



Waterwise
344-354 Gray's Inn Road
London
WC1X 8BP
14th June 2022

Dear Sir/Madam

Environment Act Targets - Consultation

Many thanks for the opportunity to comment on the proposed targets arising from the Environment Act. We have focused our response on the aspect of the report most closely related to Waterwise's vision that water is used wisely, every day, everywhere; namely the proposed **Water Demand Reduction Target**.

Summary of our Response

- Strong support for a statutory water demand reduction target in England
- Strong support for a Distribution Input (DI) metric on the proviso that the government and regulators bring forward wider policy action to encourage a similar level of demand reduction ambition from other non-Public Water Supply (PWS) abstractors as we are asking of PWS water users
- Remove the per capita consumption (PCC) element of the metric to avoid the environment bearing the risk of population growth given the primary purpose of the target is to help protect and enhance the environment
- Amend the leakage element sub-target to 36% to reflect the higher level of ambition already embedded in water sector plans and in the Water UK leakage roadmap.
- Be more ambitious on household consumption pegging the sub-target to achieve a "with policy support" PCC of 100 litres per person per day (lppd) by 2050 not 110 lppd.
- Round the non-household sub-target up to 10% and commit to improve the evidence base so this sub-target can potentially be increased when the target is reviewed.

Waterwise strongly supports the adoption of a statutory water demand reduction Environment Act target

Reducing demand for water is essential if we want secure future water supplies and a healthy natural environment. In the emerging multisector Regional Water Resources Plans published in January 2022 reducing water demand is earmarked to deliver more than 50% of the water we need to meet our future needs and those of the natural environment. In addition, we know that demand reduction can reduce bills for customers and will help us meet our climate change net zero goals. There is currently no statutory target to reduce water demand.

The new target will provide a clear, top level signal that water demand reduction is important and that we all have a role to play. Success relies on efforts across society including

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supportive government policy; increased action from the water sector and commitment from all water users to use water wisely.

We support the adoption of a Distribution Input metric for the target

It is important that the national target includes all the elements that make up demand for water through the public water supply system; namely household (HH) and non-household (NHH) water use and leakage. Progress is needed across all three areas to realise the reductions we need. A Distribution Input (DI) target would do that and so we are pleased to see the government proposing DI rather than per capita consumption.

However, we also need non-PWS abstractors to play their part

The proposed target will only cover public water supplies. Non-public water supply abstractors make up around 7% of consumptive use according to the National Water Resources Framework but their water usage can be very significant in some catchments and at certain points of the year. We want these other abstractors to also be encouraged and motivated to achieve similar scale reductions in water use to those expected of PWS users (i.e. at least 9% by 2037). We need the government and regulators to make it clear that they expect non-PWS abstractors to play their part. We believe this can be through a number of mechanisms:

- There should be an expectation on all large non-PWS abstractors that they should be taking action to reduce their water demand, including by making similar scale commitments to those expected of PWS water users in this target. Non-PWS demand side commitments from large users should be set out in the multi-sector regional water resource plans.
- When the Environment Agency reviews abstraction licences/permits for non-PWS abstractors more weight needs to be placed on their demand management commitments and actions. There should be an expectation that it will be difficult to renew an abstraction licence unless it is evident that action is being taken to optimise usage and to target reducing demand by at least 9% by 2037.
- Developing a communication plan for all private water supply users through the National Drought Group to ensure they are using water efficiently and are effectively supported during times of drought.

We believe the Distribution Input metric should not be per capita

We agree with the Expert Group that the target should not be divided by population. By including a per capita component in the DI metric the benefits of the target to the environment are then linked to population growth. The environment carries the risk. Unfortunately the evidence pack does not include any details on population assumptions or how different future population scenarios affect the level of benefit to the environment of this Environment Act target. This is a significant omission.

However, despite the absence of information on population assumptions in the evidence pack it is clear that the higher the rate of population growth the lower the actual benefit to the

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environment in terms of reduced abstraction. For every 5% rise in population growth the environment sees 400-500 MI/d less benefit in terms of reduced MI/d into supply and hence actual abstraction reduction. Indeed if the population were to grow by around 25% there would be no benefit at all to the environment in terms of reduced DI and abstraction. Our preference therefore given the primary purpose of the target is to project and enhance the environment is for the target to be set as % reduction in DI by 2037.

We believe the target must be more ambitious than the level of ambition already included in water sector plans and commitments

With the exception of the non-household (NHH) target the current target is pegged to existing water sector commitments, plans and roadmaps. For example, the 110 lppd household (HH) consumption and 50% leakage reduction by 2050.

The problem with this approach is that it removes or weakens the driver for government and regulators to bring forward further regulations and policies that can support greater ambition; for example on building standards, customer supply pipe ownership and resource efficiency/net zero retrofit programmes.

We therefore want to see the overall water demand target and its component elements set at a level that exceeds current water sector plans and commitments, most of which have been made in the absence of supportive policy.

We believe that faster roll-out of full smart metering is a key enabler to meet the proposed target and that government should be more supportive of it

There is an increasing evidence base that smart metering can play a very significant role in reducing leakage and helping HH and NHH customers reduce consumption^{1 2 3 4 5} thereby helping us meet or exceed the proposed target.

For the water industry the cost of rolling out smart water metering can be offset by savings on leakage control; network management; the reduced cost from producing less water and avoiding the costs of having to develop other water resources. Research by Frontier Economics indicates this approach is cost beneficial and so should actually result in lower water bills for customers⁶.

For HH and NHH customers consumption data from smart meters can help raise awareness of their water use and motivate them to make savings⁷. The data can also help to quickly flag leaks on customer premises. It provides customers with greater control and allows them to

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https://www.water.org.uk/news-item/milestone-leakage-routemap-to-revolutionise-the-reduction-of-leakage-from-pipes/?mc_cid=14e5c1a21d&mc_eid=bc7fd47683

2 <https://mosl.co.uk/news-and-events/news/enhanced-metering-research-report-published>

3 <https://www.waterwise.org.uk/knowledge-base/smart-metering-and-the-climate-emergency-2021/>

4 <https://www.waterwise.org.uk/knowledge-base/public-attitudestowards-smart-meters/>

5 <https://www.thameswater.co.uk/about-us/newsroom/latest-news/2021/apr/smart-water-meter-milestone>

6 <https://www.frontier-economics.com/media/4946/argiva-cost-benefit-analysis-a4-full-report.pdf>

7 <https://www.waterwise.org.uk/knowledge-base/public-attitudestowards-smart-meters/>

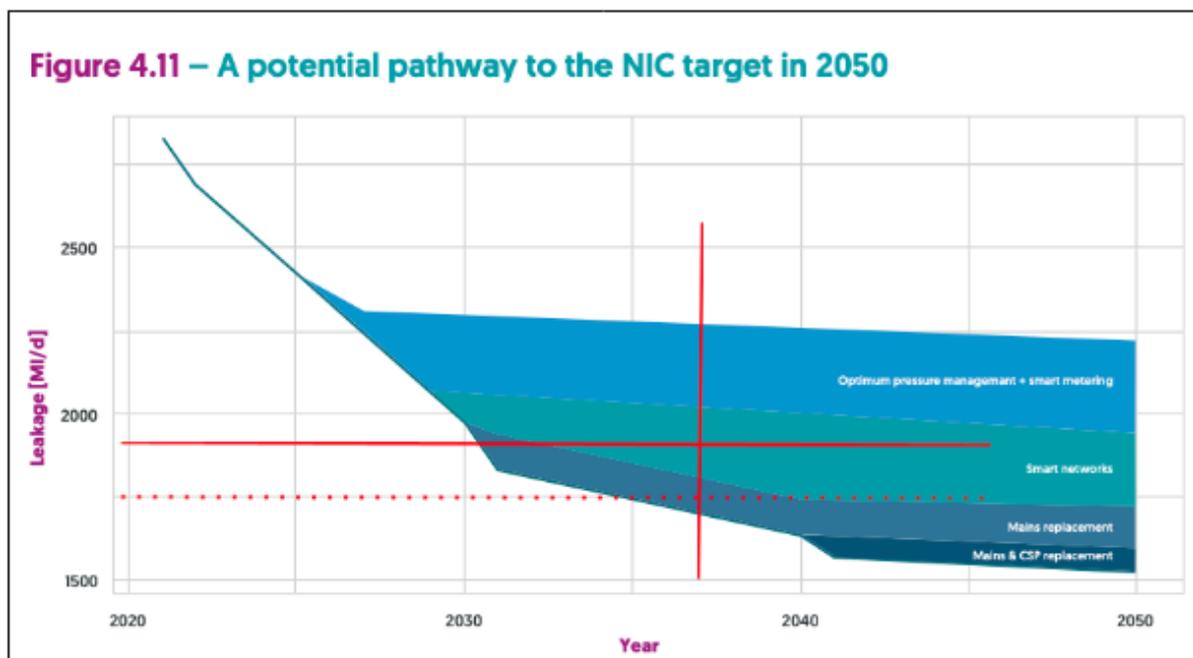
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benefit financially from taking action through reducing water and energy bills. On the specific concerns around cost of living, protections already exist for customers transferring to a water meter and, more broadly, for customers who cannot afford to pay for the water they use; although we do recognise that the latter need to be improved⁸.

We want the government to review its position and remove remaining restrictions limiting water companies rolling out compulsory metering linked to charging based on usage.

We believe the proposed target underestimates existing water sector leakage commitments and needs to be more ambitious on this aspect

The current target does not reflect current levels of ambition on leakage reduction, setting a target for this element of DI at 31.3% which is lower than the ambition already included in existing published 2019 Water Resource Management Plans and much lower than the levels of reductions possible in the adaptive pathway set out in the recent [WaterUK Leakage Roadmap](#)⁹ - see below.



Adapted pathway from [WaterUK Leakage Roadmap](#) with added red lines showing current 2037 target level

It is important to note that the higher levels of ambition in the leakage roadmap are linked to the introduction of further progressive policies to support leakage reduction, for example on supply pipe adoption. This highlights the importance of the target being set at a level that not

⁸ <https://www.ccwater.org.uk/affordability-review/>

⁹ <https://www.water.org.uk/publication/a-leakage-roadmap-to-2050/>



just reflects current levels of water company ambition but at a level that encourages government to bring in further supportive policies.

We want to see the level of ambition on the leakage element increased so that it is greater than the level already baked into existing WRMP19 water company plans and also to better reflect what is possible based on the Water UK leakage roadmap. We propose a revised level of leakage ambition of 1,750 Mld in 2037 as shown as the dotted line in the chart above. This would represent a 36% reduction on baseline levels and would increase the overall target by around 1%.

The level of ambition on HH demand reduction is underwhelming

On household consumption we want the government to be more ambitious than the 122 lppd level used as part of the overall target. We want the government to peg the 2037 target to achieving at least 100 lppd by 2050.

The government has set the level of ambition at what it believes is needed by 2037 to be on track to reach the 110 lppd by 2050 planning assumption set out in the National Water Resources Framework¹⁰ and more recently in the 2022 Strategic Policy Statement¹¹ from Defra to Ofwat.

However, it should be noted that whilst the National Water Resources Framework Senior Steering Group (SSG) agreed that the 110 lppd target by 2050 should be used as the planning assumption in the new regional plans they also highlighted that it was set in advance of, and did not take into account, the government's response to the 2019 consultation on policy measures to reduce personal water use which hadn't been published at the time the 110 lppd was agreed and wasn't published until July 2021¹² (see SSG Paper 19 Updated Results - 10 October 2019 and SSG Paper 22 on Securing Demand Management Outcomes - 21st January 2020). The National Framework papers highlight that a more ambitious target could be set depending on the nature of any supportive policy change by the government. The SSG agreed in January 2020 that *"a more ambitious 100 l/h/d target could be considered if further interventions are included such as tariffs, water reuse within homes and the government implements a range of policy changes such as product and building standards"*.

In our 2019 Waterwise submission to Defra on policy measures to reduce personal water use we called on the government to adopt a national target to bring household personal capita consumption (PCC) below 100 lppd by 2050 and to progress the policies to facilitate this (metering, labelling, building standards etc). WaterUK in its response also indicated that around 100 lppd was achievable with supportive policy and Blueprint for Water also called for a target of below 100 lppd by 2050 linked to policy change. All of these responses drew

¹⁰ <https://www.gov.uk/government/publications/meeting-our-future-water-needs-a-national-framework-for-water-resources>

¹¹ <https://www.gov.uk/government/publications/strategic-policy-statement-to-ofwat-incorporating-social-and-environmental-guidance/february-2022-the-governments-strategic-priorities-for-ofwat>

¹² <https://questions-statements.parliament.uk/written-statements/detail/2021-07-01/hcws140>

on Artesia's PCC pathways work¹³ for WaterUK and their earlier report for Ofwat¹⁴ both of which showed that achieving levels below 100 lppd was realistic and achievable (see table below). Indeed all of the scenarios considered delivered PCC levels below the 122 lppd proposed in this Environment Act target and do so two years earlier (by 2035 not 2037).

Table 14: PCC values for each scenario

Scenario	PCC (l/head/day)				
	04/2021	04/2025	04/2035	04/2045	04/2065
Current ambition	137.7	132.1	124.0	119.4	114.2
Extended	137.7	132.0	118.6	113.6	107.3
Enhanced-01	137.7	130.6	114.9	106.4	101.2
Enhanced-02	137.7	129.9	114.0	109.0	107.1
Enhanced-03	137.7	128.9	101.4	88.1	81.9
Enhanced-04	137.7	127.0	99.0	91.6	86.6
Water labelling with minimum standards	137.1	128.9	105.0	92.2	86.9

Table taken from <https://www.water.org.uk/wp-content/uploads/2019/12/Water-UK-Research-on-reducing-water-use.pdf>

Whilst we recognise that household consumption rose during the covid pandemic due to lockdowns, working from home and increased handwashing, most of this was offset by a shift in usage from NHH to HH consumption. In deferring penalties based on PCC targets Ofwat challenged companies¹⁵ to recover any shortfall in PCC performance as we emerge from the pandemic. Looking forward, the use of a DI metric will serve to dampen down the impacts of any future shifts in water use on the overall target and its level of ambition.

We welcome the inclusion of NHH demand in the target but we want to see more ambition and, as a minimum, it should be rounded-up to 10%

We are pleased to see NHH demand included in the proposed target. Including this element provides a crucial signal to businesses and other organisations that water saving is important to the government and wider society and that they have a part to play...especially

¹³ <https://www.water.org.uk/wp-content/uploads/2019/12/Water-UK-Research-on-reducing-water-use.pdf>

¹⁴ <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>

¹⁵ <https://www.ofwat.gov.uk/wp-content/uploads/2021/07/PCC-consultation-decisions-on-reporting-performance-and-ODI-timing.pdf>

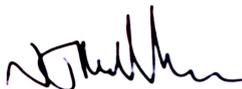
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given around 30% of water consumed is outside the home. It also helps deliver one of the central recommendations from the 2021 NHH Water Efficiency Action Plan¹⁶ requested by Ofwat and the Environment Agency.

Whilst the level of ambition assumed in the NHH sub-target at 9% is greater than the disappointing 6% set out by wholesale water companies in their WRMP19 plans, it is still a very low level of ambition. Both reflect the challenge in AMP7 of delivering water efficiency through the NHH market in the absence of incentives on wholesale water companies and/or funding for water retailers. These factors which are limiting NHH water savings can be addressed through policy change as highlighted in the recent RWG Water Efficiency Group review undertaken by Economic Insights. There is certainly potential for far greater NHH water savings as highlighted by recent smart meter data from NHH customers in London which indicates they may be leaking over 25% of the water they receive within their own premises.

Therefore we would like to see more ambition on this sub-target and, as a minimum, to see it rounded up to 10% which would be a much more “saleable” challenge to put to NHH users than 9% (i.e. we need you to try to reduce your water use by 10% compared to 2019-20 levels). In the meantime we would like the government to commit to improve the evidence base on potential and actual NHH savings so that the NHH target can be revised upwards if appropriate at the next review point.

Regards



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Who is Waterwise

[Waterwise](#) was founded in 2005 and is the leading authority on water efficiency in the UK. We are an independent, not-for-profit organisation, receiving funding from supporters across and beyond the water sector and wider sponsorship and research projects. We like to be at the front, leading and supporting innovative efforts to realise our mission; that water will be used wisely, every day, everywhere.

¹⁶ <https://www.ofwat.gov.uk/wp-content/uploads/2021/02/Joint-open-letter-from-Ofwat-and-the-Environment-Agency.pdf>