

# United Utilities

March 2024

# Introductions

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# About United Utilities



**56,000** hectares of catchment land



**165** reservoirs



**1,400** km of aqueducts



**88** water treatment works



**42,000** km of water mains



**78,000** km of sewers



**567** wastewater treatment works



... and over **5,000** skilled employees



**What we do impacts each and every person in the North West as they simply get on with life, from making a cup of tea, using the loo, having a shower, the list goes on...**

We deliver **1.7 million litres of fresh, clean drinking water** to over **7 million customers** every day across the North West. We also collect and treat **1,300 million litres of wastewater every day**, so it's safe to go back into the environment

In the next five years, we'll **invest £5.9bn** running, upgrading and future-proofing the region's water infrastructure and services to a blueprint shaped by our customers.

We'll help lift a **quarter of a million people out of water poverty, cut leakage and knock a tenth off water bills** so that by 2025 average bills will be less, in real terms, than 2010. And we'll adapt as we go.

As COVID-19 shows, customer priorities change, which is why we constantly **seek their views through Water Talk**, our 7,700-strong customer panel.

# Flood Risk Management Responsibilities

Flood & Water Management Act 2010: We all have a duty to co-operate

Lead Local  
Flood Authority

Public body

Highway  
Authorities

Water and  
sewerage companies

Riparian  
Owners



**Developing, maintaining** and applying a strategy for local flood risk management

**Managing the risk of flooding** from surface water, groundwater and ordinary watercourses

**Responsible** for taking a strategic overview of all sources of flooding

**Managing the risk of flooding** from main rivers and the sea

**Regulating** reservoir safety

**lead responsibility** for providing and managing highway drainage and roadside ditches

**co-operate** with the other RMA's to ensure their flood management activities are well coordinated

**Managing the risk of flooding** from wastewater and water infrastructure

**Work with developers, landowners and LLFAs** to understand and manage risks

**Maintain the watercourse** within the boundary of their land so it freely flows and has no obstructions

# United Utilities County Business Model

The County Business Model is based on the five counties we serve: Cumbria, Cheshire, Lancashire, Manchester, and Merseyside. Each county has its own dedicated team (known as 'squads') featuring representatives from key business areas across UU.



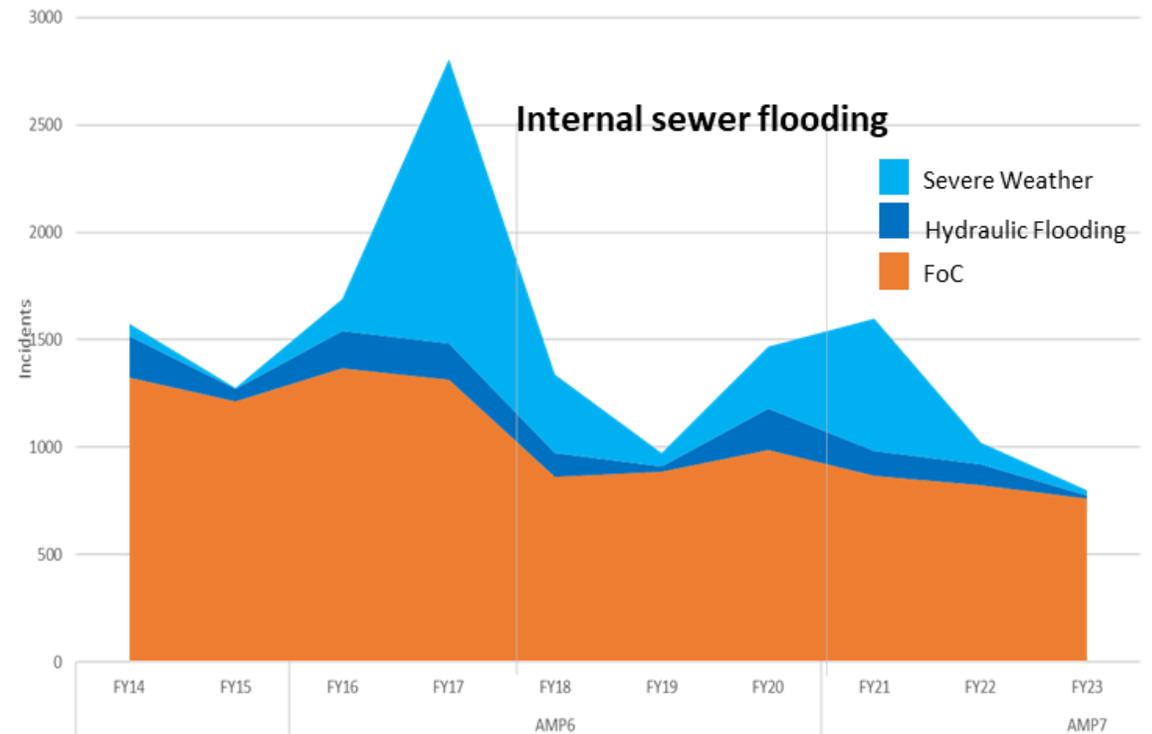
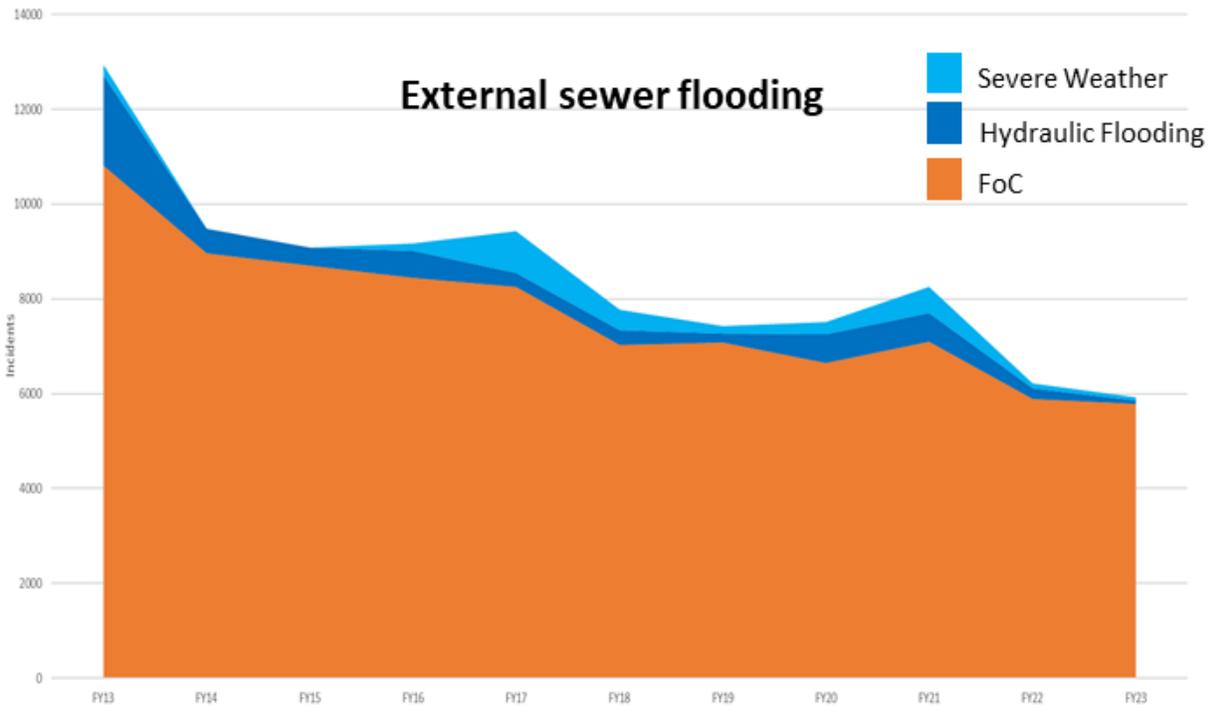
Diverse customer and stakeholder needs across the 5 counties

Driving a local connection in the areas that we operate within

Ability to understand and support local communities

Broader county squad to drive and deliver performance

# United Utilities Flooding Performance



- Year on year improvement in underlying operational flooding performance
- Investment in strategic projects such as DNM, enhanced targeting and repeat analysis along with serviceability programmes
- Still vulnerable to extreme weather events due to capacity in the system- climate change, SW management, inundation, culverted watercourses

## Original Aim

To develop an intelligent wastewater network that allows us to manage our entire sewer network in a proactive way, to help reduce the risk of internal flooding. Covering **54 Drainage** areas with point enhancement and target of c.19k sensors to be installed.

## Delivered

Bespoke AI Platform developed for full network visualisation, analytics and AI insight. **160 IDAS** areas with targeted installations, **64 IDAS** with holistic targeting (future, historic and hydraulic). C.17.5k sensors across the full region, with 23k sensors visible on platform. Risk coverage exceeds original plan.

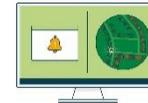
## Programme Highlights



40,000 locations reviewed by network engineers  
30,000 locations surveyed



410 team members trained in DNM



Bespoke DNM AI Platform developed



17.5k sensors installed across the region



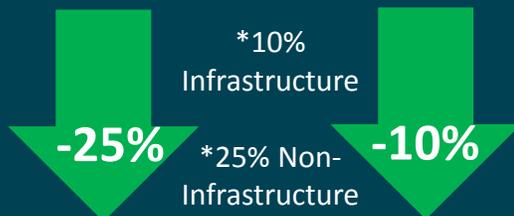
All flooding response teams utilising AI alerts



Integrated into the ICC

[Click here to find out more about Dynamic Network Management](#)

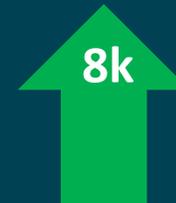
### Reduction in reactive wastewater call outs



### Wastewater proactive issues detected



Including;  
4,632 - Sewer Blockages  
2,100 - Flooding incidents  
140 - CSO blockages



>500k Socials Engagement

>300k Customers letter & leaflet drops

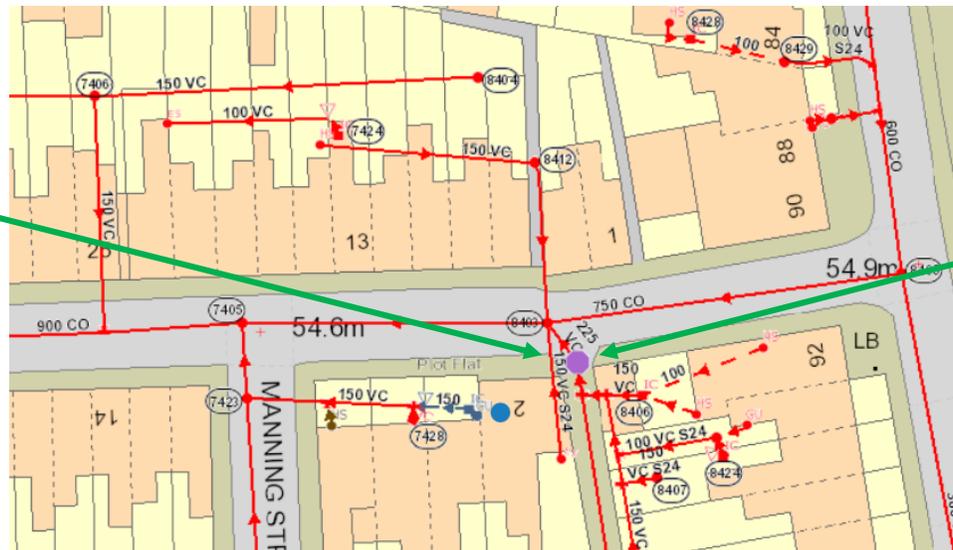
c.10 External Industry forums

# DNM in action

Case: Case Number	Work Order Number	Appointment Number	Work Type: Work Type Name	Address	Drainage Area	Additional Cause	Main Cause	Sewer Size
02734715	00963319	SA-1693499	DNM NMP Network Level Above Expected Investigation	2B, BEDFORD STREET, CREWE, CW2 6JA	UU-11-SC59-CREWE-D02	660 - Soft Blockage	601 - Blockage	225mm

ART arrived on site to investigate a Network Level Above Expected alarm in MH SJ70548402. Lifted MH8402 and found a soft blockage in P trap. Able to clear with rods, flow restored and levels dropped. Followed up with CCTV survey.

Measurement time post: Measurement (mm): 20mm



# Working with Cheshire East

# Working Together

## Working Relationship

Previously the working relationship between United Utilities and Cheshire East has been strained at both an Operational and Strategic level. There have been many staffing changes in the last 2 years. More recently these changes have resulted in progress on several outstanding issues and a better working relationship with CEC at an operational level. The hope is that we can build on this to work more collaboratively at a strategic level.

## Time to Resolve

Often the commitments made by Cheshire take a long time to be implemented with issues outstanding for considerable periods of time.

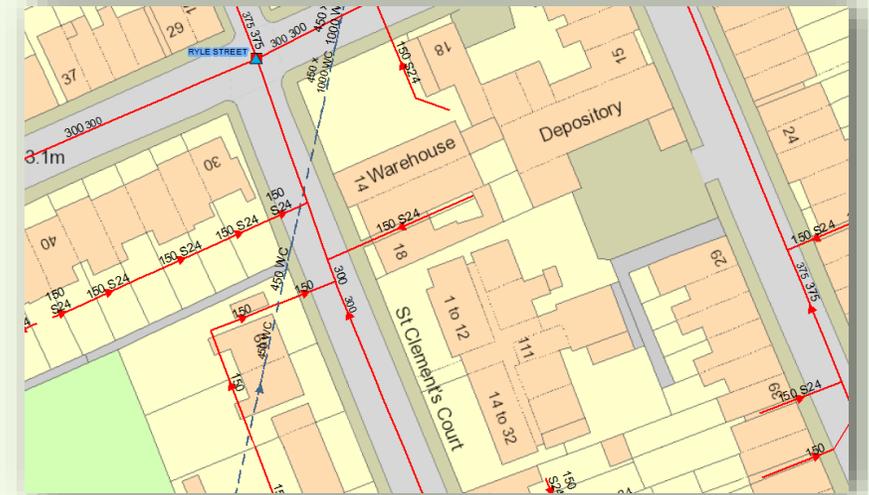
Flooding issues in Calveley are a prime example of this his, it has been an outstanding issue on the operational agenda for 6+ years. Currently, we have a plan and a way forward which is credit to our new colleagues within the LLFA.

## Funding Bids (GiA and Local Levy)

It is really encouraging to see that Cheshire East have submitted bids for funding (£20k) to complete schemes within the Cheshire East Boundary. This also seems to go hand in hand with the staffing changes. These sites that have the funding allocated too are sites that have been discussed at the multi partner agency meetings (Operational Meetings) showing a good working relationship between the partners.

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Watercourses are the source of the majority of partner flooding issues in Cheshire East



## **Hobson Street / Ryle Street, Macc.**

Colleagues within the Cheshire East LLFA are actively pursuing the commencement of works in this area and are consistently ensuring that United Utilities remains informed throughout the process. We have good engagement at an operational level, however, we are not seeing the outcomes on this longstanding issue which started in 2015

## **Toft Road, Knutsford**

UU have intervened to repair a collapsed prisoner tunnel underneath the main carriageway. This was under an agreement to cost share between CE's. This remains outstanding.

# Reducing Spill Frequency from CSOs



Since 2000 we have invested **£1.2bn** to improve overflow discharges to **reduce spill frequency, volume and impact upon the natural environment.**



Our investment has **improved the operation of over 1,200 intermittent overflows.**



We have **committed to conduct 195 investigations by 2025** to better understand high spilling overflows to inform spill reduction schemes for future investment.



We will recruit **7 new wastewater network flow and spill technicians.** These colleagues will help improve the operation of overflows, including the gathering of data.



We have invested in the creation of a **new analytics platform to help with our analysis of data** and how we report spill and flow data.



We are reviewing how data is captured and reported for every one of our event duration monitors. **This process will ensure that the data we record is reliable, accurate and complete.**

1. UU have been working on a comprehensive plan for AMP8 to invest in new infrastructure to make a huge step change in performance.
2. Following the work we have been doing with Ofwat, DEFRA and the Environment Agency, Ofwat has made an announcement that they have given the green light on £1.1 billion of investment in CSOs across the entire country.
  3. £940 million (85%) of that is in the North West and to United Utilities.

# Combined Storm Overflows (CSO's)

We've heard and understand that people don't want to see sewage getting into rivers and seas, no matter how diluted.

We agree.

But re-plumbing the regions sewers can't happen over night.

That means building new storage tanks and making changes to treatment works to increase their processing ability.

It is the most ambitious environmental programme the North West has ever seen – and we have already set to work.

## A specific challenge for UU

In the North West, our challenge around CSOs is particularly tough because we have:

**77,000km**

of sewers in our network

**54%**

of these are combined sewers compared to an average of 33 percent across England

And these sewers see

**28%**

higher average annual rain runoff due to the higher rainfall

## What we've done already

We've worked hard for a number of years to tackle the amount of times that storm overflows are activated. There's much more to do but, for example, in the last three years, we have delivered:

**39%**

reduction in reported spills

**41%**

reduction in spill duration

**41%**

reduction in the average annual spill frequency



# A plan that makes Cheshire stronger, greener and healthier.

We're investing to address the areas customers have said matter most.



**19,900**

supported with affordability help, this will double by 2030

**34,000**

customers supported through Priority Services

Employing **1,500**

people across Cheshire, with more green jobs created

Improving **65km**

of the Vyrnwy Aqueduct to ensure resilient water supplies

**£433m**

to improve 24km of rivers in Cheshire

**£349m**

to reduce spills from 52 storm overflows

Collaborating to promote sustainable farming practices and protect drinking water quality

Partnering with local authorities to reduce flood risk

Two additional treatment works to deliver great quality water into the future

Encouraging visits to our three beautiful recreational sites in Cheshire

Delivering additional water from boreholes to maintain supplies in dry weather

# Cheshire East Storm Overflow Plan 2025-2030

We have 126 overflows in the Cheshire East region.

By 2050 all overflows will be addressed to meet a target of no more than 10 spills per overflow per annum.

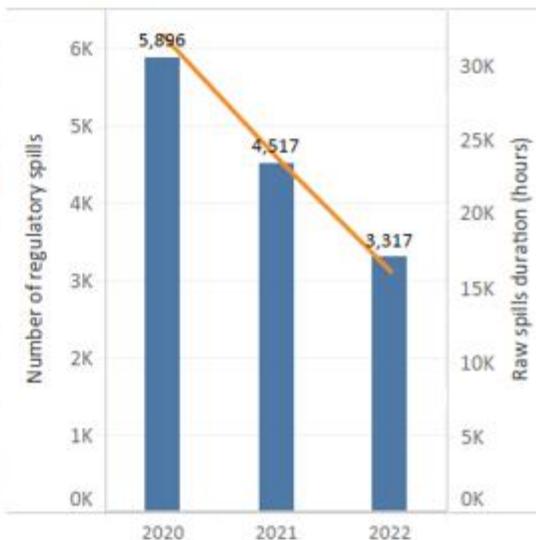
42 overflows already meet this target.

During our next investment cycle between 2025 to 2030 we will be investing in 23 CSO schemes in the Cheshire East region, 10 of these schemes are being accelerated to start early.

Permit locations and regulatory spill counts



Annual trend



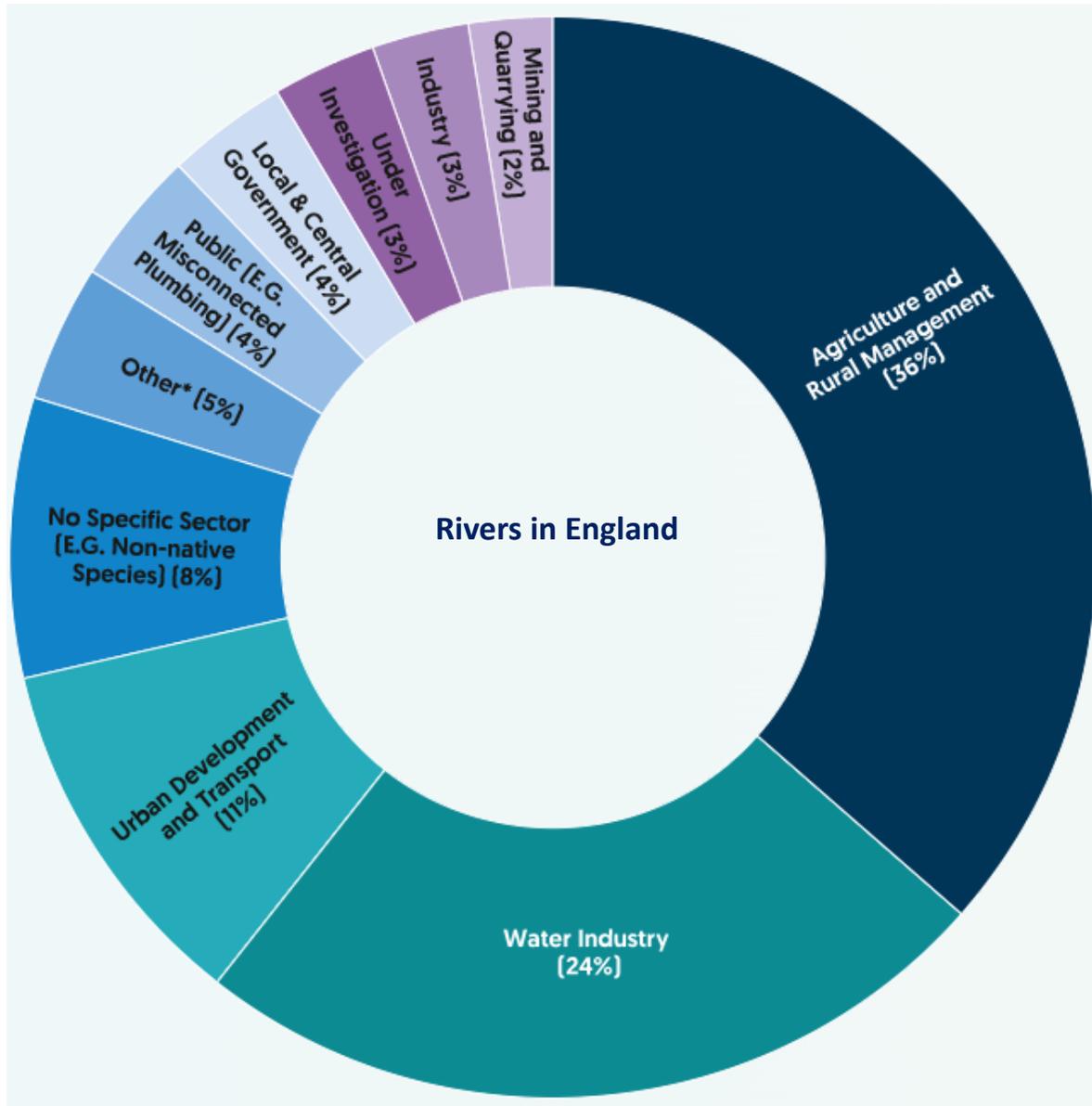
**Storm Overflow plans:** On Tuesday 12<sup>th</sup> March, UU and all the other water and wastewater companies will publish a new report and dashboard which shows the scale of the investment across the country to reduce storm overflows. Across our region we have proposed an investment plan £13.7 billion for the period 2025 – 2030, of which £3 billion is being invested to reduce spills from storm overflows.

**Real Time data:** This new report will then be followed up by the go-live of real time data which will show, through a new portal, a map of each water company's area and all its storm overflows – where they are, how they are operating, whether they are spilling and more supporting information about plans to improve them.

**2023 data:** At the end of the month, UU will also share the latest data from all the monitors we now have on our overflows. This will be an overview of a year's worth of data and will be reported to the Environment Agency and published on our website.



# River water quality impacts



## Reasons for not achieving Good Ecological Status by sector activity

Source: Environment Agency

### Water Industry breakdown:

- Treated Sewage Discharges – 16%
- Overflows – 4%
- Abstraction, Impoundment and Transfers – 2%
- Other (misconnections/Incidents) – 2%

## Partnership Working

- **Catchment Systems Thinking (CaST)** is United Utilities' approach to managing catchments in a holistic, integrated manner.
- The **CaST** approach encourages us to think differently and goes beyond our catchment land, looking at the wider environment, incorporating **natural capital** decision making to consider what is best for the environment, customers and communities by integrating risks and driving multiple natural capital benefits.



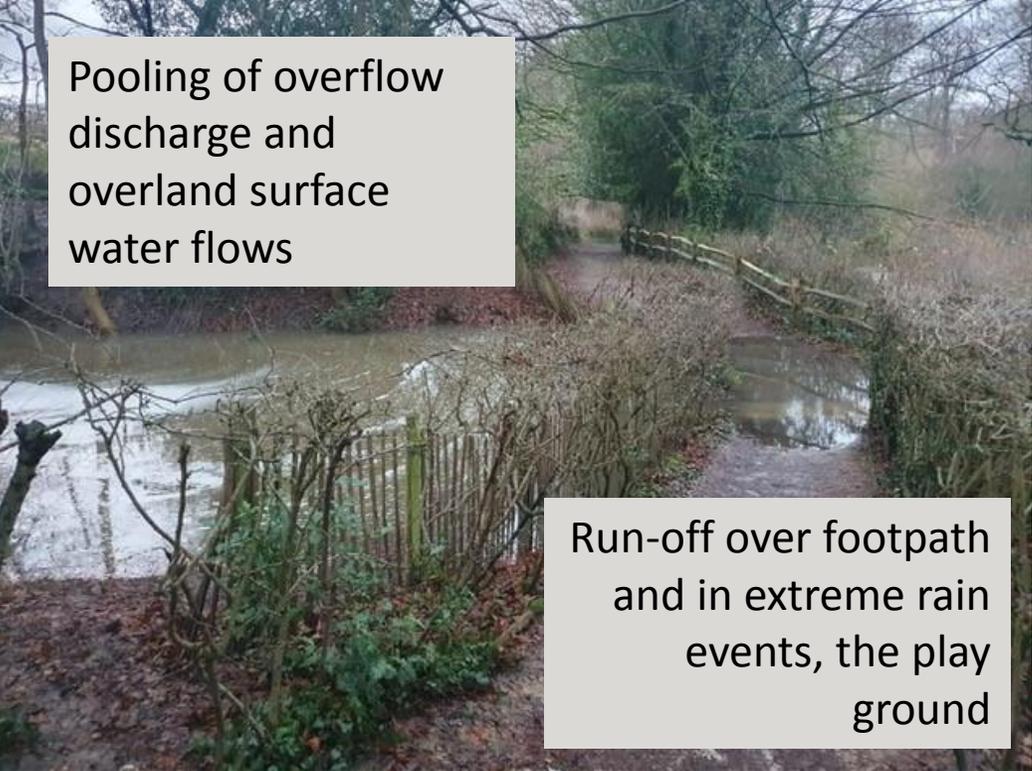
UU/Mersey Rivers Trust Upper Mersey Catchment Walkover  
August 2022 © United Utilities Water Limited 2021

## CaST in Action: Cheshire East

- **Upper Weaver WEG** – leading EU funded project to deliver 80 farm water management plans and interventions at 42 farms in the Upper Weaver catchment.
- **Supporting the Catchment Based Approach** - United Utilities are pleased to be a member of and support the Upper Mersey and Weaver Gowy CaBA Groups to deliver catchment wide water quality and quantity improvements
- **Leading the Natural Course Cheshire Hub** – working collaboratively through the Natural Course project to deliver improvements in partnership (previous phases have included Valley Brook, Crewe Town centre catchment planning)
- **Collaborative working in the Bollin catchment** – United Utilities are active members of the Mersey Rivers Trust hosted Upper Mersey Catchment and the BEACON subgroup.
- **Working with the Mersey Rivers Trust and the National Trust** on water quality/quantity issues in the Bollin – including support for Carrs wetland delivery which we hope will lead to greater joined up planning to manage water quantity issues in the Bollin and Dean.



## Quarry Bank Mill



Pooling of overflow discharge and overland surface water flows

Run-off over footpath and in extreme rain events, the play ground

## Quarry Bank Mill/ Styal Village

- ✓ National Trust partnership established @ QBM
- ✓ Scope confirmed and agreed with National Trust
- ✓ Styal village initial UU modelling complete
- ✓ Site walkovers
- ✓ UU Ops site investigations
- ✓ Feasibility study and NFM design to confirm which interventions can be applied, and where – commissioned by NT, funded by UU

### In progress:

- Confirmation from UU modelling on benefits to sewer network of the 11 opportunities identified
- Stakeholder engagement with Cheshire East Council colleagues

# Better Rivers Better North West

## River Rangers and the Launch of the BRBNW Community Fund

- Our **River Ranger Team** has recently been launched, supporting clean up and engagement activities across local watercourses including catchments in Cheshire East.
- Focussed on managing the impacts of UU discharges the River Rangers have also supported community river cleans and river restoration works
- For more information and to raise any opportunities for River Ranger support email [RiverRangers@uuplc.co.uk](mailto:RiverRangers@uuplc.co.uk)

### BRBNW Community Fund

- We are in the process of launching our BRBNW Community Fund
- This fund will be able to support local groups deliver activities that care for and improve river environments with donations of equipment up to the value of £2,500.
- Activities that might be supported by this fund include riverside litter picking, local river restoration and promoting sustainable drainage – with projects in Cheshire East already supported.
- For more information or to submit a proposal please email [stakeholderrelations@uuplc.co.uk](mailto:stakeholderrelations@uuplc.co.uk)



UU River Rangers testing water quality in the River Bollin and supporting Partnership River Restoration Works



# Any questions?

