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# Rainfall Management: Non Household Qualitative Research

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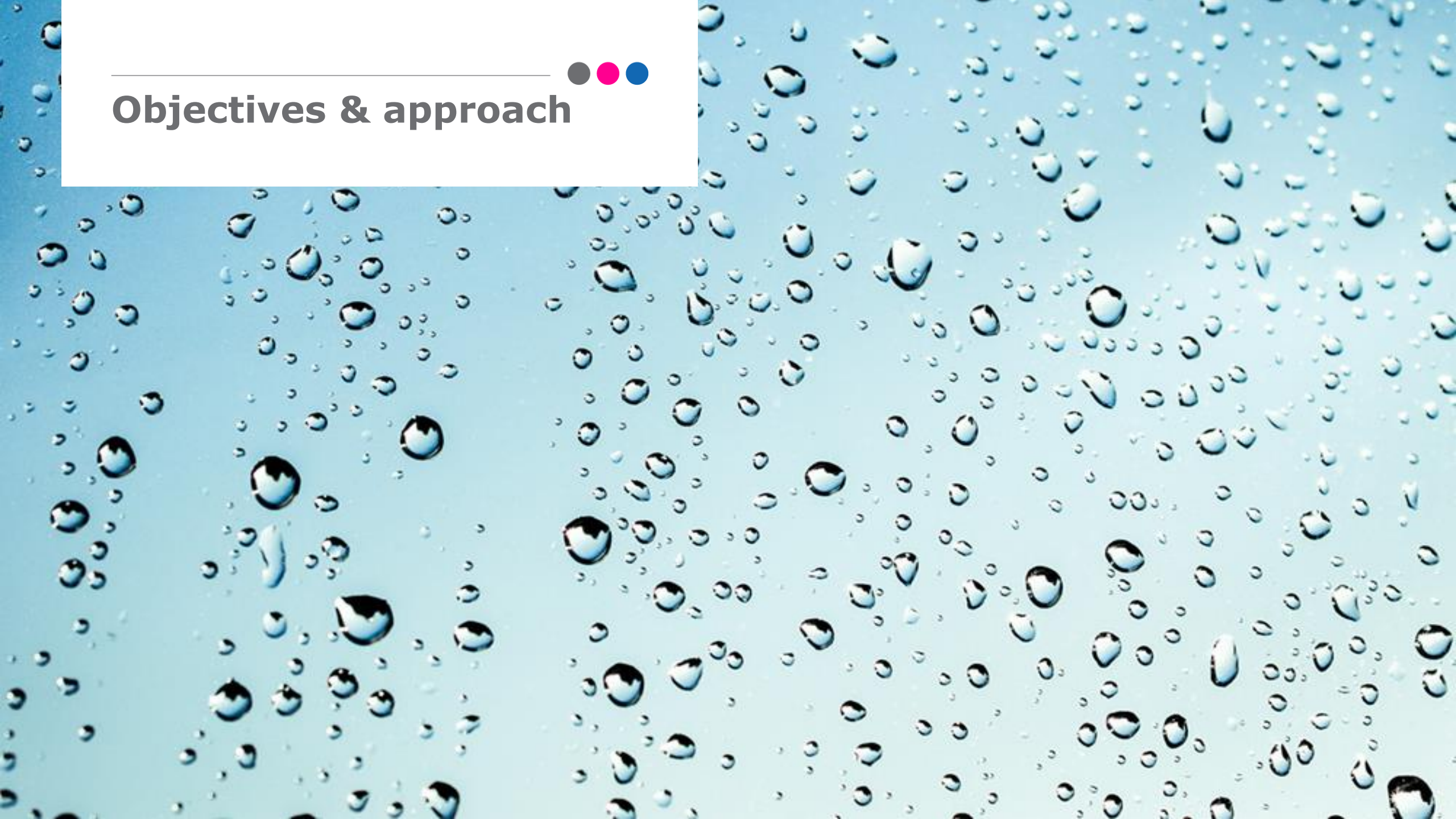
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# Objectives & approach





# Background & research context

Heavy rain has an impact on United Utilities' wastewater capacity and sewer network because many of the sewers in the north west are combined. Climate change, population growth and urbanisation mean the problem of excess rainfall is only going to get worse.

The **business aim** is to: "talk to customers about how United Utilities can manage rainfall better by using sustainable drainage solutions (SuDS) on both their own properties and beyond."

The **core research** objectives are to:

Gather household and non-household customer views on rainwater management

Understand how willing household customers and small businesses are to act personally

Understand what customers want United Utilities to do about rainwater management

Understand non-household customer views specifically on things such as awareness of how they can reduce their surface water charges, SuDS incentives, how businesses could be encouraged to take steps to install SuDs and whether customers would be interested in a retrofit SUDS service from UU



# Approach

- 12 in-depth interviews conducted between 16<sup>th</sup> June and 8<sup>th</sup> August
- Participants were offered £70 for taking part

Participants were recruited via panel (Opex), local recruiters and snowballing.

The profile of the participants is shown in the adjacent table.

This report is based on qualitative research to understand and explore the views of non-household (business owners).

Further quantitative research, with a robust sample size, is required to validate the findings.

## Non-household profile

12

Region	Cheshire		5
	Greater Manchester		4
	Lancashire		2
	Cumbria		1
Amount of outdoor space	Up to 650m <sup>2</sup>	approx. up to a basketball court	2
	650-6,999m <sup>2</sup>	approx. a basketball court to a football pitch	4
	7,000-24,999m <sup>2</sup>	approx. one to three and a half football pitches	2
	25,000-99,999m <sup>2</sup>	approx. three and half to fourteen football pitches	2
	100,000m <sup>2</sup> or more	approx. more than fourteen football pitches	2



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# Current awareness and knowledge: of United Utilities and the need rainfall management





# Business owners are aware of United Utilities

All respondents are aware of United Utilities and when prompted (by the showcard in the screenshot below), the vast majority were not surprised United Utilities offer the services shown. However, before being prompted, it is evident that respondents make assumptions and not all are fully aware - there is an opportunity to raise profile, and educate.

**Showcard:** used to prompt respondents



"I didn't know they prevented sewage flooding. I assumed that would be the council."

"I see United Utilities just as a supplier of water."

Two business owners, who receive their bills from Water Plus, rather than United Utilities **lack clarity on how roles and responsibilities are divided** between the retailer and United Utilities.

"We don't get a bill from United Utilities. I assume United Utilities just put the pipe in and Water Plus take the money. It's years since we've had to deal with United Utilities."

A couple of business owners, who only pay for water services, **did not consider United Utilities to be more than a supplier of water** before being shown the showcard.

# Sewage network has low awareness: when prompted all agree management will become more challenging

Very few business owners have knowledge of the sewage network. Until awareness has increased, business owners are largely unaware of the challenges of rainfall management, and how it will become more of a challenge over time.

## Sewer types

Nearly all business owners are **unaware of the different sewer types** and therefore also lack the understanding of:

- The difference in effectiveness
- Why there may be a need to replace combined sewers with separate sewers
- The scale of the issue

Once informed, **all agreed** that managing the network will become more of an issue in the future. However, there was little difference in concern between thinking about themselves personally and their business – mainly because **they were unsure of what they could do** and for the majority, **they and their business are not directly impacted**.

“Until earlier today I wasn’t aware of separate sewers.”

## What is a Combined Sewer Network?

### Sewer overflows exist on combined sewers.

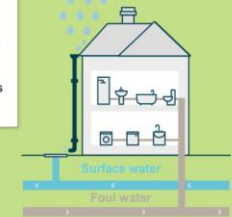
In the North West United Utilities have the highest proportion of **combined sewers** in England (mainly built by the Victorians). **54% of the sewer network is combined**. Prior to the 1970s all sewers were combined and incrementally over time more separate systems have been added.

### Combined sewer



A **combined sewer** collects wastewater from our homes (toilets, showers and washing machines etc.) **and** rainwater that falls on our roofs and roads. This combined wastewater then goes to a treatment facility to be cleaned before being returned to lakes, rivers and the sea.

### Separate sewers



**Separate sewers** keep the wastewater from our homes separate from rainwater on roofs and roads. Rainwater is taken directly to rivers and the sea whereas the wastewater from our homes is taken to treatment facilities to be cleaned first.

After raising awareness through the depth interviews, through sharing a simple showcard as included above, business owners were onboard: understanding the difference between the sewer types, and the need to have separate sewers.







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# Rainwater management: whose role is it?





# Businesses are largely unaware of how to act

Business are largely unaware of what specific action they can take to manage water, and it's not something they have actively thought about. Those that have taken action have largely done so as an opportunity to reduce on cost, by re-using rainwater, and not because they have an understanding of the need to manage excess rainfall.

Despite the lack of awareness, **a few business have taken action to manage rainfall.** However, these business have acted due to an **opportunity to reduce costs**, not because they understand rainfall management, and the potential impacts of excess rainfall.

Business interviewed **have acted in order to reduce costs, by using:**

- Wastewater as fertilizer and diverting rainwater straight to river course
- Collected rainwater to clean e.g. kennels
- Collected rainwater to water plants e.g. in a bar

"Water that falls on yards where the cattle are, is dirty. That goes out through the sewage system and gets spread onto the land as fertilizer."

The other reason one of the business owners has acted, was to **reduce the risk of flooding** (having previously experienced issues).

The business ended up digging ditches around their fields so water could run naturally along the ditch and into a nearby watercourse.

**The business owner did the work themselves and wasn't aware that they'd created a swale:** or that other options would have potentially been available.

**Without a clear need to re-use water or reduce flood risk, it is apparent that rainwater management is not something businesses proactively consider. Therefore, they are not likely to act without increased awareness and/or motivation.**

Most of the businesses we spoke to did not have an environmental agenda. Those that do have an environmental agenda are focused on reducing the carbon footprint, recycling, reducing waste and water consumption...and not rainfall management. The agenda is taken seriously, **if awareness of rainfall management was elevated and included on the agenda, action would be driven.**

"I think about recycling and how to save money."



# Agree that collective action is required

Consensus is that collective action is required to manage rainwater. However, due to a lack of awareness around roles and responsibilities, business owners are unsure who plays a key role in rainwater management. The majority assume that United Utilities and the local authority / council have key roles to play.

Awareness of roles and responsibilities is currently limited:

"I don't know enough to know which each of these authorities and agencies actually do."

"I'm not sure whose budget it is, the Environment Agency or the Local Authority?"

"Whenever there are issues with flooding it's shirked between the council, United Utilities and the Environment Agency."

The majority assume that United Utilities should have a key role to play in:

- **Raising awareness and providing advice:** sharing information and expertise
- **Providing financial support:** either discounts or making water butts freely available
- **In maintenance:** ensure the system is up-to-date

**However, some consider the role of United Utilities is limited:** agree they can raise the awareness but don't consider they have sufficient power to ensure that action is taken.

In addition, there is also recognition that rainfall management requires **collective action:** it is not solely or ultimately the responsibility of United Utilities.

"I wouldn't have thought it's United Utilities role. Their remit is sewers and clean water, but it would be good from a corporate social responsibility to be seen to be doing more."

"We all need to be responsible for doing what we can."



# Local authority and council: a key role to play

Although collective action is required, and business owners consider United Utilities have a key role to play in raising awareness, it is the Local Authority and Council that business owners consider to be “gate keepers.”

Business owners anticipate that it is the responsibility **of Local Council and Authority to ensure the changes happen:**

- To be responsible for ensuring that **permission is granted** for installations to take place
- To **offer grants** (both to encourage installations to take place but also to show that the Government is in support of the scheme)

Many business owners also strongly believe that if this work needs to take place. **United Utilities need to work with the local authority and council** to ensure developers are on board and implementing the solutions into new business and housing developments as standard (as per boiler checks, insulation etc).

“There is a need to work builders and property developers, a partnership with the industry, ensure they know these things could be incorporated in new builds.”

Business owners also recognise that the **Environment Agency and Highways Agency** have a key role, but this is largely secondary to United Utilities and the Local Authority / Council.

They consider, once made aware, households and businesses are willing to act.

However, their ability to act will depend on:

- The amount of land they have (and particularly the amount of land they have freely available i.e. not profitable)
- The surface type of the land they have
- Whether they have a need to use any stored rainwater



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# Rainwater management: how should it be managed?





# Of the options, greatest support is for SuDS

As per the household community, business owners are most likely to be in support of sustainable drainage solutions due to the environmental and aesthetic reasons, and because the concrete solutions are so disruptive.

## Support for SuDS

SuDS have the greatest support (due to environmental and aesthetic reasons), and particularly where:

- There is likely to be **plenty of space** to install the solution (rural locations)
- Where they can be used to increase **value to the community**
- Installing SuDS present an opportunity to showcase that a company is being **forward thinking and environmentally friendly**

"Always try and achieve sustainable but use concrete if you have to."

There is greatest support for SuDS despite the **understanding that concrete solutions and separating sewers could be more effective.**

The noise and disruption of concrete solutions, is also a push factor to SuDS.

"I think that concrete solutions would work best but I think that people will see the sustainable drainage and it would be more pleasing, and more noted."



## Concern for SuDS

**One business owner does hold some reservations on SuDS:** with regard to concern around stagnant water potentially causing odour and in the time it takes to evaporate/drain attract insects and potentially disease.

Further education would be required to gain support.

"It's a nice theory but I would be nervous and wouldn't like to live near one."





# SuDS is priority but a variety is needed

However, recognising that other methods may be more effective. Business owners are in support of using alternative measures where necessary. In particular, for areas which have a flooding issue and/or no space for SuDS.

SuDS are the preference and should be used where possible...

"I'd put more weight on the sustainable things, to build a more attractive and sustainable environment for everyone."

However, business owners perceive SuDS will not always be appropriate or most effective method...

"I think it's very much which works best here, you need to go for the most effective measure."

Therefore, United Utilities will have to take a toolkit approach...

"I don't think United Utilities can prioritise one method. They have to look at individual problems and provide individual solutions. What will work nicely on one housing estate would be an absolute nightmare if you moved it to a different housing estate. They've got to use it as a toolkit."

Source: Qualitative Research (12 in-depth interviews with businesses)

## Instances considered more appropriate for concrete / separating sewers than SuDS:

- In an area with a flooding issue, and therefore the cost of disruption (and environmental impact) is outweighed by the benefits
- In new developments where the solutions can be planned in
- Where there is considered to be space/need to store water
- Where existing infrastructure has reached the end of its lifecycle

"In some areas, where flooding is a major problem, concrete solutions are a genuine solution. The advantages outweigh the disadvantages as it's the only solution."



# Business level barriers: awareness and cost/benefit

In addition to low awareness, business owners largely perceive there is no real driver, or motivation, for them to invest the time and effort in installing SuDS. This is unless they have a reason for using rainwater they have stored or, a need to act to reduce the risk of flooding.

## Other practical barriers to installing SuDS include:

### Limited outdoor space

Not having enough/not wanting to use outside space for SuDS installation (particularly where that space could be making money) e.g. need to use outdoor space as a car park or a restaurant seating area.

**Most likely applicable to:** Swales and rain gardens.

### Oppose the principal

Dislike the concept of collecting water due to the perceived: smell, concern of attracting insects & disease, or potential flood risk.

**Most likely applicable to:** Swales and rain gardens.

### Renting / Leasehold

Not owning the property and therefore not willing to make the long-term investment: when they have no real need to do so.

### Surface type

Where there is a perceived need to use an impermeable surface e.g. where they need to wash down an area / not fill it with organic matter.

Also where perceived impermeable surfaces wouldn't be substantial enough or offer sufficient longevity to be used e.g. in car parks.

**Most likely applicable to:** Permeable paving



## Green roofs:

A range of specific barriers were mentioned for green roofs including:

- Concern about damaging the roof
- Issues with maintenance
- Having the wrong roof type (being too exposed)
- Using the roof for other purposes e.g. solar panels
- Carbon footprint of installation and maintenance outweighs an potential benefits

Greatest support is for the solutions which are easy to install and where business owners can see how they can use the stored water to reduce cost e.g. water butts (or a bigger version of) / or would be attractive to customers.







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# Rainwater management: how to motivate?





# Business owners need to be made aware

To motivate businesses to act they need to be more aware of the need to manage rainfall, the options available to them and why they should act. Business owners are not currently sufficiently aware of the issue, and why they need to do anything – but consider United Utilities is well positioned to share this information.

“I’m not aware of these great ideas (Sustainable Drainage Solutions). I think it would be good for United Utilities to use their website to promote some of these great ideas, which are in everyone’s interest.”

“You need to let people know about them, say what’s available.”

“Make businesses aware, send out leaflets and information so people can get it in their head that we need to be doing things and what is available.”

To act, United Utilities need to share information on cost benefit.

For a business, the long-term cost needs to be outweighed by the benefit.

It’s also evident, that being a business, information would be required on health and safety and planning implications.

“Send out leaflets on how it all works and costs implications and how it would pan out over time.”

It is evident there are **currently missed opportunities due to a lack of awareness and understanding:** one business would like to collect, store and use water to wash vehicles, but is completely unaware on how to do this, where to even start and potential costs of installation vs. savings.

“We need such a lot of water, we need to do our bit but we need to be commercial on what we are actually committing to.”



# Motivation is key: all unaware of discounts

If business owners have not experienced a flooding issue, they are unlikely to be thinking about installing an SuDS solution. Even if made aware, they need to be motivated to act: either by a solution being freely available, or by seeing a clear cost vs. benefit of installing the solution, perhaps through grants or discounts.

The majority consider that a **government grant** should be offered (as per solar panels or insulation).

Otherwise, it is considered **United Utilities could offer a discount** on the bill:

- The discount to be sufficient to ensure the cost is not greater than the benefit (covering the cost of installation long-term)
- Graded depending on how much installed

Or, for United Utilities to freely install the solution for cheaper solutions, such as a water butt, as this would be seen as a good environmental gesture / "saving UU a job."

In terms of cost, businesses have the additional concern that while installation work is being carried out, there may be disruption (and therefore cost) to their business. However, they are generally not concerned they lack the skills to install & maintain the solution. The need support with advice & finance.

"A lot of businesses aren't even looking to do anything so it would need to be a grant and/or discount."

**Domino effect:** sharing successful sector specific case studies, proving the cost benefit could be successful in prompting others to act.

Particularly if it were possible to attach an accreditation or acknowledgement of their corporate social responsibility.

Or, to install a visible solution which the community would appreciate.



**None of the participants were aware** of the opportunity to receive a discount on charges for installing more permeable surfaces / installing SuDS solutions discounts. When prompted, some were interested but the majority of business owners felt they didn't have sufficient information, they wanted to know:

- How to find out if it was applicable to them?
- How to ensure they met the discounts i.e. doing sufficient / meeting all criteria?
- Whether the discount is sufficient in terms of cost vs benefit to actually be worth them installing a SuDS solution?
- Would like to be rewarded for more efficient solutions, such as leaving a field empty.





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# Rainwater management: how much assistance would be needed?





# Confidence on installing the solution is mixed

While all would like support in paying for the solution, or at least in ensuring their initial investment would be repaid, confidence on other aspects were mixed. Some were confident across the entire process and others would need far more assistance. Regardless, there is an opportunity for United Utilities to reach out.

**United Utilities have an opportunity:** business owners are happy to seek their guidance.

“Advice is always great and United Utilities is a reputable company, they are always helpful when I phone them. It’s not like an energy company that are trying to get more money out of you. You think of them as being environmentally friendly and to help.”

... and even those that are confident, would appreciate receiving guidance and recommendations from United Utilities, as a potential option.

“You’d be able to find someone, but it would be better to offer accredited suppliers.”

**To consider:** although general advice and information will be suitable for some. Other business will expect and require more personalised assistance to give them confidence to go ahead with any installation.

“People will need decent advice, somebody competent to come out and walk around the site with you. I suspect my problems as a business will be absolutely different, you want someone who looks round.”



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# Conclusions





# Conclusions

## 1) Rainfall management is not a topic that has been given much consideration: respondents lack awareness.

- All business owners are aware of United Utilities, but some are unaware of the services provided, with some thinking of United Utilities only as source of water supply. Those aware that they're billed by a retailer lack clarity on roles between UU and retailer.
- Awareness of the sewage network is very low, with a lack of understanding in how it works, and its effectiveness can vary.

## 2) Due to the lack of awareness, there is a need for education. Where education takes place (i.e. through sharing showcards in depth interviews), respondents become informed and engaged.

- Throughout the depths, basic showcards (e.g. on the sewage network) were effective in informing and raising awareness.
- Once informed, all acknowledged that rainfall needs to be managed, and will become more of an issue in the future.
- They also acknowledge, if it's this important, they would be willing to help – if they knew what they could do.

## 3) Businesses are largely unaware of how to act.

- Without a clear need to re-use rainwater or to reduce flood risk it is apparent that rainwater management is not something that businesses have proactively thought about, or would know where to go to find out further information. Businesses are unlikely to act without increased awareness of the issues of excess rainfall and benefits of installing solutions, and/or without motivation.
- If businesses have an environmental agenda, it doesn't currently feature rainfall management. Getting it on the agenda would drive action.

## 4) It is considered that rainfall management requires collective action with United Utilities and Local Council/Authority playing a key role

- The role of UU is assumed to be in raising awareness, sharing information and providing financial support.
- Local Council/Authority are seen as the gatekeepers: needing to give permissions/grants and show support for the schemes.
- With these organisations leading the way, there is a willingness to act, but business owners need to be made aware of how.

## 5) More support for SuDS than separating sewers and concrete solutions although consider a combination of methods is required

- Business owners are willing to be involved and install the most appropriate and cost-effective solution for the space they have.
- The key barriers they face are awareness and cost/benefit (including the cost of potential lost trade while the installation takes place).
- The greatest support is for solutions where they can see an immediate benefit to their business i.e. they can re-use stored water or make a more attractive place for customers (rain gardens).

## 6) To motivate business owners to act they need to be made aware and see the clear cost/benefit

- Grants/discounts would assist with the cost/benefit and raise the profile of the scheme; enhancing likelihood of businesses to act.
- Businesses feel that United Utilities should be offering a discount/incentive – with all currently unaware of the current schemes.
- If United Utilities could present a successful case study where an installation has had a positive business impact, or link being involved to an environmental accreditation, it would motivate.

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# Appendix







# Ofwat standards for high-quality research

Ofwat have set out requirements for High Quality Research in their [Customer Engagement Policy](#). All water company research and engagement should follow best practice and lead to a meaningful understanding of what is important to customers and wider stakeholders.

## Useful and contextualised

This research was conducted in order to gather views on rainfall management (household and non-household views). In order to further understand willingness to act, where assistance may be required, and expectations of United Utilities. Findings are expected to inform key strategies.

## Fit for purpose

This research was designed with accessibility and engagement front of mind. For all audiences videos and visual stimulus was carefully designed to ensure complex information was displayed in a way customers could understand, and found engaging. For householders this information was introduced gradually, enabling consumers to build their knowledge steadily, over the course of an online community. For business owners, this information was conveyed via one-to-one in-depth interviews, where there was an opportunity to discuss understanding. Prior to research commencing, design and stimulus was checked for engagement and understanding via colleagues and in-house future bill payers.

## Ethical

This research was conducted by DJS Research who are a member of the Market Research Society.

## Neutrally designed

Every effort has been made to ensure that the research is neutral and free from bias.

## Inclusive

Research was inclusive by engaging with household members, business owners and future bill payers. Research among household members was via an online community but tele/zoom depth interviews were offered to ensure that all could take part, including those digitally vulnerable. Non-householder research took place via tele/zoom depths. The discussion and stimulus were designed to be accessible as possible.

Quotas on the household sample ensured a mix from across the UU region, diverse age, gender, SEG, geography, age of property, urban/rural/coastal, metered/unmetered, personal views and values concerning the environment/issues with excess water. With quotas set to ensure the inclusion of vulnerable customers (physical impairment and/or in areas) and future customers (18- to 24-year-olds who are not yet paying the bill).

Quotas on the non-household sample ensured a mix by business size, and sector.