

Driving water efficiency amongst non-household customers

Water Resources East

12th January 2023

 www.wre.org.uk

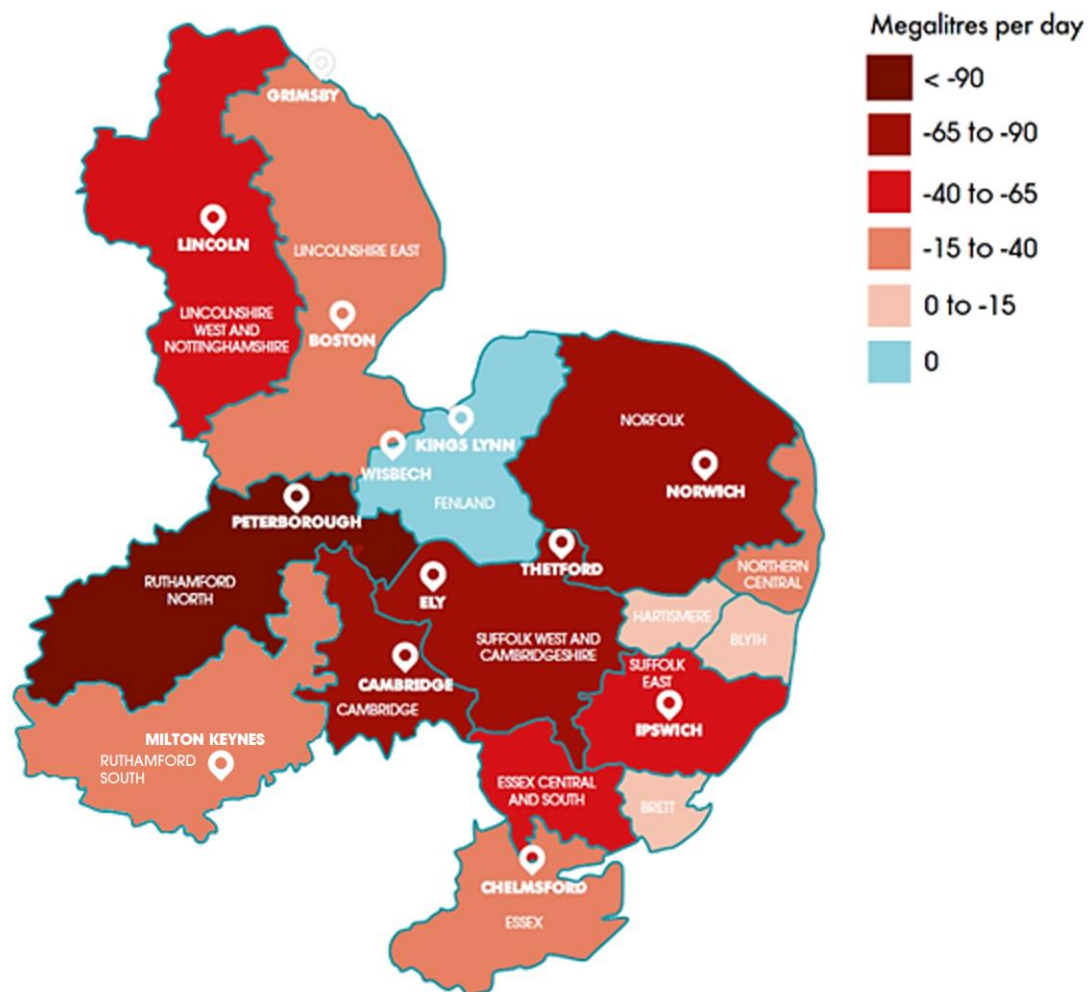
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Agenda

- Welcome and introductions
- Purpose of the day
 - Highlight the challenges faced in the East of England
 - Provide an overview of the Blue Marble non-household customer engagement
 - Identifying and discuss the key barriers that the industry is facing, and what form of collaborative working could overcome these
- Discussion on solutions to be explored

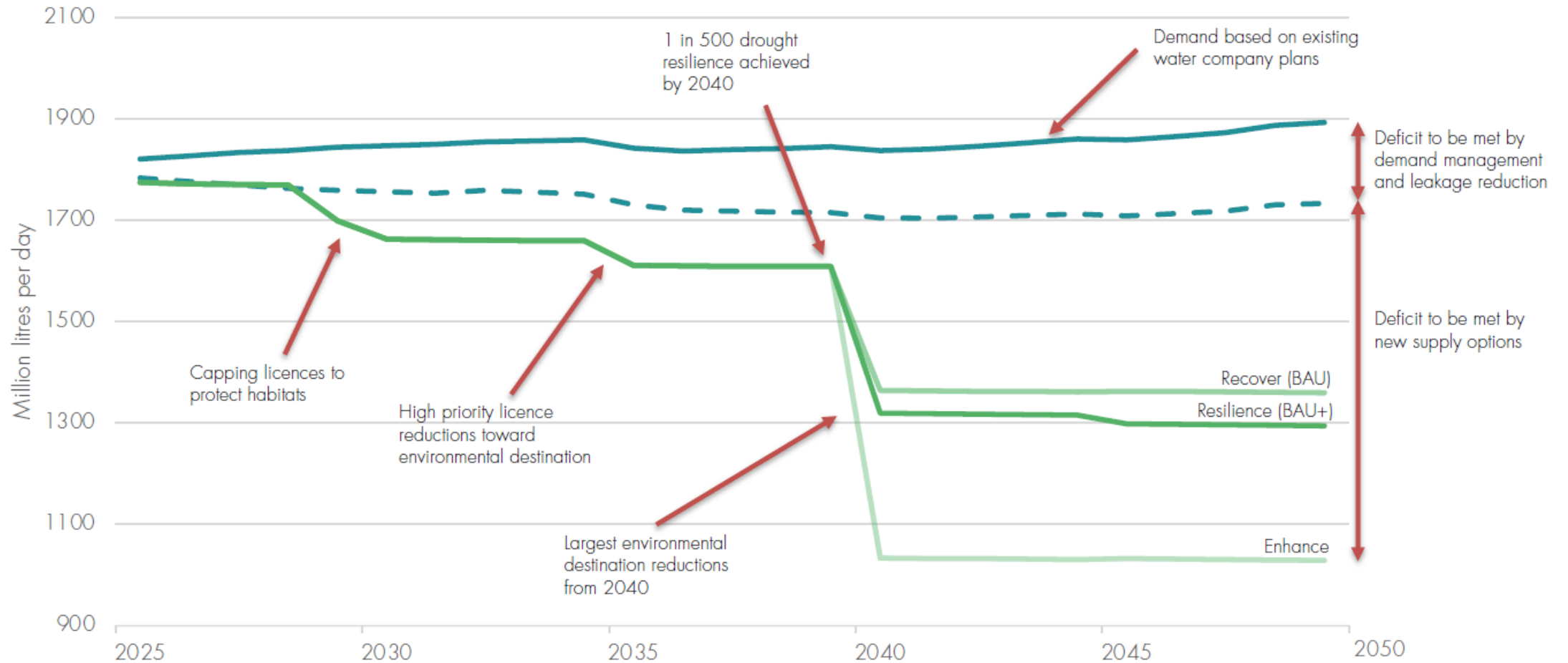
Urgent action needed by all sectors to manage the region's scarce water resources



- The whole of Eastern England is already classified as 'seriously water stressed' by the Environment Agency
- A shortfall of 640 million litres of water per day (ML/d) projected for 2050
- Unless action is taken, increasing water scarcity will constrain agricultural production and curtail economic and housing development, impacting the region's future prosperity and endangering the East's iconic chalk rivers, peatlands and wetlands

Projected supply-demand deficits in 2050 (Public Water Supply only)

A 600MI/d supply-demand deficit by 2050

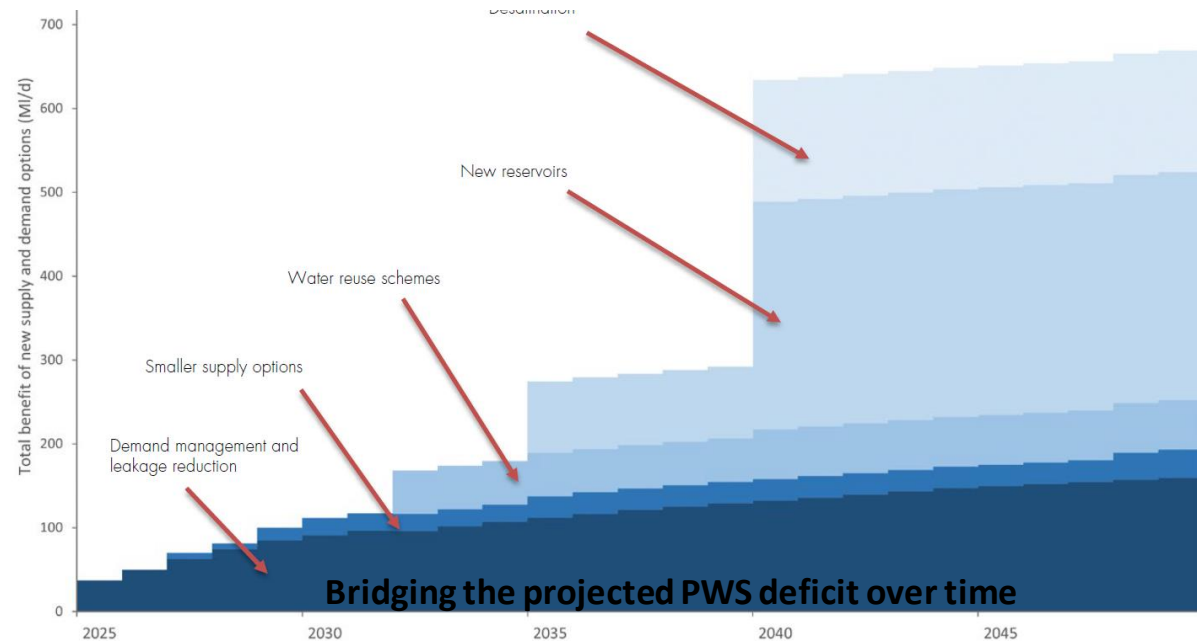


Emerging gap between demand and water available for supply (Public Water Supply only)

Draft Regional Plan: Public Water Supply

Demand management c. 160MI/d reduction	
- Household consumption falls to an average 110 l/h/d (versus 135l/h/d in 2025) including as a result of policy support from government. - Significant leakage reduction from already industry-leading levels. Targets by company vary depending on their current position. - Metering penetration rises to 97% (from 84% at present), with full roll-out of smart metering by Anglian Water (by 2030), Essex and Suffolk Water (by 2035), Cambridge Water (by 2035) and Affinity Water (by 2040). - No net change assumed in non-household water use.	
Supply option capacity c. 510MI/d	
Reservoir storage c. 270MI/d Cambridgeshire Fens Reservoir into supply by 2035-2037 to support delivery of abstraction licence caps reductions. South Lincs Reservoir into supply by 2039-2041 supports delivery of drought resilience and Environmental Destination. A smaller winter storage reservoir in North Suffolk by 2045.	Effluent water reuse c. 60MI/d 29MI/d from reuse schemes needed by early 2030s to balance supply and demand as licence caps are imposed.
Desalination c. 145MI/d Likely need for schemes in Essex, Suffolk and Norfolk, with a possibility in Lincolnshire – supporting longer term environmental goals from 2040.	Transfers and smaller options c. 34MI/d Transfers are developed early in the plan for water to be moved from new schemes to where it's needed.

- Wholesalers believe **non-household consumption can be reduced to deliver key water savings**, ensuring new non-household connections can occur without detriment to the supply demand balance.
- Need to achieve a 9% reduction in non-household demand by 2037 (proposed Environment Act target).
- Ofwat has included a reference to business demand as part of the performance commitment framework.
- We are expecting future additional water demand due to de-carbonisation, hydrogen and nuclear power.



Promoting water efficiency among Non-Household Customers

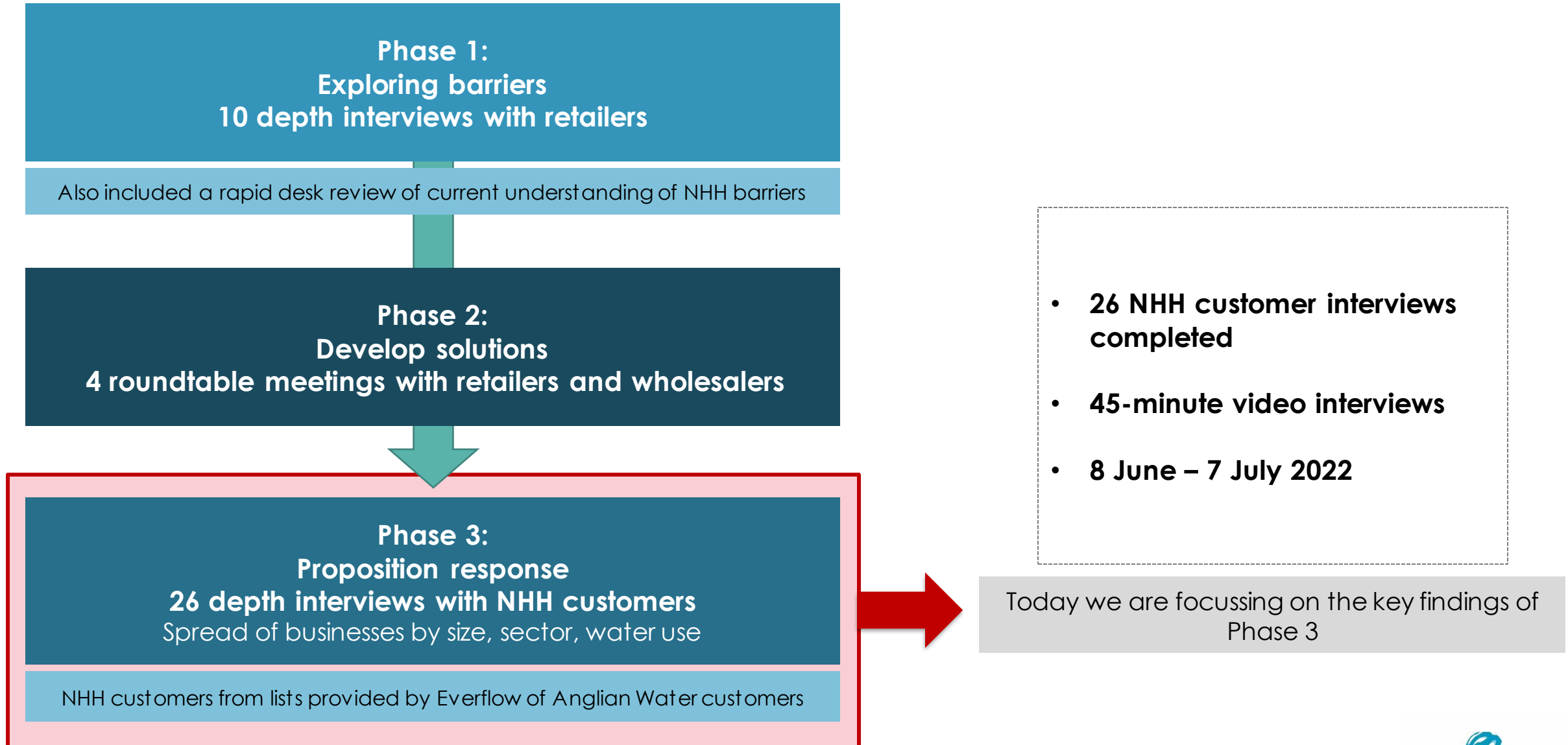
Understanding how wholesalers can motivate usage reduction

December 2022





Our approach



WRE members sought to collaborate with retailers when reaching out to their NHH customers

Objectives

1. Current role of water efficiency

How, if at all, have businesses adopted water efficiency?

2. Barriers to water efficiency

What is, and could be, preventing adoption of water efficiency?

3. WRE proposition response

How do business feel about WRE's water efficiency propositions?

Recruitment & fieldwork

June						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Businesses were recruited from lists provided by WRE retailers, which involved several stages to obtain permission:

- WRE requested retailer cooperation
- BM provided WRE with template invitation email to pass on to retailers so they could send out to large pool of NHH customers, with GDPR processes outlined
- One retailer (Everflow) agreed to share customer names with Anglian (& Blue Marble) for the research
- Blue Marble invited businesses from the Everflow list (via email and telephone) to take part. A range of business sectors and sizes was recruited from the list provided (see next slide for details)



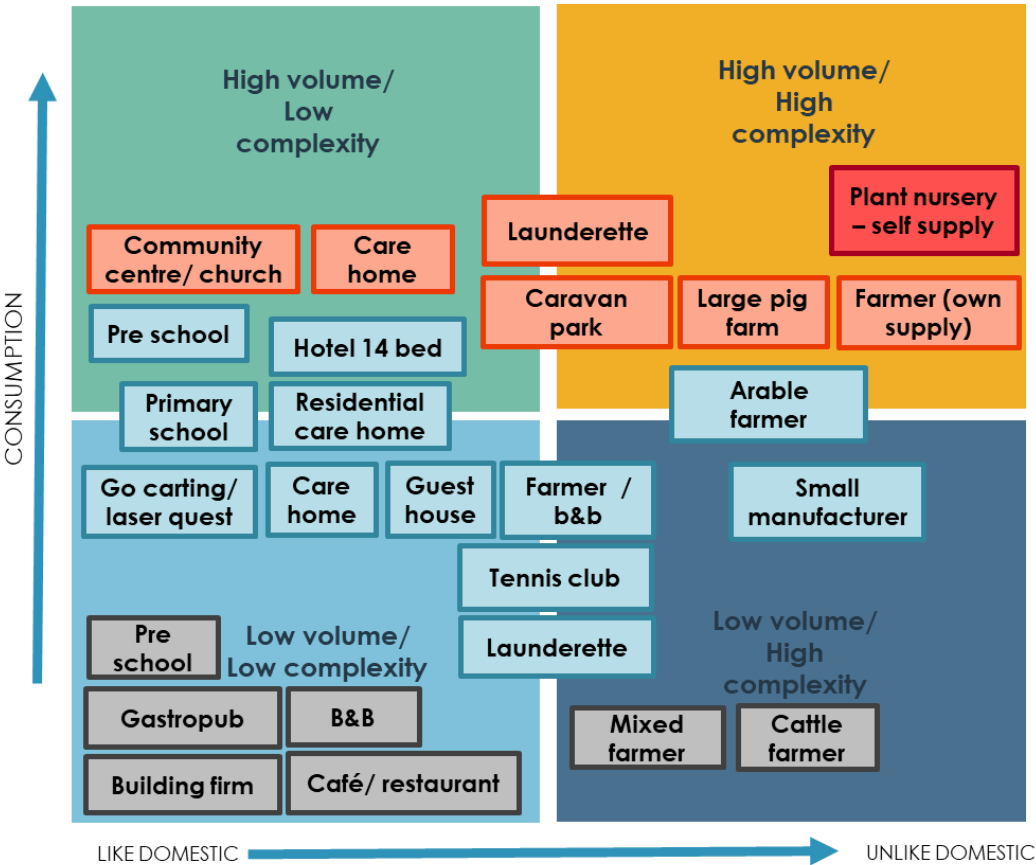
Smaller NHH customers dominate the organisations we spoke to, which reflects the NHH population and the lists provided, but means the sample of higher volume users is small

Low complexity but high volume:

- Domestic use on a larger scale
- Water use critical for customer use

Domestic-like water needs:

- Very small organisations
- Kitchens, toilets and some bathroom facilities - mainly for customer use; watering gardens and washing machines



Blend of high volume and complexity:

- Water used in processes at higher volumes
- Agriculture with high usage and complex needs e.g. arable and livestock mix
- Caravan park with individual water meters for each site

High complexity but low volume:

- Water use critical in e.g. manufacturing processes - as well as being used for staff toilets / domestic use
- Agricultural uses e.g. drinking water for animals, essential cleaning of machinery
- Example required to have water lab tested



Key insights



Many customers are content with the service they are receiving. Key touchpoints are metering and billing (NB no respondents indicated they had a smart meter)



Customers want **accurate bills**, no surprises, and to be billed for actual usage (not estimations of future usage)

Seasonal businesses find est. bills particularly difficult



Leakage costs: after leaks they want the water retailer to share how much water leaked – and preferably share the cost impact immediately



Metering: they want easy access to usage data (currently providing meter readings difficult, esp. if the meter is below ground)



Communications: they want clear, polite, professional communications (not 'threatening' comms once bill is due)

Clear opportunity for **Smart meters** to make life easier and improve access to water usage data, enabling customers to be billed only for what they use and to encourage them to engage in water usage

Almost everyone in this sample is **aware of the market structure** and that customers deal with retailers rather than the water companies directly – not surprising as:

- All the companies had actively chosen Everflow
- Customers were pre-warned about the research topic



The approaches adopted reflect the business scale and water use; smaller simpler businesses adopt simple, low investment approaches while high volume / high complexity are able to invest in more complex water saving measures

CONSUMPTION ↑

High volume / low complexity

- Reduce flow rates in showers
- Water efficient washing machines

This group can't imagine how to reduce their water usage further. Have already looked into / tried to reduce usage. Open to ideas to save money.

"Would have thought most businesses would want to reduce usage because of the cost."

High volume / high complexity

- Store / capture rainwater
- Recycle drainage water
- Low flow toilets

High water users likely to be in water efficient mindset (cost control). Even so, they are open to hearing new ideas on water efficiency.

"If they can show us some feasible ways to do it [save water] I'm quite happy to see what we can do."

Low volume / low complexity

- Water efficient press taps, automatic switch off
- Since having leaking toilets, now check frequently
- Bricks or hippos in the toilet cistern
- Stop pre-rinsing items before dishwashing

Businesses in this sector not actively looking to reduce water usage. Need a return on any investment. Energy is a bigger cost and concern.

"Toilets are relatively new, low flow; I mean we could put a brick in the cistern I suppose."

Low volume / high complexity

- Collect via water butts for gardens/grounds
- Farm buildings – use concrete or plastic rather than timber previously, uses less water to wash
- Pressure washer to clean rather than hose
- Monitor water use for leaks

Businesses with complex needs do not feel they are using water needlessly; do not see how could use less.

"Hard to see how we can reduce as our biggest usage is drinking water for pigs."



Mixed awareness of future water supply problems

About half interviewed claim to be aware of short or long-term demand problems for water – but not to the level of detail shown.

*"Water is in short supply generally in the East of England."
(Low volume / low complexity)*

LOW PRIORITY

When prompted, low urgency about addressing these

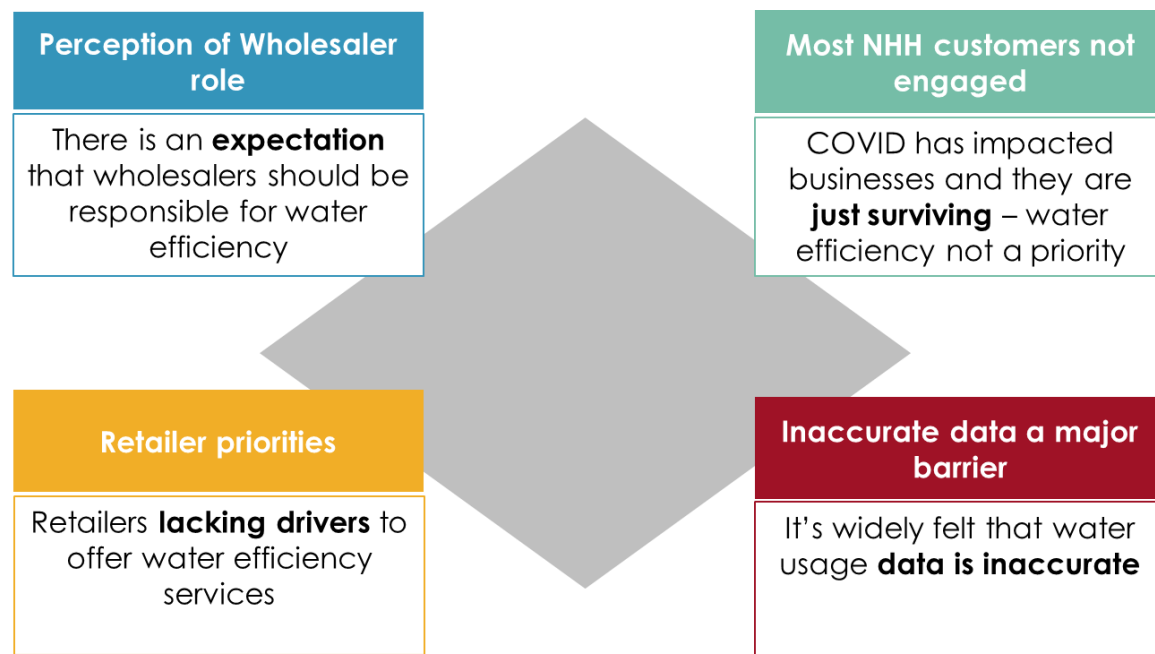
- Water supply issues do not surprise
- Most claim they are open to reducing water use
- But there is no sense of urgency to tackle the problem
 - Perceive they've already done what they can and that their business processes are already optimised
 - Can't envisage how they could reduce their water use further
 - Energy reduction is top-of-mind to save money, more than saving water

*"We must have a hundred taps around the nursery in different places and it's easy just to see one dripping and think that it's not much water but actually if you've got several that are doing it all the time it does add up over a year... **it's nice to have a bit of external push sometimes.**"
(High volume / high complexity)*

The market is open to reducing water use but the main barrier is complacency
NHH need clear demonstration of how they can save more → opportunity for water companies & retailers



Retailers saw many challenges and obstacles for water efficiency...



Retailers presented a strong case why NHH are not engaged

- Post-COVID survival – water efficiency not a priority
- Only really relevant to large users
- Lack of water efficiency options available – wholesalers targeting personal households
- No financial motive for NHH; and water efficiency measurement is expensive, e.g. water loggers (ROI not possible in short term) and inaccessible without smart meters

While these barriers are now evidenced among NHH customers, there appears to be more engagement than Retailers suspect

- Many are already implementing some water efficiency measures
- New information about water scarcity as part of the research process led most to want to hear more about water efficiency



Based on the rapid desk review, retailer perspectives (phase 1 & 2) and the NHH interviews (phase 3)

COM-B Framework		
Capability Opportunity Motivation		Barrier
Capability barrier (skills/ knowledge)		Lack of accessible & accurate consumption data
		No sense of how to be (more) water efficient
Opportunity barrier (time or money)		No sense of when to be (more) water efficient
		No/inadequate cost benefit to save water
Motivation barrier (why want to do it)		Lack of awareness of water scarcity context / need
		Water restrictions/bans not seen as a business threat
		Deferred responsibility : looking to the industry and government to promote/implement water efficiency
		Lack of incentives to save (or disincentives not to)
		Limited consequences if NHH do nothing (e.g. customers not demanding this)

Response to propositions



1. Reduce leakage from business premises via leak alerts; self audit tool; and find & fix incentives (£500 for external; £100 for internal)

- Feels valuable for those who had experienced leaks in the past
- Can help identify and help fix leaks more quickly which in turn saves money and potential damage.

"That's a **great idea** - it just makes sense. If every business did that then you would be **cutting down on the actual leaks.**"
(Low volume / low complexity)

3. Encourage businesses to adopt water recycling via generic information/tools from retailer; audit from wholesaler; 'green' accreditation scheme

- Implementing water recycling measures resonates with high volume users and those on an environmental platform

"If it's going to be **expert advice** it should be from the **water and sewerage company.**"
(High volume / high complexity)

2. Enable businesses to reduce water use via audit options

- Customers would prefer an in-person audit by their water company, especially amongst larger companies
 - Self-audit tool does not have sufficient cut through as it stands.

"They're likely to **spot things that don't even occur to us.** A self audit on itself we might miss things unintentionally."
(High volume / high complexity)

4. Encourage businesses to consider water efficiency actions via incentives/rebates; industry accreditation; web based tools

- Incentives feel most relevant for businesses that are able to make significant changes
- Web resources feel most relevant for those whose businesses are 'standard' and aren't set up in a niche way.

"At the end of the day **we all want money off** – we don't really want a sticker."
(Low volume / low complexity)



Strategic implications

- NHH not engaging with water resilience issue: cost drivers (for the most part) are paramount
- Retailer market dynamics not driving water efficiency (but they hold the relationship with customers)
- In terms of propositions, customers are busy and need help to navigate the services available, most don't have time or inclination to self-serve. They need guidance to find the right information and ensure they get the most out of it

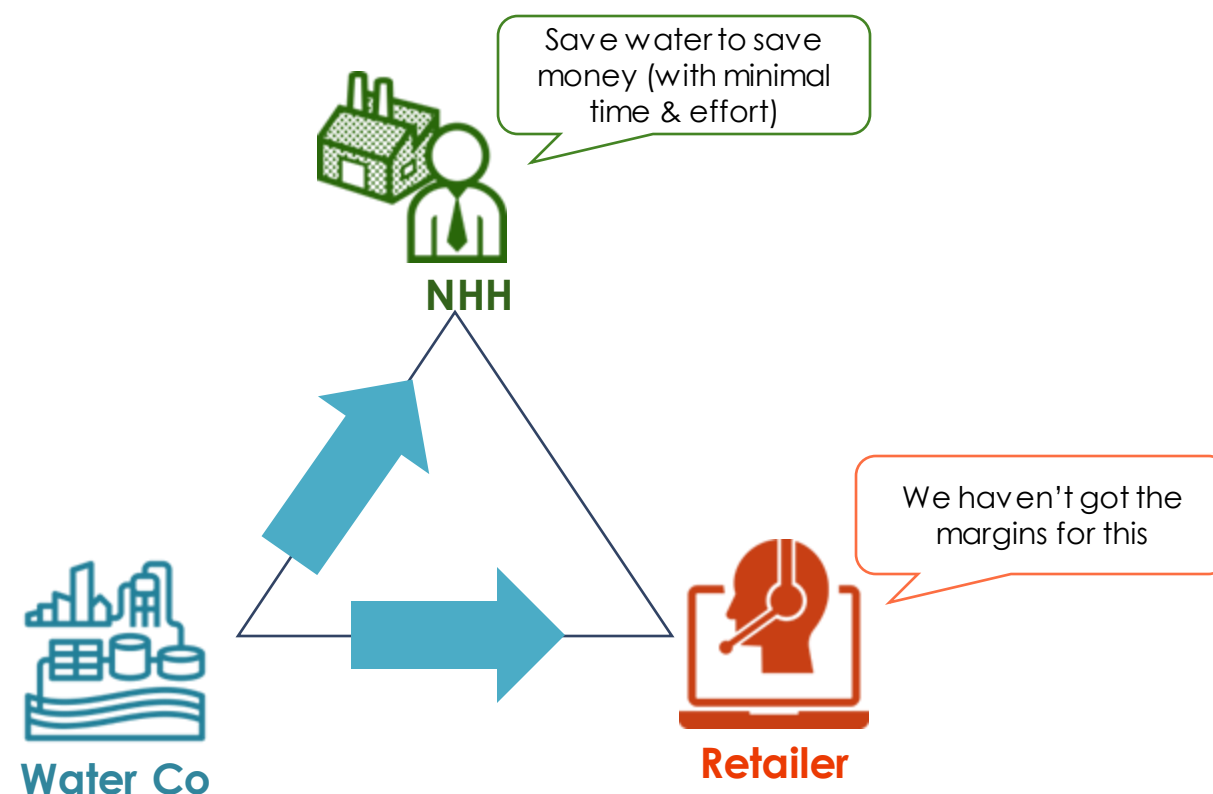
In the current context, the time, effort and investment can only come from the water companies.

This is born out by the propositions that are working best:

- Leak alerts with incentives
- In-person audit & install

Implement short term strategy targeting higher water users

- Develop the 'proactively offered' propositions
- Expand focus to all higher volume users (domestic and non domestic use)



Water scarcity is a reality: there are societal & environmental reasons to reduce use - as well as cost benefits

- Context of increasingly frequent droughts & restrictions
- Interventions: communication, new technology, incentives, penalties?

Propositions of least interest to NHH today rely on motivations beyond cost benefit – and require effort and potentially investment.

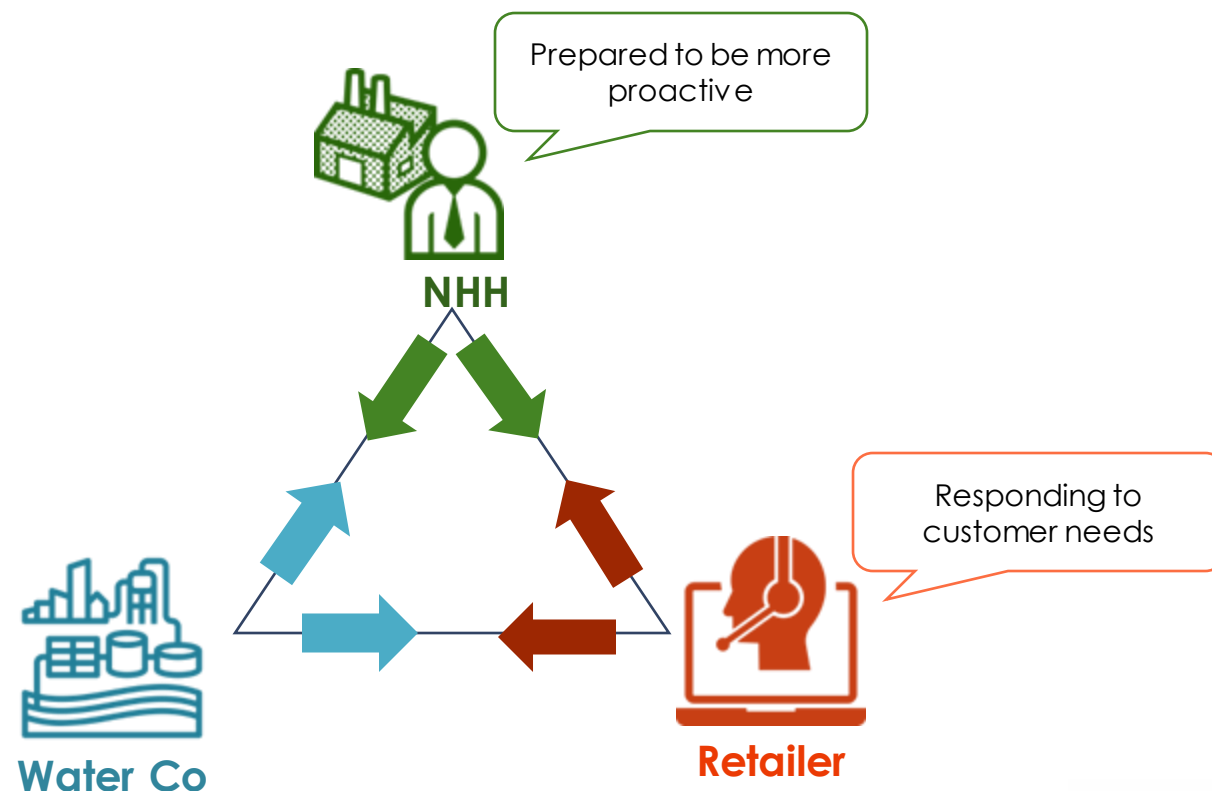
These propositions have potential to engage NHH once wider societal & environmental drivers exist:

- Self service tools
- Generic advice (e.g. on recycling)
- Accreditation schemes



Implement long term strategy targeting all NHH

- Mainstream messaging communicating the existential need to use less water: 'all do our bit'
- Drive new norms, shaping customer needs and wants



Thanks for listening – any questions?



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Discussion points

How are we going to achieve a 9% reduction in NHH water consumption by 2037?

1. What needs to change collectively to achieve this?
2. What is the role for:
 - a) Government
 - b) Regulators
 - c) MOSL
 - d) wholesalers
 - e) Retailers
 - f) third parties
3. Who is going to pay for what, and how will this be funded?
4. Actions to take forward



Thank you



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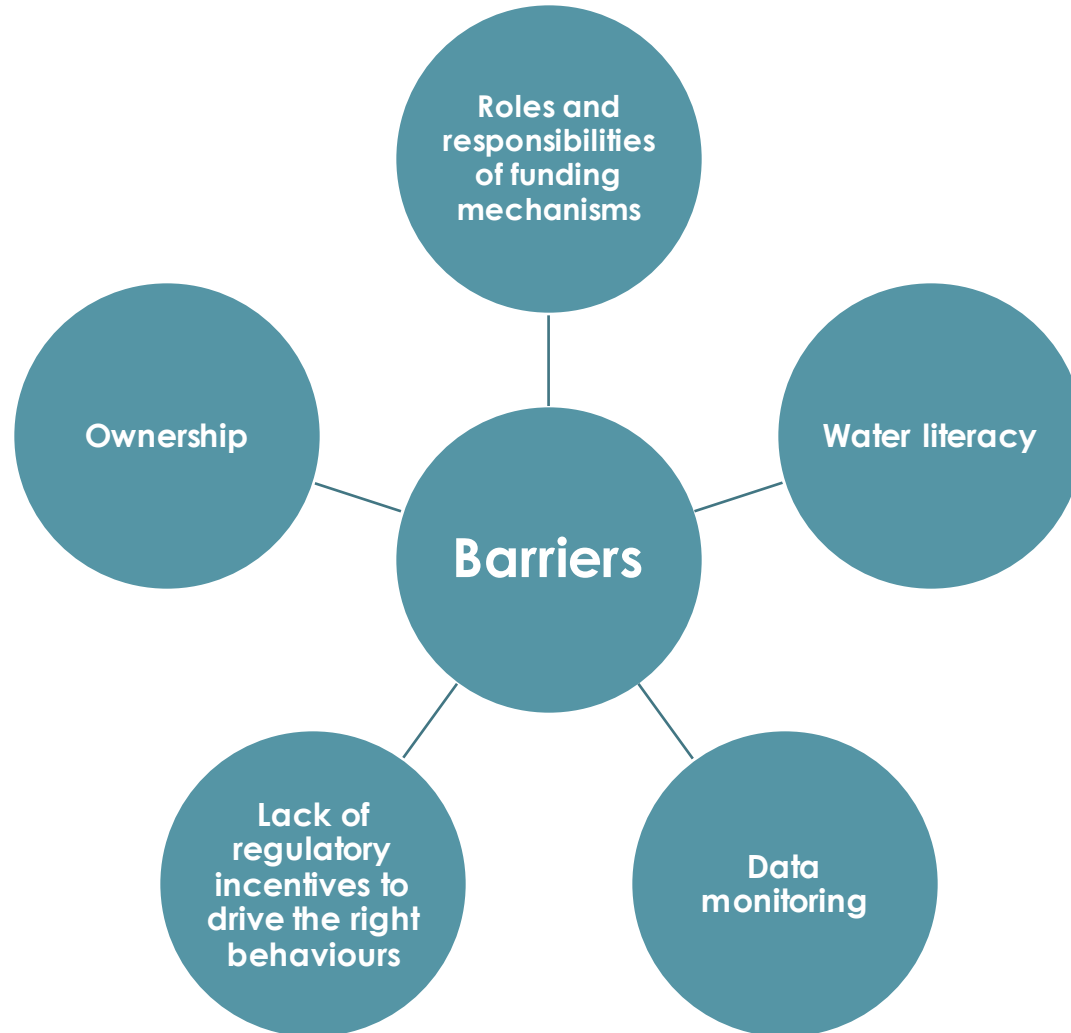
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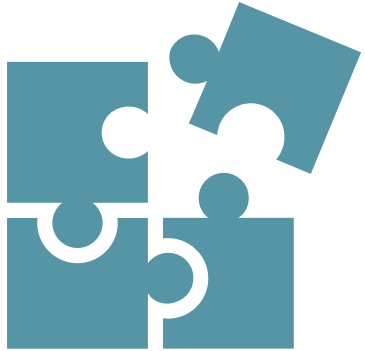
Appendix: barriers

Barriers to non-household savings



- Currently, wholesalers are working to quantify potential demand management savings in the non-household sector.
- We believe these water savings would be achievable if wholesalers, retailers, the non-household sector and regulators work together to overcome the barriers we have identified as part of our customer engagement.

Funding mechanisms



Barrier: there is a lack of understanding regarding fair funding mechanisms across the non-household sector.

For example, is it fair to provide financial support to one company for greywater harvesting and not another?

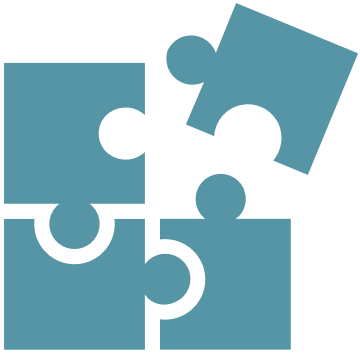
Solution: providing national guidance and clarity regarding funding drivers

Clarity and guidance is needed with regard to how funding mechanisms should be articulated within the context of WRMP24, Regional Planning and the national framework.

Potential to promote government funding at a national level to encourage the non-household sector to invest in water efficiency.



Data monitoring, ownership and water literacy



Barrier: how do we consistently measure current consumption and demand reductions, to assess whether propositions are being truly effective?

The majority of end users do not understand their water use.

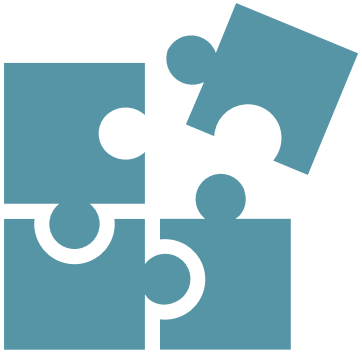
Barrier: whose responsibility is it (wholesaler or retailer) for implementing demand management propositions and supporting the non-household end users?

Should this be wholesaler led, retailer led or a collaborative partnership?

Solution: we need a national solution to encourage end users to take ownership of their water usage.



Lack of regulatory incentives



Barrier: we need to encourage non-household users to reduce their water usage, and drive the right behaviours.

This is difficult when non-household end users do not see the benefit for investing in water efficiency measures. Retailers also have a very tight operating margin.

Solution: there is a need to address these structural issues in the market by (potentially):

Putting an element of responsibility for demand reduction on retailers and the non-household sector, as well as wholesalers. This could be either financial or reputational incentives/penalties to drive the behaviours we need to save water for our future resilience and the health of the environment.



Progressing the reduction of non-household water usage

Wholesalers are:

- Continuing engagement with the non-household sector in 2023.
- Progressing the quantification of non-household water savings for their respective final WRMP24 submissions.
- Developing options that are believed to impact high gain areas: leakage allowances and water audits. The benefits from these will be established, taking into account learning from retailers that are already acting in this area.
- Working with Project Discovery and other relevant projects to develop further propositions.



Where do you think we should focus to achieve non-household water savings?