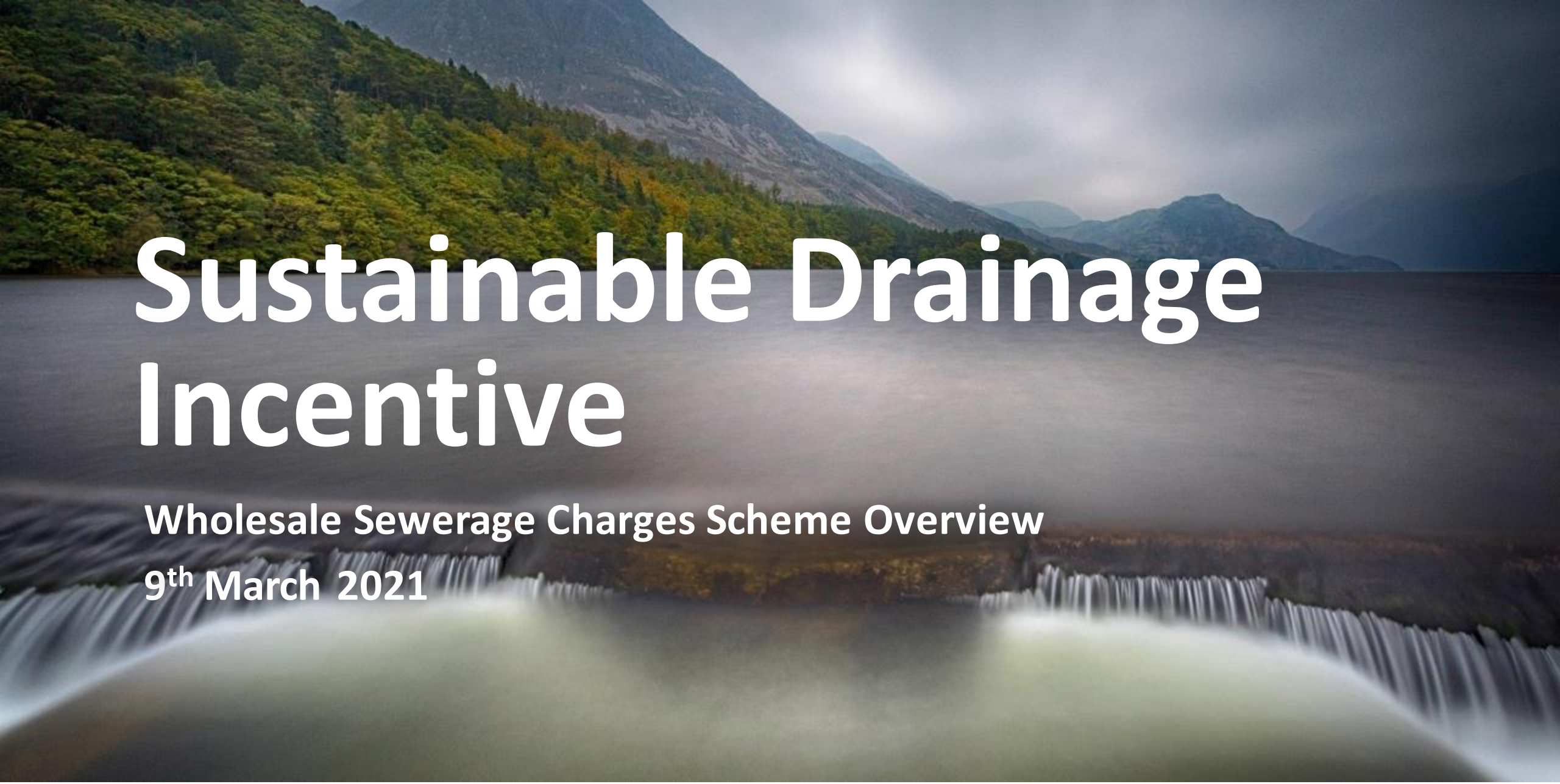


Sustainable Drainage Incentive

Wholesale Sewerage Charges Scheme Overview

9th March 2021

United Utilities

Water for the North West

The UU Team

Kye Smith (Relationship Manager)

Ian Taylor (Relationship Manager)

Tony Griffiths (Drainage Strategy & Planning Manager)

John Gareth Philips (Flood Risk Partnership Manager)

Sophie Tucker (Area Engineering Manager)

Agenda

09:30am	Welcome
09:35am	Introductions & aims of the session
09:40am	Understanding what we charge and why
09:45am	**Discussion/Q&A**
09:55am	The risk of doing nothing
10:05am	Suitable sites, retro fit & opportunities
10:25am	**Discussion/Q&A**
10:35am	How the reduction works, Eligibility & How to apply
10:50am	**Our ask of you/discussion/Q&A**
11:00am	Close

Aims of this session

- Introduce the retailer to the UU sustainable drainage incentive
- Provide a full overview of the incentive
- Help the retailer understand the types of systems that can be installed
- Raise awareness of the potential ongoing savings and viability of each site
- Point the retailer to the relevant information that will allow them and their customers to make a informed decisions
- Ensure the retailer understands the application process
- Highlight some key things to remember
- **Allow the retailer a space to ask the experts**
    - **Throughout the sessions please remember to utilise the meeting chat to raise questions and points of discussion**

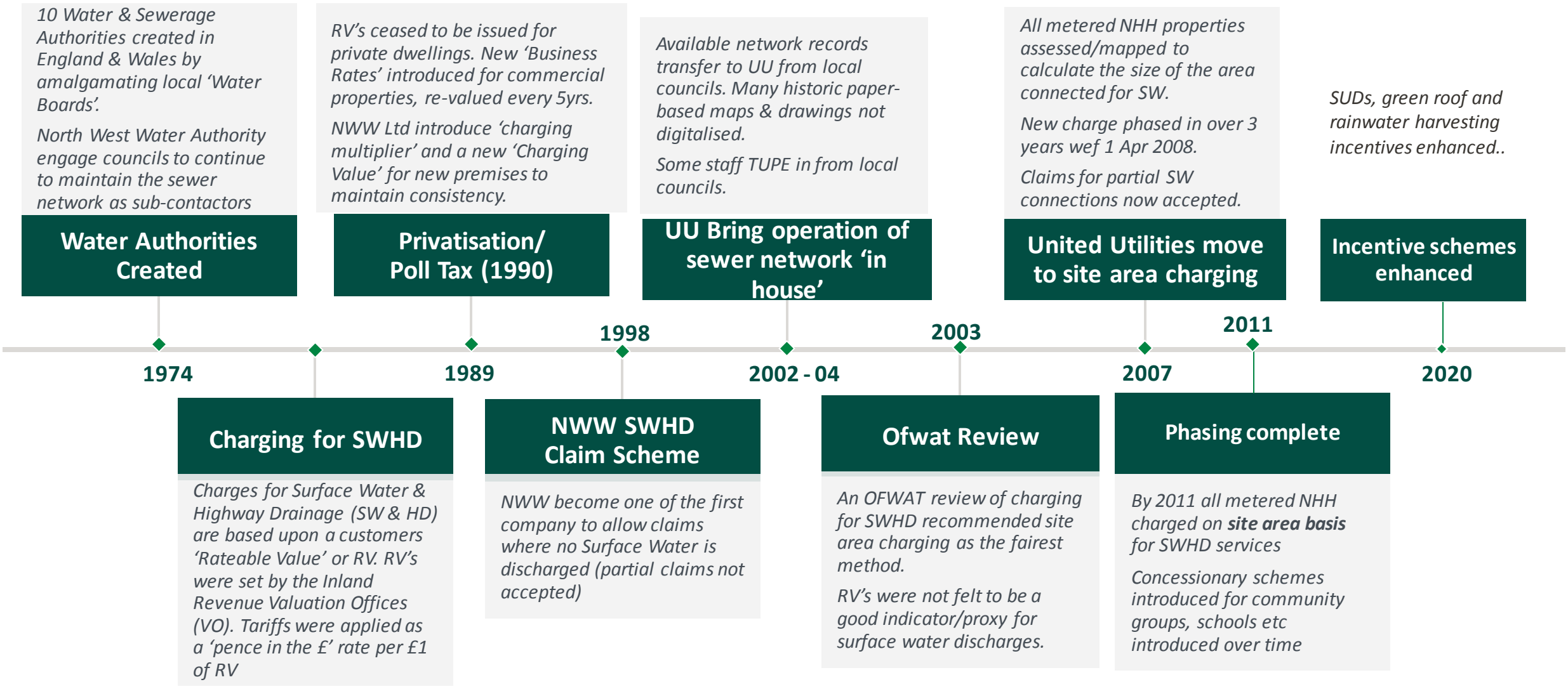
Surface Water & Site Area Charging?

SWHD is a two part tariff for the collection and treatment of rainwater. Most customers pay both elements, but there are ways to reduce the surface water element of the charge.

Surface water charges cover the removal and treatment of rainwater from a site or premises, for example; water that drains into the public sewer from the roof, car parks or other hard standing areas.

Highway drainage charges cover the cost to remove and treat rainwater falling on the roads and footpaths in our region. Everyone connected to the public sewer must pay for this part of the sewerage service.

Sewerage charging - History Timeline



Site area charging is the method that we now use to calculate the surface water and highways drainage charges for business (and other non-household) premises based in the North West where those premises are supplied through a water meter.

This involves measuring the total area of a premises including the boundary and all land within the boundary. We then exclude any permanently grassed, cultivated or landscaped areas where no surface water or ground water drains into a public sewer.

If the water supply to the premises is not via a meter (an unmeasured supply) then the surface water and highways drainage charges are calculated based on the rateable value or charging value of the premises. The exception to this are individually rated car parks which are also charged based on site area.

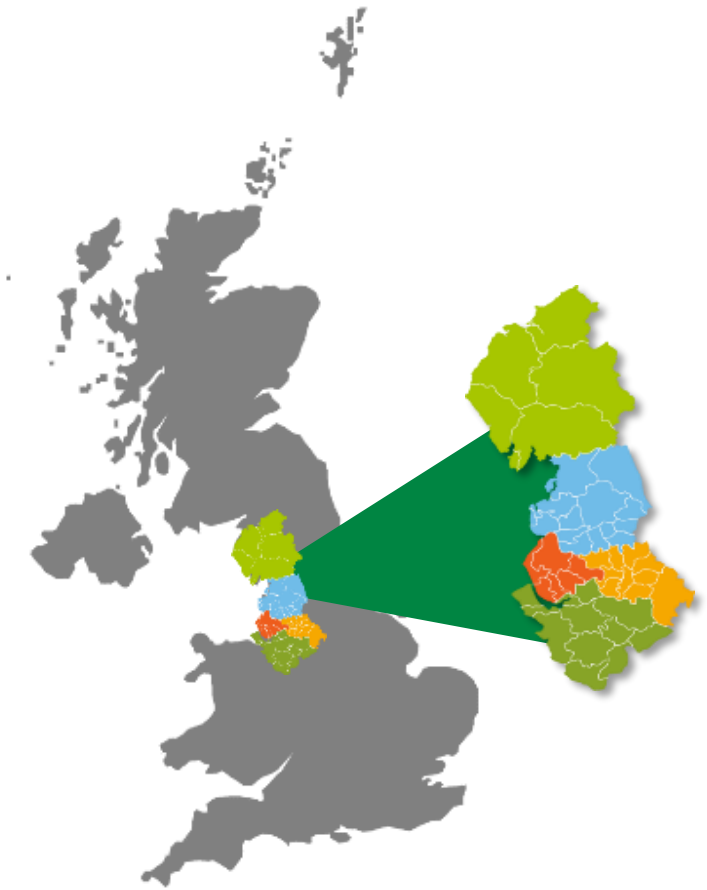
This presentation will explore how customers can help reduce the burden of surface water discharges in our area by installing a Sustainable Drainage System (SuDS) on their premises. In addition to possible bill reductions there are added environmental benefits too.

Questions?

Flood risk & Drainage

Background

United Utilities are the North West's water and wastewater company, which means it's our job to keep the taps flowing and the toilets flushing for 3 million homes and 200,000 businesses across the region.



- ✓ We have a statutory obligation to provide, maintain and extend a system of public sewers to ensure that network operation is and continues to be effectually drained (Section 94 Water Industry Act)
- ✓ We are a Flood Risk Management Authority (Flood and Water Management Act 2010)
- ✓ Domestic customers have a right to connect foul and surface flows from their property to the public sewer system (Section 106 Water Industry Act)
- ✓ The discharge of surface water from new development is assessed and regulated by Local Planning Authorities (LPA) and Lead Local Flood Authorities (LLFA) using a 'surface water hierarchy'.
- ✓ We are not statutory consultees in the planning process with regards to surface water drainage. LLFAs are statutory consultees for SW on major planning applications, as defined in the Town and Country Planning Act.

There is a long term industry wide challenge in controlling surface water in networks due to the impact of development and climate change.

Impacts of flooding to business, and benefits of blue green infrastructure

We understand that flooding not only affects households and the environment, but business too.

Flooding from all sources (fluvial, pluvial, groundwater, sewer and coastal) can have significant impact on businesses and their ability to trade.

By applying sustainable water management to new development and retrofitting sustainable drainage to existing areas through measures such as the site area charging incentive for SuDS will increase the resilience to flooding.

There are multiple benefits associated with the introduction of green and blue infrastructure to office spaces.

At United Utilities HQ in Warrington, there are several ponds and water features that creates a safe haven for wildlife and creates green space that increases staff wellbeing.

What is UUW's drainage strategy and where are there opportunities for UU and the end customer to collaborate?

The issues

We are building over more and more of our green spaces through new development and home improvements. At the same time we are experiencing more frequent and intense rainfall events.

In the North West our sewer network is predominantly combined (56%) and most of those sewers were not designed with the capacity for todays flows.

Traditionally, to alleviate sewer flooding, we have built large tank sewers and detention tanks to provide additional (storm) network capacity.

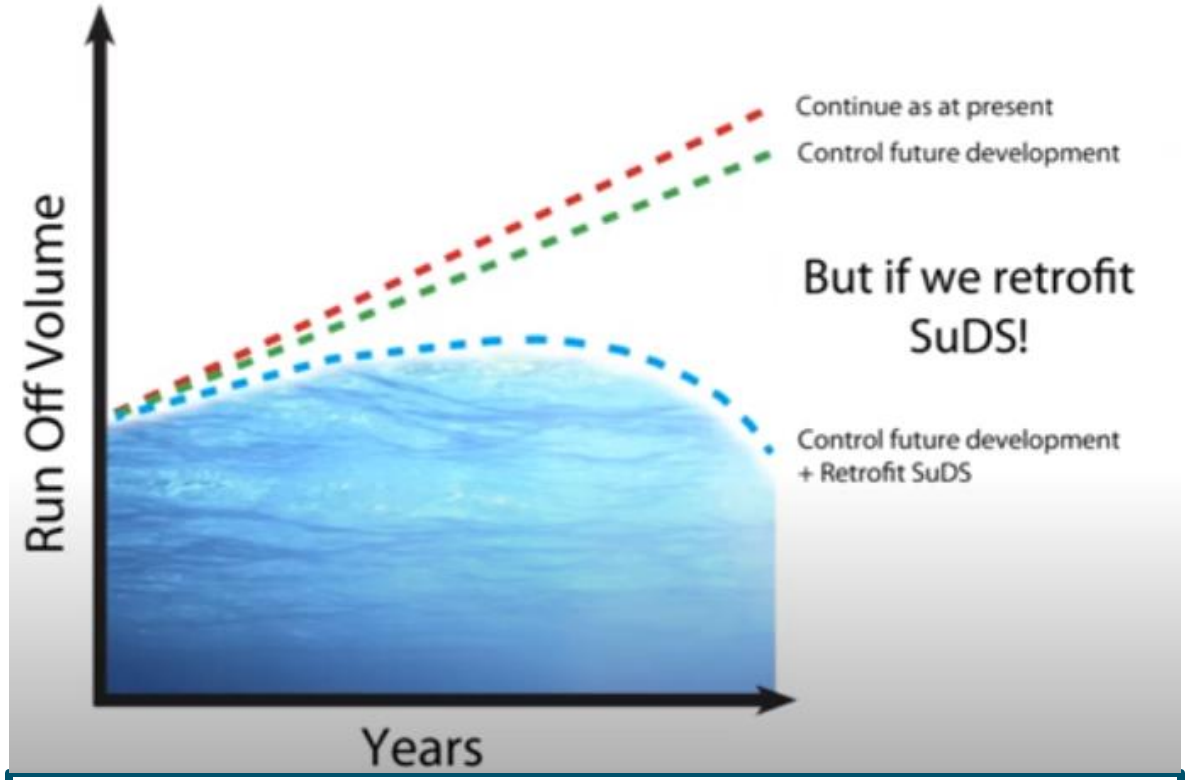
Traditional storage schemes are designed, typically, to cope with a rainfall event that statistically we would only experience every 30 years yet parts of our region have been hit with events repeatedly far in excess of these levels in the last year.

We can't build our way out of this problem. Traditional grey engineered solutions are no longer the stand alone solution. We need to start to think back to how the land drained naturally and attempt to incorporate as many of those pathways within our urbanised environment.

What is UUW's drainage strategy and where are there opportunities for UU and the end customer to collaborate?

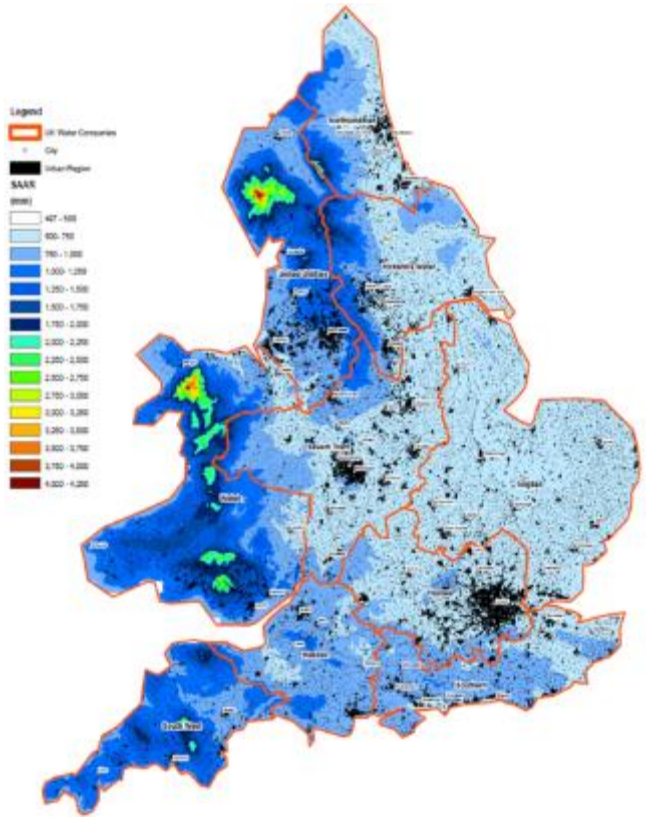
The solution

- **Control rainfall run off at source**
  - Draining run off via infiltration systems begins to mimic the way land naturally drained in the past
- **Flow interception**
  - We have to accept though that we will always have impermeable areas that generate flow (e.g. roofs) but we need to intercept those flows wherever we can, and discharge via infiltration where we can and attenuate peak storm flows where soil types do not support infiltration.
- **Retrofit SuDS**
  - To just focus improved SW management at new development will not be enough to reduce overall sewer flooding risk. We now need to divert our attention to retro-fit SW management opportunities

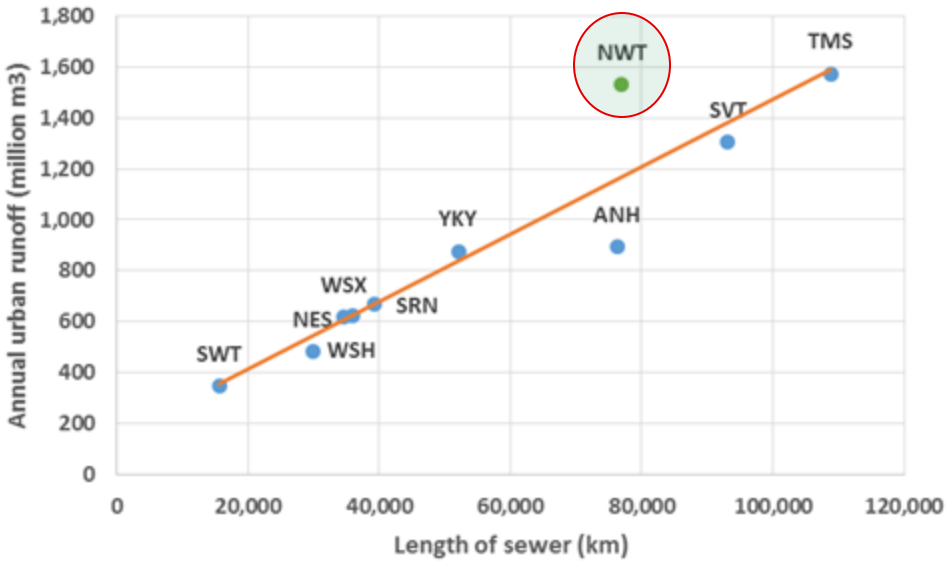


This graph shows how we must reduce existing flows in addition to controlling future flows through retrofit solutions to impact spill frequency and flood risk.

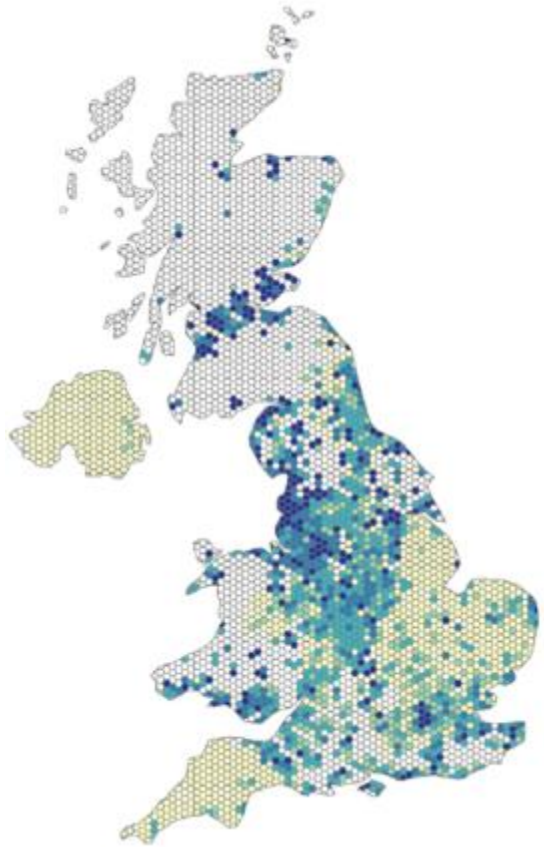
Our network needs to become more resilient to rainfall



Rainfall data shows that the North and the West of the UK receive the highest levels of precipitation



This runoff enters our sewers at a disproportionately high level compared to the industry



Despite a large system capacity assessments still indicate a full system

UKWIR Big Question 6 – Zero Spills 2050

UK Water Industry Research are leading in defining strategic research programmes to address key challenges the industry faces. We are working to understand and develop our research to continue to challenge and improve spill frequency in the North West.

How reducing bills can help the environment!

- ✓ We want surface water to be stored, reused and harvested as a valuable resource. This is contrary to draining to the sewer where is requires to be pumped and treated before discharge to the environment.
- ✓ Idealistically organisations should look at sustainable discharge of SW from their sites/properties
  - ✓ Soakaways, swales, tree pits, green roofs, balancing ponds, rain gardens etc. are all key tools for the future management of SW.
- ✓ We are shining a light on the opportunities and commercial benefit that SW management can provide in terms of bill reductions through reduced site areas draining and water harvesting reducing potable water consumption

£ Sustainable surface water management saves you money and improves the environment!

What is the Big Question?

- Eliminate uncontrolled discharges from sewers to reduce impacts to customers and the environment

Why is it important?

- Whilst overflows were originally build to protect from flooding in severe events, there is increasing expectations to mitigate environmental impacts to receiving water bodies, especially bathing and shellfish waters.

Catchment Pressures?

- Whilst most spills are caused by sewer misuse (blockages), climate change, development and changing land use practice such as the loss of permeable areas at domestic scales act to create an increasing pressure on the receiving system.

Supporting initiatives to make Blue-Green Infrastructure investible

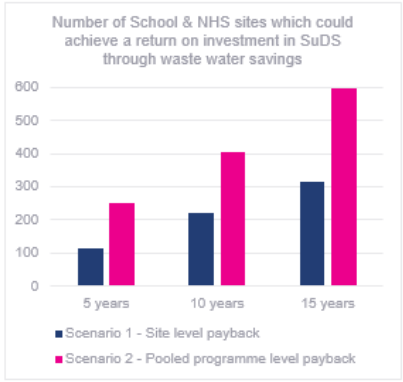
The Prince's Responsible Business Network

WATER RESILIENT CITIES

The business case for investing in resilience in Greater Manchester

Economic Modelling

- Schools and NHS Sites
- Strategy 1: sites that make a direct saving by moving down a band
- Strategy 2: pooling savings across all sites at a programme level to leverage wider multiple benefits



The work done by Business in the Community (BITC) has evolved into the Greater Manchester IGNITION project look to develop innovative financing solutions for investment in GM's natural environment

Phase 5 - IGNITION

Innovative financin**G** a**N**d delivery of na**T**ural climate s**O**lutio**N**s in Greater Manchester

GREATER MANCHESTER DOING THINGS DIFFERENTLY · UIA · European Union European Regional Development Fund

Ignition is a ground-breaking project that aims to develop innovative financing solutions for investment in Greater Manchester's natural environment, helping the city to adapt to increasingly extreme impacts of climate change. The first funding stream within IGNITION is an evolution of the Water Resilient Cities SuDS Model

The Prince's Responsible Business Network · Manchester City of Trees · Environment Agency · GMCA Greater Manchester Combined Authority · Manchester City Council · Royal Horticultural Society · Salford City Council · UK GBC · United Utilities · Manchester 1824 The University of Manchester · University of Salford Manchester

Sustainable Drainage Systems

Ever wondered where the rain goes? A sustainable drainage animation

Sustainable Drainage Systems;

- Manage runoff volumes and flow rates from hard surfaces, reducing the impact of urbanisation on flooding
- Provide opportunities for using runoff where it falls
- Protect or enhance water quality (reducing pollution from runoff)
- Protect natural flow regimes in watercourses
- Are sympathetic to the environment and the needs of the local community
- Provide an attractive habitat for wildlife in urban watercourses
- Provide opportunities for evapotranspiration from vegetation and surface water
- Encourage natural groundwater/aquifer recharge (where appropriate)
- Create better places to live, work and play.

Sustainable Drainage Opportunities

SuDS opportunities can be created almost anywhere

Re-purpose existing urban spaces

RBG Pocket Parks, London (case study)

Parks

West Gorton's Carbon 'Sponge Park' (case study)

Integrate SuDS as part of active neighbourhoods

Greener Grange Town, Cardiff (case study)

SuDS within school environments

All Saints Primary School (case study)

SuDS within the school environment

VIEW: Existing conditions

VIEW 1: Rain Garden Proposals

CONCEPT PLAN

VISUAL IDEAS

Down-pipe rain garden

Playful downpipes and SUDS planter

Watering can down-pipe rain garden

SUDS planter

Playful down-pipes

By their nature, schools have large areas generating runoff (roofs, playgrounds etc.)

Department for Education keen to install SuDS at school sites

Copies of ‘concept’ plans to show example SuDS in a school environment

Opportunity to interact and educate school children. SuDS provide attractive, stimulating learning environments

VIEW 1: Existing conditions

Rain garden kerb for surface water run-off

VIEW 1: Rain Garden Proposals

CONCEPT PLAN

VISUAL IDEAS

Playful downpipes with rain garden planters

Outdoor classroom with green roof

Willow dome

Business Customers – example SuDS case studies

Ikea Greenwich (Case study)

Fig 6: Meadow flowers in detention area and swale

Fig 7: A gully guard

Fig 8: Swale outlet

Fig 9: Installation of final filter drain

Fig 10: Signs around the site

Asda supermarket, Leicester (Case study)

Alcester Primary Care Centre, Warwickshire (Case study)

Business customers – example SuDS case studies

Bristol University Auditorium, Bristol (Case study)

Royal Bank of Scotland Headquarters, Gogarburn, Edinburgh (Case study)

Aztec West Business Park, South Gloucestershire (Case study)

Victoria Park Health Centre, Leicester (Case study)

Questions?

Understanding the Cash value

How the reduction works

A reduction in chargeable area of 80% will apply to the area of the site drained via the sustainable drainage system. The new surface water band is allocated based on the applicable chargeable area for surface water drainage

1) Calculate the entire site area (M^2) for the related SPID. You are able to check this at https://www.unitedutilities.com/Business-services/business-customers/site-area/
2) Identify the surface area (M^2) of the site that will drain to a UUW sewer via the SuDS
3) **ONLY** Apply an **80% reduction** to the **area** (M^2) of the site that will **drain via the SuDS**
4) To calculate the new surface area add the newly calculated site area to any remaining site area that does not drain Via the SUD
5) Cross check the new site area against the site area banding within the charges scheme https://www.unitedutilities.com/Business-services/wholesale-charges/

REMEMBER – The site area adjustment is for surface water only (CMOS code UU_SW_01) and applies to the area of site drained via the sustainable drainage system

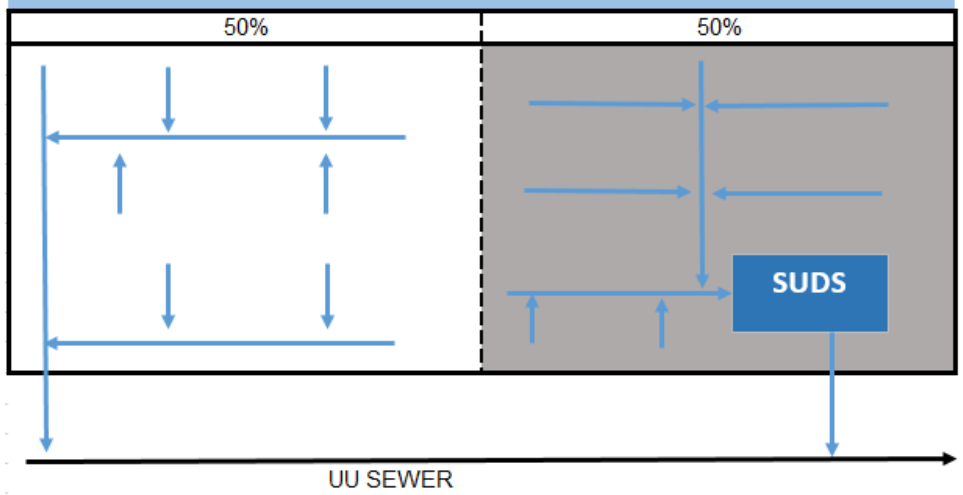
Remember to consider any concessionary tariffs that may apply for Community Groups and schools that meet the relevant eligibility criteria – Details on concessionary charging can be found here https://www.unitedutilities.com/Business-services/business-customers/charges-for-community-groups/. Page 7 of our wholesale sewerage charges Scheme provides further concessionary tariff information that can be found here https://www.unitedutilities.com/Business-services/wholesale-charges/

For site areas <125m2 the site area band cannot be reduced and no saving is achieved

How the reduction works (non-concessionary sites worked examples FY21-22)

Example A

Site 1 - Current site Area = 100,000m2 (Band 13)



Full site area = 100,000m2
Area drained via SuDS = 50,000m2
Area not drained via SuDS = 50,000M2

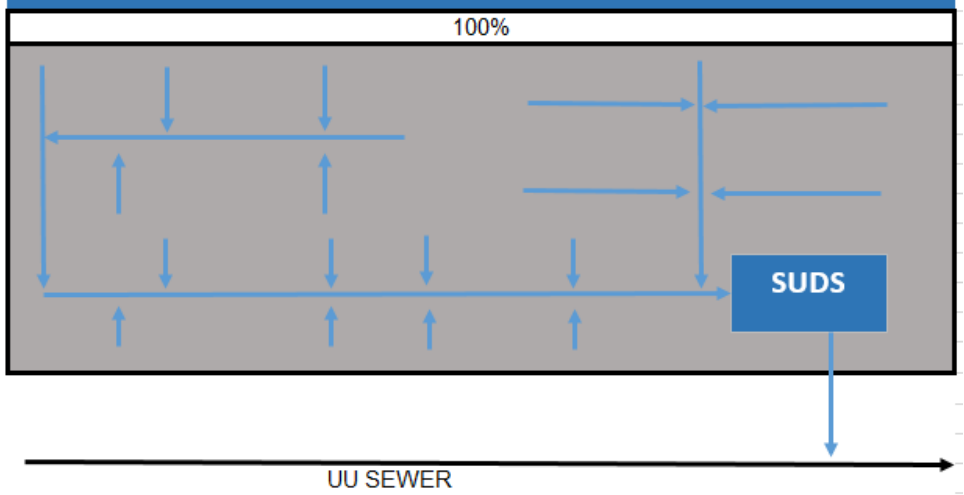
Formula
(Area drained via SuDs x 20%) + (Area not drained via Suds x 100%)

(50,000m2 x 20%) + (50,000m2 x 100%)
= 60,000m2
= New site area band = 11

Old Site area Band 13 charged @	£121,098.34
New Site area Band 11 charged @	£67,276.63
Annual saving	**£53,821.71**

Example B

Site 2 - Current site area = 100,000m2 (Band 13)



Full site area = 100,000m2
Area drained via SuDS = 100,000m2
Area not drained via SuDS = 0M2

Formula
(Area drained via SuDs x 20%) + (Area not drained via Suds x 100%)

(100,000m2 x 20%)
= 20,000m2
= New site area band = 9

Old Site area Band 13 charged @	£121,098.34
New Site area Band 9 carged @	£23,142.81
Annual saving	**£97,955.53**

Quick calculator (Non concessionary sites where 100% of surface water drains via the SuDS FY21-22)

Calculation	
Current Site Area	12,001
Current Band	8
Current Charge	£16,145.98
New Site Area	2400
New Band	5
New Charge	£2,313.60
Saving	£13,832.38

Site Area Range (M2)		Band	2020-2021 Charge
1	124	1	88.31
125	299	2	£219.37
300	649	3	£488.87
650	1499	4	£1,106.12
1,500	2999	5	£2,313.60
3,000	6999	6	£5,143.90
7,000	11999	7	£9,772.82
12,000	17999	8	£16,145.98
18,000	24999	9	£23,142.81
25,000	49999	10	£40,365.75
50,000	74999	11	£67,276.63
75,000	99999	12	£94,187.48
100,000	124999	13	£121,098.34
125,000	149999	14	£148,009.22
150,000	900000000	15	£174,920.59

Gaining the reduction

Applying for the reduction

- Our website contains all the information your customer requires to understand eligible design, construction and maintenance criteria here https://www.unitedutilities.com/builders-developers/larger-developments/wastewater/sustainable-drainage-systems/

> SuDS are always site specific, and require bespoke design that take into account the underlying hydrology and functional purposes of the area being developed. Provision for SuDS and the national standards required for their design, construction, maintenance, operation and adoption is included in the new Design & Construction Guidance and CIRIA.

- Gain all supporting information from your customer (only the retailer may apply)
- Submit your application using the existing H1A process to wholesaleservicedesk@uuplc.co.uk
- Provide all mandatory information where available using the application check list (detailed on the next slide)
- Our website contains all the information you need to understand the eligibility requirements, the application process and payment arrangements https://www.unitedutilities.com/Business-services/business-customers/sustainable-drainage-systems/
- All information relating to the site area reduction can be found here https://www.unitedutilities.com/Business-services/business-customers/sustainable-drainage-systems/

Application check list

- ❑ **Does the application demonstrate that surface water from an area equivalent to at least 10% of the site is drained to a public sewer via an appropriately designed, built and properly maintained sustainable drainage system**

- ❑ **Does the installation fall within the definition of a Sustainable Drainage System**
  - ❑ Green roof
  - ❑ Infiltration system
  - ❑ Bio Retention System
  - ❑ Detention Basin
  - ❑ Ponds & Wetlands
  - ❑ Swales that are used to convey surface water will also be considered where they are used as part of a holistic Sustainable Drainage Strategy

- ❑ **Have you obtained from your customer and included with the application**
  - ❑ A drawing to show connectivity, including areas drained via the sustainable drainage system
  - ❑ As built drawings, to confirm that the system has been designed in accordance with the CIRIA SuDS Manual, with evidence of flow control devices if appropriate
  - ❑ A copy of the maintenance schedule, with proof of maintenance being completed in accordance with the schedule (e.g. invoice) for a minimum of 12 months

Our Ask of you

Raise awareness

We look to water companies to sustain and improve the health of our rivers, lakes, coastal waters and ecosystems as they abstract and treat water and discharge treated waste back into the environment.

Ofwat's role is to enable, incentivise and hold companies to account for providing the very best for customers, society and the environment now and in the future. We also oversee the markets that exist in the water sector to make sure they are working for customers.

Help us deliver our commitments to the environment & Society

Work with us to deliver commitments to regulators

Raise your customers awareness of the potential savings they can make through sustainable drainage

Raise customer awareness of the environmental impact caused by ineffective drainage

The natural environment

There is an opportunity for regulators and Governments to work together to ensure our ecosystems and natural resources are managed sustainably and our shared ambitions and responsibilities for stewardship are met, while keeping water affordable.

As discussed above, this might begin by jointly setting long- and medium-term targets to give a stronger focus on the natural world. These might include ambitions to radically reduce water use, minimise pollution from sewer overflow and restore natural environments to good ecological status.

We can work together to remove barriers, inconsistencies and gaps in regulation which might hinder companies meeting our shared ambitions in a low-cost way. We could work together to review the evidence available to consider whether current standards have properly accounted for cost savings arising from new techniques and the broader value and natural capital that is created when the environment is improved. Ofwat may need to be more joined up with regulators in other sectors to create a regulatory framework and identify opportunities to encourage water companies to explore circular economy approaches.

- **You do not need to be the experts - Customers can decide for themselves by following the guidance**
  https://www.unitedutilities.com/builders-developers/larger-developments/wastewater/sustainable-drainage-systems/

Next Steps

Next steps

- Provide responses to all questions logged on the chat
- Share the slides
- Follow up session to share some lessons learned if required
- Happy to discuss any queries on 1-2-1 basis
- Please visit our website for links to all of the documentation and application forms

https://www.unitedutilities.com/builders-developers/larger-developments/wastewater/sustainable-drainage-systems/

https://www.unitedutilities.com/Business-services/business-customers/sustainable-drainage-systems/

https://www.unitedutilities.com/Business-services/wholesale-charges/

https://www.unitedutilities.com/Business-services/retailers/key-retailer-forms/

Visit our website for details of all our great incentive schemes!

https://www.unitedutilities.com/Business-services/retailers/incentive-schemes/

Vacancy incentive

Incentivising business retailers in our area to identify and help to bring into charge premises showing as vacant within the Central Market Operating System.

Gap site incentive

Incentivising business retailers to identify eligible premises that are not registered in the Central Market Operating system.

Water efficiency incentive

Incentivising the efficient use of water by business customers.

Rainwater Harvesting

More information on our incentive for rainwater harvesting systems.

Sustainable drainage systems

More information on our incentive for qualifying sustainable drainage systems.

Questions?