Thames Water’s water resources planning and the role of water transfers

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Thames Water
Water Resources Planning
Water Resources Planning

- Statutory duty to prepare a Water Resources Management Plan
- The plan examines:
  - Demand – how much water our customers need now and in the future
  - Supply – how much water is available now and in the future
  - Risk – the level of risk the company, customers and stakeholders consider to be appropriate
  - Options – demand management and resource options
- And responds to external factors:
  - Government aspirations and policies
  - Customers’ and stakeholders’ expectations
  - Drive for collaboration - Water Resources in the South-East Group

The purpose of the WRMP is to ensure we can provide a secure and reliable supply of water to our 8.6 million customers
Existing Water Resources
What does the future hold?

Source: TW’s Revised Draft Water Resources Management Plan, Sept 09
What does the future hold?

**Water distribution**
Underground pipe network affected by changes in wetting/drying soil

**Water treatment**
Reduced volume/lower quality of water for treatment and risk of flooding to operational sites

**Water abstraction**
Reduction in water available for abstraction

**Water usage**
Changes in the pattern of customer demand

**Wastewater to sewer**
Increased flooding/surcharge

**Wastewater treatment**
Increased risk of inundation of operational sites

**Effluent discharge**
Reduced river flows in summer to dilute effluent discharges

Source: TW’s Strategic Direction Statement: *Taking Care of Water*, Dec 2007
What does the future hold?
Manage demand or additional resources?

- There’s no silver bullet – you need both

- Mixture of:
  - water efficiency
  - metering
  - tariffs to incentivise different behaviours
  - mains replacement
  - catchment management
  - new resources
Managing demand

- Aspiration: 130 litres/person/day
- Reality: 162.6 litres/person/day

- Shared responsibility
- Regulation and Planning
- Customer behaviour
New resources – a range of options

- Groundwater schemes
- Aquifer Recharge schemes
- Effective sharing of resources / trading
- Catchment management
- Desalination
- Reuse
- Transfers
- Reservoirs
Identification and assessment of options

Generic options

Unconstrained options

- Applicability
- Technological feasibility
- Environmental Impact
- Social Impact

Feasible options

- Cost (Capex and Opex)
- Environmental and Social Impact
- Carbon
The role of water transfers
Transfers do happen…
Large Scale Transfer Options

- Northern Region Transfers
- Severn-Thames Transfers
- Cotswold Canal Transfers
- Oxford Canal Transfer
Forward Look

Thames Water will progress work to inform its next plan (WRMP14) including:

- Independent Review of Mains Replacement
- Impact assessment of the use of UKCP09 climate change scenarios
- Investigation of the Lower Thames abstractions and the impacts on the Tideway
- Assessment of resource schemes including water transfers from the River Severn and effluent reuse
- On-going regional collaboration through the Water Resources in the South-East Group

Water White Paper to be published in December

- Expected focus on resilience and affordability
- Resilience: An integrated response to climate change; removal of the barriers to the use of market mechanisms such as abstraction trading
- Affordability: Balance between customer priorities and statutory environmental obligations
Questions ?