Leakage route map projects update

25th Annual Leakage Conference

2nd December 2024

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Projects in 4 areas identified by the leakage route map:

- Customer side loss quantification - Artesia
- Calm and Optimised networks - WRC
- Active leakage control KPIs - RPS
- Mains renewal techniques – Watershed Associates

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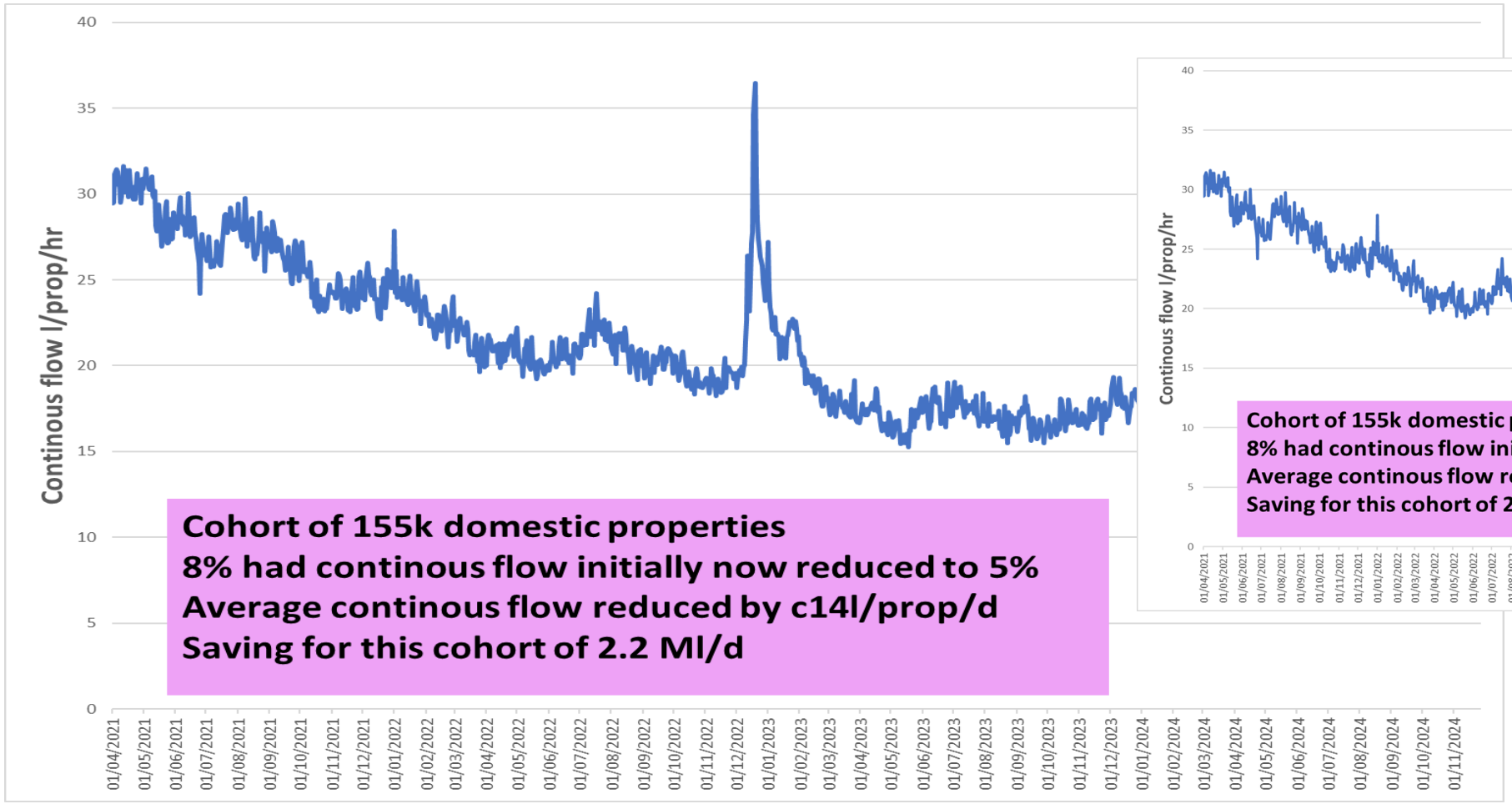
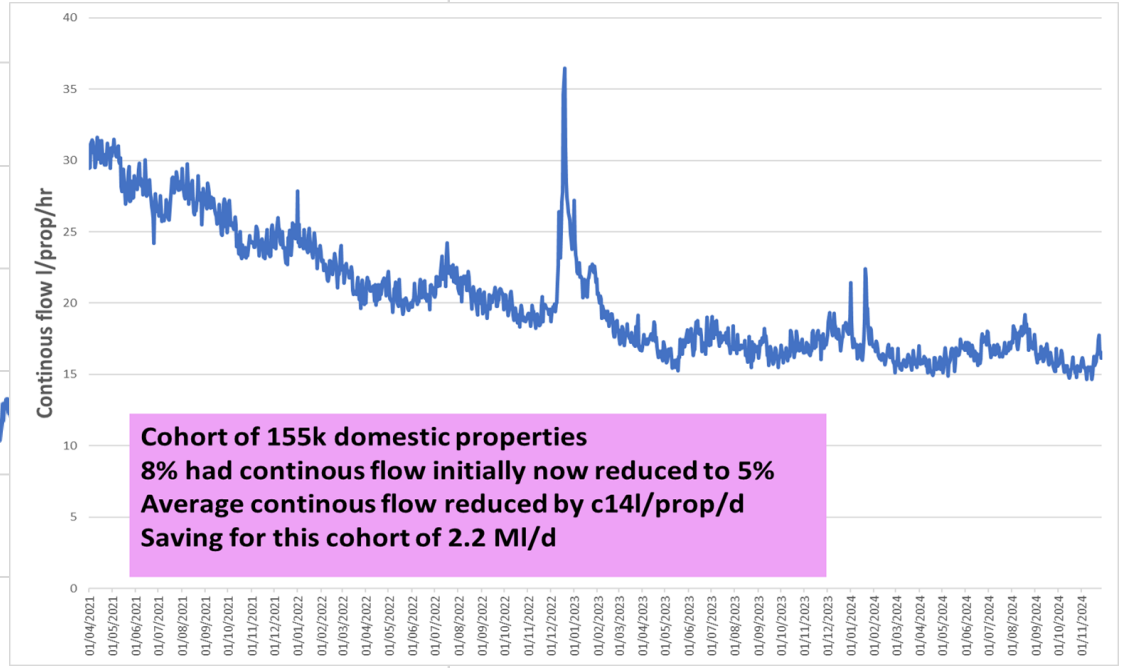
Customer supply pipe leakage/plumbing loss quantification





artesia

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Calm and optimised networks

Not Calm → Calm

Score	1	2	3	4	5
Valve servicing					
Optimisation					
Transients					
Pumping					
Valve Operation Tracking					
Training					
Route Cause Analysis					
Hydraulic models					
Overall Score					

Positive Impact Negative Impact

Not Calm → Calm

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ALC KPIs

- More than 3m hours spent in 23/24 looking for leaks in England and Wales
- The way we look for leaks has changed over the last decade with increased permanent network sensors in some companies
- Companies report coverage from 0 to 96% coverage from permanent sensors

How do we assess how productive ALC is?

Data from 5 water companies used to demonstrate relevant KPIs.

- Total water loss index – time taken to identify a leak by the volume lost in that time
- Volume lost as a % of target – leak volumes as a proportion of the targeted volume of leakage reduction
- Repair time - the time taken from successful location of a leak to job completion
- POI related KPIS – hours spent per POI, % POI conversion, time taken for POIs to become detected leaks
- Targeting effectiveness – have resources been sent to the right DMA first time as proportion of total jobs
- Quality of jobs – number of repeat leaks at same location
- Customer leak time to resolve – time from issue of waste notice to completion

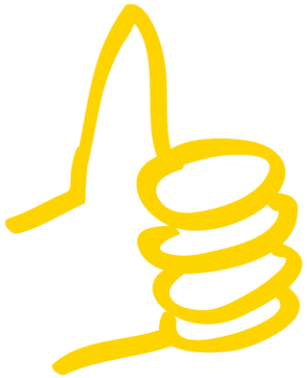
- Along with existing KPIs such as jobs found per FTE or volume found per FTE these provide a consistent and universal set of metrics that facilitates benchmarking and comparisons of current activities and innovation.
- Trial process & data requirements outlined.

Review of mains laying / rehab techniques

- To deliver the leakage reductions required by 2050 it's likely that we will have to increase the rate of mains renewal
- Current I2S rules penalise water companies if supply is interrupted by > 3hrs

- Work reviewed the different pipe replacement techniques in terms of:
  - Cost - potential reduction in costs from using trenchless techniques of a third
  - Carbon – trenched approach has 2.5 times more embedded carbon
  - Customer impacts – customer research suggests 3hr rule not a priority for customers when the work is planned and adequate notice is given
  - Innovation – industry split on whether the 3 hr stifles innovation
  - Renewal lengths – opportunity to renew more for less spend

Thank you for listening



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