Preparing for a changing climate

Amanda Crossfield
Lead Advisor for Adaptation
About us

Serve 5 million customers

Supply 1.3 billion litres of drinking water every day

Treat 1 billion litres of waste water every day

Manage 120 reservoirs, 600 waste water treatment works, 55 drinking water treatment works and 83,000km of pipes

One of Yorkshire’s largest landowners 29,000ha

Dependant on weather and climate for our core business
Climate change projections for Yorkshire

Changing rainfall patterns
Increase in rainfall intensity
Sea level rise
Gradual warming
Increased storminess
More variable, more extreme weather

Other challenges as well
• Population
• Development/Urban creep
• Affordability

http://ukclimateprojections.metoffice.gov.uk/
YW approach to climate change since ARPI

- Impact and vulnerability assessment
- Strategic risk assessment
  - Position paper
- Detailed risk assessment
- Detailed strategy
  - Embedding the strategy
Supplying safe and clean water
Making sure you always have enough water

Our optimised plan to maintain the water supply demand balance

- P1e Reduction in WTW process losses Option 5
- R8b Vale of York Phase 2
- D2e Pressure management 1.2 Ml/d
- R12 East Yorkshire Groundwater Option 1
- C1a Business customer audits and retrofit one off implementation
- D20 Ouse Raw Water Transfer
- P1c Reduction in WTW process losses Option 3
- D2d Pressure management 1.4 Ml/d
- D2c Pressure management 1.6 Ml/d
- D2b Pressure management 1.8 Ml/d
- D2a Pressure management 2.2 Ml/d
- D1g Active Leakage Control in DMAAs 30-35 Ml/d
- R9 North Yorkshire Groundwater
- D1f Active Leakage Control in DMAAs 25-30 Ml/d
- D1e Active Leakage Control in DMAAs 20-25 Ml/d
- D1d Active Leakage Control in DMAAs 15-20 Ml/d
- D1c Active Leakage Control in DMAAs 10-15 Ml/d
- D1b Active Leakage Control in DMAAs 5-10 Ml/d
- D1a Active Leakage Control in DMAAs 0-5 Ml/d

SDB – the gap between supply and demand (Ml/d)

Year
Addressing sewer flooding
Managing land and water sustainably
The future.....

• Further quantification of risk e.g. landslips
• Resource recovery (phosphorous)
• Dynamic consenting and real time catchment management
• Ecosystem services valuation
• Impact of climate change on crop growth and use of farm chemicals
• Saline intrusion of coastal aquifers
• Interdependencies
• How climate change affects UK winters
Thanks for listening

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www.yorkshirewater.com/climatechange