

CHALLENGES FOR AMP7

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South East Water

Ofwats Final Determination and Hydraulic Modelling

- Leakage
- Supply Interruptions
- Per capita consumption
- Mains Bursts
- Risk of severe restrictions in Drought
- C-MeX
- D-MeX
- Discolouration
- Low Pressure

Outcomes Framework

- Ofwat states “Most water (and sewerage services) in England and Wales are not provided in competitive markets. Most people receive their water services from a licensed monopoly...”
- Outcomes Framework to drive companies to deliver the objectives that matter to today’s customers, future customers and the environment in the 2020-25 period and beyond.
 - ❖ Performance commitments - pledges companies make to their customers
 - ❖ Outcome delivery incentives - financial or reputational consequences for companies of outperformance or underperformance against each of these commitments.

Commitments and Incentives

- Common performance commitments: common customers' key priorities
- Bespoke performance commitments: reflect individual companies' circumstances
- Standard outcome delivery incentives: incentives associated with common and bespoke performance commitments
- Enhanced outcome delivery incentives: financial incentives to incentivise companies to improve performance beyond the best level currently achieved by any company to deliver benefits for all customers over the long term.

Performance commitments

- Seven common performance commitments developed in joint project with Water UK
- **Leakage, supply interruptions**, internal sewer flooding, **per capita consumption (PCC)**, **unplanned outage**, **mains bursts**, sewer collapses and external sewer flooding).
- Three performance commitments are set out by regulators:
 - **CRI** is set out by the Drinking Water Inspectorate (DWI)
 - **Treatment works compliance** and Pollution incidents by the Environment Agency

Performance commitments

- Two **risk-based resilience measures** were developed in collaboration with the industry.
- (Risk of sewer flooding in a storm and **Risk of severe restrictions in a drought**)

- Ofwat introduced two new performance commitments with incentives
- **Customer measure of experience (C-MeX)**
- **Developer services measure of experience (D-MeX),**
- Both developed in consultation with the industry and customers.

Leakage

- Leakage down 15% or more
- Different start dates
- Calculated on 3 year average so need to achieve 15% by Year 3 or more by Year 5

- Pressure management including small boosters
- Smart metering
- DMA reorganisation
- Calm networks

Supply Interruptions

Supply interruptions down 41%.

Measured in minutes per property

Performance Commitment - Year 1 - 6 minutes 30 secs

Year 5 - **5 minutes**

For AMP7 consistency means include all interruptions over 3 hours

Planned, Unplanned, 3rd Party

- Identify and circulate information about existing backfeeds
- Design further alternative feeds for construction
- Optimise monitoring
- Have flexible networks

Supply Interruptions Performance

	Performance against targets			Relative performance (2018-19)
	In 2018-19 & compared to 2017-18	2018-19 performance (mins/property)	2018-19 target (mins/property)	Minutes per property
Anglian Water	◀▶	8.73	12.00	8.73
Dŵr Cymru	◀▶	16.00	12.00	16.00
Hafren Dyfrdwy ¹	▶	7.20 (93.74)	12.00 (7.10)	29.17
Northumbrian Water	▼	9.20	5.48	9.20
Severn Trent Water ¹	▶	19.06 (1.80)	9.40 (12.00)	18.88
South West Water ²	▲	9.66 (0.66)	12.84 (4.40)	7.88
Southern Water	▲	7.38	9.00	7.38
Thames Water	◀▶	15.60	7.80	22.05
United Utilities	▲	9.17	12.00	9.17
Wessex Water	▲	5.85	12.00	5.85
Yorkshire Water	◀▶	10.46	12.00	10.46
Affinity Water ³	-	-	-	12.70
Bristol Water	◀▶	14.67	12.50	15.02
Portsmouth Water	◀▶	3.90	5.00	3.90
South East Water	◀▶	14.20	12.00	14.20
South Staffs Water	◀▶	7.15	10.00	7.15
SES Water	▼	16.20	12.00	16.20

Performance against targets			Relative performance	
Target met	Improved	▲	Top 25%	■
Targets met and failed	Stable	◀▶	Middle 50%	■
Target failed	Deteriorated	▼	Bottom 25%	■

Per Capita Consumption

- Water use down to an average 131 litres per person per day
- Water companies are committing to help customers use up to 13% less water per person by 2025.
- This will also reduce carbon emissions and help customers on water meters

- Sources will have to supply more properties
- We have to ensure the network can take the water further

Mains bursts

- Reducing mains bursts by 12%
 - Number of burst mains per 1000km
 - 122 repairs per 1000km is good
 - Ofwat expect water companies to innovate to meet this challenge
 - In conjunction with reducing leakage
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- Leakage measures
 - Pressure management
 - Calm networks

Risk of Severe Restrictions in Drought

- Increase drought resilience for customers and the environment in the future
- More people, businesses and homes means more demand for water is likely.
- Climate change means we expect there will be less water available, particularly in S and SE England.
- Unsustainable strain on parts of our river environments and we may run out of water where we need it.

- Ofwat providing up to £469 million to help companies work together on solving challenges.
- Solutions include
 - Potential major new water resources, including reservoirs
 - National transfers of water from the north west to the south east of England
 - Require companies to engage with third parties, such as the Canal & River Trust

Risk of Severe Restrictions in Drought

Companies also directed to:

- make better use of existing water supplies by interconnecting their networks
- make more efficient use of water resources by taking advantage of opportunities to trade water, and working with third parties with water resources

Measuring customers' and developers' experiences (C-MeX and D-MeX)

- **C-MeX** - New way of measuring customers' experiences
- Compares the experiences customers have with their water company
- Compares water customers' experiences with those of customers in other sectors.
- Covers the satisfaction of all water company customers, not only contacts
- Recognises the changing mix of channels customers expect to use

- **D-MeX** - New measure
- Includes a developer satisfaction survey
- Performance on key service metrics

- Support timely responses to complaints, information requests and developer enquiries

Some bespoke performance commitments

- **Customer contacts**
 - Number of customer contacts about tap water appearance per 1,000 population
 - Number of customer contacts about tap water taste and odour per 1,000 population
 - For AMP 7 - 0.67 per 1000 - 34% reduction
- Changes in direction of flow and velocity
- Contamination modelling
- Age of water modelling

- **Low pressure**
 - Performance commitment 0.55 properties per 10000 connections
- Check for failures under future demand scenarios and identify solutions

Finally

Companies signed up for average water bills to fall by 12% before inflation

Minimising OPEX is required : Energy Optimisation tool

Prioritisation is required : Critical link analysis informs risk

Single source outage analysis

Capacity checks under future demand scenarios

Innovation is required : ??????????

Thank you