Literature Review: Learnings from previous pro-water campaigns, interventions and studies

Produced for the Valuing Our Water Collaborative Engagement Initiative

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The literature review collated evidence from 60 documents and interviews with nine experts on the topic of pro-water engagement and behaviour change, in order to assess how learnings from previous water system behaviour change research, campaigns or initiatives can maximise the success of a future campaign involving stakeholders from the water system, and targeting the public and businesses.
Whose behaviour needs to change?

When taking water out of the system or flushing things into the water system, the outcome for most people is acceptable, and the effect of their actions unseen. Thus, nearly everyone needs to change at least some of their practices around water.

Which stakeholders need to work together?

Achieving positive, pro-water behaviour change is a complex, distributed problem which requires distributed solutions in which all stakeholders play their part, including government departments and public bodies at national and local levels, water sector bodies, NGOs, trade associations and member organisations, businesses and the public.

Public receptivity will be based on level of trust in the messenger: it may be that an independent voice, supported by government and the water industry, will be more effective in bringing consumers along with the pro-water message.
Demographic factors

There is extensive diversity and complexity in people’s water using practices (see Hoolohan & Browne, 2020), and, according to Pullinger et al. (2013) attempting to predict or manipulate household water practices based on standard psychological and economic variables fails to account for the complex sociological realities of water use.

In addition, there is still a lack of insight into the drivers behind different people’s behaviours with water, and much of the extant literature is predicated on assumptions about motivators, rather than on rigorous research, or an evidence-based framework.

In general, key indicators of engagement with water-use are: home ownership, having a garden, being older, being female, having a water meter, a higher income, environmental values, and experience of water restrictions.

Note: several studies have found that people’s perceptions of their water use are not congruent with their actual water use (see Beal et al. 2013).
Barriers to change

Attitudes towards water usage and/or the environment have been found to be poor predictors of actual water-use practices (CCW, 2017; Gregory & Di Leo, 2003; Pullinger et al., 2013). This gap is frequently attributed to the barriers and difficulties involved in acting on good intentions (see Anker-Nilssen, 2003). These will need to be removed/addressed in communications, and include:

- Lack of knowledge & understanding - on water challenges, the water supply cycle, personal water use
- Perceived abundance - the UK is perceived to be a very ‘wet’ place
- Perception of tap water as a product - rather than a precious resource
- Low cost of water - relative to other utilities
- Habit - the difficulty of overcoming inertia and the idea of lifestyle compromise
- ‘I can’t make a difference’ - perception of individual actions as insignificant
- Perception of water company mismanagement - particularly leaks
- Lack of social effects - much of water use is private
- Personal circumstances - such as religious observance or ill health
Effective engagement

Impactful pro-water engagement will:

- Be tailored to specific, well-researched audience segments
- Address or remove the barriers to change
- **Highlight the benefits** (to the audience) of making the recommended changes
- Meet people where they are by **connecting the issues with their own values**, needs and preferences
- Present key information in an engaging, coherent and memorable way
- Avoid crisis language, instead emphasising solutions
- **Demonstrate positive action** by the ‘powers that be’ and ask people to reciprocate
- Target specific behaviours with a **call to action**
- Form part of an **ongoing dialogue** with the public
Behaviour change tools

To date, the majority of pro-water communications have relied on raising awareness and increasing knowledge to change people’s water-using practices (see e.g. Kamat, Meleday & Turocy, 2020).

However, while increased awareness and knowledge of an issue are important factors in achieving change, knowing something is often not (on its own) enough to prompt people to adapt or transform what they actually do in their daily lives, particularly in relation to their habitual practices.

Behaviour change interventions are the various methodological strategies which aim to influence an individual’s behaviour by targeting its internal antecedents. Some approaches to behaviour change that have been proposed, trialled or deployed in relation to pro-water behaviour are as follows...
**The ISM Model**

The ISM model (Individual, Social, Material) provides a framework for behaviour change design in recognising that people operate at multiple levels: as individuals, as part of social groups, and within wider technological and regulatory systems. The model posits that lasting change requires action at all three levels.

**The Information-Motivation-Behavioural Skills Model**

The Information-Motivation-Behavioural Skills (IMB) model refers to three primary constructs influencing changes to a person’s behaviour: information and increased knowledge about the behaviour, the individual’s motivation to engage in the behaviour, and the behavioural skills required in order to perform the behaviour.

**Encourage, Enable, Engage, Exemplify**

Defra’s model for influencing behaviours is known as the ‘4Es’: ‘Encourage’ highlights the benefits of the desired behaviour, ‘Enable’ makes the behaviour easier by removing the barriers to change, ‘Engage’ gets people involved through trusted partners and intermediaries (e.g. through social dissemination) and ‘Exemplify’ leads by example.
Community-Based Interventions

Community-based approaches, where groups of people work together to understand, for example, why reducing water use is important, can leverage natural sociality and adherence to social norms (see Transition Streets, 2011) and bring about community behaviour change.

Social Effects

Social interactions have been repeatedly shown to play a pivotal role in the diffusion of practices. In an online survey which tested the effectiveness of different behaviourally informed messages aimed at encouraging people to reduce their personal water consumption at home (Defra, 2019), ‘Water is precious. Join the millions of people choosing to save water’ was the most effective message at getting people to express an interest in water efficiency.

Pledges and Declarations

Commiting to enacting a specific behaviour, and in particular, making a public and visible commitment (McKenzie-Mohr, 2021) has been shown to increase the likelihood of following through on an intention. In addition, written commitments are more likely to be effective than those that are made verbally (OECD, 2017).
**Nudges**
Nudges are single-point interventions that aim to alter people's in-the-moment choices by leveraging their cognitive biases. They include: 1) nudges that capitalise on the consumer's self image, 2) nudges that exploit people's inclination to follow the herd (social norms), and 3) nudges that exploit the behavioural effects of purposefully set defaults (status-quo bias).

**Practice-Based Approaches**
A practice-based intervention strategy focused on one action (see Pullinger et al., 2013), for example correctly disposing of wet wipes, may be more effective in achieving significant change than an attempt to transform people’s relationships or values around water itself without a defined outlet for enacting that value.

**Socio-Technical Approaches**
Strategically combining different engagement and behavioural approaches with technological interventions can be effective. According to Kamat, Meleady and Turocy (2020) socio-technical approaches ‘aim to bring about seamless incorporation of technology to change the social context of decision making’.
Change Points

The Change Points method (see Browne et al., 2020) is a toolkit designed by the Universities of Manchester and Sheffield enabling the design of interventions that unlock sustainable practices. Change points occur in the process of carrying out routine household tasks, and are the moments in which resources are used up and waste is produced (Foden et al. 2017). It is at those points where opportunities for a different action arise.
Interventions in practice

There is currently a widespread lack of formal process of intervention design and evaluation with regard to pro-water campaigning (see Kamat, Meleady & Turocy, 2020). An effective intervention strategy will:

1. Conduct **research to identify the drivers** behind relevant target groups water-using practices
2. Set a realistic **behaviour change target**
3. Choose a **behaviour change tool**
4. **Pilot**, evaluate and refine the intervention before launching
5. Plan the evaluation process early and rigorously **evaluate the impact** of interventions

**Timescale:** Although there is only minimal longitudinal research on the efficacy of pro-water behavioural interventions, existing data indicates that in the absence of ongoing communications behaviours tend over time to return back to where they began (see e.g. Alda-Vidal, 2020). People need ongoing reminders regarding their water-using behaviours, as maximum effectiveness will come from continuous engagement.
Less effective approaches

- **Awareness** of the challenges around water resources does not necessarily lead to behaviour change, and is not on its own likely to be an impactful strategy.
- Messages that make people feel **lectured to, preached to, or blamed**, will be ineffective.
- **Broadcast-style communications** that attempt to persuade everyone are likely to be much less successful than carefully targeted campaigns focused on a specific and well understood segment of consumers.
- While appeals based around potential financial benefits and other incentives can also be effective, combining environmental and financial appeals could actually be counterproductive because the (extrinsic) financial motivation actually works as a barrier to developing an identity based around (intrinsic) feelings of connection to and value of the environment (McKenzie-Mohr, 2021). Thus, campaigns which attempt to combine both arguments could potentially be less effective.
- The medium of delivery also matters: focusing campaigns only on social media will never reach everyone.
Case Study: Agricultural pollution

The Catchment Sensitive Farming (CSF) partnership is an advice-led initiative enabling action by farmers to reduce agricultural pollution. A recent Environment Agency report (2019) examined the impact of CSF advice to farmers on water quality in England. The study’s approach utilised a range of data, including farmer engagement, farmer awareness and attitude, farmer uptake of measures to control pollution, pollutant losses, water quality and ecology. In total, 19,776 farm holdings received CSF advice, and there were 4-8 times higher reductions in agricultural pollutant losses from within agri-environment scheme farms that had implemented CSF measures.

The success of the scheme was attributed to effective farmer engagement and advice delivery, that had been achieved through a combination of CSF Officers, commissioned contractors, and partnerships with other organisations. The report highlights how important building relationships across the farming community was, and how it was achieved through a mix of one-to-one and group engagements.
Case Study: Single use plastics

The #OneLess campaign aims to reduce plastic pollution in the River Thames, and ultimately the ocean, by lowering the consumption of single use plastic bottles in London (an example of a practice based approach which communicates a very specific call to action).

To encourage behaviour change in the public the campaign took a values based approach, appealing to people’s existing values and intrinsic (rather than extrinsic) reasons for protecting the environment and the ocean. This involved communicating Ocean Literacy principles - the understanding of the ocean’s influence on us, and our influence on the ocean - as well in this case the link between the Thames and the ocean. The campaign is careful not to use crisis language, opting instead for ‘ocean optimism’, and seeks to leverage people’s pride in London and the Thames.
Case Study: Water efficiency

Affinity Water’s ‘Save 10 A Day’ campaign (Affinity Water, 2020) challenged residents of St Albans to save ten litres of water each day. The campaign targeted 156,000 customers in the district, encouraging them to sign up on the website to take part in the challenge and receive a free water-saving kit to install in their homes.

Rather than talking about water ‘consumption’ or ‘usage’, the campaign specifically chose the terminology ‘water wastage’, and took a marketing approach in deliberately ‘selling’ wastage reduction. The initiative was localised by explicitly being linked to the River Ver and Colne, two of only 200 chalk streams in the world. The company informed customers about what they were doing to improve circumstances, and asked them to reciprocate. While communications drove people to the campaign platform, the platform utilized elements of competition and gamification in keeping them engaged. A local artist was recruited to draw attention to the campaign, creating chalk art along routes where people exercised.
How can government collaborate effectively with other stakeholders?

1. **Increase the overall visibility of water**, and include water in government initiatives, for example, linking water to carbon

1. Ensure involvement goes beyond Defra and the EA to other government departments

1. Increase funding for pro-water initiatives

1. Exert soft power to **influence and mobilise stakeholders**

1. **Ensure governance of initiatives is clear** and all stakeholders understand their roles and responsibilities

1. Mobilise stakeholders at regional and local levels, **ensuring that local branches of government understand the importance of pro-water behaviours**
Key recommendations

The literature review identifies eight key recommendations for pro-water engagement campaigns and behaviour change initiatives.

1. Interventions to instill pro-water behaviours among the public and businesses need to be evidence-led and strategically developed, deployed, governed and evaluated, in order to maximise their efficacy. Success is most likely to come out of a systematic approach to interventions that understands its key collaborators, target demographic, desired outcome, chosen methodology for intervention, delivery channels, and how to evaluate its impact.

2. More research is needed to develop our understanding of the drivers behind people’s current water use behaviours, and which factors make the biggest difference to the effectiveness of different water saving interventions.
Key recommendations continued

3. A joined-up approach involving multiple stakeholders, and going beyond the usual water industry players could be effective, but governance needs to be clearly defined, and all stakeholders need to have clarity on their roles and responsibilities. It may be that an independent voice, supported by government and the water industry, will be more effective in bringing the public along with the pro-water message. **Communications should come from a trusted source.** Communications from ‘the powers that be’ may be effective if they are clear about what they are doing to address the problem, and if they ask people to reciprocate in kind.

4. **Communications should be targeted at well-researched segments of the population or business sector.** Different groups of people will perceive different barriers to behaviour change, and these will need to be addressed. Likewise, different groups of people will see different benefits to behaviour change, and these will need to be emphasised.
Key recommendations continued

5. Interventions need to go beyond awareness raising efforts, and utilise behaviour change frameworks and approaches. Initiatives designed around a selected approach should be piloted, evaluated and refined before being implemented.

6. A toolkit of ways to accurately evaluate the impact of interventions should be developed, and chosen evaluation methods need to be defined at the outset of a campaign or intervention. Because awareness does not automatically lead to behaviour change, figures on engagement and reach will not be good indicators of practice changes.

7. Rather than a set timescale, engagement with the public and businesses on pro-water behaviours requires continuous and ongoing dialogue.
Key recommendations continued

8. Government funding and influence should be used to facilitate a joined-up national strategy for engagement on water, and to empower stakeholders to deploy initiatives at a regional and local level. Pro-water policy change can remove some of the barriers to behaviour change, demonstrate the importance of the issues, and instill more trust, and therefore receptivity, in the public.
References


CCW. 2017. *Water Saving: helping customers see the bigger picture*. Available at: https://www.ccwater.org.uk/research/saving-water-helping-customers-see-the-bigger-picture/


