Waterwise
344-354 Gray's Inn Road
London
WC1X 8BP
24th October 2022

Respond to water.resources@defra.gov.uk by 25th November

Dear Sir/Madam

Many thanks for the opportunity to respond to the consultation on Mandatory Water Efficiency Labelling. Our response is below.

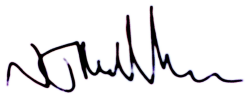
We do not require our response to be kept confidential.
Our response is relevant to all four UK countries.

We are very supportive of the proposals overall. However, we would urge the government, in the forthcoming Statutory Instruments, to retain the option of introducing **minimum "for sale" efficiency standards** as used successfully in energy labelling to improve the efficacy of this scheme in the future, if needed.

We also want the government to commit to integrating the new label into its Roadmap proposals for more water efficient buildings.

We look forward to supporting efforts to progress the UK mandatory water label.

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, by everyone.

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Products covered by the label

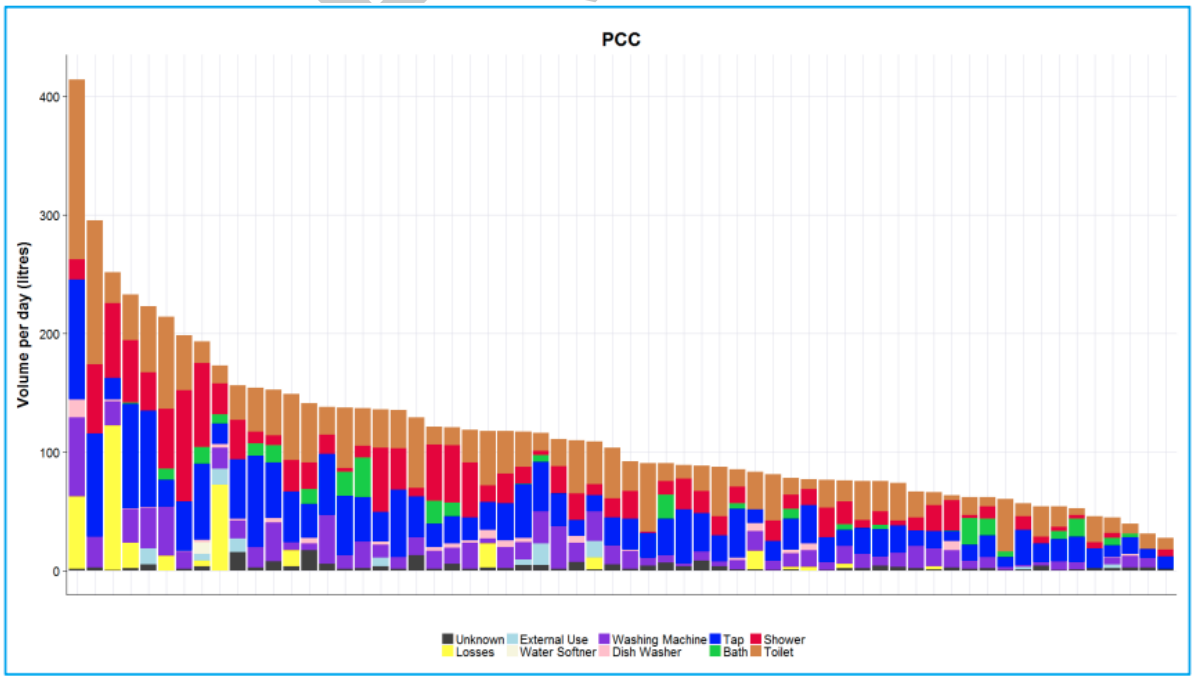
Question 1: Does the list of products we selected set the right level of ambition? [yes, no] [If no], please outline why not and what other product(s) we might consider labelling in future and why? [open text]

NO

Whilst we agree that the label should initially cover toilets, urinals, kitchen sink taps, bathroom basin taps, non-electric shower outlet devices and shower assembly solutions, dishwashers, washing machines and combination washer-dryers we would question whether electric showers should also be included as an additional product group. Electric showers are generally more water efficient than non-electric showers and signalling this to consumers through the use of the water label using a water use scale comparable to that of non-electric showers has merit, we believe, in encouraging customers and specifiers to choose more water efficient products. Alternatively, although not ideal, the existing water heater energy label used with electric showers could be amended to also indicate what water efficiency label grade they would sit in on the scale for non-electric showers.

We also query whether flow controllers are covered under the definition of shower assembly solutions. If not then they should be included in scope as they are in the WELS scheme in Australia.

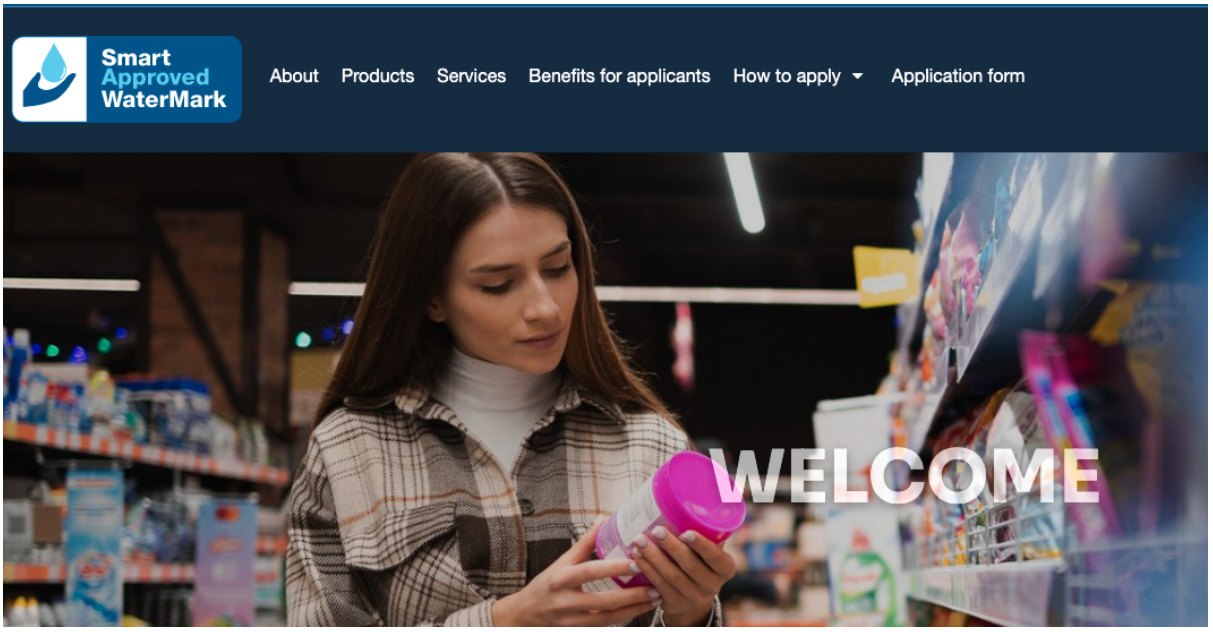
We would also like to see a specific category for outside use/garden taps considered as significant quantities of water can be used outside the home for hose pipe garden watering and car washing, especially during hot and dry weather when water availability can be limited. Looking at average yearly data can mask some of these issues relating to outdoor use and peak demand/drought.



We would appreciate confirmation that the products covered will include commercial ranges of products such as dishwashers. Around 30% of water consumption takes place outside the home and so it is important that commercial product ranges are included.

It will be important that the UK governments keep the product list covered by the mandatory label under review and are open to including additional water using product categories as new product types emerge or gain popularity, for example Quooker style taps. We want to see a commitment to do this.

Finally, we believe there is merit in setting up a parallel recognition scheme for water saving products not covered by the mandatory water label. For example where there isn't a straightforward variable such as flow rate that can be measured. This approach has worked well in Australia where the Smart Approved WaterMark has been awarded to around 110 garden and household products to recognise their water saving characteristics relative to their peers. Such products could be included in a separate category on the proposed database. Waterwise works closely with the operators of the SmartWaterMark and would be happy to discuss this idea further.



Label design and features

Question 2: To what extent do you agree or disagree that a standalone water label only is the most appropriate way to deliver mandatory water efficiency label policy? [strongly agree, agree, neutral, disagree, strongly disagree, don't know-no answer]

STRONGLY AGREE

We strongly believe that the water efficiency label should be a standalone label that, where relevant, is included alongside an existing energy label. This is for the following reasons:

- Focusing the label on water will make it easier for customers to recognise and understand what the label is telling them.
- Not all water using products use energy (and vice versa) and so combining the information onto one label risks restricting use of the label.
- Future proofing. A standalone label allows for greater control over label bandings, minimum standards and the inclusion of additional product types.

Question 3: In what ways can the impacts of dual labelling on manufacturers be minimised? [open text]

The impact of dual labelling can be minimised for manufacturers if the requirements for display are similar to the energy label and if the same label can be used across the whole UK.

Question 4: To what extent do you agree or disagree that the example label designs appropriately deliver water efficiency information to a consumer? [strongly agree, agree, neutral, disagree, strongly disagree, don't know-no answer]

STRONGLY AGREE

We support the proposals for a standalone water label that is simple in design; that indicates the water flow rate or consumption per cycle (X litres/min) and that follows the approach used for the existing energy label design, but is identifiable through a different colour scale.

We support the use of a QR code to provide access to additional performance (and maintenance) information.

Question 5: Are there any additional elements required in the labelling specification? [open text]

There is a known and significant water wastage problem with dual flush toilets leaking often without the owner being aware there is a leak. This is wasting around 400 Mld of drinking quality water in the UK. The leaks have been found to be largely due to issues with the flush valve seals. Whilst we want to see the issue designed-out we also know that routine maintenance and replacement of the affected parts can also help reduce the risk of leaks. However, we suspect that this routine maintenance rarely takes place in practice and that few householders retain the maintenance information for their toilet. Likewise customers may not be clear how they can find and fix a leak. The label or more likely the QR code for dual flush toilets could link to maintenance information to help the consumer understand the maintenance needs of their toilet and also information on how a leak can be found and fixed.

The introduction of the water label provides an opportunity to improve on requirements for appropriate testing of products and to support enforcement of testing. We cover this in our response to Q10.

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For some products such as washing machines there are a range of alternative pre-programmed settings or operating modes. Where the most water efficient setting is not the ECO setting this could be highlighted on the label.

Hosepipe users are the first to face restrictions to use during droughts but leaving them out of the labelling proposals makes it more difficult for those consumers to make the right purchases and plan their gardens to live without hosepipes. By telling consumers that the products are using large amounts of water, they will better understand the reason for hosepipe bans and perhaps seek further information about alternative ways to garden without hoses, which are numerous, cheaply available and proven. Examples of how to use less water, and switch to using more rainwater in gardens can be found on the RHS website or https://www.bethchatto.co.uk/.

Question 6: To what extent do you agree or disagree that including energy information on the label (for taps and non-electric showers) would be beneficial? [strongly agree, agree, neutral, disagree, strongly disagree, don't know-no answer]

STRONGLY AGREE - We support the inclusion of energy use information on water using products that use energy but don't have an energy label, for example taps and non-electric showers.

Question 7: What would be the most effective way for energy information to be included in the label? [open text]

We believe customers will struggle if the label just includes a KWh or similar technical figure on the water label without the relative context of whether that figure is high or low. Customers need to know if the energy use of their product choice is high relative to other alternative product options. Given that the level of energy use in taps and non electric showers relates directly to their hot water efficiency it should be relatively straightforward to indicate on the label that a more hot water inefficient option will use more energy per minute relative to a more efficient product. We like the approach taken with the Unified Water Label (see below) and something similar could be adopted for taps and non-electric showers with the mandatory scheme.

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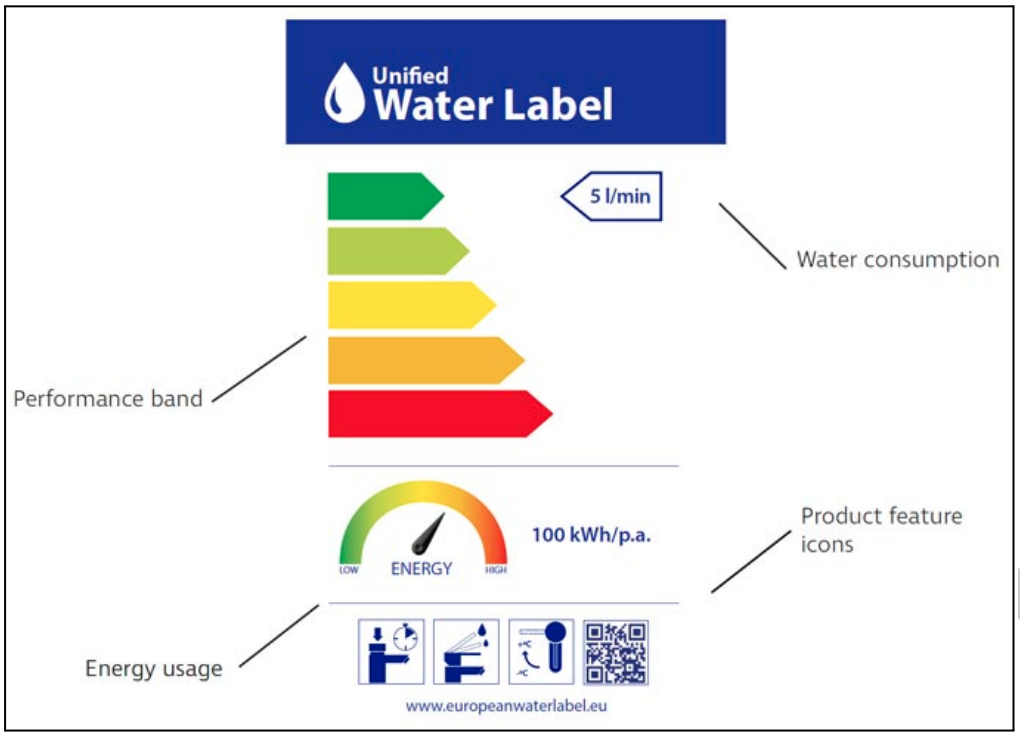

Label display

Question 8: To what extent do you agree or disagree that the display requirements are suitable to ensure water label visibility to the consumer? [Strongly agree, agree, neutral, disagree, strongly disagree, don't know-no answer] Please include any additional comments on the above proposals. [open text]

STRONGLY AGREE - We support the proposals to ensure that the label is visible to customers at the various points where they may make purchasing decisions including on-line. This is critical if the label is to work and inform purchasing decisions. The display requirements should be comparable to those for the existing energy label.

Ideally we also need retailers selling products online to include the facility for customers to filter or sort for products by their water efficiency label grade in their online sales platforms. In any case the product registration database should include this facility (see Q9 and Q10).

There is useful guidance for manufacturers and retailers on labelling requirements for the energy label which could be adapted for the water label. For example this guidance to retailers on online labelling.

Database of products registered with the mandatory water efficiency label

Question 9: To what extent do you agree or disagree with the information we propose for the database in annex E?

We STRONGLY SUPPORT the proposal to have an online central product database that customers and specifiers can use to screen and select products based on their water efficiency and that enforcers can use to confirm that a product has been registered.

The categories proposed for inclusion seem broadly sensible and are similar to those in other existing schemes such as the database used by the existing Australian mandatory water labelling scheme. However, we have the following comments:

- We are not sure that including a cost per unit is viable unless it is the Recommended Retail Price as the prices quoted to product purchasers may be very variable according to where purchased, volume purchased etc.
- A field to capture or show energy use might be useful so that it can be shown for taps and non-electric showers.
- We are not sure of the value of a field to capture noise levels.

Question 10: Should any additional information to that set out in Annex E be included in a database? [yes, no (if yes, please explain - open text)]

The introduction of the water label provides a great opportunity to improve on current requirements and associated enforcement around the testing of products. One requirement to receive a label and to be included in the associated product registration database could be evidence of satisfactory testing at an accredited lab. Without that evidence the product would not be registered and would not receive a label.

The Australian mandatory water efficiency labelling scheme requires testing on all products they regulate before they can be registered and labelled with their water rating. Products must be fit for purpose and meet Australian standards for water efficiency. Testing must be performed at a laboratory accredited by the National Association of Testing Authorities (NATA).

The Australian water efficiency labelling scheme also links directly to an additional mandatory requirement to secure certification from the Watermark testing scheme for plumbing products such as taps, showers and toilets. Watermark is run by the Australian Building Codes Board. Certification ensures products are fit for purpose and appropriately authorised for use in plumbing and drainage installations. Without certification products aren't listed on the water efficiency database and don't receive a label. It is claimed that this certification approach is also helping them address the issue of leaky loos which we highlighted earlier in Q5 are wasting a significant volume of water in the UK.

Requirements to support mandatory water efficiency labelling

Question 11: Are there any existing standards or regulations beyond those listed from pages 99 - 104 of the EST technical report, which you consider may have implications for the delivery of mandatory water efficiency labelling? Please outline and provide explanation [open text]

The Australian WELS scheme has a requirement to commission and publish an independent review of its costs and benefits every five years with recommendations made for improvements to the scheme. We believe that it is important to include a similar, regular Independent Review process in the UK scheme.

The latest WELS independent review has recently been published and is here. The review found that the scheme was meeting its objectives which are:

- to conserve water supplies by reducing water consumption
- to provide information for purchasers of water-use and water-saving products
- to promote the adoption of efficient and effective water-use and water-saving technologies.

In terms of outcomes the mandatory labelling scheme in Australia has saved customers $1.5 billion in utility bills since 2005 along with 158,000,000,000 litres of water and 21 MtCO2e. This year it is saving 12.4 litres per person per day on average which is predicted to grow to 19.5 lppd by 2036.

Question 12: Please outline the criteria which you consider the enforcement authority should fulfil, and explain your reasons? [open text]

We agree with the statements in the Consultation Document that the enforcement authority should monitor and investigate compliance with the labelling requirements (online and instore) and be able to sanction non-compliance.

As highlighted in our response to Q10 we believe that the water labelling enforcement authority should also have a role in helping to ensure that products registered on the database and labelled have been appropriately tested and certified.

It is important that the enforcement authority is adequately funded to undertake its role. This has been an issue with the energy label which in part relies on local authorities. One approach that could be considered is for ring-fenced funds to be sourced from water sector customers in a similar manner to the Ofwat Innovation Fund or CCWs funding with these monies used to cover the costs of centralised promotion and enforcement of the label. We believe this would be a good use of taxl payers money given the positive benefit cost ratio of water labelling and the savings a successful scheme will deliver to customers on their water and energy bills.

Question 13: To what extent do you agree or disagree with the proposed mandatory water efficiency labelling enforcement plan? [strongly agree, agree, no preference, disagree, strongly disagree.]

We AGREE with the overview of the enforcement regime set out in the Consultation Document. However, as highlighted in our response to Q12 we want to see a more explicit role linking the label to product testing.

Question 14: Do you have any further comments on the enforcement plan? [open text]

Reducing impacts on the natural environment

Question 15: To what extent do you agree or disagree that these figures are accurate? [strongly agree, agree, neutral, disagree, strongly disagree, don't know-no answer] Please provide any information to support your view (open text)

AGREE. Whilst there is always some uncertainty in modelling the future the programme of work undertaken by EST was thorough. Phase 1 was independently reviewed by the Institute for Sustainable Futures, University of Technology Sydney and the US EPA Office of Wastewater Management. Phase 1 and 2 was reviewed by WRc and Artesia as part of their work for Water UK's on pathways for reducing personal water consumption published in 2019.

To provide additional confidence in the credibility of ESTs calculations the scale of potential savings can also be compared with actual savings seen from existing mandatory water labelling schemes. This comparison shows that the EST modelled outcomes are similar to actual outcomes seen in Australia. An assessment published in 2019 found water savings of over 300 Mld in 2017–18 which is 12 years after the scheme was introduced with 632 Mld savings predicted by 2036–37. Depending on the exact option and associations chosen EST calculate that we could be seeing savings of around 1300 Mld in England after 25 years. Over 30 years the Australian scheme was expected to reduce GHG emissions by a cumulative 53.5 MtCO2e with the scheme in England estimated by EST to save 38 to 55 MtCO2e over 25 years in their Phase 2 report. On average, Australians saved $A42 (circa £27) per person per year in 2017–18 due to the water efficiency driven by WELS and the scheme was calculated to provide a 96:1 benefit cost ratio by 2036 both of which are similar to anticipated figures here from the EST analysis. The latest WELS review is about to be published but early press reports suggest that the mandatory labelling scheme in Australia has saved customers $1.5 billion in utility bills since 2005 along with 158,000,000,000 litres of water and 21 MtCO2e. In the latest full year of operation WELS is estimated to be saving 12.4 litres per person per day on PCC on average which is in the same ballpark as the modelled estimates from EST (see below).

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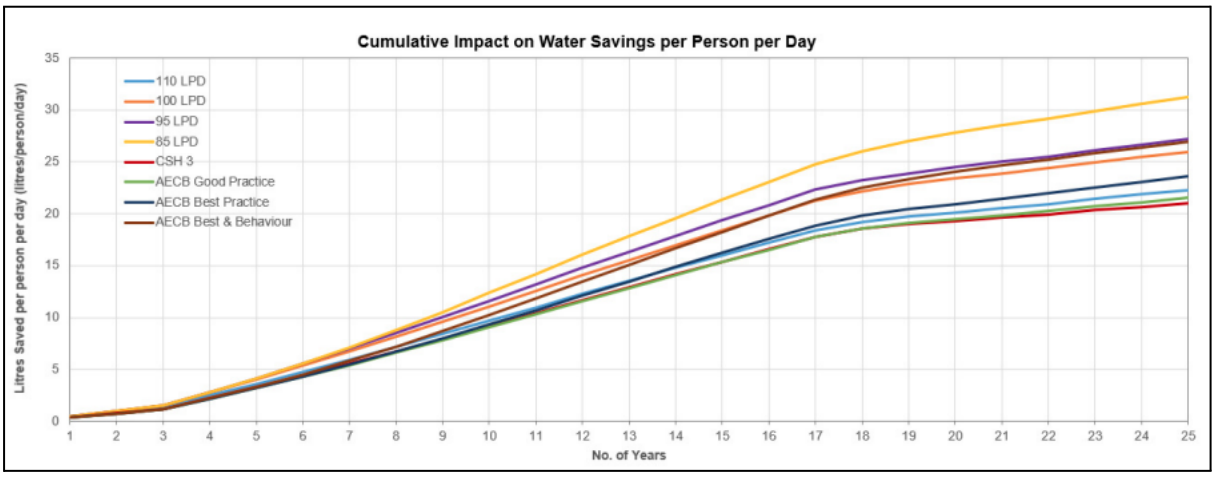
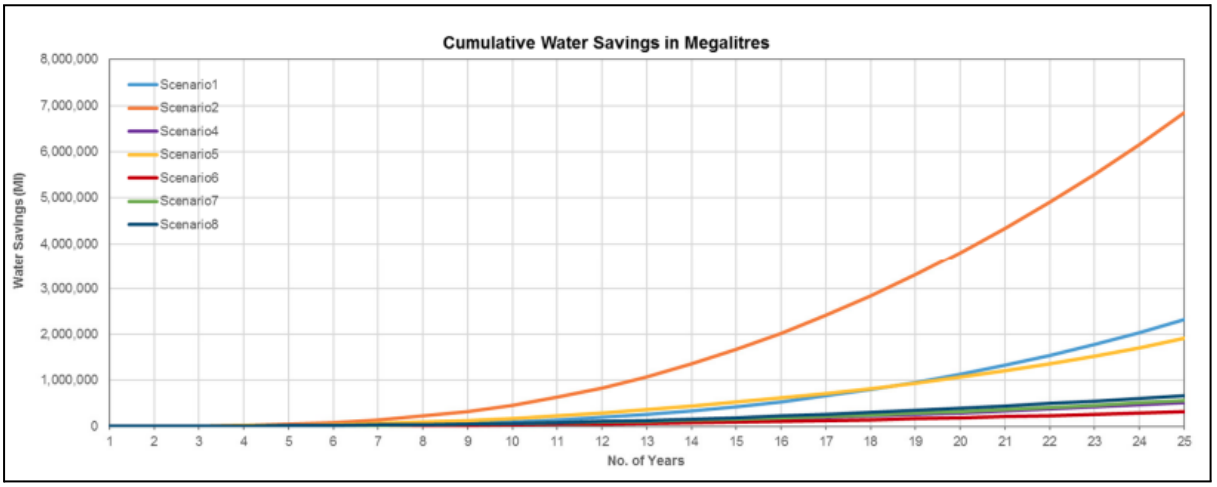


We would highlight that the savings identified and used in the Consultation Document are largely taken from the 10 year snapshot position in the Phase 1 study. The nature of water labelling is that the scale of savings increases significantly the longer the scheme persists as

more products in the home are gradually replaced with more water efficient fittings. This can be seen in the graph below from the same Phase 1 study.



The EST analysis in their Phase 1 and Phase 2 studies did not include non-household water saving potential. Around 30% of water consumption occurs outside of the home, much of which is used in a similar manner as domestic supplies (i.e. for washing and sanitation). The proposed label will deliver benefits outside the home and so the benefits identified and the benefit cost ratios calculated may well be conservative.

We are pleased to read in the Consultation Document that the government does intend to transition the scheme to link to Building Regulations. It is also important that the government includes minimum product standards below which products cannot be sold and that they tighten gradually over time. These two measures effectively triple the level of water and energy savings delivered by the mandatory label.

Environmental, social and economic costs

Question 16: To what extent do you agree or disagree that the costs and benefits are accurate? [strongly agree, agree, neutral, disagree, strongly disagree, don't know-no answer] Please provide any information to support your view (open text)

AGREE - We broadly agree with the costs and benefits set out in the Consultation Document for the reasons set out in response to Q15.

However, it is worth noting that since the EST reports the unit cost of energy has increased substantially and this will have the effect of further improving the already healthy benefit cost ratios.

The scheme costs in the Consultation Document are drawn predominantly from EST's Phase 1 study and its 10 year snapshot. Their Phase 2 study used updated assumptions and provided a more detailed analysis of scheme costs and where they would fall over a 25 year assessment period, including identifying costs which might ultimately fall on consumers in the form of premium purchase costs for the most water efficient products. However, even

when those costs to consumers were included the average cost to consumers of around 55p per year was hugely outweighed by average savings of £29 per year (see below).

Results after 25 years for England

Cost/Benefit		Type	Units	110 LPD	100 LPD	95 LPD	85 LPD
			Building Regulations LPD Equivalent =	110	100	95	85
Costs	Sector	Government	£ Million	£9.2	£9.2	£9.2	£9.2
		Manufacturers	£ Million	£115.5	£115.5	£115.5	£115.5
		Households	£ Million	£325.7	£344.7	£357.7	£405.2
	Total	Total Absolute Cost	£ Million	£325.8	£344.8	£357.8	£405.3
		Average Cost per Household	£ per household	£13.7	£14.5	£15.1	£17.1
		Average Cost per Household	£ per household per year	£0.55	£0.58	£0.60	£0.68
Benefits for Households	Water	Total Cumulative Water Saved	Million Litres (Ml)	6,684,877	7,718,805	8,082,162	8,987,406
		Water savings in year 25:	Million Litres per day (Ml/day)	1,313.32	1,531.13	1,603.72	1,843.56
			Litres per capita per day	22.31	25.99	27.23	31.24
			Litres per household per day	45.0	52.4	54.9	62.9
	Energy	Hot Water Energy Savings	MWh	165,861	208,241	221,240	243,743
	Financial	Water Bill Savings	£ Million	£12,468	£15,332	£16,158	£17,390
		Energy Bill Savings	£ Million	£4,751	£6,862	£7,393	£8,835
		Average Saving per Household	£ per household	£725	£935	£992	£1,105
		Average Saving per Household	£ per household per year	£29	£37	£40	£44
		Total net saving per Households	£ per household total	£400	£590	£635	£700
		New Build Water Bill Savings	£ Million	£2,326	£3,138	£3,384	£4,241
		New Build Energy Bill Savings	£ Million	£1,083	£2,402	£2,682	£3,546
Benefits for Water Suppliers	Financial	Marginal Cost Savings	£ Million	£753.1	£869.5	£910.5	£1,012.4
Benefits to CO2 Reduction		Energy Emissions Savings	MtCO2e	31.76	39.95	42.29	46.46
		Water Emissions Savings	MtCO2e	7.03	8.12	8.50	9.45
		Total Emission Savings	MtCO2e	38.80	48.07	50.79	55.91
Cost:Benefit Ratio		Combined	Ratio	1:55	1:67	1:68	1:67

The 2015 independent review of the existing mandatory labelling scheme in Australia also considered the costs to government, industry and consumers. They found that additional costs of the WELS scheme on manufacturers are generally passed on to suppliers and then to customers but are “very small on a retail price basis per unit sold”.

There are also potential further benefits if measures of outdoor use/garden tap and hose pipes are included too which have not been included so far.

Impacts on small business and equality

Question 17. To what extent do you agree or disagree that there is limited impact on smaller companies? [strongly agree, agree, neutral, disagree, strongly disagree, don’t know-no answer] Please provide any information to support your view (open text)

DISAGREE - As highlighted above the EST analysis does not include the benefits of the water label to businesses, including small businesses. Around 30% of total water consumption is outside of the home and around 80% of these non-household water using sites actually use similar amounts of water to households. The majority also use water in a similar way to households for washing and sanitation and so will directly benefit from being able to select water efficient fittings such as taps, showers and dishwashers. It follows that for most businesses, including virtually all small businesses, they will benefit from savings in terms of reduced water and energy costs.

There will be an impact on manufacturers in transitioning to the label and there may be costs relating to manufacturing, testing, labelling and registration as set out in the EST Phase 2

report. Manufacturers are already used to these types of costs for the energy label. Any additional costs associated with the water label would be expected to be passed on to customers. EST in the Phase 2 benefit cost analysis assumed all additional costs to manufacturers are passed to customers. However, the government could consider options to minimise the impact on small businesses such as reduced registration fees for small businesses.

Question 18: To what extent do you agree or disagree with our assessment of equality impacts? [strongly agree, agree, neutral, disagree, strongly disagree, don't know-no answer] Please provide any information to support your view [open text]

DISAGREE - We are extremely disappointed to read that in Annex E that the government does not propose to set minimum "for sale" standards for products and has linked this decision to the impact on Equality.

The most impactful EST scenario of a mandatory, government-led scheme associated with Building Regulations and minimum standards included the use minimum standards would be implemented using a similar approach to that used for the energy label. It was assumed that there would be three minimum standard intervention years over an 11-year period with the first minimum standard coming into force in year 5, then year 8 and finally year 11. Following each of these intervention years products below the minimum standard would not be permitted to be sold. This is also the approach that was successfully used with the EU energy label which also used a 3 year minimum standards cycle. The decision not to include for the potential future use of minimum standards is a major omission in these proposals. We do not believe it is valid to say that this is driven by Equality reasons given that there would be a 5 year notice period before the introduction of any minimum standards if the EST optimum scenario was followed.

In Australia there are effectively minimum standards in place for toilets (directly) and cold water flows to showers and taps the Plumbing Code of Australia effectively requires 3 star products or better. In Singapore in their MWELS scheme there are minimum standards with a 2 ticks minimum requirement for purchase and installation as of April 2019.

We urge the government to reserve the option to introduce minimum standards in the proposed Statutory Instruments.

Question 19: In addition to the previous questions, is there any other information you would like to share regarding the proposed UK mandatory water efficiency labelling? [open text]

NO