

Developer Day 2025

2nd October

Totally Wicked Stadium, St Helens, WA9 3AL

Building a Stronger, Greener and Healthier North West

Welcome to Developer Day 2025

Agenda for the day

09:15 – 09:20	Introduction and housekeeping Ryan Williams
09:20 – 09:40	Welcome to Developer Day 2025 Scott Green, Head of Developer Services and Metering
09:40 – 09:50	Plan for the Day
10:00 – 11:15	WATER EFFICIENCY– keynote presentations
11:15 – 11:25	Comfort Break
11:25 – 12:45	WATER TECHNICAL– keynote presentations
12:45 – 13:15	LUNCH
13:15 – 14:15	Charges
14:15 – 14:20	Comfort break
14:20 – 15:00	Wastewater – keynote presentations
15:00 – 15:15	Comfort break
15:15 – 15:30	MACMILLAN
15:30 – 16-15	Raffle
	Networking

**All keynote presentations
will be delivered from
the main stage in the
1873 room**



Developer Day 2025

Scott Green

Head of Developer Services &
Metering



A fantastic
selection of
delegates from a
variety of roles
and specialities

Home Builders

Consulting engineers

Civil engineers

SLPs

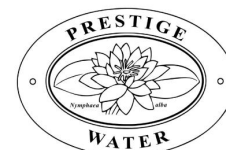
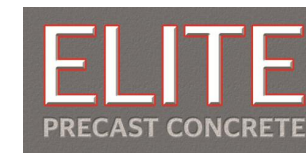
NAVs

Construction companies

Ofwat – **Phill Dixon**

Trade bodies

United Utilities





Water for the North West

**Provide great water
for a stronger,
greener and
healthier North West**

STRONGER

We deliver an essential service, help customers in vulnerable situations, invest in local communities, and support jobs and the economy, giving the North West resilience in a changing world.

We protect and enhance urban and rural environments, and adapt to the challenges of climate change, allowing people, wildlife and nature to thrive, making the North West a better place to live now and for the future.

GREENER

We provide great quality water that people love to drink, safely remove and recycle used water, while taking care of beautiful landscapes in the North West every day.

HEALTHIER

- £13.7bn capital programme, our largest ever
- £3bn for Better rivers, reducing spills by 60 percent over the 10 years to 2030.
- £200 million plan for Windermere that will help improve and protect water quality at England's most iconic lake.
 - £525m Affordability support
 - 1 million smart meters

In Developer Services & Metering we have....

6000+

Total applications

Over 27k

New properties
connected

1500

Lead pipes
replaced

187

Diversions

106km+

Sewers vested

since last Developer Day

6.1km+

Water mains

(oct24 – sep 25)

61

Bulk water
supplies to NAVs

65,000+

Smart meters
installed

Highlights from the verbatim feedback.....



They were very good at responding in good time

Very responsive in exceeding their quoted turnaround time

What went well....

It was a clear process... communication was clear

Giving good, impartial, technical advice



The costs have gone up a lot

I can't get to the right person to discuss my scheme

What could be done better....

They didn't call me back as promised

Need a better, quicker response from the delivery teams



Water efficiency

Michelle Atkinson

Water without worry

Lisa Jeffrey (UU) & Vicky McGrath (Arqiva)

Smart metering

Graham Morley & Stuart Edwards

EWSC

10:00 –
11:15

Water technical

Andrew Smith

Developer Services

Adam Wood

Geoenvironmental

Nicola Miller

Water Fittings

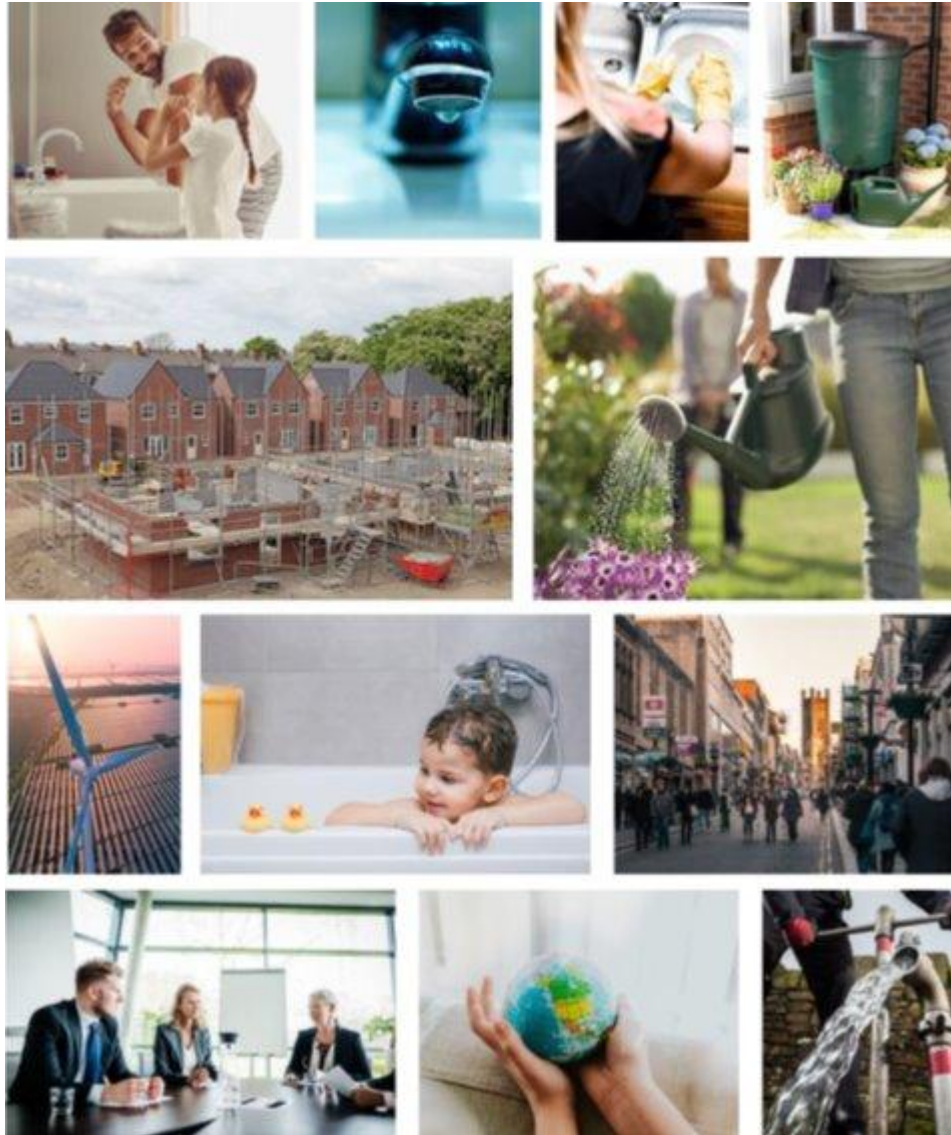
11:25 –
12:45

Water demand

A growing challenge for development

#everydropcounts





Recent headlines show why water efficiency action is critical

- *“Warning issued as north west sees driest start to a year for almost a century”*
- *“England facing worst water shortage in decades, warns Environment Agency”*
- *“Water companies under pressure to cut leaks and reduce customer usage”*
- *“Climate change and population growth pushing UK water resources to the brink”*
- *“Ofwat calls for urgent action to improve water efficiency”*
- *“Public Trust Falls as Water Waste and Pollution Persist”*

The Guardian



iNews



Understanding the growing pressures on our water resources

#everydropcounts

*“A failure to implement water demand management measures in response to water scarcity could result in over 61,000 houses not being built costing the economy £25 billion this parliamentary term.” **

Population growth & housing pressure



- ❑ Nearly **350,000 new homes** are expected across the North West in the next five years
- ❑ More homes = more water demand, especially challenging in Greater Manchester

Climate change & drought



- ❑ Our region is currently in **drought status**, following one of the driest springs in nearly 100 years
- ❑ August 2025 saw **only 55% of average rainfall**, with some areas in Cheshire receiving just **33% of the long-term average****

Infrastructure strain



- ❑ Soil moisture deficits and low river flows are triggering **abstraction restrictions**, impacting water availability for homes and businesses

Low reservoir levels

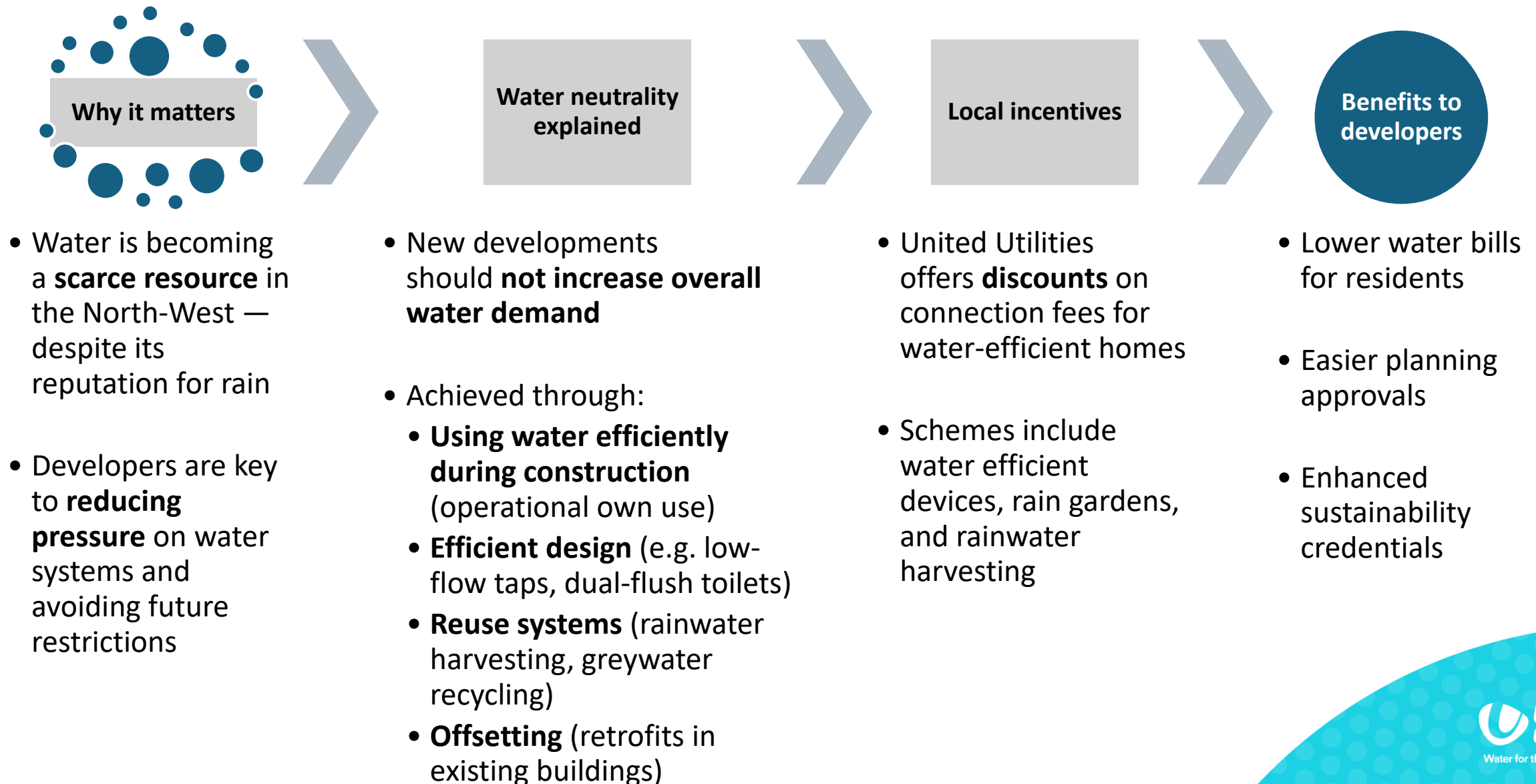


- ❑ Reservoir stocks dropped to **49%** in August — well below the seasonal average of 75%

*[Review of Water Efficiency Standards in the Building Regulations 2010](#) - Defra - Citizen Space

**[North-west England water situation: August 2025 summary](#) - GOV.UK

Future-Proofing Developments Through Water Efficiency



Why it matters

- **Water stress in Cambridge:** Chalk aquifers under pressure; new builds must be water neutral
- **Planning requirement:** Offset new demand or face development restrictions

Water credits system

- **Offset mechanism:** Developers fund retrofits in existing buildings to balance new demand
- **Tradable credits:** Generated via rainwater harvesting, greywater reuse, boreholes, and ultra-efficient fixtures

Benefits

- **Flexible compliance:** Avoids delays due to infrastructure constraints
- **Cost control:** Credits may be cheaper than bespoke onsite systems
- **Reputation boost:** Aligns with net zero and sustainability goals

Looking ahead

- **Major infrastructure (2030s):** Grafham pipeline and Fens Reservoir will ease constraints
- **Early movers advantage:** Developers who engage now can shape policy and secure approvals faster

Project

Location: Clay Farm, Cambridge

Scale: 208 homes + commercial units

Goal: Meet Code for Sustainable Homes Level 5 (≤ 80 l/p/d)

Benefits

Reduced mains demand: 20–25 l/p/d savings per resident

Planning advantage: Supports sustainability targets and local approval

Marketing value: Strong ESG credentials and buyer appeal

Features

Rainwater harvesting: Roof and hardstanding runoff collected and treated onsite

Natural filtration: Reed beds + ozone treatment ensure water quality

Dual network: Separate pipework for non-potable reuse (toilet flushing)

Smart monitoring: Remote systems track water quality and usage

Challenges

Design integration: Early coordination with drainage and SuDS teams is critical

Maintenance planning: Long-term maintenance must be built into contracts

How you can help...

#everydropcounts

Install flow regulators with smart water meters

Enabling real-time monitoring & leak detection

Fit effective water-efficient fixtures

Use low-flow taps, dual-flush toilets, and aerated showerheads

Design for rainwater harvesting

Integrate rainwater tanks and permeable surfaces to capture and reuse water

...build a stronger, greener, healthier north west, making sure there is enough water for today and tomorrow

Operational own use

Use water efficiently during construction by:

- fixing leaks promptly
- Avoiding unattended hosepipes
- Using non-potable water where possible (e.g. for watering turf & plants)

Promote sustainable landscaping

Use drought-tolerant plants & efficient irrigation systems to reduce outdoor water use

Build to meet or exceed water efficiency standards

like the 'Water Efficiency Calculator for New Dwellings'

Educate buyers on water-saving behaviours

Provide welcome packs that encourage mindful water use

A photograph of a woman and two young children. The woman is in the background, smiling. In the foreground, a child is holding a glass of water to their mouth, drinking. Another child is to the right, looking towards the camera. The scene is indoors, with soft lighting.

Smart metering

United Utilities & Arqiva

Smart Metering Programme

Lisa Jeffery
Programme Manager



Over the 5-years of **AMP8**, we're making an unprecedented investment in our smart meter infrastructure, installing almost **1 million units** over the course of the programme

Almost
1 million units
in 5 years
(921,891 to be
precise)

420,000 replacement meters
for HH (249k) and Non-HH
(171k) customers

501,000 NEW smart
meters for household
(HH) customers

200,000 smart meters
installed in year 1

£240m total
investment in smart
metering over AMP8

Our meters



Traditional
(dumb)

Manually
read
Twice a year



Enhanced
(AMR)

Automatically
read
Every two
weeks



Smart
(AMI)

Automatically
read multiple per
day

Smart meters will provide
up to
9 billion meter reads per
year compared with 5
million now

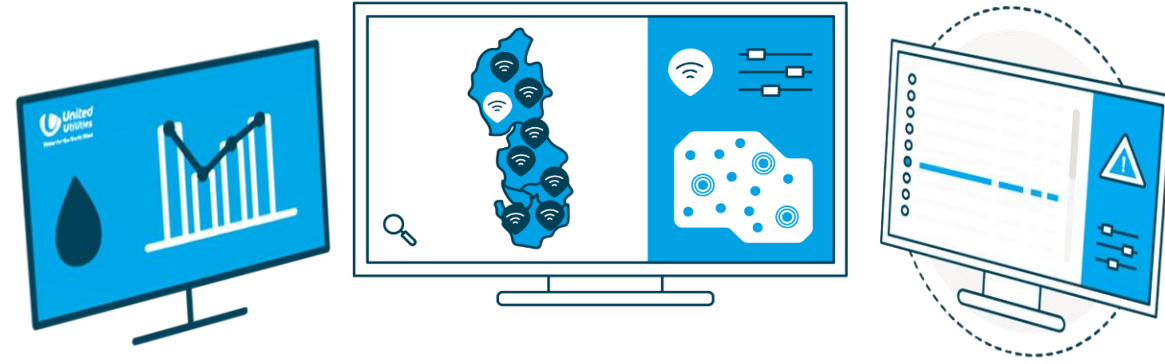
Why Smart meters?



Water **without** worry

Customers

- The majority of customers save £150 per year by switching to a meter
- Lowest bill guarantee for up to 4 years
- Doing more;
 - Our largest ever support package;
 - ✓ £525m to help around 590,000 customers
 - ✓ Direct financial contributions of £200m
 - ✓ Targeted support for schools and communities



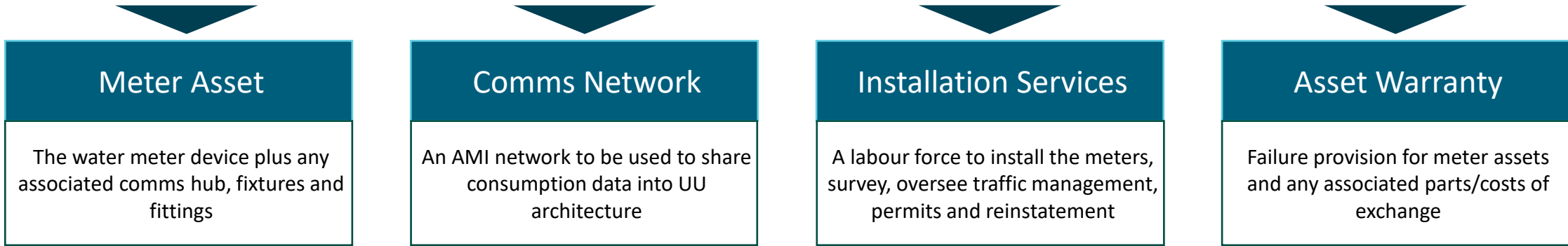
United Utilities

- ✓ Better management and visibility of our water network
- ✓ Helping homes and businesses use less water and save money
- ✓ Improved data management - Metering Control Centre
- ✓ Identify and repair leaks
- ✓ Reduction in PCC (per capita consumption)

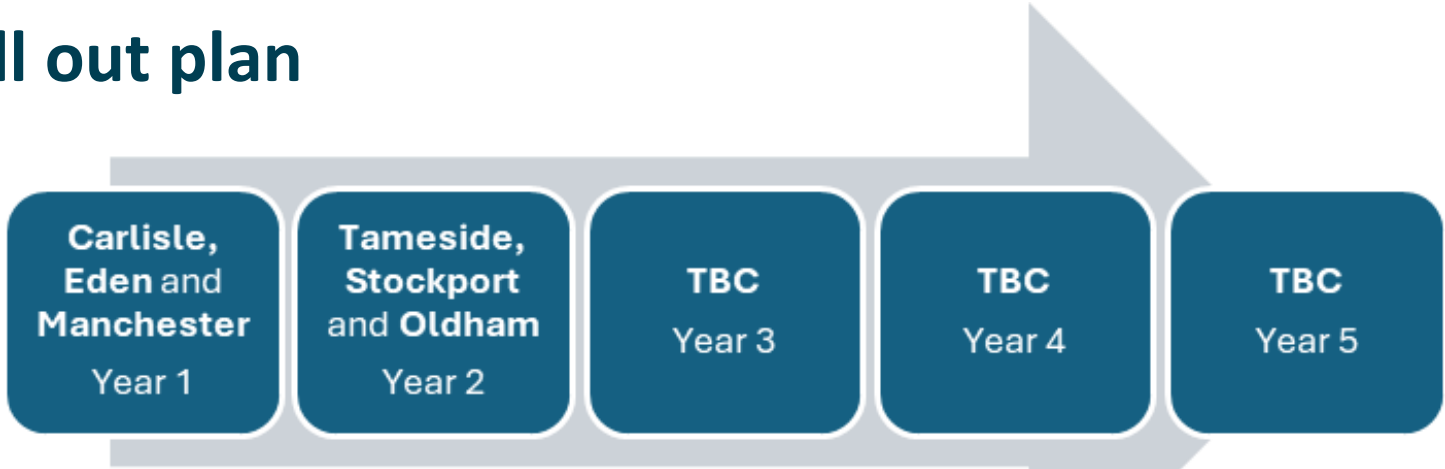


A Strong Partnership will be critical for our success

We have procured one strategic partner to provide the following services



Roll out plan



Smart Partner

arqiva

Network Plus

DIEHL Metering

SENSUS



Arqiva Developer Services Update

Vicky McGrath

arqiva

Arqiva SLP Update

SLP Go-Live Timeline

Summary

You told us....we listened!

Over the past few months we have been collecting your feedback to enable us to provide a slick and seamless journey to SMART. In light of this we aim to have a solution ready for review by April 2026.

Each SLP continues to order Diehl stock to facilitate forecasted orders until 31st August 2025. With ordering requirements of G4 Diehl Meters

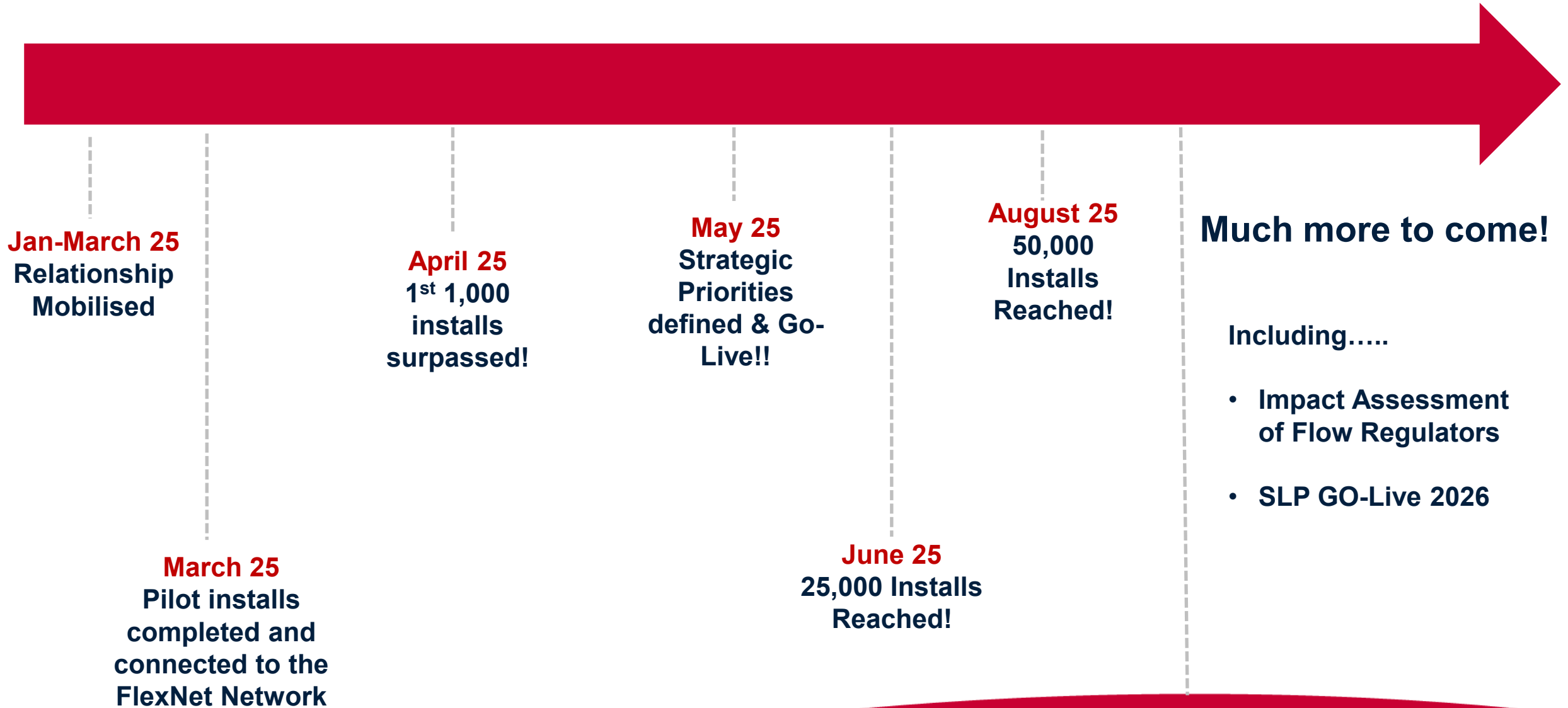
- **February 2026 – Arqiva to provide an overview of the proposed SLP solution with a framework for onboarding and price list**
- **April 2026 - All onboarded SLP's will have the ability to order directly through Arqiva for your Meter and Smartpoint (including peripherals)**
- **April 2026 - June 2026 - Training will be arranged for installation of Smart Solution**

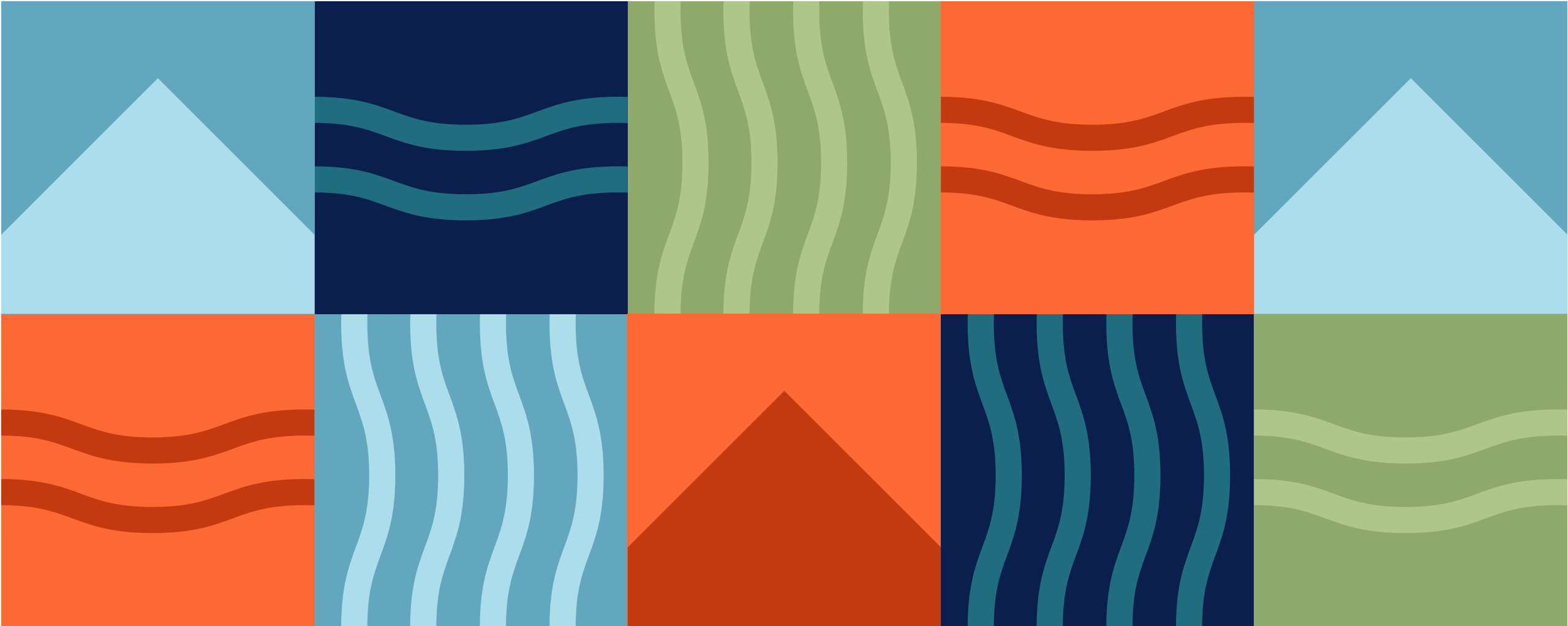
Smart Metering Overview – FlexNet

- **Radio Frequency – 431**
- **Private spectrum**
- **Deployment – National critical infrastructure, existing and new developments**
- **Transmissions per day – 4 to 6**
- **Battery – 15 years**
- **AMR – switches over when network available**
- **97.5% connectivity success based on 22 readings/day**
- **Two-way communication**



Smart Metering Milestones to date..





Enabling Water Smart Communities: Insights to date

Graham Morley & Stuart Edwards

Shared challenges faced by water & housing sectors



>60,000 homes could be delayed in south & east due water scarcity



8 million properties at risk of flooding by 2050 (1 in 4)



30,000 homes delayed by inadequate wastewater infrast. (HBF)

>4.8 billion litres/day deficit by 2050

1.5 million new homes in this parliament





An innovation project exploring the relationship between integrated water management, community engagement & practices, and housing development to unlock new opportunities for cross-sector delivery and stewardship.

Project Delivery Team



Independent Programme Board



What is a water smart community?



A WSC is a place where water is central to the design, where people embrace the principles of water stewardship and where they are empowered by assets and systems to use water wisely and with care for the environment

Our focus is on *Enabling...*





The case for water smart housing

- Analysis suggests that 61,500 homes in south and east will be undeliverable due to water scarcity (based on the assumption that 1.5 million homes are delivered)
- Water scarcity 'gap' will not be met by large water resources schemes (e.g. reservoirs) in the short-medium term
- Building 'water smart' homes would help unlock housing delivery in water scarce areas
- If homes were 30% more water efficient (80l/p/d homes) then 49,000 of the 61,600 'lost' homes could be built



Guide: water efficiency and reuse in housing – design guide for a changing climate



- For architects, developers, planners, and housing associations
- Practical, evidence-based design strategies to help housing professionals deliver or exceed the government's target of 110 l/p/d
- Model specifications for fittings, layout and reuse systems
- Six case studies of water-efficient housing in action
- Developed in partnership with Good Homes Alliance, Pollard Thomas Edwards and industry leaders

Water efficiency and reuse in housing

Design guide for a changing climate



Delivered by
**Pollard
Thomas
Edwards**

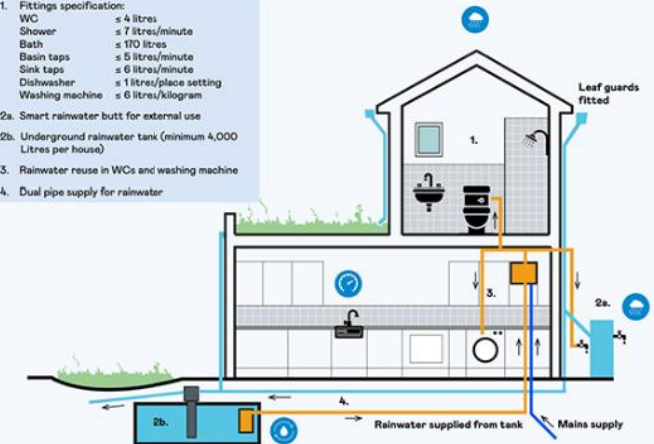
Supported by
**ENABLING
WATER SMART
COMMUNITIES**

UK Water Efficiency Collaborative Fund

Recommendations for developers - houses

- Make holistic design decisions instead of bolting on technology. This can mitigate against spiralling costs and deliver enhanced environmental, social and economic benefits.
- Allow space for water storage and treatment in site layouts.
- Following this good practice guidance and use model specification in projects to improve water efficiency.
- Follow the water neutrality hierarchy to optimise reductions and rainwater reuse on site, before offsetting in the local area.
- Remember the benefits of water efficiency including low bills, lower carbon emissions and greater resilience in water supply.
- Install dual-pipe for all new homes in water stressed areas.
- For large scale developments, consider site wide measures such as reservoirs, storm water recycling, and communal rainwater harvesting.
- Follow the Water Sensitive Urban Design principles as part of the wider site strategy.

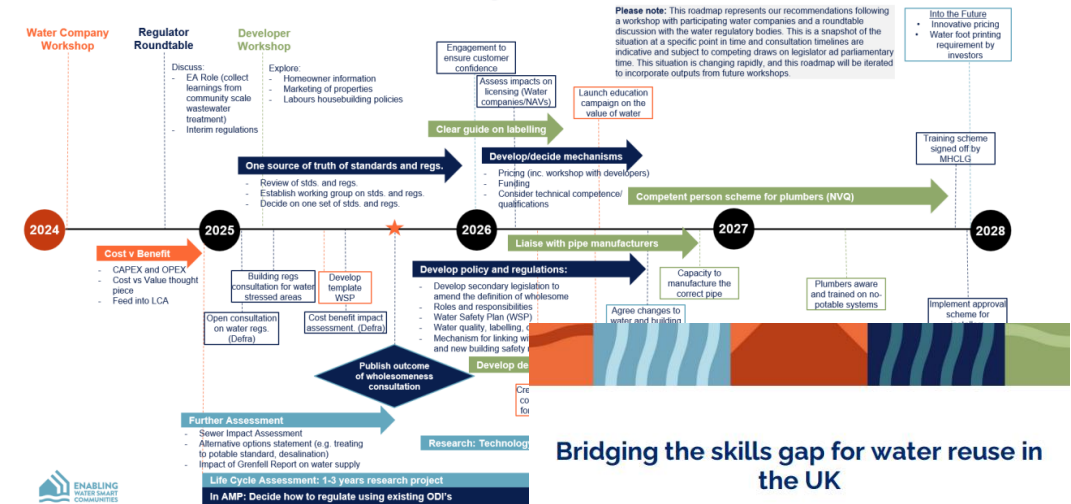
1. Fittings specification:
WC ≤ 4 litres
Shower ≤ 7 litres/minute
Bath ≤ 170 litres
Basin taps ≤ 5 litres/minute
Sink taps ≤ 6 litres/minute
Dishwasher ≤ 1 litres/place setting
Washing machine ≤ 6 litres/kilogram
- 2a. Smart rainwater butt for external use
- 2b. Underground rainwater tank (minimum 4,000 Litres per house)
3. Rainwater reuse in WCs and washing machine
4. Dual pipe supply for rainwater



The case for onsite water reuse

- Getting to 80l/p/d homes will require approaches such as rainwater harvesting and reuse. But reuse still relatively niche in UK
- EWSC is seeking to explore and overcome some of the barriers, setting out a **road map**:
 - public perception – next
 - installation costs (+ OPEX) – next
 - supply chain skills gap
 - impact of low flows on sewer flow & treatment – coming
- Government policy to support water efficiency & reuse:
 - Building Regs Part G – expected imminently
 - Mandatory Water Efficiency Labelling – April '26?
 - Independent Water Commission: recommended reuse
 - Review of regulations around 'wholesome water'

Roadmap for community-scale water reuse V2.0



Bridging the skills gap for water reuse in the UK

A scoping study on workforce development and professionalisation for Enabling Water Smart Communities



ARUP

WISE



Impacts of Water Conservation on the sewer network

Abstract

Several UK water companies are making great efforts to reduce water consumption but often those planning water efficiency measures have little understanding of the potential impacts on sewerage infrastructure downstream. The tools and knowledge for assessing these impacts have been made available through academic research but are not in a form that is easy-to-use by the water industry. This pamphlet aims to display the information and methods available to assess these impacts in a format that is accessible for decision making.

This pamphlet has been produced on behalf of the Enabling Water Smart Communities project, supported by the OFWAT Innovation Fund, and is primarily derived from the authors PhD research and publications.

love every drop.
anglianwater

ENABLING
WATER SMART
COMMUNITIES

The case for onsite reuse: financial burden?

Analysed installation costs at 12 development sites, against 9 property typologies.
Considered costs of collection, treatment, external pipework and internal pipework



Greywater Recycling

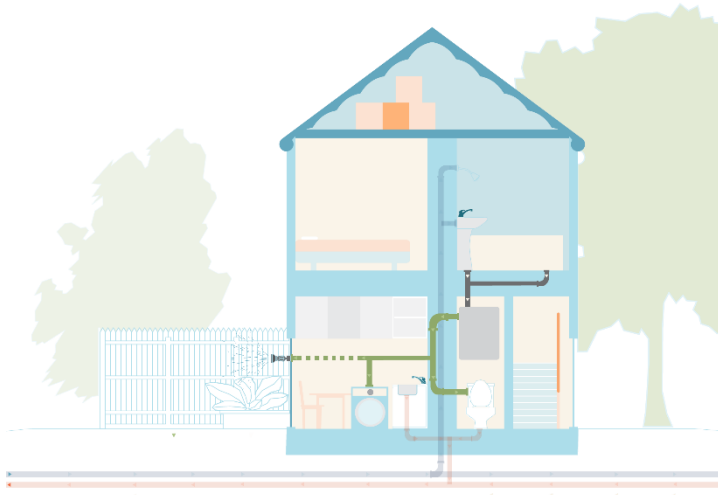
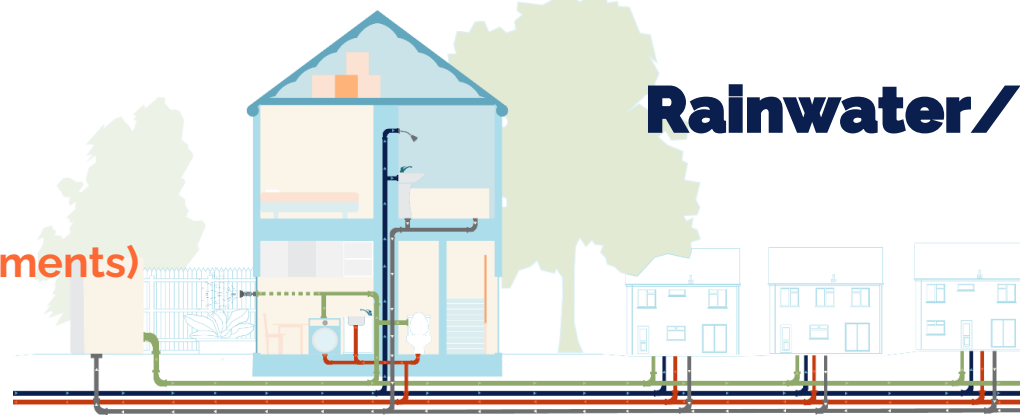
Community = c.£6k
(down to c.2.5k for dense developments)

On plot = c.£4k

Rainwater/Stormwater Recycling

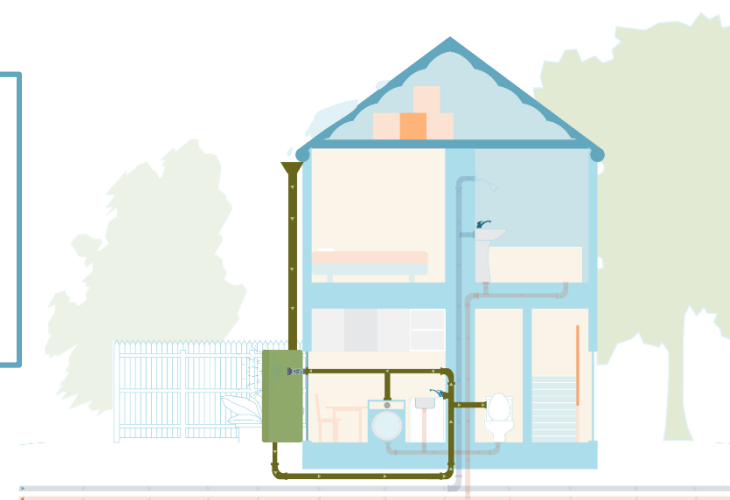
Community = c.£1.8k

On plot = c.£4k



Significant fall in costs with
development size (up to
around 100 units)

Higher density sites yield
lower costs



This analysis represents a first step: work being done to refine cost ranges and
assess the OPEX costs to get **wholelife cost and carbon estimates**



The case for onsite reuse: the public are on-board

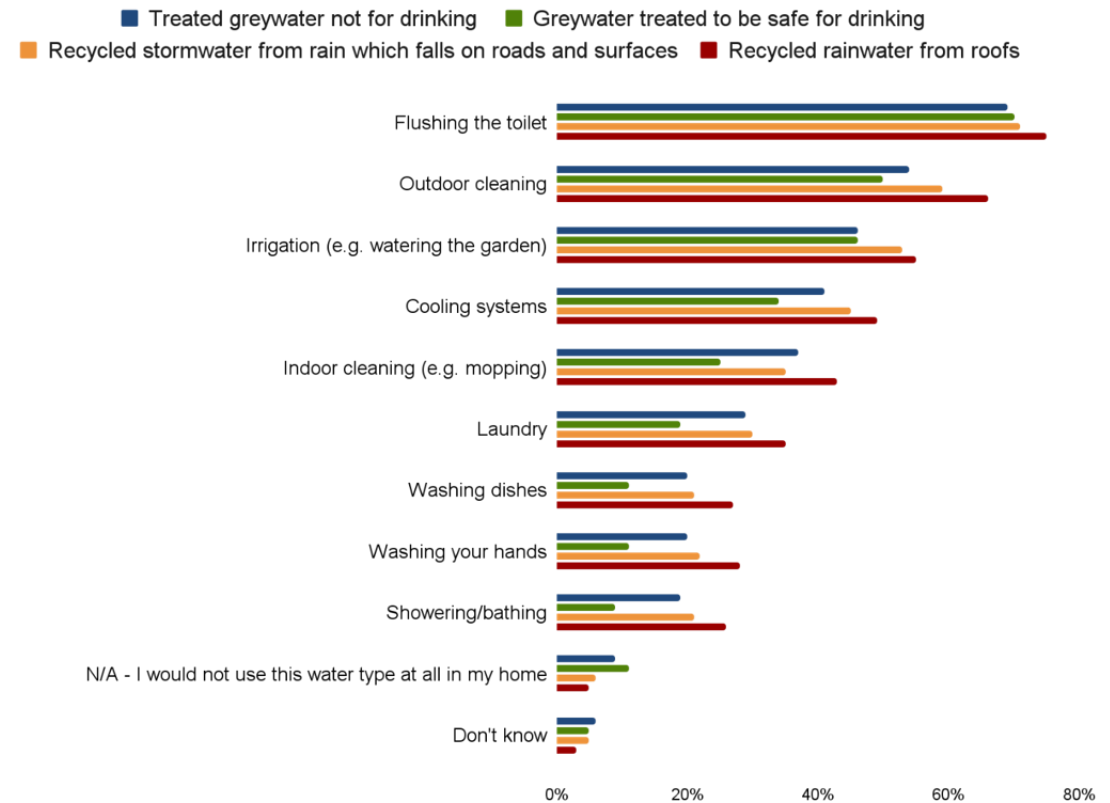
- Opinion poll with >4000
- Very few said they would not be willing to use recycled water at all
- **Type of reuse matters:** rainwater recycling is desirable; toilet water recycling is not.

People are most willing to use recycled water for flushing the toilet and outdoor tasks



- Public support for reuse is corroborated by qualitative research by **University of Manchester** which captured the nuance and conditionality of people's support for reuse: support dependent on trust in the technology itself, and in the governance of housing + water assets

Would you be willing or unwilling to use [Water Recycling Type] in your home for any of the following uses, if any? Select all that apply



Climate resilient green space: early findings from public & developer analysis into SuDS

Public perceptions: poll with > 2000 adults + immersive fieldwork:

- people value green spaces and clean air & water very highly; they are looking for opportunities to live and act sustainably
- the full functionality and value of SuDS is not well understood but, once explained, 82% are supportive
- the majority are willing to pay more to maintain green spaces and reduce flood risk - particularly strong in young people and first-time buyers
- 'SuDS premium' of approximately £4,000 per property



Developer perceptions: in-depth interviews:

- consensus around SuDS being a necessary and potentially valuable part of development
- viewed to have substantial amenity benefits for home buyers – but only where there is enough space, flexibility and regulatory coordination to make them work

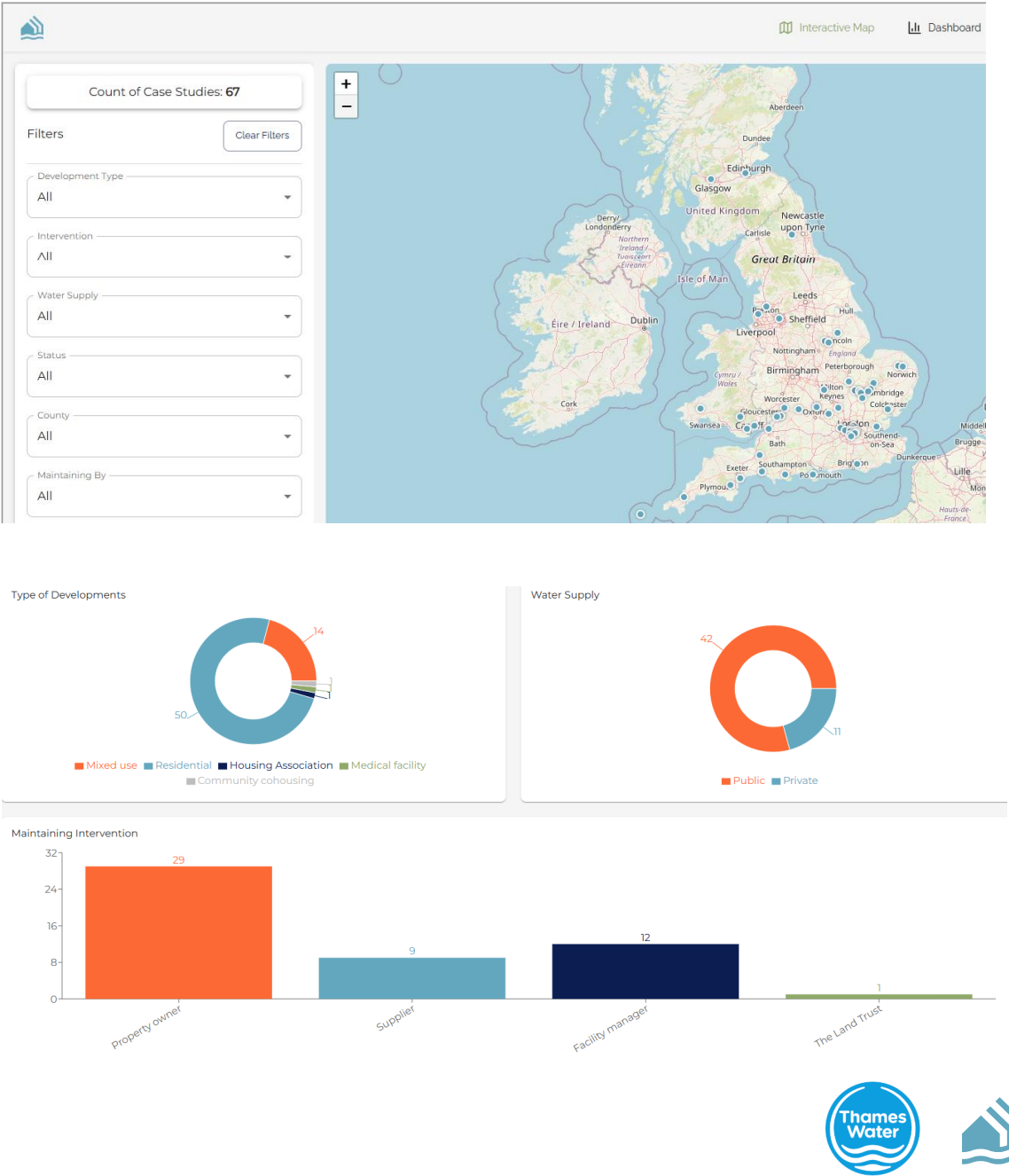
Cost-Benefit Analysis of high-quality SuDS versus traditional drainage solutions:

- similar or lower costs but significant environmental, social & economic benefits
- minimum 6x benefits compared to traditional solns
- key considerations to ensure C-B ratios are realised

Case study dashboard

Online database of existing re-use schemes for domestic dwellings - from individual dwellings to very large regeneration schemes

All the schemes included are using either a rainwater harvesting system, greywater recycling, or both



Clay Farm Development, Cambridge

- Innovative approach using rainwater from hard standing as well as roofs
- 208 homes and commercial accommodation: homes arranged in quads with a central moat to store and attenuate rainwater
- Rainwater is fed through a reed bed where natural processes remove pollutants; then to a treatment plant where ozone is used to remove bacteria and viruses
- Water pumped to toilets through a dedicated non-potable pipe network
- Reuse system is fully remote controlled, allowing remote diagnostics and maintenance on demand
- Rainwater can be topped up with mains water during periods of low rainfall



Achieving consumption of 80 l/p/d
- to meet CfSH Level 5

Planning & Design: Pollard Thomas Edwards

Construction: Hill Construction for Countryside Properties

Water reuse design: Aquality and AECOM



Summary of Water Company Environmental Incentives



All English water companies now offer incentive payments to developers for stormwater management measures and building homes that consume less water than required by building regs.

Uptake of incentives has been low to date. This new resource from EWSC attempts to address this by compiling all the environmental incentive offerings into a single document



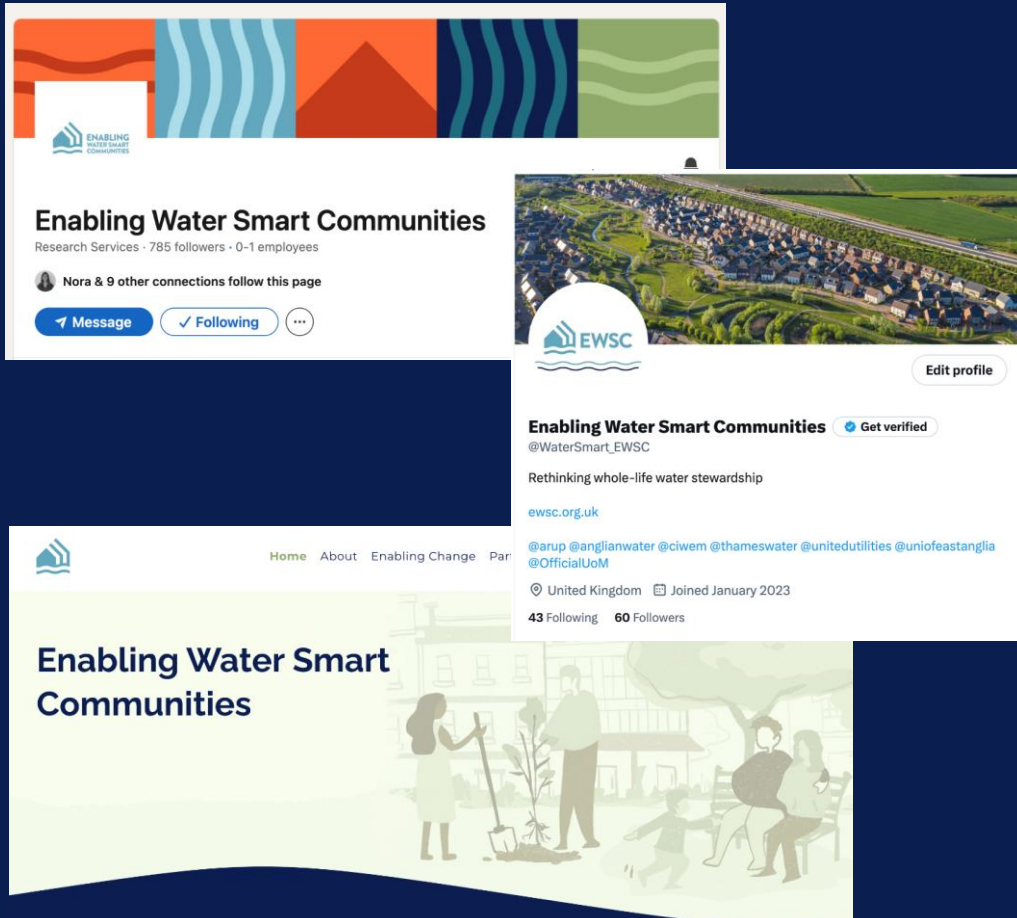
Water and Sewerage company: Water Environmental Incentives

Water company	Total Water Infrastructure charge	Water Environmental incentive Tier 1	Water Environmental incentive Tier 2	Water Environmental incentive Tier 3
Anglian Water	£602	£500 for <90L/p/d		
Northumbrian Water	£395	£350 for <100L/p/d		
Severn Trent Water	£446	£250 for <100L/p/d	£300 for <90L/p/d	£350 for <85L/p/d
Southern Water	£645	£250 for <100L/p/d or 10L/p/d < value in building regs	£800 for Water recycling	Equivalent of £300 contribution per property for Water neutrality
South West Water and Bournemouth Water	£573.72	£177 for <100L/p/d or 10L/p/d < value in building regs	£354 for <90L/p/d or 20L/p/d less than building regs	£382 for rainwater harvesting or £1453 for greywater recycling
Thames Water	£1,730	£400 for <110L/p/d or < value in London Plan	£2,100 for greywater recycling or rainwater harvesting	£700 for water neutrality
United Utilities	£471.26	£172 for <100L/p/d or £272 for <100L/p/d and 14 L/min flow regulator	£400 for water reuse	£664 for water neutrality
Wessex Water	£254.50	£100 for <100L/p/d		
Yorkshire Water	£632	£100 for <100L/p/d		

Water company	Total Waste Infrastructure Charge	Waste Environmental incentive Tier 1	Waste Environmental incentive Tier 2	Waste Environmental incentive Tier 3
Anglian Water	£403	£202 all surface water removed from the public combined or foul sewer		
Northumbrian Water	£83	£75 no surface water drains into existing public sewer		
Severn Trent Water	£548.16	£100 Rain garden	£275 Permeable surface	
Southern Water	£699	£100 no surface water drains into existing public sewer with SuDS		£699 Offsetting so no new wastewater from new site enters network
South West Water and Bournemouth Water	£966.77	£168 water butt or raised rain planter	£363 no surface water drains into sewer	£357 for rainwater harvesting or £1370 for greywater recycling
Thames Water	£525	£280 SuDS to reduce surface water entering network by >95%		
United Utilities	£501.39	£20 water butt, rain garden, or rain planter	£150 for permeable surface or £288 for now surface water draining to network and permeable surface	
Wessex Water	£1,251	£402 No surface water connecting to public sewer		
Yorkshire Water	£581	£200 Discharge via SuDS treatment train	£300 No discharge to public sewer	



EWSC – stay engaged



Enabling Water Smart Communities (EWSC) is an innovation project exploring the relationship between integrated water management, community engagement and practices and housing development to unlock new opportunities for cross-sector delivery

For news or to get involved, please get in touch:

Website | <https://www.ewsc.org.uk/>

LinkedIn | <https://www.linkedin.com/company/92882504>

Email | ewsc@anglianwater.co.uk

Reports



Webinars:

- * 19 September Rethinking skills, systems & solutions for a resilient future 13:00 – 14:00
- * 24 September Water Efficiency & Reuse in Housing - Design Guide 13:00 – 14:00



Developer Services Water



Developer Day Briefing

Water - Design and Quality

Water Business update

Andrew Smith



Water for the North West

CW Developer Services Technical Design Team

Customer Area Manager (Design)

- Andrew Smith

Developer Services Engineers

- Helen Fulford
- Lindsey Eccleston
- Rachel Yates
- Aisling Marsland
- James New
- Tom Morris

Assistant Developer Engineers (NAV – Whole Region)

- Amanda Harding
- Jenny Smith



Customer Area Manager (Assistant Engineers)

- Jen Blake
- Assistant Developer Engineers, Team Leader**
- Bradley Hollis

Assistant Developer Engineers (South)

- David Barrow
- Jess Cunliffe
- Tia O'Mara
- Collen Scott
- Sam Reid
- Brian Entwistle

Water Update – Stakeholder Feedback



Design/Team Updates

Option to Design Hydraulically is available
Option to install Pulsed output on all commercial meters
Move away from overreliance on emails – Teams/site meetings

Wholesaler/retailer Disconnection Process

Reminder of the Process .
If retailer not responding they can contact Dev Services, you will need to provide specific info via email (Retailer ref no./ Site Address/site contact/meter/account details). We will then process and manage request via UU market services team on your behalf.

Common Metering

- Permitted in specific cases**
- Student accommodation with shared facilities and wholly domestic or commercial premises with Combined Hot water systems.
 - Domestic & Commercial premises MUST have their own designated supplies.

A photograph of a woman and two children. The woman is in the background, looking down at a glass of water. A young girl in the foreground is holding the glass with both hands and drinking. A younger child is on the right, looking towards the camera. The background is blurred, showing an indoor setting with warm lighting.

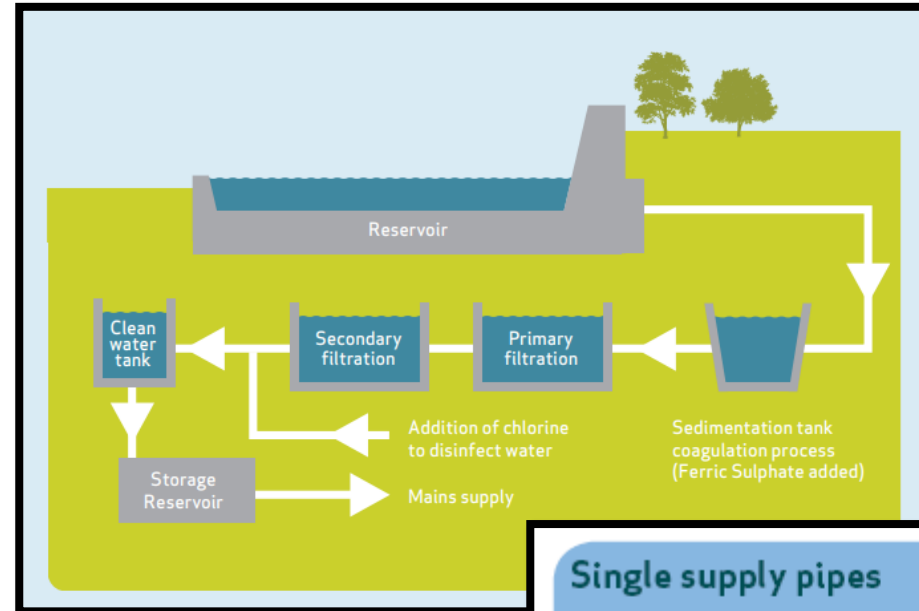
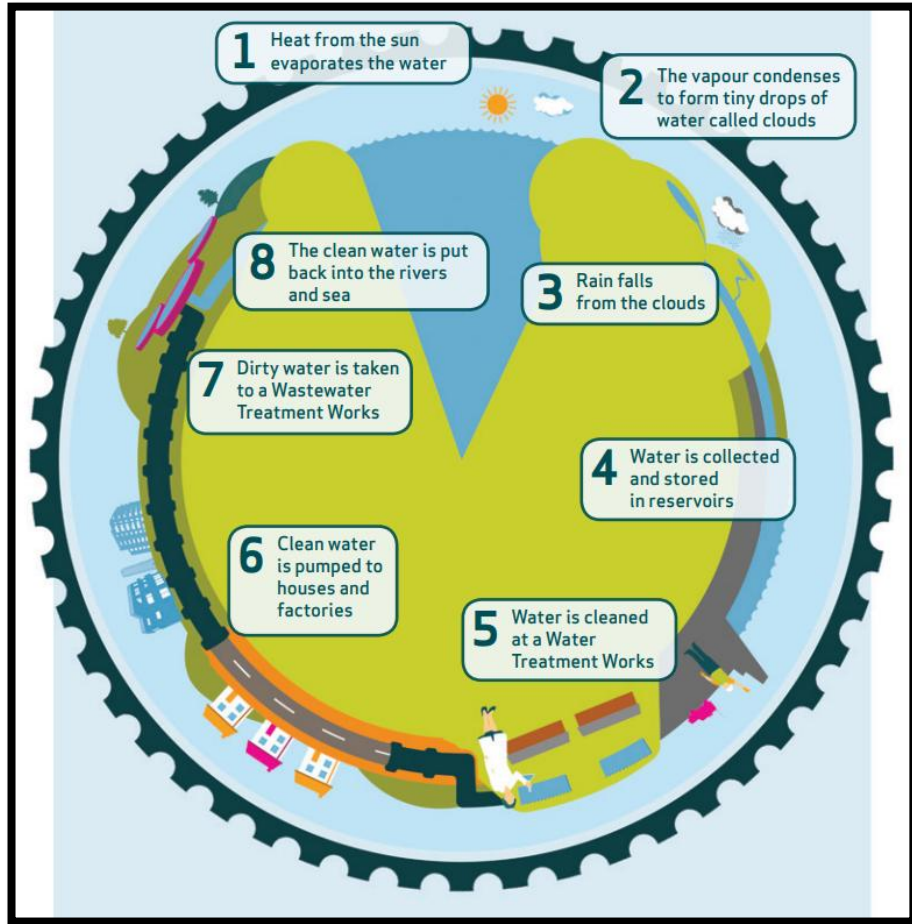
Risk Assessment for Water Pipes (RA)

Application for a new water supply in land that is, or may be, affected by contamination

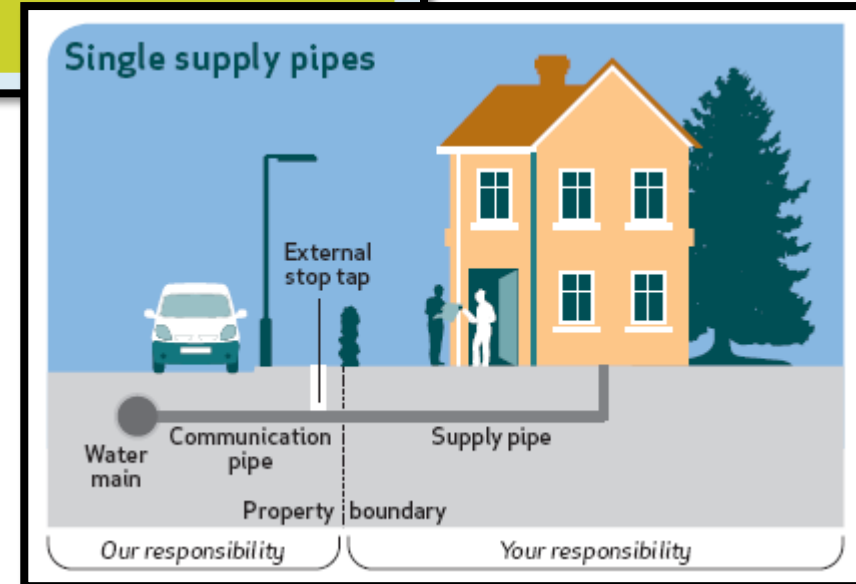
Geoenvironmental Engineering (United Utilities)



Water Supply



A clean, reliable supply of around 1,700 million litres of water a day is distributed to our customers' taps using our 43,000km network of pipes



Risk Assessment for Water Pipes (RA)



Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites

(Report Reference Number 10/WM/03/21)



Overview:
Understand your responsibilities and relevant legislation when selecting and installing water supply pipes in brownfield sites and the overall procedures for investigating brownfield sites

Site investigations & interpreting data:
[Guidance on investigating brownfield sites prior to installing water supply pipes, collecting and interpreting data.](#)

Selecting and installing products:
[Guidance on selecting an appropriate pipe material and joints using data from site investigations. Specification of products to meet selection.](#)

Creating an audit trail:
[Checklists for recording decision making process when selecting pipe system, for specification of products and installation, for auditing of consultant/SLO.](#)

The Full Guidance:
This section covers the complete guide for use when planning, designing and constructing water mains and/or services in brownfield sites.

Contaminated Land Assessment Guidance

Protocols published by agreement between Water UK and the Home Builders Federation



Published by Water UK
January 2014

Supplementary guidance for the selection of water pipes in land potentially affected by contamination



Introduction

In January 2011, UK Water Industry Research (UKWIR) published "Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites" (Ref 10/WM/03/21, the 'UKWIR Guidance'). Its aim is to ensure that the correct materials are selected for water pipes and components to be used below ground in brownfield sites to protect the quality of drinking water whilst taking into account the service life of the water distribution system. It supersedes the Water Regulations Advisory Scheme (WRAS) Information and Guidance Note 9-04-03 "Laying Pipes in Contaminated Land" which has been withdrawn.

The UKWIR Guidance is for use by developers, self-lay organisations, water companies and consultants when planning, designing and constructing water mains and/or services in brownfield sites. It defines brownfield sites as "land or premises that have previously been used or developed. They may also be vacant or derelict. However, they are not necessarily contaminated." The UKWIR Guidance states that it does not apply to greenfield sites; however, we consider this supplementary guidance and the relevant sections of the UKWIR guidance as being equally suitable for application to those greenfield sites considered to be potentially affected by contamination. Where greenfield sites are not affected by contamination a preliminary risk assessment (see below) will suffice.

The UKWIR Guidance also states that there should be no departure from its provisions "except where formally approved by the Water Company, such departure being technically justifiable or representing advances in knowledge or product development".

We have adopted the UKWIR Guidance in principle and produced this company specific supplementary guidance (the 'UWV Guidance') which includes the Risk Assessment for Water Pipes (the 'RA'). This guidance does not cover operative safety, health exposure modelling or accidental pipe damage.

Risk Assessment for Water Pipes in Land Potentially Affected by Contamination

Any application for new water supplies to a development (construction of new properties, or renovation or conversion of existing buildings) in land potentially affected by contamination shall include a completed RA.

As a minimum a desk study (preliminary risk assessment) shall be provided with the RA in accordance with the framework in Environment Agency publication "Model Procedures for the Management of Land Contamination" (ref: CLR1) that sets out whether the land through

which the pipes are to be laid may be affected by contamination. The application of the source, pathway, receptor concept will be an integral part of any pipeline risk assessment. For each potential source (the contamination) and each potential receptor (the water pipe), consideration shall be given to whether a potential pathway between source and receptor exists, or may exist in the future, linking the two. There are normally only three pathways by which contamination may come into contact with water pipes. These are direct contact with the soil or backfill, an excessive vapour phase or a contaminated groundwater regime. If none of these conditions exist on site (adopting the source, pathway, receptor concept) then it is likely that extended and/or targeted soil testing will not be required and a simple risk assessment will suffice. For those sites where land may be affected by contamination appropriate testing shall be undertaken on the materials within which the pipes are to be laid, whether that be existing ground materials, remediated materials or imported capping materials. The testing requirements are as described in the following section.

The signatories of the Water Supply Application Form and the RA must ensure that all assessments of land condition have been carried out in accordance with applicable current standards and guidelines by or under the direction of a suitably qualified competent person.

We require the competent person to be a) a chartered member of an appropriate professional body (such as the Institution of Civil Engineers, the Geological Society of London or the Royal Institution of Chartered Surveyors) with relevant experience of investigating contaminated sites or b) a Specialist in Land Condition (SILC) with appropriate geo-environmental experience.

How to contact us



0345 072 6067
Opening hours:
8am-5pm Mon to
8am-4.30pm Fri

Risk assessment for water pipes (RA)



The risk assessment for water pipes will help you choose appropriate materials for your development. We are happy to deal with a risk assessment for water pipes in advance of any formal application for a new water supply. If you need any help completing the form please call us on 0345 072 6067.

Section 1: Development details

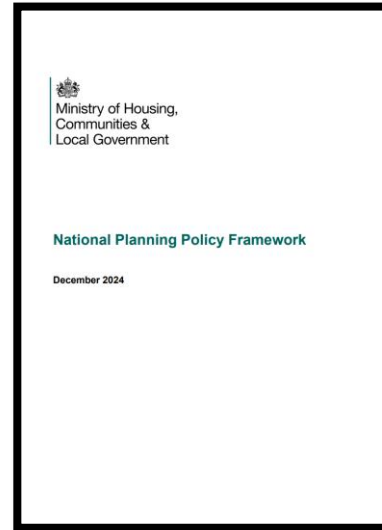
Development name (if it has one)	
Development address	
OS Grid reference (grid point)	
Developer's name	
UWV reference number (for UU use only)	

Please provide details below of the current and historical use of the site and adjacent sites. If your supporting information has details of the current and historical site use, please reference below the relevant sections of your report.

Section 2: Preliminary risk assessment

Has your desk study and site walkover identified any land potentially affected by contamination?	☐ Yes ☐ No
If the site is potentially affected by contamination but you have not completed any intrusive site investigation please provide details below of the rationale behind the intended pipe selection.	
If your supporting information has details of the rationale behind the intended pipe selection, please reference below the relevant sections of your report.	

Competent Person



NPPF defines as competent person (to prepare site investigation information) as “*a person with a recognised relevant qualification, sufficient experience in dealing with the type(s) of pollution or land instability, and membership of a relevant professional organisation*”.



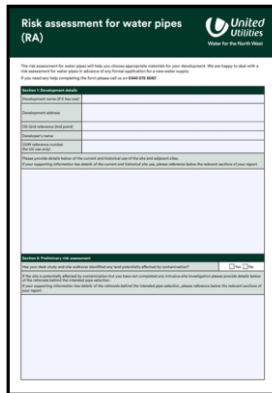
UUW defines a competent person (to prepare the Risk Assessment for Water Pipes (RA) as “*a) a chartered member of an appropriate professional body (such as the Institution of Civil Engineers, the Geological Society of London or the Royal Institution of Chartered Surveyors) with relevant experience of investigating contaminated sites or b) a Specialist in Land Condition (SiLC) with appropriate geo-environmental experience*”.

Specification of water supply pipes

The developer shall provide either:

- a) a robust risk assessment to show how any contaminants will not significantly impact on proposed water supplies or buried assets over the lifetime of the assets; or
- b) more suitable pipe materials*; or
- c) an engineering solution to protect the pipe work backed up by an adequate assessment of the risk.

a)

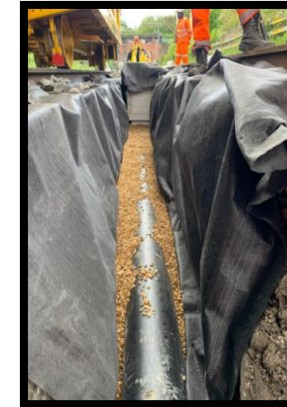


The image shows a form titled 'Risk assessment for water pipes (RA)' with the United Utilities logo. The form contains several sections for data entry, including 'Project details', 'Risk assessment', and 'Mitigation measures'. It is a structured document used for evaluating the potential risks of contaminants to water supply pipes.

b)



c)



***Liquid free phase product (e.g. oil or free solvent layers) shall not remain in the ground or groundwater in the vicinity of water pipes, whether barrier pipe or any other pipe materials are used.**

a) Risk Assessment for Water Pipes (RA)

Roles & Responsibilities

Developer / Risk Assessor

Risk Assessment for Water Pipes (RA)

Preliminary Risk Assessment (*Desk Study / Phase 1 Report*)

Ground Investigation Report

Generic Quantitative Risk Assessment Report (*Phase 2 Geoenvironmental Report*)

Detailed Quantitative Risk Assessment Report

Remediation Strategy

Verification Report / Completion Report

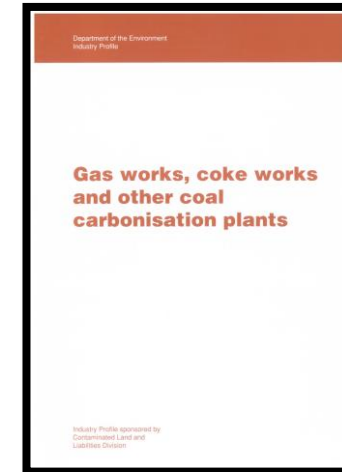
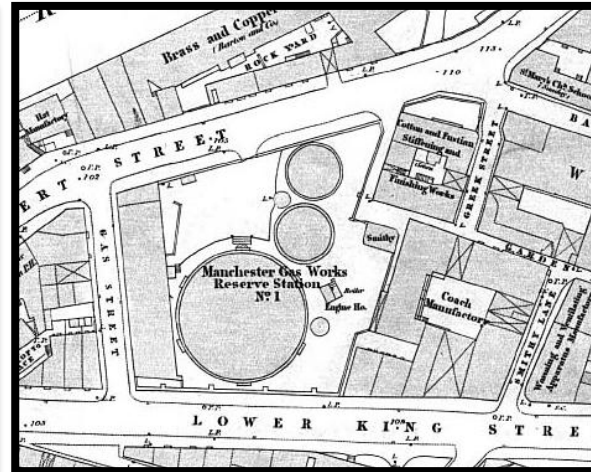
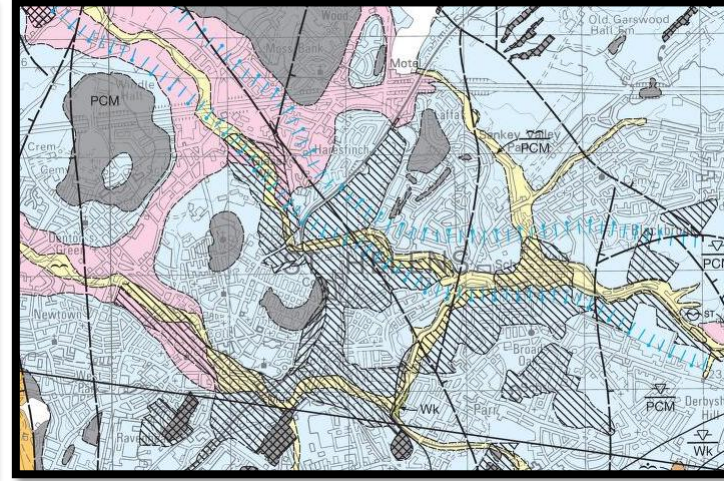
Supporting
Information

Design Engineer (UU Developer Services) / Geoenvironmental Engineer (UU Engineering)

'Cold eyes' review

a) Risk Assessment for Water Pipes (RA)

Desk Study



a) Risk Assessment for Water Pipes (RA)

Conceptual Site Model (CSM)

BS EN ISO 21365:2020



BSI Standards Publication

Soil quality – Conceptual site models for potentially contaminated sites



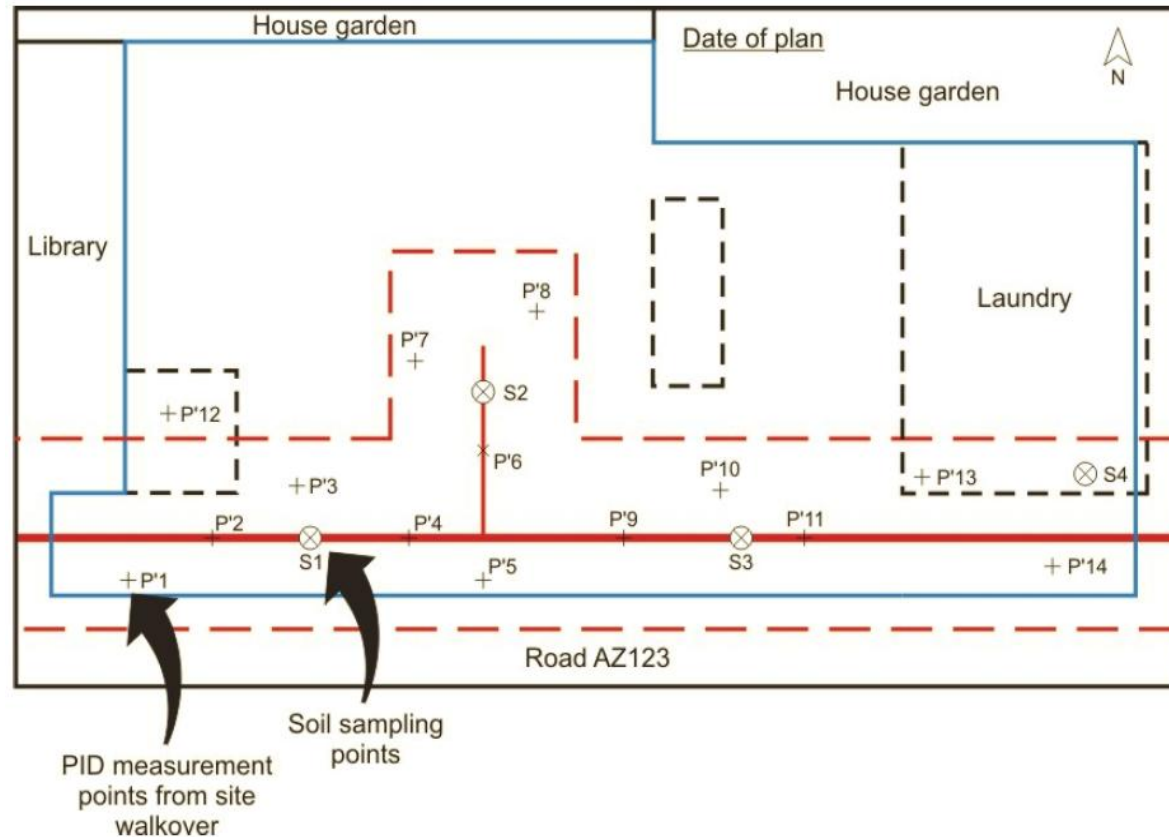


Table 3 — Potential exposure pathways and media to which exposure may occur		
Receptor	Exposure pathway	Media to which exposure may occur
People	Oral ingestion	Soils, sediment, dust
	Skin contact	Soils, sediment, water, vapour, building materials
	Inhalation of vapours	Outdoor/indoor air
	Inhalation of dust	Dust
	Consumption of contaminated drinking water	Groundwater, surface water, water in the pipes due to permeation from contaminated soil sediment, groundwater
	Consumption of plants grown on contaminated soils or irrigated with contaminated water	Fruit, vegetables, wild berries, edible fungus
	Consumption of animal products from animals grazing on contaminated land or consuming fodder produced on contaminated land or contaminated groundwater	Milk and dairy products, meat, eggs
	Consumption of fish, algae, or shellfish from contaminated surface water bodies	Surface water
	External radiation from radioactive substances	Soil, sediments, buildings materials

Table 4 — Examples of uses of particular of exposure media that might expose humans, environmental and other receptors	
Exposure medium	Possible uses within the site/surrounding environment
Sediments	Sediment extraction/dredging Land spreading for agricultural purposes Recreational /occupational exposure (for example, drawing up anchors) Drainage of former water/marsh areas for use for housing, agriculture, industry
Soil	Soil and soil materials (as a resource) extraction/quarrying/peat cutting/soil improvers Civil engineering elements and structures being used or to be kept following the redevelopment of the site (*) Resource to be preserved for agriculture Resource to be preserved for nature conservation Basis for housing, green areas and industrial areas
Soil+biota	Horticulture, farming, vegetable gardens Residential, commercial, recreational, industrial uses
Groundwater and surface water	Drinking water uses, food industry, farming uses, fisheries, fish farming, shell – fish farming, recreation. Resources to be preserved (quality objectives defined by national and local water management plans)
Unconfined air (atmosphere)	Inhalation by population and animals
Confined air medium (inside buildings)	Buildings being used (attendance rate on the site or in the vicinity, if the latter is concerned duration of human presence)
(*) For example, organic solvents can dissolve PVC gaskets, and drinking water distribution systems can be permeable to contaminants in the soil when the pipe materials are inappropriate.	

a) Risk Assessment for Water Pipes (RA)

Ground Investigation



Sufficiency of Testing

Water pipes are normally laid at between 0.75 and 1.35m from finished ground level to crown of pipe. Samples taken and tested must represent both a) the soil in which the water pipes are to be laid and b) the soil down to at least 500mm below the underside of the proposed pipe. Where the proposed depth of the pipes is unknown at the time of application, soil samples representative of the ground condition between surface level and 1.5m below finished ground level shall be taken as a minimum. Where appropriate (see UKWIR Guidance) groundwater sampling and groundwater monitoring will also be necessary. Photo-ionisation detection (PID) monitoring along the proposed route of the pipeline may be employed, though this does not provide a definitive guide to the suitability of water pipe materials.

Where required a sufficient number of test results should be obtained from the material in which the pipes are to be laid. CLAIRE/CIEH 2008 "Guidance on comparing soil contamination data with a critical concentration" may be used, where appropriate, to justify the number of soil samples tested; however, this statistical model should not be used on heterogeneous materials or used to average test results from different types of materials.

EVERY SITE IS UNIQUE

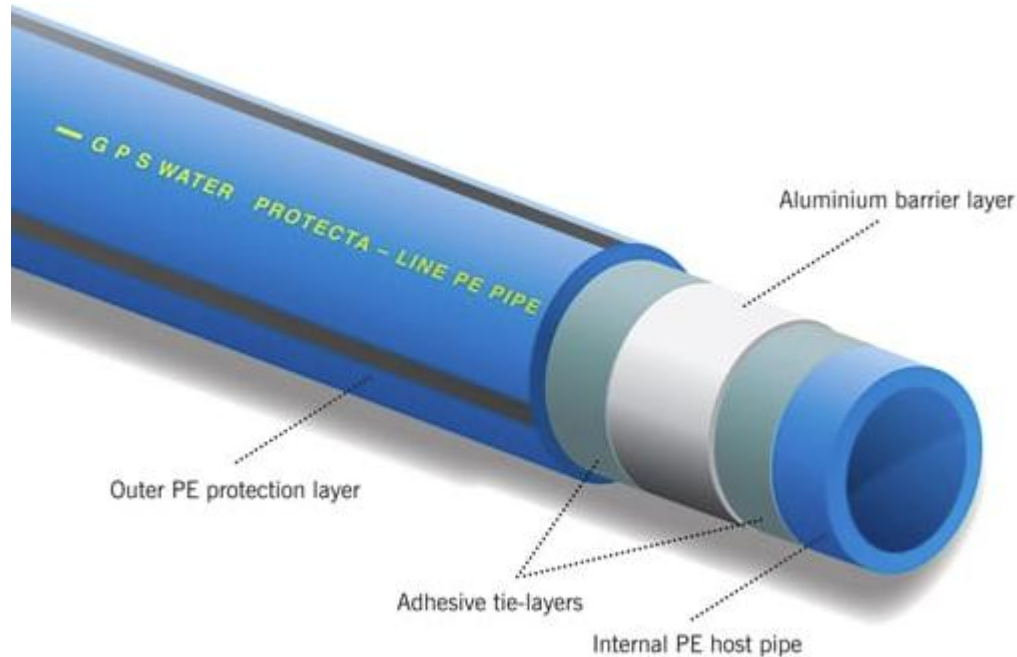
b) more suitable pipe materials

Pipe materials



b) more suitable pipe materials

No default to Barrier Pipe



Is it acceptable not to undertake a site investigation and specify the use of barrier pipe which seems to be suitable for all conditions?

Not all brownfield land is contaminated, and because of that a default to barrier pipe is not an acceptable approach to UUW, due to the possibility of higher installation and future maintenance costs. The approach as to whether a site investigation is needed should be risk based. For those sites where land may be affected by contamination appropriate testing shall be undertaken on the ground materials within which the pipes are to be laid, whether that be existing ground materials, remediated materials or imported capping materials.

Examples where defaulting to barrier pipe would not be acceptable:

- Where a capping layer (non-contaminated) is introduced within which the pipes will be installed.
- Sites with a potential low risk for contamination.
- Where liquid free phase product (e.g. oil or free solvent layers) is in the ground or groundwater in the vicinity of water pipes.
- Where the route of the pipe could be diverted to another suitable location free from contamination.

b) more suitable pipe materials

Liquid free phase product (e.g. oil or free solvent layers)



- Historical land-use e.g. petrol station, gas works etc
- High Total Petroleum Hydrocarbons, BTEX (>1000mg/kg)
- Hydrocarbon odour
- Staining
- Liquid free phase product description (e.g. oil or free solvent layers)

c) an engineering solution to protect the pipe work backed up by an adequate assessment of the risk.

Remediation



Where remediation has been carried out on the site, the test results obtained from validation samples will be used in the assessment. Where a horizontal capping system has been or will be employed using materials spread across a site, sufficient samples will need to be taken to characterise the capping material used and the results presented to UUW. However, the sufficiency of sampling on the horizontal capping system, in which the pipeline will be placed, may be assessed on the basis of the source, quantity and type of materials used.

Table 1 - Pipe selection risk assessment summary (PSRAS)								
1. Testing must be undertaken on the materials within which the pipes are to be laid, whether that be existing ground materials, remediated materials or imported capping materials. Please use the appropriate testing data to complete Table 1 below.								
2. If more than one pipe selection is being made, for example, for pipes in different areas of a large site, a completed PSRAS is required for each selection.								
What materials have been tested to populate Table 1 below?				☐ Existing ground materials ☐ Remediated materials ☐ Imported capping materials				
All concentrations in mg/kg								
Test Group	Testing Required?	PE threshold	Metal Pipes/ Barrier Pipe	Laboratory Detection Limit	Testing UKAS accredited Y/N	Maximum concentration at proposed pipeline depth See Note [2]	Maximum site concentration See Note [3]	Locations and depths where concentrations exceed proposed pipeline threshold
Total VOCs	Where Preliminary Risk Assessment (PRA) has identified land potentially affected by contamination	0.5	Pass					
Total BTEX & MTBE		0.1	Pass					
Total SVOCs (excluding PAHs and those substances marked with an *)		2	Pass					
EC5-EC10 aliphatic and aromatic hydrocarbons		2	Pass					
EC10-EC16 aliphatic and aromatic hydrocarbons		10	Pass					
EC16-EC40 aliphatic and aromatic hydrocarbons		500	Pass					
Phenols* (from SVOC analysis)	Only where identified	2	Pass					
Cresols and chlorinated phenols* (from SVOC analysis)		2	Pass					
Ethers*		0.5	Pass					
Nitrobenzene*		0.5	Pass					
Ketones*		0.5	Pass					
Aldehydes*		0.5	Pass					
Amines		Fail	Pass					
Corrosive	Conductivity, Redox and pH	Pass	See Note [1]					

Note [1] Threshold: For wrapped steel, corrosive if pH<7 and conductivity > 400µS/cm. For wrapped ductile iron corrosive if pH<5, Eh not neutral and conductivity > 400µS/cm. For copper, corrosive if pH<5 or >8 and Eh positive.

Note [2] Water pipes are normally laid at 0.75-1.35m below finished ground level.

Note [3] Also state if liquid free product is present in soil or groundwater.

United Utilities

DEVELOPER DAY BRIEFING

Water Fittings and Enforcement

Nicola Miller BSc(Hons), PGDip, FRSPH
Water Fittings Enforcement Manager

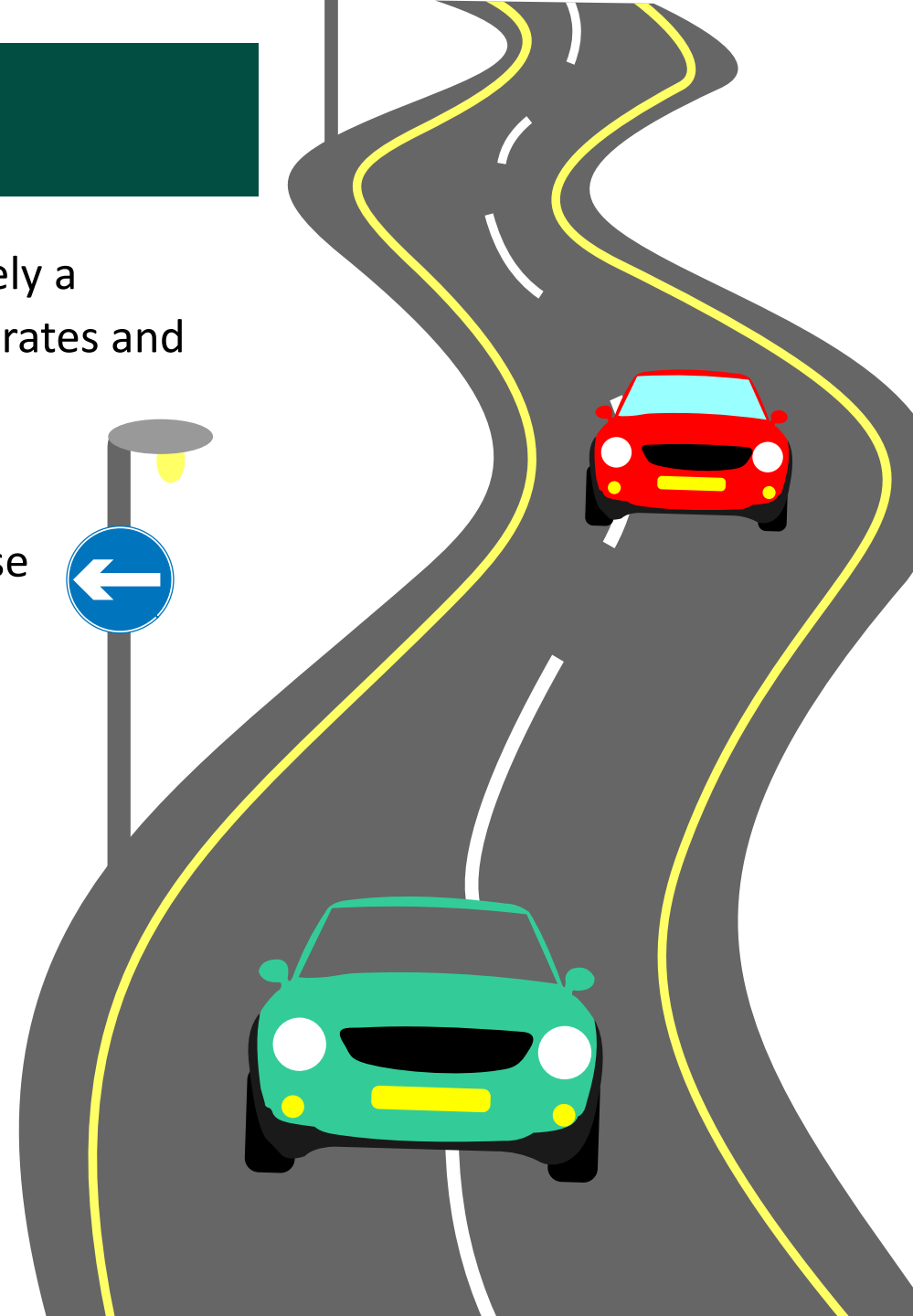


Understanding backflow: A hidden threat to drinking water

Backflow presents a significant risk to our drinking water, not merely a minor inconvenience. It is crucial to understand how backflow operates and the preventive measures we can implement.

The Regulations require the implementation and/or installation of adequate protective measures to prevent backflow. They categorise potential contaminants and substances into five fluid categories, determined by the level of risk they may present.

Moreover, these Regulations specify the various types of backflow prevention devices available and the fluid categories they are intended to safeguard against.



Fluid categories

Fluid category	Description	Example	Prevention (examples)
1	Wholesome water	United Utilities mains water supply	None needed
2	Wholesome water where aesthetic quality is compromised due to: (a) a fluctuation in temperature, or (b) the introduction of substances or organisms that alter its taste, odour, or appearance.	• Ice machine • Fire sprinkler systems (without antifreeze) • Water cooled air conditioning units (without additives) • Hot water distribution systems.	Single Check Valve (Type EA)
3	Water with a slight health risk due to toxicity chemicals	• Drink vending machines in which ingredients or carbon dioxide are injected • Washbasins, baths, showers • Commercial water softeners • Common disinfectants	Double Check Valve (Type EC)
4	Water with a significant health risk due to concentration of toxic substances	• Dairies • Food preparation • Brewery and distillation plant • Commercial boiler top-up system • Pesticides	RPZ Valve (Type BA device)
5	Water with a serious health risk due to pathogenic organisms, radioactive or very toxic substances	• Grey Water recycling systems • Medical or dental equipment • Vegetable washing • Sewage treatment, including sewer and drain cleaning • Water for agricultural use • Commercial washing machines	AA or AB Air Gap

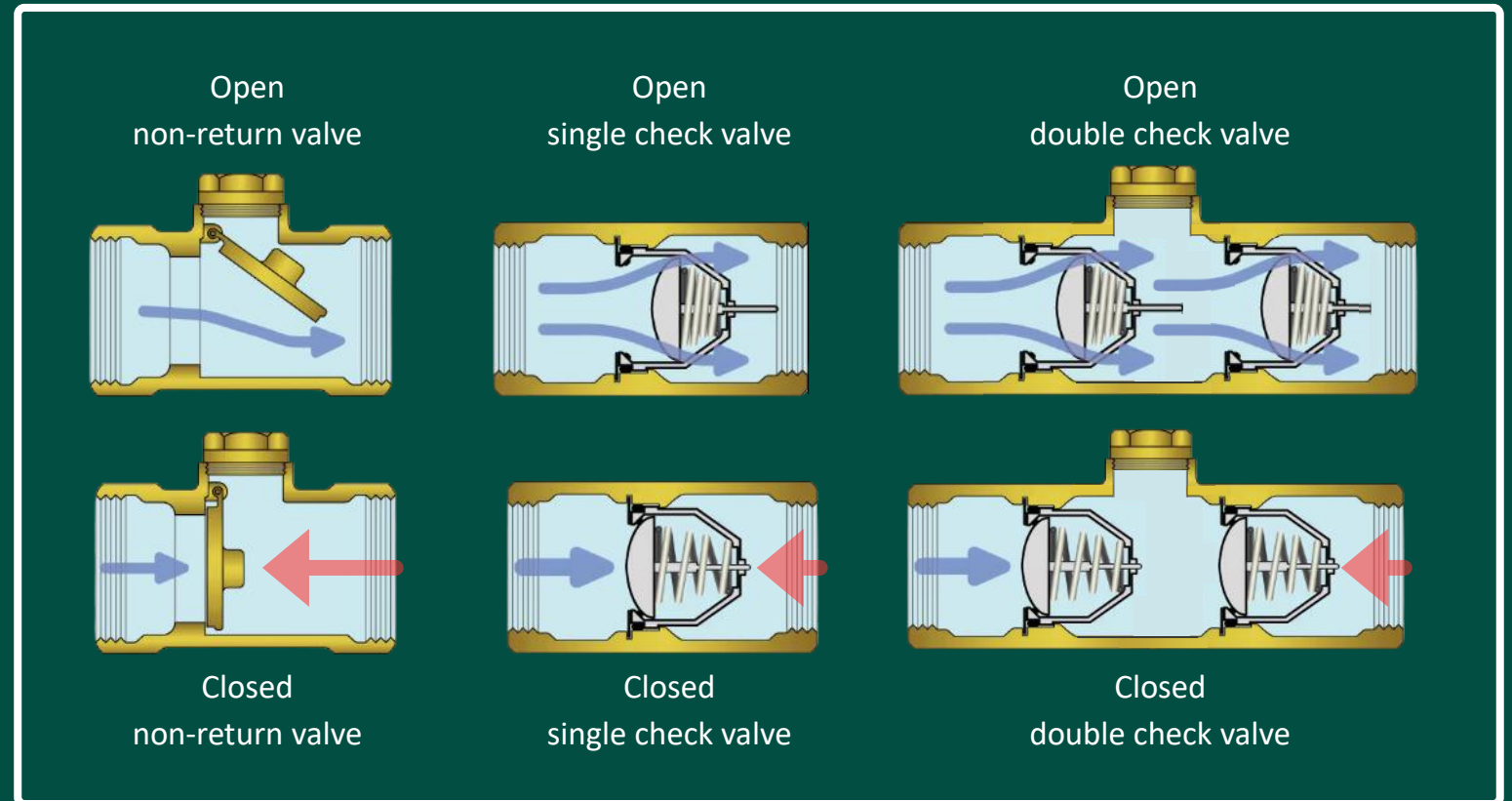
Preventing contamination

A backflow prevention arrangement or device is in effect a barrier intended to prevent contaminated fluid flowing backwards.

Wherever practicable plumbing systems should be protected against backflow without the necessity to rely on mechanical backflow protection devices.

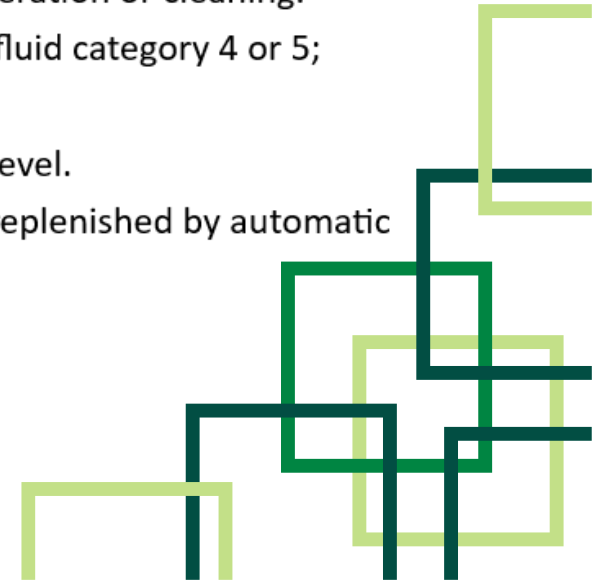
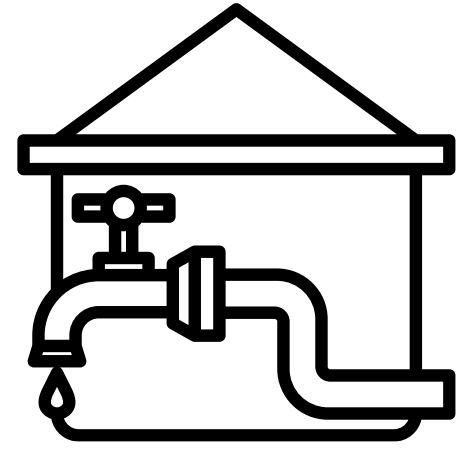
Any device should be to right for the highest level of risk.

Know your valves



Notification of works

1. The erection of a building or other structure (not being a pond or swimming pool).
2. The extension or alteration of a water system on any premises other than a house.
3. A material change of use of any premises.
4. The installation of–
 - (a) a bath having a capacity, as measured to the centre line of overflow, of more than 230 litres;
 - (b) a bidet with an ascending spray or flexible hose;
 - (c) a single shower unit (which may consist of one or more shower heads within a single unit), not being a drench shower installed for reasons of safety or health, connected directly or indirectly to a supply pipe which is of a type specified by the regulator;
 - (d) a pump or booster drawing more than 12 litres per minute, connected directly or indirectly to a supply pipe;
 - (e) a unit which incorporates reverse osmosis;
 - (f) a water treatment unit which produces a wastewater discharge, or which requires the use of water for regeneration or cleaning.
 - (g) a reduced pressure zone valve assembly or other mechanical device for protection against a fluid which is in fluid category 4 or 5;
 - (h) a garden watering system unless designed to be operated by hand; or
 - (i) any water system laid outside a building and either less than 750 mm or more than 1350 mm below ground level.
5. The construction of a pond or swimming pool with a capacity greater than 10,000 litres which is designed to be replenished by automatic means and is to be filled with water supplied by a water undertaker or water supply licensee.



Combing domestic water storage with fire sprinkler supplies

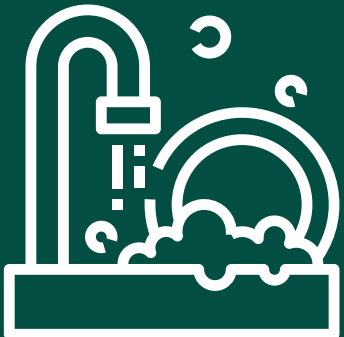


It's becoming more and more popular to combine domestic and sprinkler water storage into one tank. Whilst this can just be to save space, it's often more about saving money.

This option comes with its own risks, and with today's manufacturing and installation methods, you can still put two tanks right next to each other without taking up any more room. So, you don't have to compromise, it's a win-win!

If a combination storage tank really is the only option, there are a number of factors that must be taken account of, before an installation can be made.

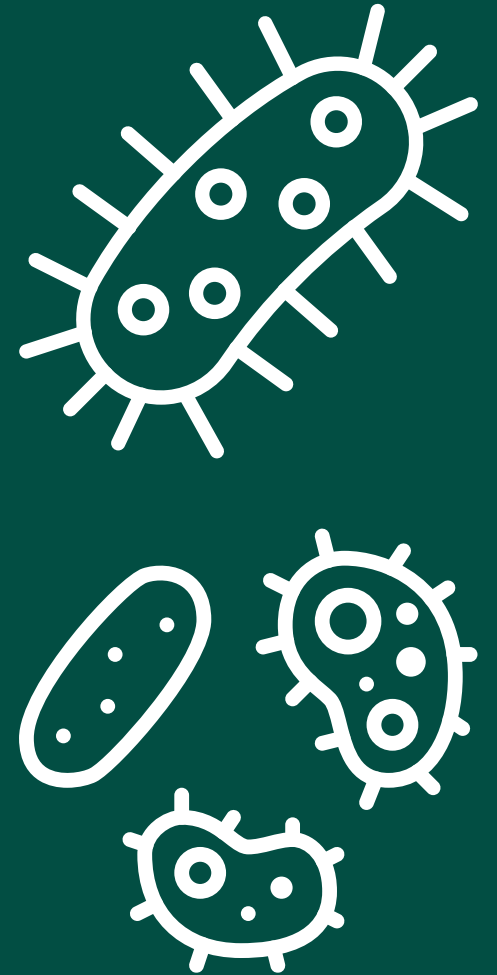
Regulations - Water Supply (Water Fittings) Regulations 1999. Schedule 2, paragraph 16(5)
Every storage cistern shall be so installed as to minimize the risk of contamination of stored water. The cistern shall be of an appropriate size, and the pipe connections to the cistern shall be so positioned, as to allow free circulation and to prevent areas of stagnant water from developing.



Combing domestic water storage with fire supplies

The risks

- Stored water can create an ideal environment for bacteria and other nasties to breed and thrive.
- To prevent this the water must be turned over every 24 hours.
- Water tanks with a poor turnover can lead to deteriorating water quality in other ways too not just from a biological side, as sediment and rust and other metals can leach into the water supply, making it visually unappealing and possibly causing an unpleasant taste and odour.
- In such cases, the water may no longer meet the required wholesomeness standards for drinking and could lead to potential health issues.



Combing domestic water storage with fire supplies



Regulations - [Water Supply \(Water Fittings\) Regulations 1999](#)

Schedule 2, paragraph 16(5)

Every storage cistern shall be so installed as to minimize the risk of contamination of stored water. The cistern shall be of an appropriate size, and the pipe connections to the cistern shall be so positioned, as to allow free circulation and to prevent areas of stagnant water from developing.

Standards

[BS EN 806-2:2005](#)

[Specifications for installations inside buildings conveying water for human consumption - Design](#)

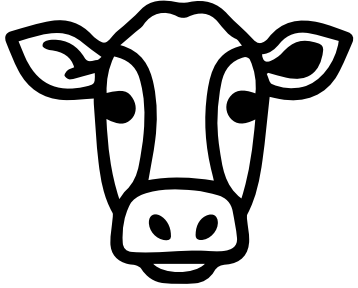
[BS EN 12845:2015+A1:2019](#)

Fixed firefighting systems. Automatic sprinkler systems. Design, installation and maintenance.

[Legionnaires' disease ,Technical guidance HSG 274](#)

This guidance is for duty holders, including employers, those in control of premises and those with health and safety responsibilities for others, to help them comply with their legal duties to control the risk from exposure to legionella.

Understanding troughs and drinking bowls



Drinking troughs and animal bowls connected to mains water present a high contamination risk due to exposure to various contaminants, including animal matter. These are classified as fluid category 5 risks, so without proper backflow protection, contaminated water could:

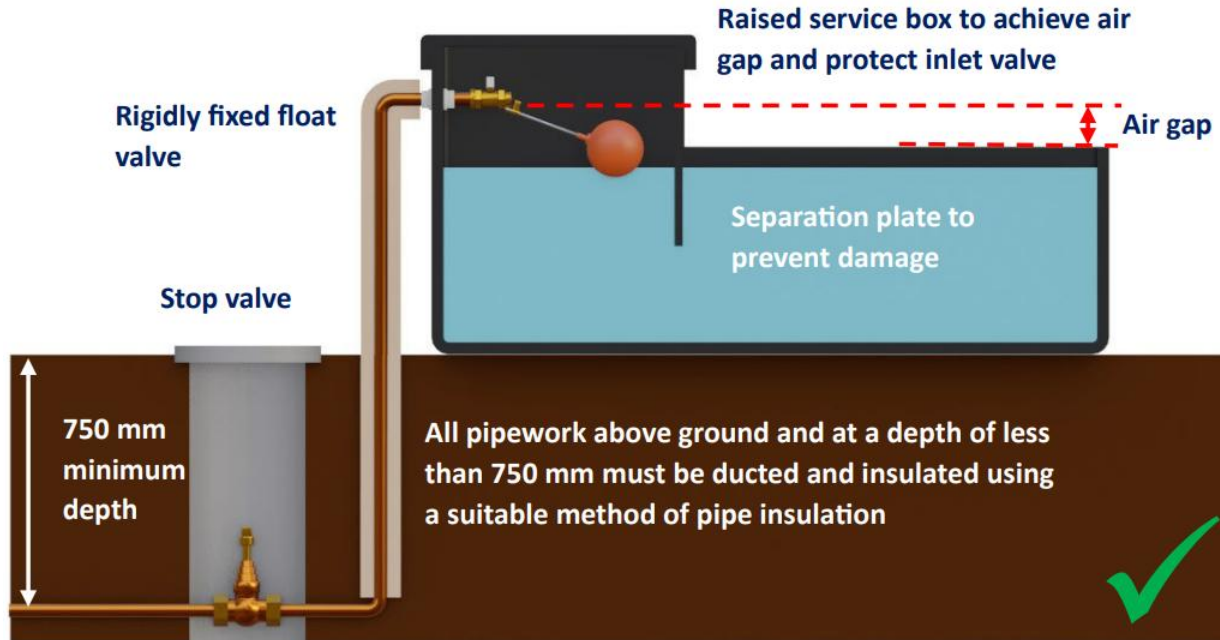
- Get back into the farms drinking water supply
- Reach the wider drinking water network, posing a risk to all surrounding customers



To prevent backflow:

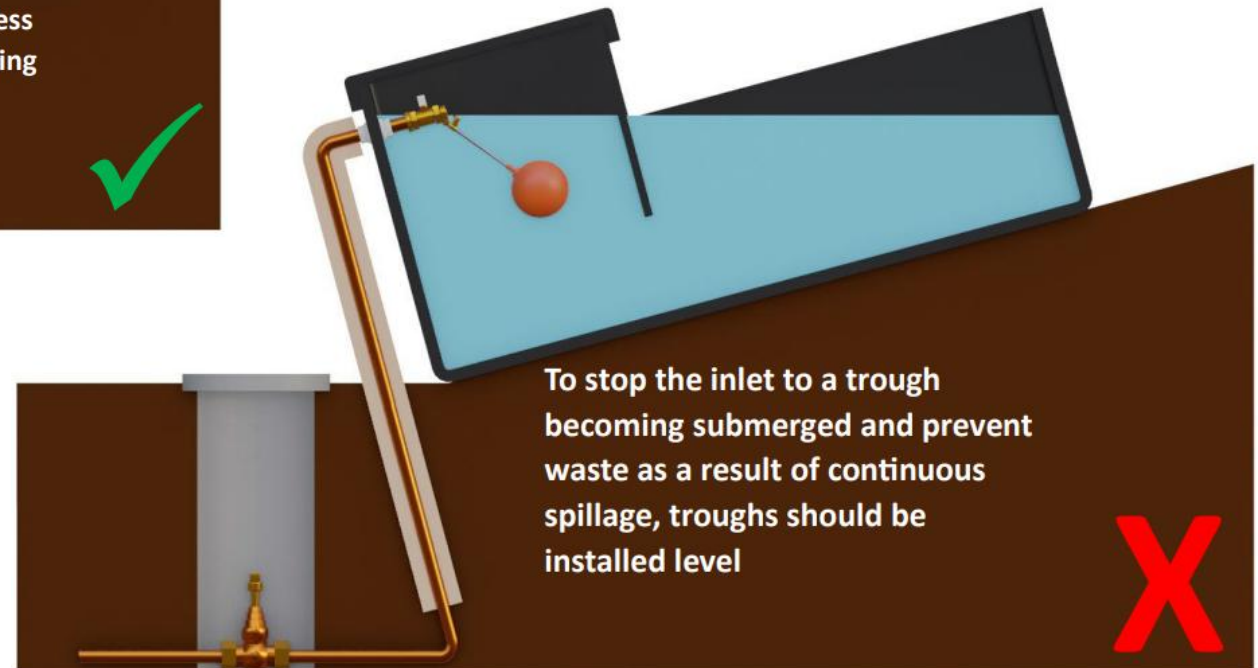
- Maintain a sufficient air gap between the water inlet feeding the trough or drinking bowl and the overflow or spill over level.
- Alternatively, use a break tank arrangement with a type AA, AB or AD arrangement, this is especially useful when multiple troughs or bowls are supplied from the same pipe.

Understanding troughs and drinking bowls



Type AB airgaps

FAQs





Charges & Wastewater – keynote speakers

Charges

13:15 –
14:15

Graham Morley

Charges update

Wastewater

14:20 –
15:00

Daniel McDermott

**Wastewater technical
update**

Johnny Phillips

**Rainwater
Management –
working together**

A scenic landscape of Ullswater lake. The water is calm, reflecting the clear blue sky and the surrounding hills. In the background, dark, rugged mountains rise against the horizon. To the right, a steep hillside is covered in trees with autumn foliage in shades of yellow and orange. A small, two-story wooden building with a balcony sits on the edge of the water, its reflection visible in the lake. In the foreground, some reeds or tall grasses are partially submerged in the water.

Charges update

2 October 2025

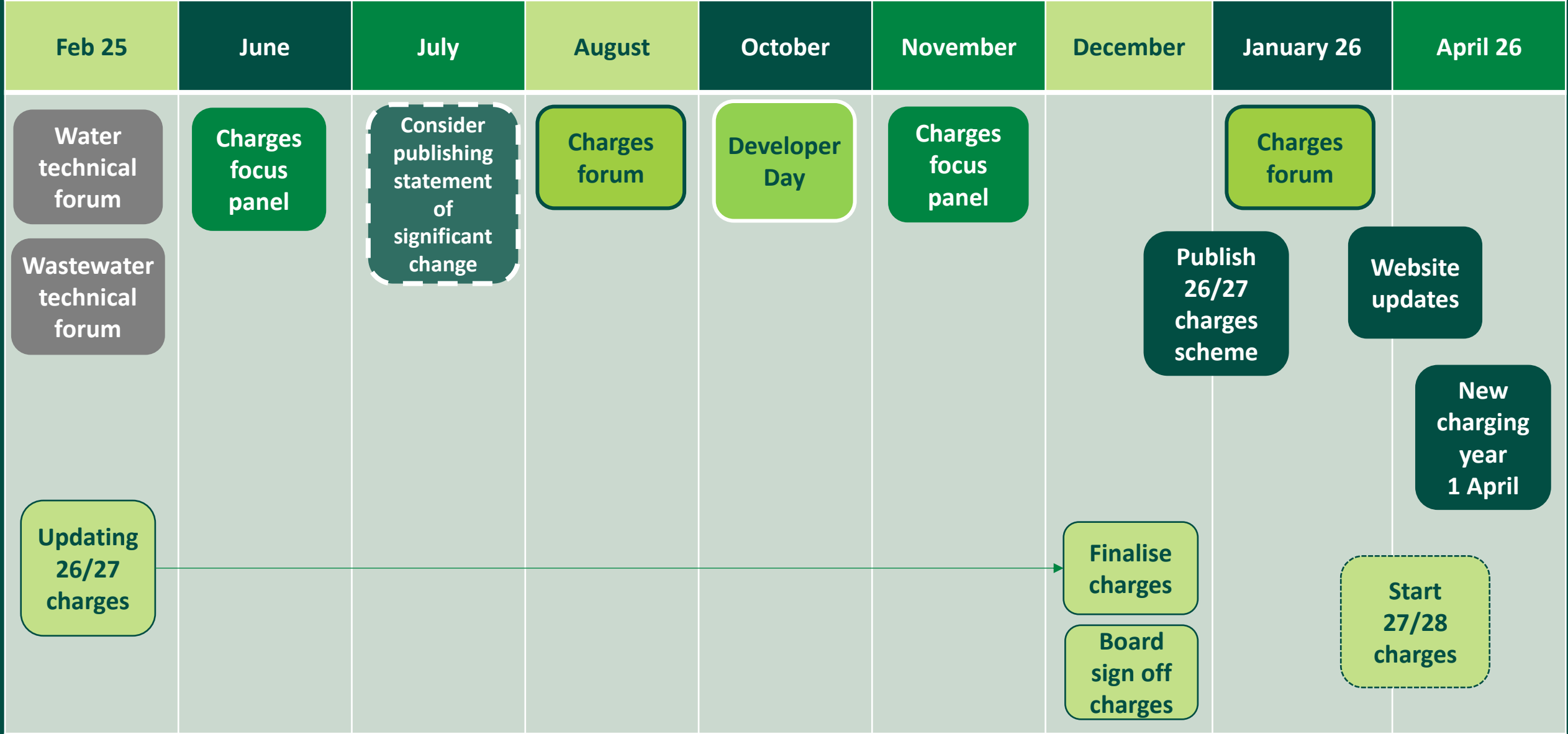
Ullswater

Agenda

1. Welcome
2. Charges timeline
3. Changes to charges
4. Environmental incentive scheme
5. Local practice consultations
6. Impact on standard worked examples
7. Questions?
8. Ask Ofwat



2026/2027 charges timeline



Changes to charges

Charges 2026/2027 – proposed new charges

25mm service connection
(barrier pipe)



32mm service connection
(barrier pipe)



Additional meter
of 0-32mm PE pipe
(trenchless)



Additional meter
of 0-32mm BP pipe
(trenchless)

Remedial works



Infrastructure
admin fee

Join the conversation

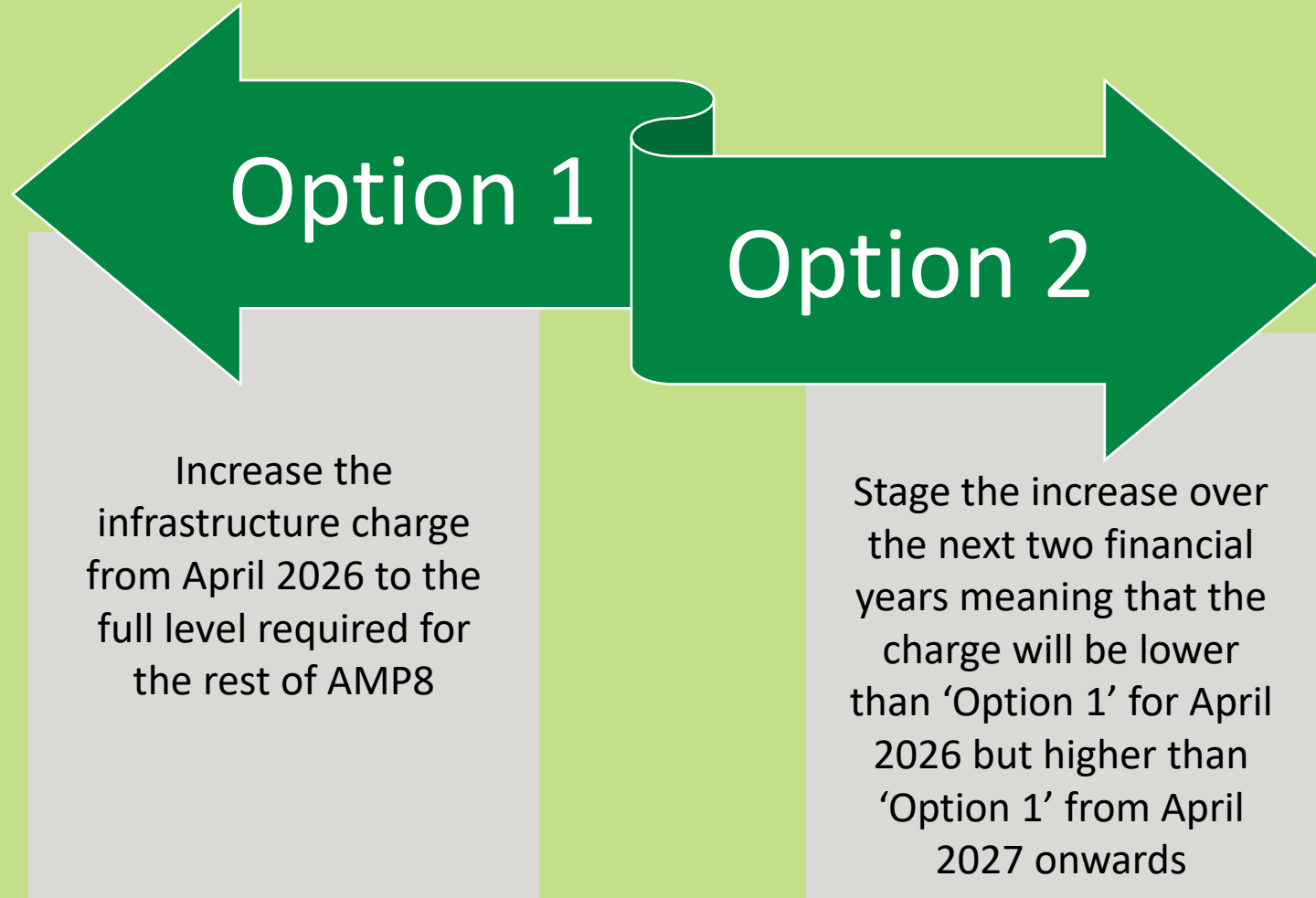
Head to slido.com - Developer Day 2025, code 4082493

Slido

Do you have any feedback or comments regarding the infrastructure charges admin fees?

Scenario 1		Scenario 2	
Water and wastewater infrastructure	SLP or NAV	Water infrastructure	SLP or NAV
Water and wastewater environmental component	SLP or NAV	*Water infrastructure admin fee*	SLP or NAV
		Water environmental component	SLP or NAV
		Wastewater infrastructure	Developer
		Wastewater infrastructure admin fee	Developer
		Wastewater environmental component	Developer

Charges 2026/2027 – infrastructure charges increases



Slido

What would be your preferred transition approach, option 1 or option 2?

Join the conversation

Head to slido.com - Developer Day 2025, code 4082493

Charges 2026/2027 – connections reporting and infrastructure charges

Current Approach

Infrastructure charges, environmental component fees and service connection admin fees are payable at the rate applicable at the time the premise is first connected to the United Utilities network, irrespective of reporting date.

Future Approach

Infrastructure charges, environmental component fees and service connection admin fees will be payable at the rate applicable at the time the premise is first connected to the United Utilities network, subject to timely reporting.

Where connection reporting is delayed and carries into a new financial year, charges will be payable at the rate applicable at the time the connection is reported.

Slido

Do you understand how the change in infrastructure charging may impact your development if premises are not reported in a timely manner?

Join the conversation

Head to slido.com - Developer Day 2025, code 4082493

Charges 2026/2027 – metering fire supplies

From 1 April 2026, all fire supplies will require a meter

Meters will be chargeable for all new fire connections

Water used for firefighting purposes will continue to be non-chargeable

Charges 2026/2027 – proposed quote validity changes

	Current	FY27 proposal
Water pre-development enquiry	6 months from the date stated on our pre-development response to you	6 months from the date stated on our pre-development response to you
Wastewater pre-development enquiry	12 months from the date stated on our pre-development response to you	12 months from the date stated on our pre-development response to you
Point of connection	6 months from the date stated on our pre-development response to you	6 months from the date stated on our pre-development response to you
New mains/mains requisition	6 months from the date stated on our quote issued to you	Until the end of the charging year (31 March)
Mains diversions	6 months from the date stated on our quote issued to you	Until the end of the charging year (31 March)
Self-lay provider	6 months from the date stated on our quote issued to you	Until the end of the charging year (31 March)
Service connections	Until the end of the charging year (31 March)	Until the end of the charging year (31 March)
NAV bulk connection	6 months from the date stated on our quote issued to you	Until the end of the charging year (31 March)
Sewer connections	6 months from the date stated on our quote issued to you	Until the end of the charging year (31 March)
Sewer requisitions and diversions	6 months from the date stated on our quote issued to you	3 months from the date stated on our quote issued to you

Join the conversation

Head to slido.com - Developer Day 2025, code 4082493

Environmental incentive scheme

Charges 2026/2027 – environmental incentive scheme

Tier 1 – reduce

Water – demonstrate that the premises is built with fittings not exceeding the maximum consumption rates set out in the table on the following slide.	£
Water – Installation of a flow regulator.	£
Wastewater – installation of a water butt or a raised rain planter with a capacity of at least 200 litres connected to the property’s main roof drainage, or a rain garden the size of 2% - 4% of the property’s main roof that drains to the rain garden, or a green roof installation.	£

Tier 2 – retain (achieve all of tier 1 to be eligible for tier 2)

Water re-use – installation of rainwater harvesting or greywater re-use as the primary water source for all toilets, as a minimum, within the property.	£
No surface water connection – Where the property has no direct or indirect connection for surface water drainage.	£
Permeable surfaces – installation of permeable surfaces to the properties driveway and paths.	£

Tier 3 – rebalance (achieve all of tier 1 and the water reuse and at least one of the wastewater of tier 2 to be eligible for tier 3)

Water offsetting – We carry out 6 audits of existing properties for each new build property you are applying for tier 3 for and where we can, fix leaks, install water savings devices and install a water meter. The water savings from doing this should offset the demand from the new build property.	Cost to developer £ plus VAT
	Incentive £

Join the conversation

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Environmental incentives scheme – tier 1 fittings table

	Common Environmental Incentive
Water Fittings	Maximum Consumption (equal to or less than the following values)
WC	≤ 4 / 2.6 litres dual flush
Shower	≤ 7 l/min
Bath	≤ 170 litres
Basin taps	≤ 5 l/min
Sink taps	≤ 6 l/min
Dishwasher	≤ 1.0 l/place setting
Washing machine	≤ 6 l/kilogram

When using the table above to assess water efficiency for a non-household premise, the fitting will only be assessed where it is being installed by the developer. Where more than one of a particular type of fitting is installed, each must comply with the relevant criteria in the table above.

Environmental incentives scheme – proposed non-household methodology

Eligibility

Only connections liable to pay infrastructure charges (inc. credits) will be eligible to apply (*domestic equivalent premises)



Incentive Payments

Incentives will be payable per domestic equivalent premise based on the relevant multiplier calculation



Environmental Components

Non-household premises will be liable to pay environmental components in line with the relevant multiplier calculation



*the scheme would not apply for any non-domestic use element

Join the conversation

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Local practice consultations

UUW Consultation – Metering Local Practice (Meter Location)

What is the proposed change?



Proposed new accepted meter locations for new build properties will consists of;

- ~~• Internally within the structure of the premises or individual unit (house, flat, etc.)~~
- **In an underground meter chamber located in hard standing ground, within but as close to the property boundary as possible (for houses);**
- **In an underground multi-port meter box located in the public footpath or within but as close to the property boundary as possible (for up to 6 flats);**
- In a purpose-built wall mounted meter box fixed on the structure of the property (all variants);
- In a purpose-built in-wall meter box built into the structure of the property;
- **In a purpose-built partially buried meter box fitted externally on the structure of the property, where the meter will sit above ground**
- In a purpose-built plant room or meter housing area within the curtilage of the property (multi-occupancy premises).

If you would like to comment on all or part of this consultation, we invite you to send responses to dsconsultations@uuplc.co.uk by 31 October 2025

UUW Consultation – Service Connection Call-Off Requirements

What is the proposed change?

All 25mm/32mm connections that are connected to a new main should be reported on the Tracker **or reported via the Vyn SLP Meter Reporting links provided on the tracker**, along with meter serial numbers, within 5 calendar days for household and 1 day for non-household.

All 25mm connections that are to be connected to an existing main by United Utilities require a RFW (Request for work), postal confirmation and WIAPS/ or request inspection at least 7 days prior to the connection being ready so that an appointment can be booked.

You are advised to submit your RFW1 no later than 21 calendar days before your service connection is required.



If you would like to comment on all or part of this consultation, we invite you to send responses to dsconsultations@uuplc.co.uk by 20 October 2025



Rainwater Management

Developer Day 2025

Rock Street, Oldham (Green Recovery)

More rain...



More expectation...



More transformation...

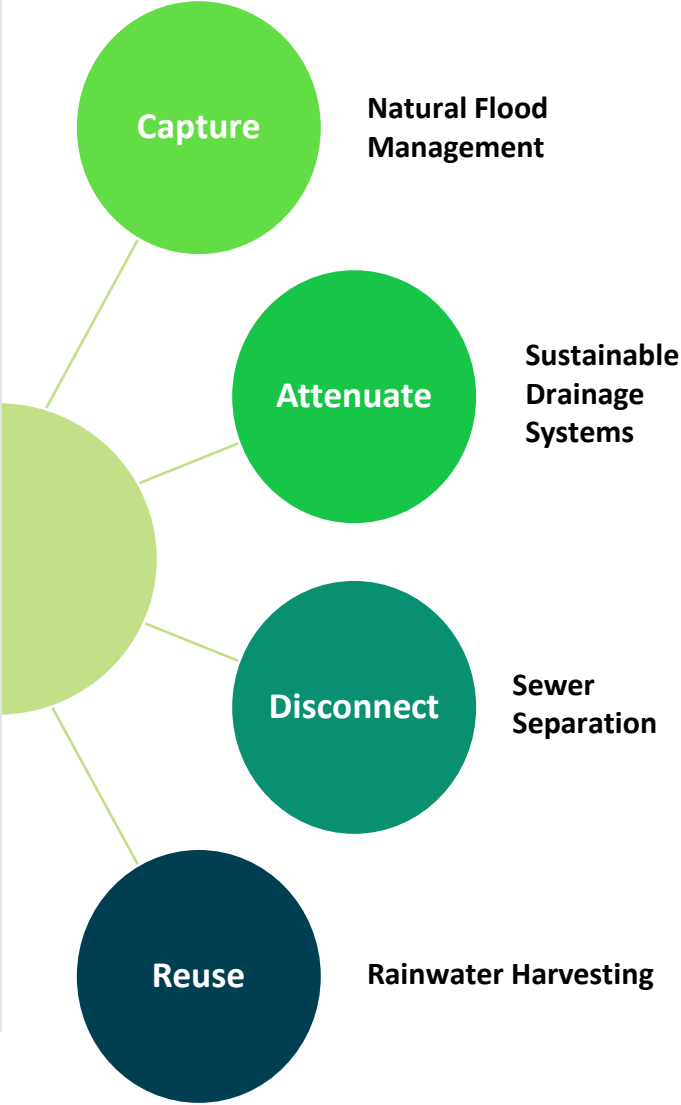


We are at a turning point for investment within the water industry. Rainwater Management unlocks our potential to deliver great places for the people who live, work and play in the North West.

Rainwater Management Strategy

What are we doing?

- ✓ **Driving down** storm overflow **spill frequency** at 2025 – 2030 WINEP sites.
- ✓ Getting a **head start** on future targets by **reducing** the need to invest in **grey storage** to **reduce spills** by c.60,000m³.
- ✓ Increasing **network resilience** by c.22,000m³ to the impacts of climate change and the **consequences of flooding**.
- ✓ Unlock £50m **partnership funding** for delivering **wider environmental** and **societal outcomes** through a supporting IWMP.



As part of the **Green Recovery** - Accelerating Partnerships to Deliver Natural Solutions programme UU secured c.£15m, **£9m** of which was allocated to delivering **Sustainable Drainage Systems (SuDS)** and **Natural Flood Management (NFM)** in **GMCA, Irwell, Wyre and Eden**.

15 partnership projects were delivered

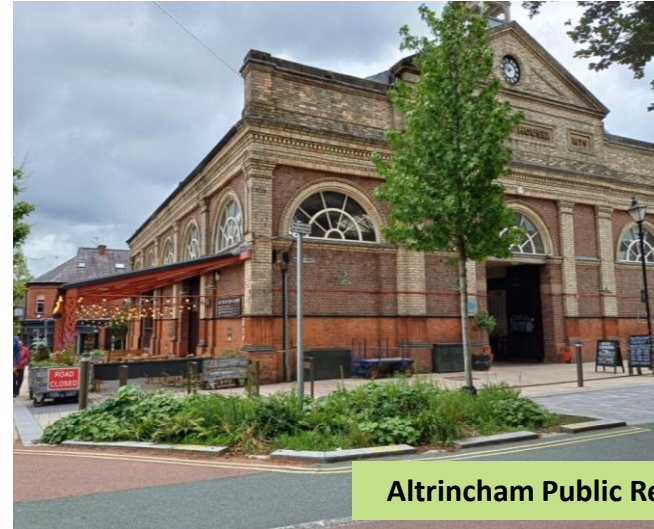
£9m UU investment, 75% co-funded

£52m Natural Capital benefit (B£ST)

Funding criteria:

- Cost benefit ratio 1:1 (cost v natural capital value)
- Partnership funding
- Delivery by 31st March 2025
- Sewer benefit

Aimed at improving **resilience** to **climate change**



Altrincham Public Realm



Devonshire Street, Carlisle

Public Realm, Altrincham

- Consisted of raingardens, permeable surfaces, recreation seating, SuDS enabled tree pits to re-direct surface water run off.
- The scheme achieved sewer benefits by attenuating flows and thus provided climate resilience capacity for the future.
- UU funding contribution of 6% & £4.1M natural capital benefit.

Lessons Learnt

- Altrincham Community in Bloom action group was an active support of SuDS approach and maintenance. Engaged from local knowledge perspective, i.e. where SuDS features could be added and where community would want to retain open spaces.
- Trial holes were valuable to identify utilities and avoid diversions.
- Larger surface water flow gaps were needed to accommodate flows.
- Meandering cycle path raingarden allows greater opportunity for surface water to be distributed between raingardens.
- Ring structures around raingardens on George Street are being modified to incorporate larger flow openings.
- Sink designs hold more flow than scrapes.
- Street trees in Altrincham suffer damage from delivery vehicle collisions more than other areas. Cycle structures have been used as protection but still get damaged.
- Street trees (not SuDS enabled) are to be removed and replaced with raingardens.
- Multi-stemmed trees have suffered from climbing incidents.



Delivered
2024

Programmes

£298m

Total RWM Funding

£231m

Advanced WINEP

- **57,796m³** of avoided grey storage by 2030
- **£50m** of partnership funding

£50m

Climate Resilience

- **22,750m³** of equivalent storage
- **6 locations:** Kendal, St Helens, Lancaster, Hazel Grove, Glossop and Preston



Market Street, Carlisle
(Green Recovery)

Advanced WINEP

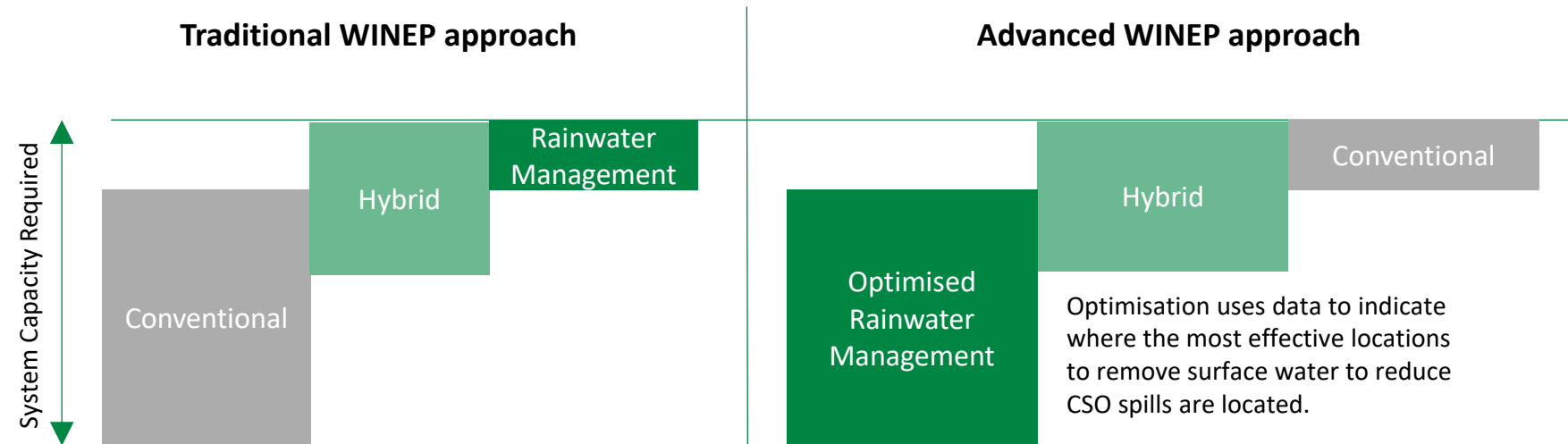
Deliverables

- Our £231m U UW funded programme will
- 1. Drive down storm overflow spill frequency using rainwater management solutions.
 - 2. Give UU a head start on future targets by reducing the need to invest in grey storage.
 - 3. Unlock partnership funding for delivering wider environmental and societal outcomes

Outcomes

Our PR29 vision is for integrated and collaborative long-term planning with strategic partners to deliver mutually beneficial outcomes for society and the environment.

We will develop and propose how this is practically achieved with regulators and partners, using a diverse range of evidenced based workstreams.



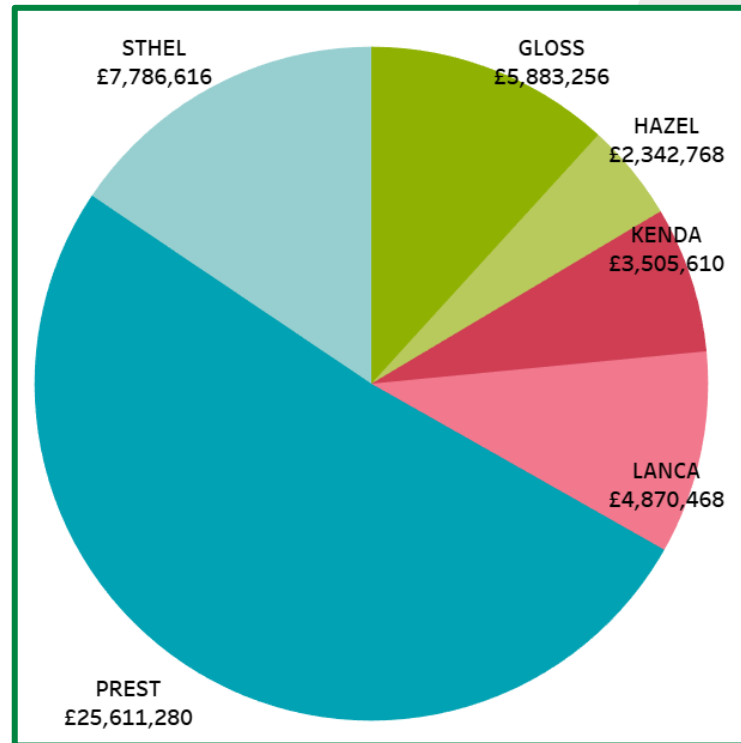
Climate Resilience Programme

£50m UuW funded programme will address six wastewater catchments most at risk of increased property flooding from predicted growth in rainfall. UuW will deliver **22,750m³** of equivalent storage, provided via SuDS solutions.

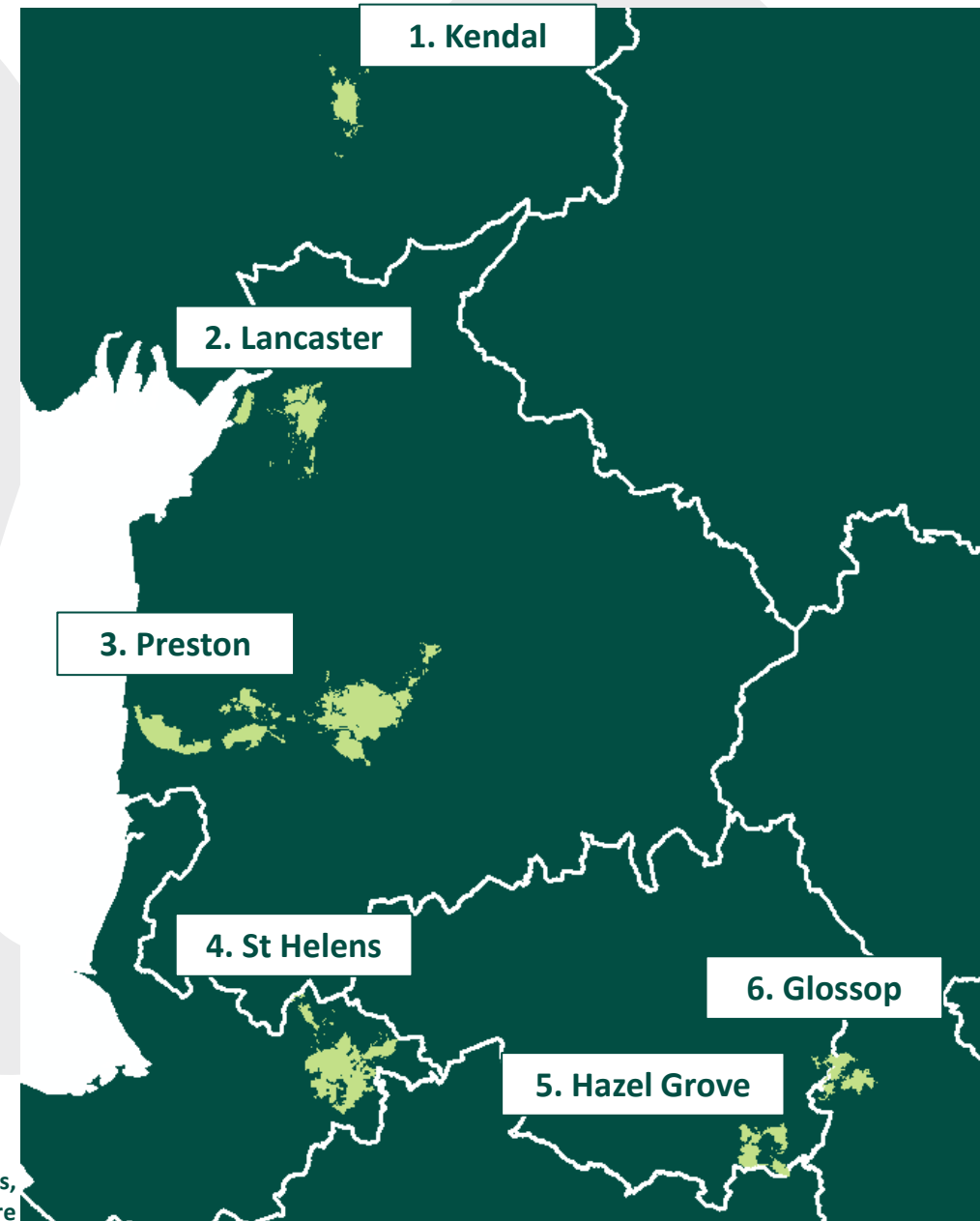
These catchments are classed as hybrid in DWMP, 1.5% or less overlap with Better Rivers projects, over 20% of flooding from hydraulic causes and over 10 historic cases of hydraulic flooding.

Rules

- The 6 catchments can't be changed
- There should be no overlap with other Climate Resilience, Advanced WINEP, and green or hybrid Better Rivers solutions
- Report on equivalent storage, and its measurable impact of flow and flood risk reduction.



Glossop drainage area intersects two counties, Greater Manchester and Derbyshire



The Sustainable Water Fund offers the opportunity to **deliver rainwater management solutions in partnership** with United Utilities



Who and How?

- £9m fund, reviewed annually
- Is open now and will only close when funding has been allocated
- Aims to scale up delivery of rainwater management projects d
- Targeted at local authorities to support the delivery of schemes such as:
 - Active travel
 - Town regeneration
 - Highways improvements
 - Flood risk management
 - Parks and recreation



Principles of working together

In addition to the environmental incentives we provide for new development and the adoption of SuDS, we recognise to transform performance we need to work closely and support regeneration to drive a no rain water to combined sewer approach.

We are looking to support regeneration that:

- Can disconnect all surface water from combined sewers (finding the route to river)
- Would (without support) discharge to the combined sewer
- Demonstrate going above and beyond standard planning requirements
- Use high quality SuDS with adoptable standards
- Consider future connections of surface water
- Contribute to the reducing the risk of storm overflows activating



Stockport Interchange
(Green Recovery)

Developer Services Wastewater

TECHNICAL FORUM

Wastewater Technical update

Daniel McDermott – Wastewater Customer Manager

Daniel.mcdermott@uuplc.co.uk



Updates for Wastewater



- **What's Changing in 2025?**
- **National SuDS Standards (2025) now in force**

Surface Water Connections

- You must follow the SuDS hierarchy: infiltration, watercourse, surface water sewer, and only then combined sewer.
- Sewer connections will only be approved where fully justified.

Adoption & Maintenance

- SuDS components must meet adoptable standards (e.g. Design and Construction Guidance).
- Long-term maintenance responsibilities must be clearly defined.

Why SuDS Is a Wastewater Issue?

Protecting our sewer networks

Keeping surface water out of sewers helps prevent overload and ensures long-term resilience.

Minimising Combined Sewer Overflows (CSOs)

Reducing CSOs is key to protecting our environment and public health.

CSOs are under increasing scrutiny due to their **environmental impact**.

New planning guidance introduces **criteria for allowing surface water upstream of a CSO**, ensuring responsible design and discharge.



Clearer expectations

New Era of Environmental Accountability: What It Means for Developers



Stronger Focus on Resilient Infrastructure and Pollution Reduction:

Water companies are now under tighter scrutiny to reduce pollution incidents and storm overflows. (AMP 8)

Mandatory real-time monitoring of Combined Sewer Overflows (CSOs)

Investment in stormwater storage and treatment capacity to meet new standards *

Impact to our customers:

Developers must ensure that assets proposed for adoption are designed to meet these higher standards

Updates for Wastewater

Emphasis on Sustainable Drainage Systems (SuDS)

The SuDS hierarchy is now embedded in national standards

- Surface water to be managed as close to source as possible
- Preference for natural drainage features over traditional piped systems
- Integration of SuDS into site layout and landscape from the earliest design stages

Impact on customers:

United Utilities will expect SuDS to be fully incorporated and compliant with the national standards. Developers must demonstrate that SuDS are not just token features but part of a strategic drainage approach. Failure to do so may delay planning approvals or asset adoption.



What the Wastewater Field team sees on site (the good)...

- Good manhole benching and channel construction
- Conforming raising pieces with sufficient tidy beds
- Good example of attenuation construction using well point dewatering



What the Wastewater Field team sees on site (the bad)...

- Plastic internal backdrop into existing UU manhole obstructing flow in main channel
- Incorrect method of cutting wet well ring for rising mains
- Kerb edgings used underneath cover slab instead of an additional manhole ring



What the Wastewater Field team sees on site (some more bad)...

- Incorrect materials used for raising pieces
- Excessive amount of raising pieces used and a toe hole cut into masonry pieces (not allowed)
- Defective cover slab, in need of replacing.



What the Wastewater Field team sees on site (CCTV survey issues)...

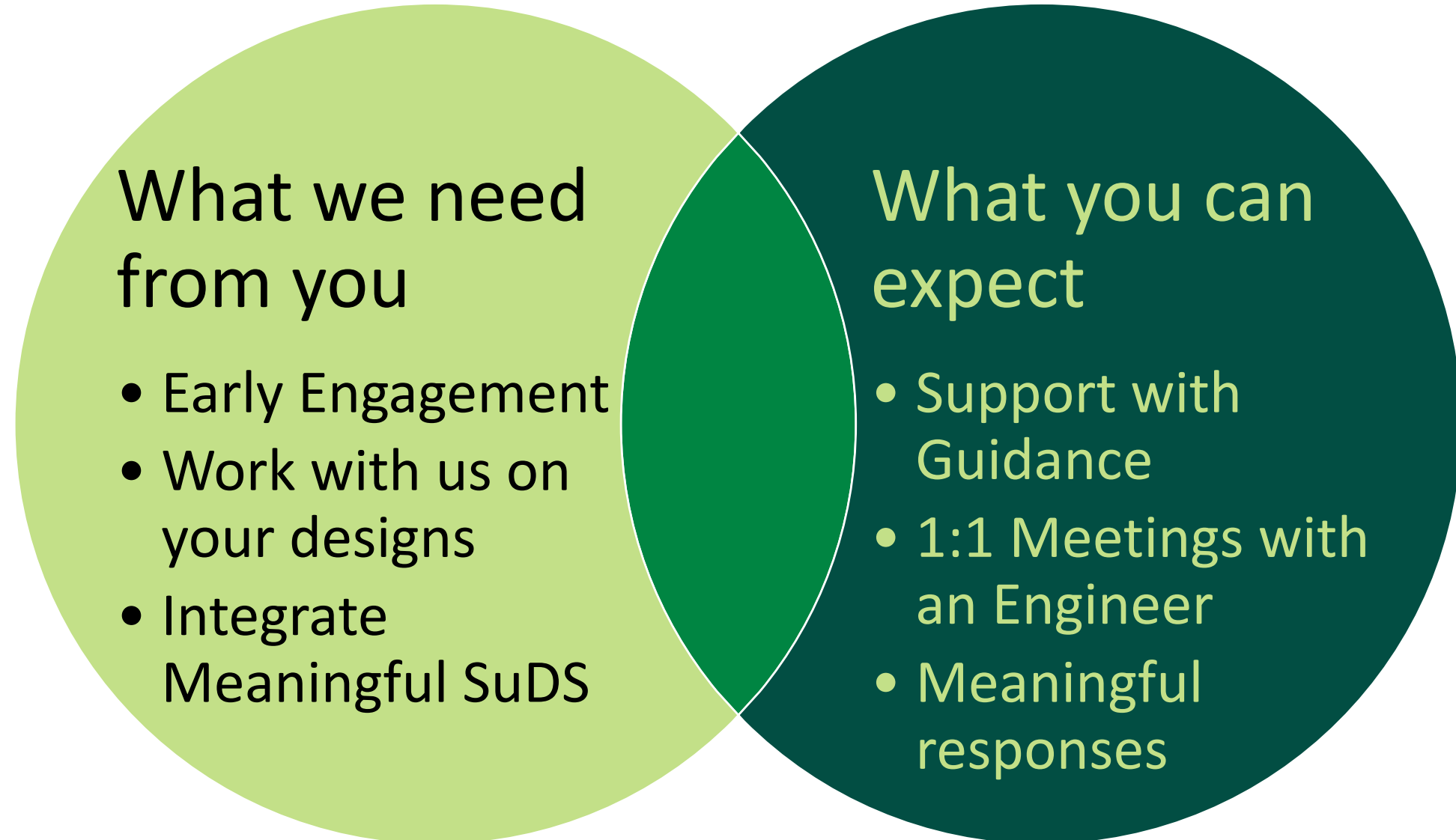
- CCTV survey screenshot showing a dropped pipe
- Crushed pipe caused by poor pipe bedding (active defect which could deteriorate further)
- Smaller diameter pipe inserted in original sewer which will cause a blockage and possibly lead to flooding



Technical Liaison Officer

- New Technical Liaison Officer role – August 2025 (12-month secondment).
- Predominantly focusing on sites where the Developer has gone into administration leaving residents with unfinished assets.
- Provide assistance to progress S104 adoption and where possible calling in bonds to complete remedial works that are under a legal agreement.
- Working closely alongside framework partners and Wastewater Field team to complete works and bring sites up to an adoptable standard
- Assisting customers where legal agreements haven't been signed through providing technical guidance and general advice

Support Better Collaboration



Did you know the Wastewater Field Team...



Conducted over 4000 site visits inspections across the region, delivering 1079 manhole, pumping station, CCTV defect lists, detailing over 10,000 defects on our future assets. We also put forward 130 sites, 42 diversions and 21 pumping stations to be formally adopted.



This took 4400+ hours on site with Developers, 1400+ hours reviewing CCTV footage with approx. 3700 hours spent travelling to and from site.

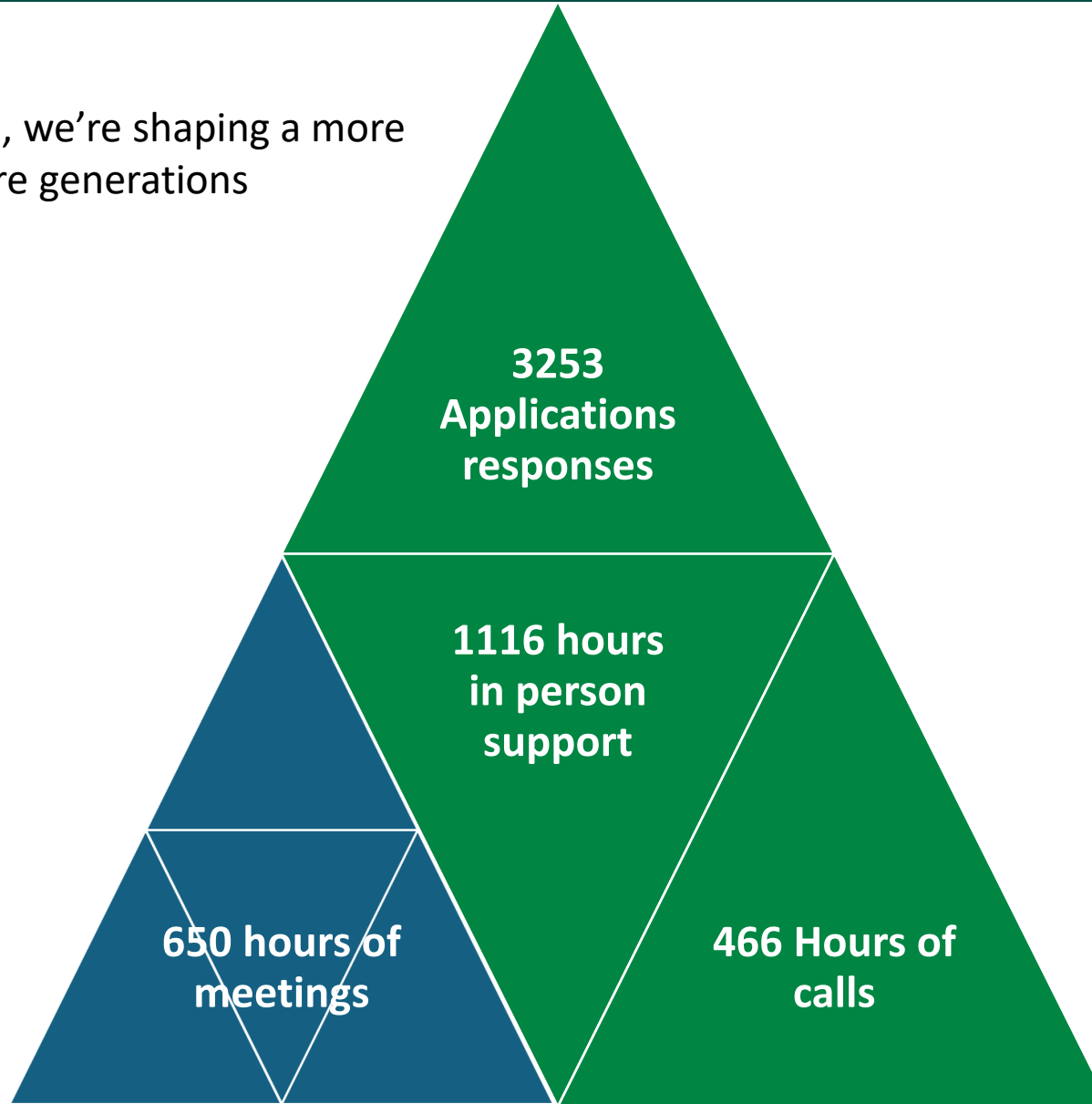


We also processed 1600+ connection applications and responded to 370+ building control referrals.



Wastewater Developer Services: January – August

Together through collaboration, we're shaping a more sustainable Northwest for future generations



Wrap-up

Supporting

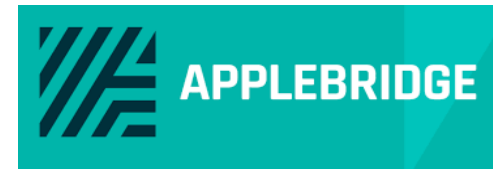
**WE ARE
MACMILLAN.
CANCER SUPPORT**

Thank you!!!

£5500 raised from
today's event!

CONGRATULATIONS TO THE RAFFLE WINNERS







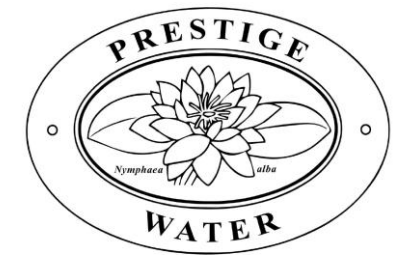


gtc



HBL







TRICONNEX



twoH
Quality Pipeline Products



THANK YOU

Developer Day 2025

Rock Street, Oldham (Green Recovery)