

Water Resource Management Planning in the UK.

Ian Pemberton
BSc CEng C.WEM MICE MCIWEM MIWater



I plan to....

- Remind you of our resilience duty
- Give some views on the recent UK Water Report
- Set out the challenges (as I see them)
- Hopefully stimulate your thiking.



Water Act 2014 c. 21 Part 1 CHAPTER 3 Section 22

General Duties of the Water Services Regulation Authority

22 Primary duty to secure resilience

(a)to secure the long-term resilience of water undertakers' supply systems and sewerage undertakers' sewerage systems as regards environmental pressures, population growth and changes in consumer behaviour, and

(b)to secure that undertakers take steps for the purpose of enabling them to meet, in the long term, the need for the supply of water and the provision of sewerage services to consumers,

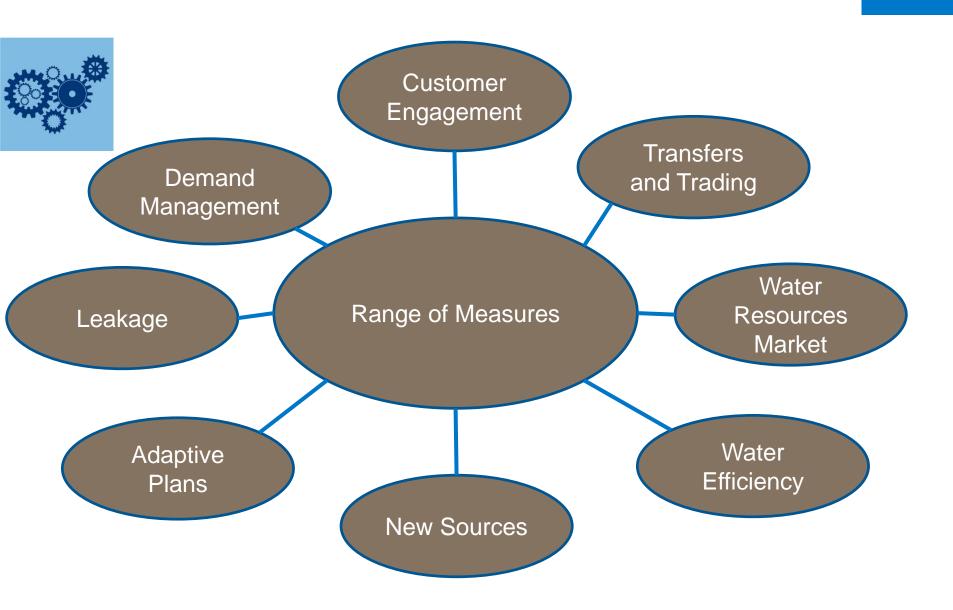
including by promoting—

(i)appropriate long-term planning and investment by relevant undertakers, and

(ii) the taking by them of a range of measures to manage water resources in sustainable ways, and to increase efficiency in the use of water and reduce demand for water so as to reduce pressure on water resources.

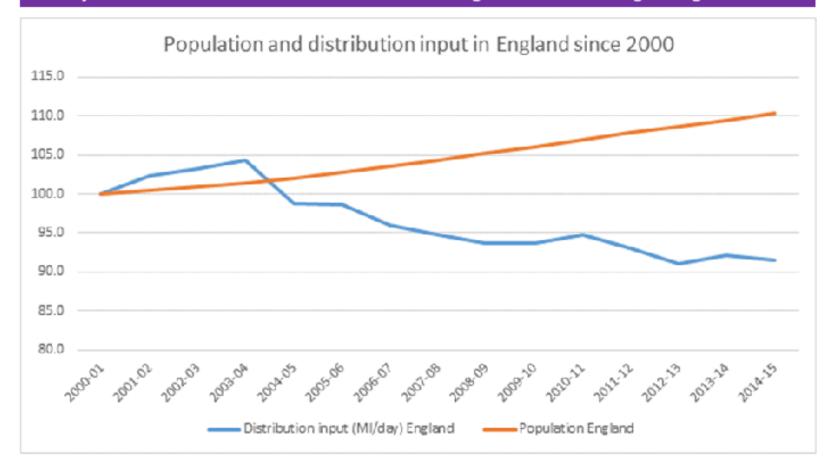


- range of measures to
- manage water resources in sustainable ways, and
- to increase efficiency in the use of water and
- reduce demand for water.....



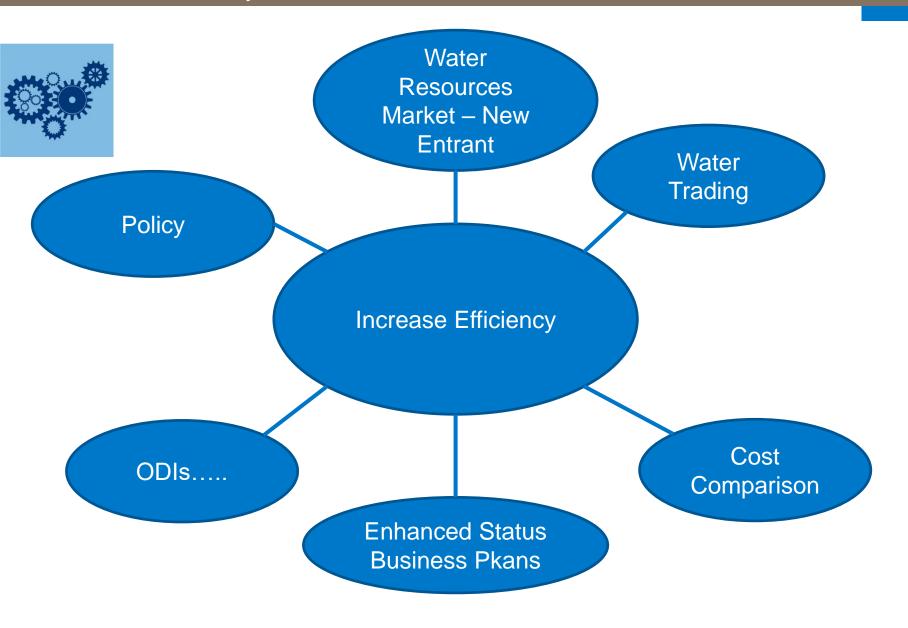
Rising population but falling water demand in England and Wales (2000 -2015)

Its not just about new water resources – demand management and reducing leakage matter too



Trust in water 1

Increase Efficiency





Water Resources – Key Facts

>39,000 Abstraction Licences have been issued by the EA

Total Licenced amount >93,482 MI/D

Distribution Input (2014) 17,302 MI/D

36% for Power Generation 25% for Industry / Agriculture 39% for Public Water Supply

Boreholes: ~32%

Bulk supplies: 'water trades' ~4%.

Reservoirs: ~24%.

Rivers: ~40%.

Some potential Entrants

- -Canals and Rivers Trust have >70
 Reservoirs
- -Coal Authority Discharges
- ~100 Billion litres/annum
- -Farmers, Landowners, Industry...

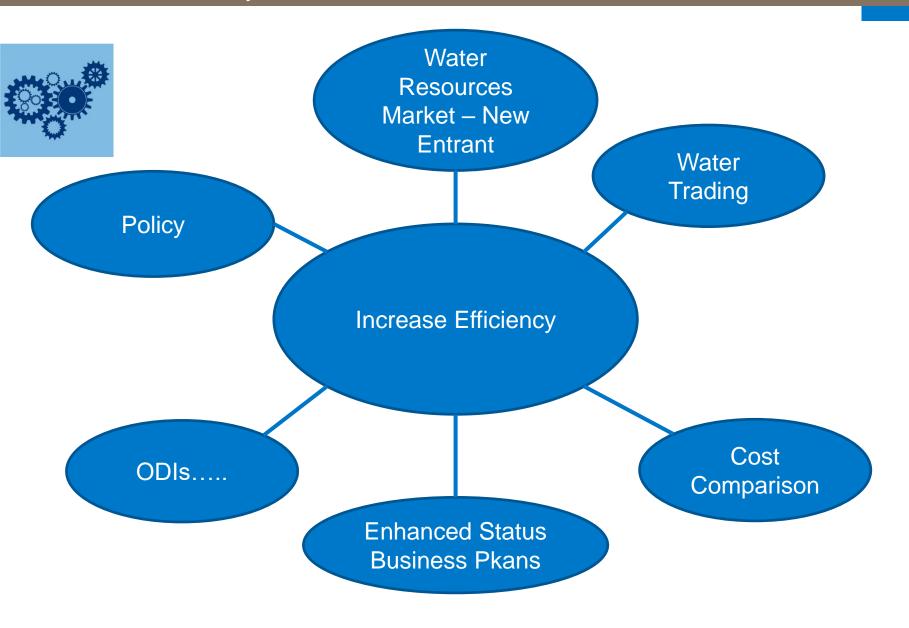
Leakage reduction and Demand Management could offset the need for new Water Resources

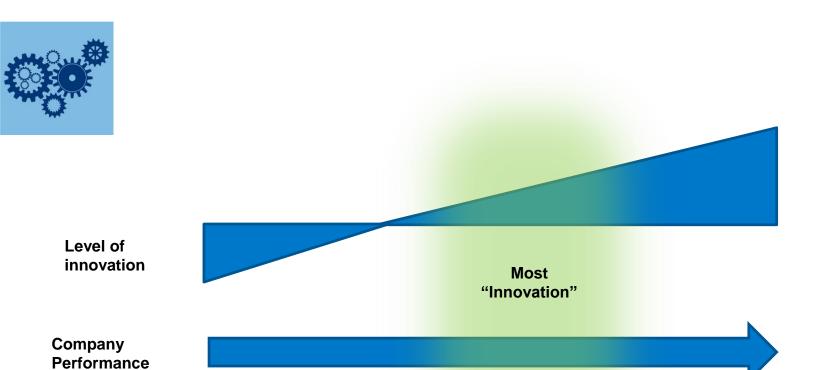
615 dams and impounding reservoirs

2,543 intake and source pumping stations

1,750 km of water mains transfer raw water between sites

Increase Efficiency





Business Business Business Business

in decline

Improvement Transformation as usual

Revolution

Water Resources – Key Facts

>39,000 Abstraction Licences have been issued by the EA

Total Licenced amount >93,482 MI/D

Distribution Input (2014) 17,302 MI/D

36% for Power Generation 25% for Industry / Agriculture 39% for Public Water Supply

Boreholes: ~32%

Bulk supplies: 'water trades' ~4%.

Reservoirs: ~24%.

Rivers: ~40%.

Some potential Entrants

- -Canals and Rivers Trust have >70
 Reservoirs
- -Coal Authority Discharges
- ~100 Billion litres/annum
- -Farmers, Landowners, Industry...

Leakage reduction and Demand Management could offset the need for new Water Resources

615 dams and impounding reservoirs

2,543 intake and source pumping stations

1,750 km of water mains transfer raw water between sites

Thank you and questions

