrofitting would be needed should different levels of water efficiency standards in building regulations for new homes be implemented. We are also interested in views of how this could be achieved.**
- b. Introduction of a mandatory, government-led water efficiency label linked to building standards and fixtures and fittings.**
- c. Changing water fittings regulations to improve water efficiency of homes. Defra is keen to understand what changes would be required.**
- d. Options that deliver an increase in metering penetration.**
- e. More widespread rainwater harvesting and water reuse schemes.**
- f. The use of water company incentives.**
- g. Information provision to customers about water saving measures they can undertake and change to a water-saving culture.**

When submitting evidence for each measure, consider:

- the expected reduction in water use
- the associated impacts and costs (economic, environmental, public health and social)
- the distribution of impacts
- when these impacts are likely to occur
- the likelihood that these measures will deliver the savings predicted
- the associated risks for each measure and how these risks might be mitigated
- the 'best mix' of measures and the overall reduction in water use that this could achieve
- barriers to achieving these water savings and how these barriers might be overcome
- what impacts the measures could have on personal water use outside of the homes - for example individual use in business settings (toilets, showers etc.)
- any relevant impacts on individuals.

Please state any assumptions that have been made, evidence gaps and other evidence that you consider to be relevant to measures to reduce personal water use.

How you can have your say

How to respond

This public consultation will run for twelve weeks from 19 July to 11 October 2019. It is open to anyone with an interest in providing comments. Please provide answers that explain your opinions fully.

Please respond to this consultation using the Citizen Space consultation system:
<https://consult.defra.gov.uk/water/measures-to-reduce-personal-water-use>.

Responses by post or email should be clearly marked 'Consultation on measures to reduce personal water use – response' and sent to:

Water Services
3rd floor, Seacole Building
2 Marsham Street
London
SW1P 4DF

water.resources@defra.gov.uk

The government will aim to publish a summary of responses within 12 weeks of the consultation ending.

Confidentiality and data protection

A summary of responses to this consultation will be published and placed on the government website at: www.gov.uk/defra.

The summary will include a list of names and organisations that responded but not personal names, addresses or other contact details. Information provided in response to this consultation, including personal data, may be published or disclosed in accordance with the access to information regimes these are primarily the Environmental Information Regulations 2004 (EIRs), the Freedom of Information Act 2000 (FOIA) and the Data Protection Act 2018 (DPA). We have obligations, mainly under the EIRs, FOIA and DPA, to disclose information to particular recipients or to the public in certain circumstances.

If you want information, including personal data, that you provide to be treated as confidential, please say so clearly in writing when you provide your response to the consultation why you need to keep these details confidential. If we receive a request for disclosure under the FOIA, we will take full account of your explanation, but we cannot provide an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as a confidentiality request.

This consultation is being conducted in line with the Cabinet Office “Consultation Principles” and can be found at: <https://www.gov.uk/government/publications/consultation-principles-guidance>.

If you have any comments or complaints about the consultation process, please address them to:

Consultation Coordinator
Area 1C, 1st Floor Nobel House
17 Smith Square
London
SW1P 3JR

Or email: consultation.coordinator@defra.gov.uk