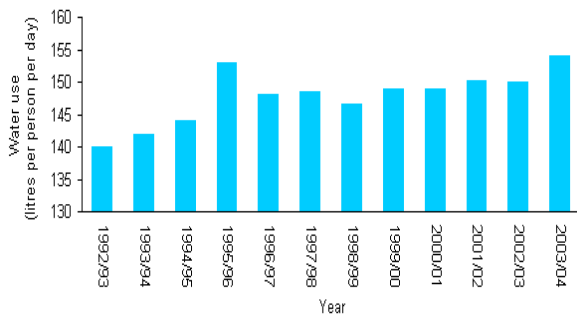


Challenges to water resource management in the south-east



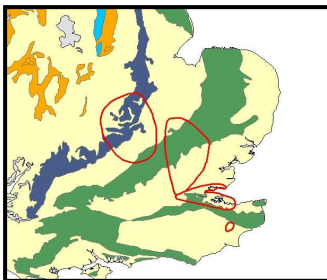
Increasing demand



Source: Office of Water Services

- Household water consumption up by 70% over the past 30 years
- Water consumption per person in households increased by 7% between 1992 and 2001 in E&W

Demographic change



- Changing population densities
- Government's Sustainable Communities Policy
- New development areas
- Rise of single occupier properties

Water quality

- Almost 50% (2450 MI/d) of groundwater for public supply affected by quality problems (deterioration & more stringent standards)
- Nitrate, pesticides, *Crypto*, arsenic and hydrocarbons/solvents effect groundwater supplies
- Over next 20 years, capital costs of the order of £2 billion possible at groundwater sources

Find out more.. www.hydra.uk.net

Land-use change



- Reform of CAP
- Environmental requirements a condition of receiving support
- Links to EU water quality legislation - beneficial in terms of diffuse pollution
- Afforestation, bio-energy crops and urbanisation issues affecting water resources

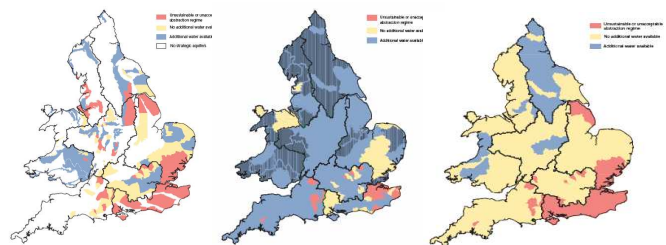
Environmental needs

- Water Framework Directive: water bodies can fail to reach 'good status' when too much water is abstracted, thereby reducing water flows and impairing ecological quality



- 26% of groundwater bodies in E&W 'probably at risk' or 'at risk' due to abstraction

Future available water



Groundwater Winter surface water Summer surface water

Source EA:2001

The challenges...

- What do we do until measures to control diffuse pollution become effective?
- Are there alternative sources?
- Do we understand our hydrological and ecological systems well enough to plan and manage properly?
- How certain are our predictions?