



# West Berkshire Council Overview and Scrutiny Management Commission

Tuesday 6th September 2022

# Agenda

- Our Commitments
- Improving River Health
- Our waste sites in West Berkshire
- Local investment
- Our plans for the future
- River Pang chalk stream project
- Leakage
- Questions



# Improving River Health

- We have committed to a 50% reduction in the total annual duration of spills across London and the Thames Valley by 2030, and within that an 80% reduction in sensitive catchments
- Achieved key milestone in delivery of its commitment to provide live sewage discharge notifications, at all of its 468 sites by the end of 2022 – the first water company to make such a commitment
- £5m contribution towards a 'Catchment Partnership Support Fund' to work closer with catchment partnerships and drive collaboration
- We are making good progress on delivering its £1.25 billion programme of maintaining and improving its operational sites between 2020-2025 – an average of £250 million a year





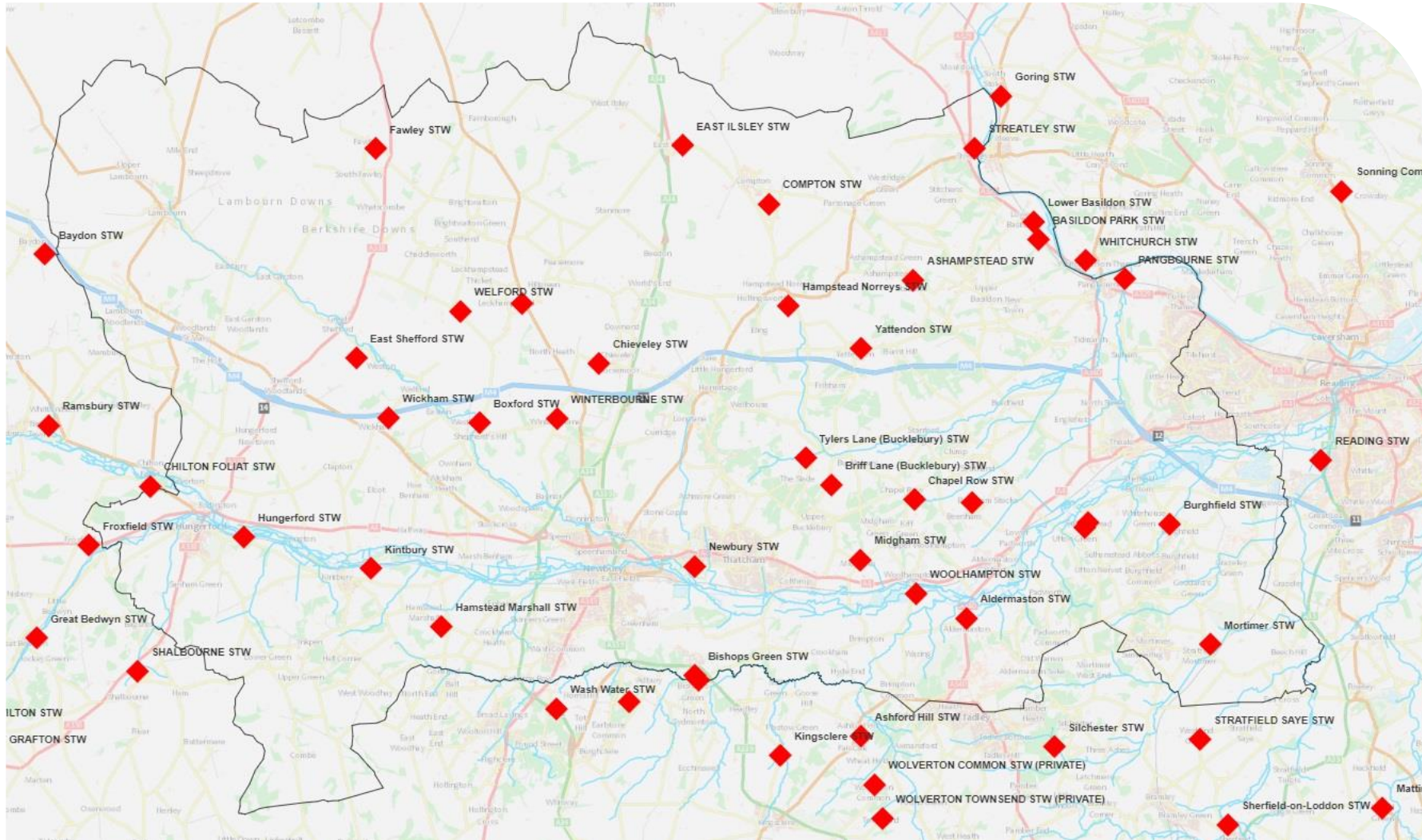
# Overflows

- We are absolutely committed to protecting and enhancing our rivers. Putting untreated sewage into rivers is unacceptable to us, to our customers and to the environment.
- Our current business plan, spanning 2020-2025, will deliver environmental improvements to 745km of rivers across the whole TW region. The use of digital technology to create a more intelligent sewer network and enabling more proactive maintenance and repairs will help us to drive a reduction in untreated sewer discharges.
- Eliminating discharges is not going to be quick, easy, or inexpensive and we welcome the continued support of our customers and regulators, who are equally passionate about this topic, as well as extensive collaboration with local communities and other stakeholders, to achieve cleaner rivers.
- We welcome collaboration from Risk Management Authorities to keep rivers healthy.





# West Berkshire - Sewage Treatment Works



Aldermaston STW  
Ashampstead STW  
Basildon Park STW  
Beenham STW  
Bishops Green STW  
Boxford STW  
Briff Lane (Bucklebury) STW  
Burghfield STW  
Chapel Row STW  
Chieveley STW  
Compton STW  
East Isley STW  
East Shefford STW  
Fawley STW  
Hampstead Norreys STW  
Hamstead Marshall STW  
Hungerford STW  
Kintbury STW  
Leckhamstead STW  
Lower Basildon STW  
Midgham STW  
Mortimer (Stratfield) STW  
Newbury STW  
Pangbourne STW  
Streately STW  
Sulhamstead STW  
Tylers Lane (Buckleybury) STW  
Welfrod STW  
Wickham STW  
Winterbourne STW  
Woolhampton STW  
Yattendon STW

# Prioritising Investment

Over the past few years we have conducted a thorough review of our business, performance and strategic direction to understand what needed to change, and what should continue, to achieve our vision and our turnaround plan

We are currently working hard to balance our plan for 2025–2030 (known as PR24) taking into account customer and stakeholder expectations, risk and resilience and statutory obligations

Customers, affordability, climate change, environment and society are at the heart of our decision-making as our plan focuses on current and long-term challenges

Our executive team are leading the creation of the plan, which will have a clear line of sight back to our extensive and variable programme of customer engagement



# Investment Plans 2020-2025

- Wastewater Monitoring – installing monitors on overflows to storm storage, in conjunction with flow monitoring at the following Sewage Treatment Works: Aldermaston, Beenham, Burghfield, Chapel Row, Chieveley, Compton, East Shefford, Hamstead Marshall, Hampstead Norreys, Hungerford, Kintbury, Midgham, Mortimer (Stratfield), Newbury, Pangbourne, Reading and Winterbourne
- Boxford Sewage Works - Habitats directive improvement related to phosphorus reduction and an investment to reduce ammonia concentration from the sewage works.
- Burghfield Sewage Works - Measures to reduce phosphorus concentration to reach moderate WFD status in the river and sampling for nonylphenol, to gather data to determine if a permit may be needed for the chemical in future.
- Chieveley Sewage Works - Habitats directive improvement related to phosphorus reduction and monitoring of chemical removal by installed technologies.





# Investment Plans - 2020 - 2025

- East Shefford Sewage Works - Habitats directive improvement related to phosphorus reduction.
- Hamstead Marshall Sewage Works - Installation of new flow monitoring equipment, where the flow has not previously been monitored.
- Leckhamstead Catchment Scheme – Catchment wide actions and measures to improve water quality by reducing the amount of nitrate reaching groundwater sources.
- Pangbourne Sewage Works – Investigation to assess the longer-term declines in concentrations of triclosan, which has previously had a usage ban and sampling for nonylphenol, to gather data to determine if a permit may be needed for the chemical in future.
- Reading Sewage Works - Measures to maintain the chemical concentrations in the waterbody, chemical monitoring as part of the Chemical Investigation Programme and monitoring the effectiveness of previously installed technologies to remove certain chemical.





# Newbury Sewage Treatment Works

## Growth Scheme

Plans for Newbury in 2020 – 2025 and 2025 – 2030 include an upgrade of the London Road Pump Station to encompass an increase in discharge rate from 340 l/s to 800 l/s. As part of this, we have rehabilitated the 1156m ductile iron section of the London Road rising main (split evenly across two mains). Failures on this section resulted in a number of pollution incidents in recent years so this rehabilitation has greatly reduced the risk of further pollutions. The remaining rising main that links London Road Sewage Pumping Station and Newbury Sewage Treatment Works is due to be replaced in line with the London Road Sewage Pumping Station upgrade.

We will also be delivering a growth scheme for Newbury Sewage Treatment Works, which is currently in the design phase. This will include several upgrades to accommodate the increased flow from the London Road Sewage Pumping Station upgrade and anticipated growth in the catchment.



Map data ©2022 Google

# Go to Green

Over the years some of our sewage treatment works can begin to reach their treatment capacity through a combination of catchment growth, climate change and urban creep. On some occasions the need to upsize the treatment process with a big capital scheme can be offset by optimising the effluent stream, bolstering treatment and utilising redundant assets that might be on site. We refer to this programme as “go to green” and it can often be the most efficient way to continue ensuring compliance with our discharge consents.

The following sites within West Berkshire are under consideration for inclusion in the programme

- East Shefford Sewage Works
- Hungerford Sewage Works
- Kintbury Sewage Works
- Pangbourne Sewage Works

For each of these projects we will be providing a robust treatment capacity upgrade to maintain compliance to our flow and load permits up to 2026.





# Groundwater Impacted System Management Plans (GISMPs)

## West Berkshire GISMP Systems:

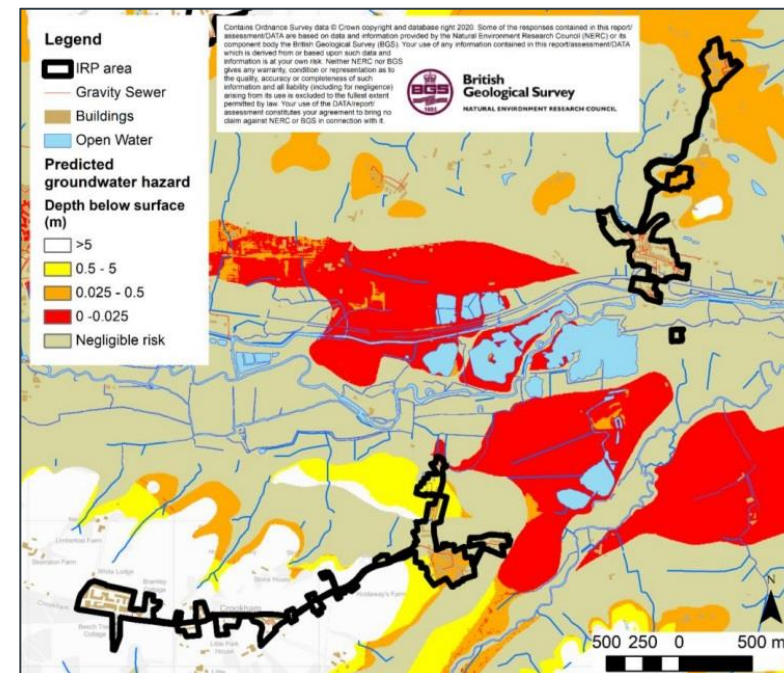
Ashampstead, Briff Lane (Bucklebury), Burghfield, Compton, East Ilsley, East Shefford, Hampstead Norreys, Sulhamstead, Reading, Winterbourne and Woolhampton.

Build on our understanding of Groundwater Infiltration and develop short, medium and long term plans to tackle the issue. Published reports can be found here: [Drainage Plans | Regulation | About us | Thames Water](#). GISMPs are developed in consultation with the EA <https://www.thameswater.co.uk/about-us/regulation/drainage>

The plan outlines our:

1. Approach to surveys
2. Plans for long term monitoring
3. Groundwater infiltration potential mapping
4. Prioritised remediation where identified (AMP7 2022 – 2025)
5. Building a case for a strategic infiltration approach based upon 'Infiltration potential' for our PR24 submission to Ofwat (for AMP8 2025 – 2030).

We are working through all GISMP systems this AMP in terms of survey in a phased pattern (also governed by groundwater levels and contractor availability). Priority fixes are progressed for remediation where they are found.



Sewer length by Groundwater Infiltration Risk Zones

Risk category	Description	Length (km)	Percentage
High	Predicted groundwater extreme > 1m above pipe invert	0.77	10.0
Medium	Predicted groundwater extreme 0-1m above pipe invert	0.10	1.3
Low	Predicted groundwater extreme 0-1m below pipe invert	0.19	2.4
Very Low	Predicted groundwater extreme > 1m below pipe invert	6.65	86.2
Total		7.71	100

Map and Table from Woolhampton GISMP

# Groundwater Impacted System Management Plan - Progress

Surveys, monitoring and groundwater potential mapping have been carried out in these areas, except Stanford Dingley where we are waiting for the groundwater levels to rise again.

GISMPs work is being planned this year in:

## **Compton**

383m of leak-tight lining, 20 manholes to be sealed, 4 connections to be sealed, 4 patch repairs to seal previously lined sewer. To start 2022 - April to September

## **Hampstead Norreys**

1 connection to be sealed, 1 patch repair to seal previously lined sewer and 2 manholes to be fully sealed with particular focus on the joint between the top manhole ring and the cover slab. To Start 2022 - April to September.



## Groundwater Infiltration Management Plan Compton System (River Pang)

March 2021





# Other local investment (clean water)

- Ufton Nervet Water Treatment Works, Contact Tank (additional cell) (£8.3m)
- Speen Water Treatment Works, Turbidity Management (enhanced treatment) (£0.9m)
- Cascade Aerators (Enhancements to Pangbourne Water Treatment Works, Playhatch Water Treatment Works & Speen Water Treatment Works) (£3.5m)
- 11.5km of mains currently identified for renewal within West Berks area for AMP7 period.
- 3.1km completed to date.
- Remaining expected to be completed by March 2025
- Snelsmore Tower refurbishment. (Est £1.1m)



# Our role in the planning process

## Local Plan Process

Water companies are a “specific consultation body” when it comes to Local plans

This means Local Authorities have to consult water companies on local plan documents. We use this opportunity to:

- Seek policy to support the delivery of water infrastructure
- Seek policy to protect existing water infrastructure / water resources
- Advise if development is likely to trigger the need for infrastructure upgrades

We also use the information in local plans to help plan strategic infrastructure, things like updates to Sewage Treatment Works, developing new water resources. This in turn informs our strategic business plan.





# Our role in the planning process

## Planning application

- We are not statutory consultees for Third Party Planning Applications however we work with Local Authorities to advise what type of applications we would like to be proactively consulted on.
- We proactively seek out planning applications from Local Authorities weekly lists and subscribe to a third party facility that identified applications of interest automatically and for sensitive systems we do seek out planning applications <10 units.
- When commenting on an application we will undertake an assessment of the likely impact the development will have on the existing network during normal operations. We will assess (but not limited to):
  - Calculations of the expected flows from the site
  - Identify the likely connection point and receiving sewer size
  - Check existing sewer flooding records
  - Review the performance of any local pumping stations
  - Review the performance of receiving sewage treatment works

# Industry leading initiative

Payments to developers – Supporting housing developers who commit to building new properties fitted with low water using devices like showers and washing machines and use rainwater or 'grey water' for toilet flushing and watering plants, will be offered discounts on the charges they pay Thames Water to connect to the public water supply.

By committing to the highest standards developers can potentially save up to £1,800 per property on their connection costs.



# River Pang Flagship Chalk Stream Project

## High level risks and issues identified:

Flooding

Water quality and pollution

Low flow

Loss of biodiversity/ INNS

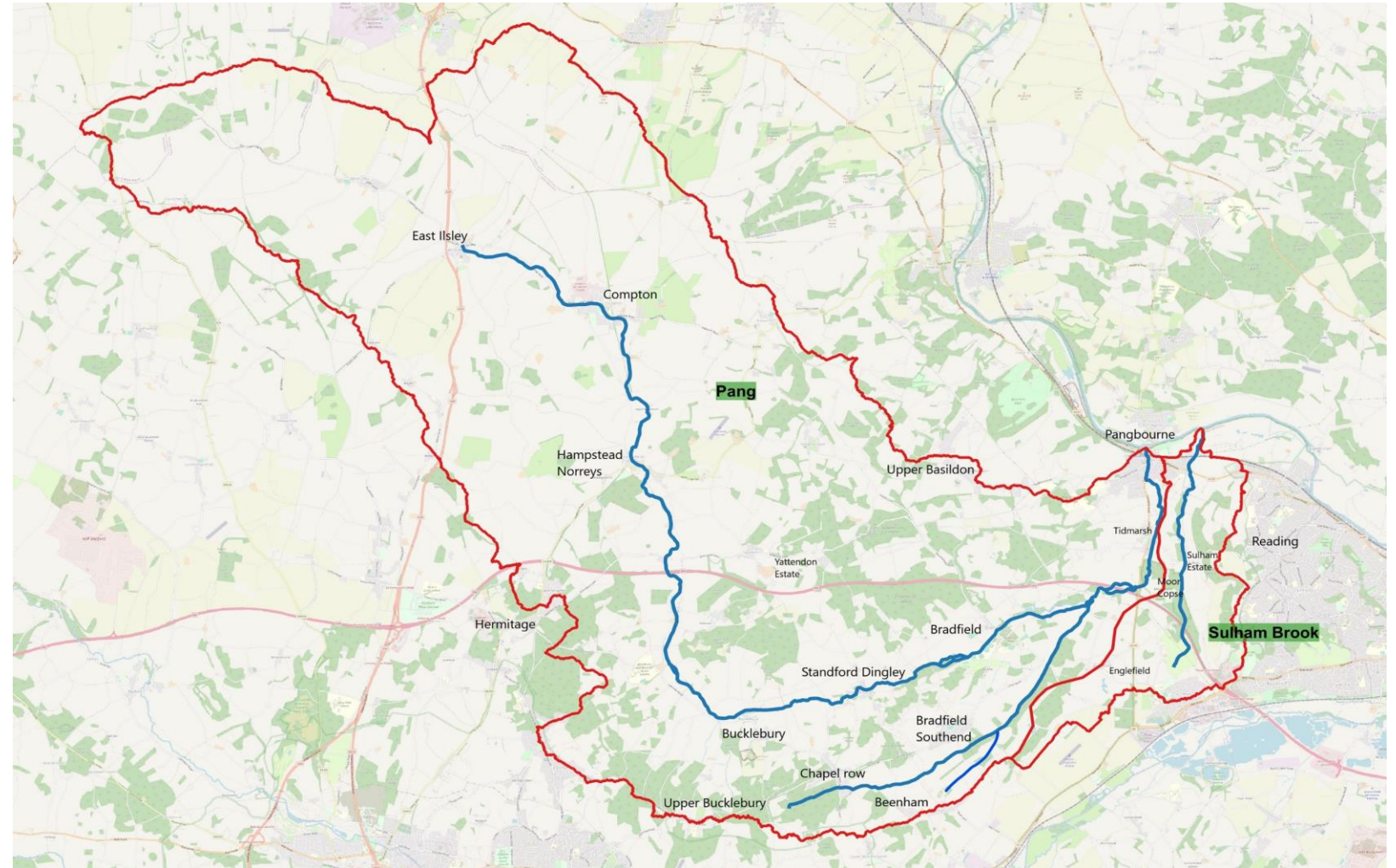
Fish/Eel migration restrictions

Funding

Resources

Access to data

Channel modification





# Project update:

- Monitoring plan
  - In development - draft to be completed in September.
  - Further investigating monitoring approaches.
- River Pang Strategy
  - In development - proposed working streams and project identity discussed.
  - Templates in development.
- Involvement opportunities to date include:
  - Monthly Steering Group workshops (attendees include landowners/estates, ARK, TW, PVFF, BBOWT, EA, NE, farmer cluster members) - latest September 23rd.
  - Site walkover of River Pang (Pangbourne, Tidmarsh, and Hampstead Norrys) – held on July 29th. Outputs collated and distributed.
  - Branding/identity meeting – held on August 25rd.
  - Steering Group WINEP prioritisation requirements meeting – to be arranged in September.
- October Flagship Catchment Board will review catchment strategies





# Thames Water's plan for reducing harm to water quality in the River Thames catchment

April 2022



# Leakage in West Berkshire

Work carried out on the Water Network in the last 6 months:

We've repaired 881 leaks totalling 13.8 ml/d saved.

- 534 of these leaks were visible from above ground – 10.7 ml/d
- 349 of these leaks were not visible from above ground and were detected using equipment - 3.1 ml/d

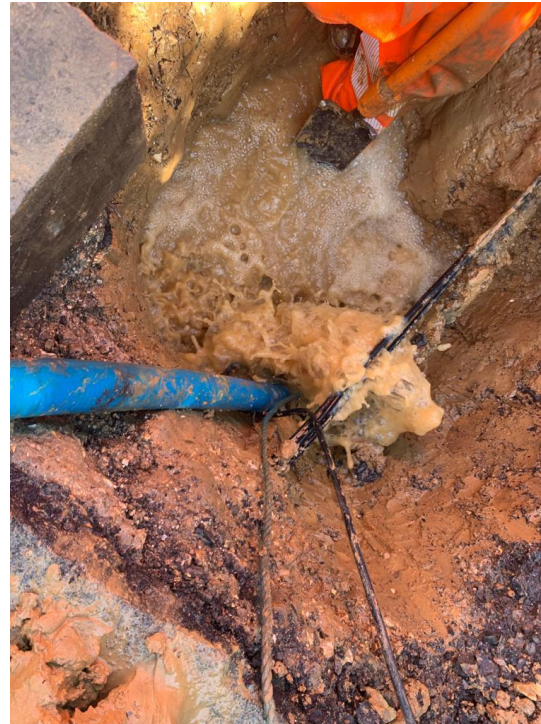
We've carried out 392 Network Maintenance activities

- 272 of these activities are customer related – repairing outside stop valves etc.
- 120 of these activities are to improve our networks health and operability.





## Mains Repair Friars Road Newbury RG14 7QU – 08/08/2022



08/08/2022 – 23:06 Public called to report leak in road.  
Permit granted for work 10/08/2022 – 4" Cast Iron main repaired  
10/08/2022 AM and site reinstated 11/08/2022.

# Q&A