

# Safeguarding water supplies until 2035



For many years water companies have produced plans that detail how they should manage water supplies to ensure customers have clean, fresh drinking water on demand.

These plans for the first time are being put out for public consultation so everyone can have their say on how these resources are developed. This leaflet is a summary of Southern Water's plans to safeguard water supplies for the next 25 years from 2010-2035.

## *What is the draft water resources management plan (DWRMP)?*

The DWRMP is a document that explains the challenges Southern Water faces over the next 25 years and how the company proposes to manage them. The plan has been sent to a wide range of customers and organisations to review and it is available for everyone to read on our website [www.southernwater.co.uk](http://www.southernwater.co.uk) where you can also send your comments

about our plan to the Department for Environment, Food and Rural Affairs.

The consultation will conclude on 25 July 2008.

## *Where does Southern Water currently get its water from?*

Southern Water provides water services to two million customers and wastewater services to more than four million customers in Kent, Sussex, Hampshire and the Isle of Wight. The majority (68 per cent) of Southern Water's supply comes from groundwater, predominantly from the chalk aquifer which is widespread across the region. A further 28 per cent comes from rivers and the remaining four per cent from surface water reservoirs owned by the company.

The water we take from rivers and aquifers is regulated by the Environment Agency through a permit system to ensure there is enough water available for plants and wildlife.

Due to the predominance of groundwater sources, rainfall during autumn and winter is critical to the availability of water resources across the region. The impact of dry autumns and winters on the region's resources was highlighted during the 2004/06 drought.



*Bewl Reservoir in Kent during the drought of 2004-2006*

### *How do we make sure there is sufficient water?*

Since the mid 1990s, water companies have worked together to devise a strategy for the region. In the past this has led to the development of shared new resources, as well as being able to transfer water around the region more easily.

To ensure there is enough water we use a “twin track” planning approach. This means not only are we developing new resources but we are also reducing demand for water by reducing leakage, promoting metering and water efficiency.

Since privatisation in 1989, Southern Water has pursued this “twin track” approach. £64 million has been invested in enhancing our water resources network and £122 million has been devoted to reducing demand through water efficiency campaigns, metering and reducing leakage.

### *What are the challenges we face over the next 25 years?*

In looking forward to 2035 there is no doubt there are some major challenges facing the region. Although not all of these challenges are new to the water resource planning process,

the magnitude of the impacts arising from them is now greater.

- **Housing** – The number of new homes needing water supplies will grow significantly. The Draft South East Plan suggests that around 30,000 new houses will be built every year for the next 25 years, of which a quarter will be in the Southern Water supply areas.
- **Climate change** – The increased climate variability, as well as a pattern of warmer and drier years that would not necessarily be classified as drought years, is set within an acknowledged period of rapid and irreversible climate change.
- **Energy use** – Reducing energy use has always been a significant part of the company’s business decisions. However, the issue of climate change has focused efforts to reduce energy consumption and greenhouse gas emissions.
- **Environmental legislation** – Many of the permits we have to take water from rivers and aquifers were granted more than 40 years ago. Recently new EU and national legislation has brought these under review. This may mean in the future we are required to take less water from these existing sources.



- **Best value to our customers**

– We are committed to robust planning to ensure the security of water supplies while also protecting the environment and providing for additional households in the South East. We are also committed to protecting customers from higher than necessary bills. Therefore, it is important our solutions to the challenges are also the “least cost” solution to protect our customers.

*How do we propose to meet these challenges?*

While these are significant challenges, Southern Water has developed its Water Resources Strategy to meet them.

This includes:

- **Reducing Leakage** – Southern Water maintains its position as the best performing company for leakage levels per property among all the water and sewerage companies in the UK. We are constantly seeking new and innovative ways to drive down leakage to even lower levels.
- **Household metering** – Southern Water aims to achieve full metering of all our household customers by 2015. Metering allows a fairer charging system, helps customers to understand

their personal consumption and allows us to identify and repair ageing supply pipes and so reduce leakage rates further.

- **Water efficiency** – Southern Water recognises the importance of water efficiency and will continue to encourage our customers, through a variety of initiatives, to reduce their demand for water, both to help reduce bills and protect the environment.
- **Source improvements to groundwater** – During the drought of 2004/06 Southern Water invested around £20 million in schemes around the region to improve the water quality at some of our existing boreholes. We will continue to review our sources and treatment methods to make sure they are running as efficiently as possible.
- **Water transfer schemes** – Southern Water’s region covers a large area of the South East, from Kent across to Hampshire and the Isle of Wight. At times parts of our region may have more water available than others, so pipelines connecting the difference zones can help.

In the DWRMP the company is proposing to increase transfers of water from Hampshire across to the Isle of Wight, allowing 20 million litres to be transferred to the island everyday by 2034.

It is also recommending a scheme to transfer water during the winter from the north of Sussex to the Brighton coastal area to preserve the groundwater sources ready for the summer months.

- **Recycling wastewater** – This involves cleaning wastewater, pumping it into rivers and then abstracting it further down river to put through an additional water treatment process to get it to a standard to allow it to go into supply.  
Southern Water wants to start investigating options to use this method on the River Rother in Sussex and the River Medway in Kent.
- **New river abstraction** – The north of Sussex is an area which is known to have a deficit with the demand for water compared to the available supply during a drought. Therefore, Southern Water has already undertaken a thorough investigation



*Pipe laying in the Solent*

of options to safeguard supplies for this region.

The selected scheme is the development of a river abstraction on the River Arun, below the tidal limit. It would be capable of taking 10-15 million litres per day if required. There would also be a small bankside storage facility capable of holding 50 million litres of water.

Applications for planning permission and the permits will be made during late 2008, with a view to commissioning the works by 2013. Aquifer storage and recovery (ASR) – ASR involves pumping treated water back into an aquifer at certain times of the year, normally at great depth. The water remains in the rock as a static “bubble” of clean water which can be pumped out for supply when required.

Southern Water wants to start investigating the possibility of building

such a scheme in the Lower Greensand aquifer near Worthing in Sussex.

- **Desalination** – Desalination enables us to take water from the sea and remove the salt so it is suitable for drinking. Desalination uses a lot of energy so we have tried to use other less energy intensive methods in our plans where we can.

However, it is a readily available source of water and we want to start investigating the possibility of building such a scheme in East Sussex during 2020/35. The plant would only be used during summer peak demand periods to minimise the energy requirements.

### *Conclusion*

The challenges we face in the South East of England are significant, but there are options to solve these issues. The strategy combines measures to reduce demand as well as increase supplies. We believe that both types of solutions are required to ensure that we meet future demands in the most resilient way.

### *How should people respond to the consultation?*

We would welcome your views on our DWRMP. If you would like to respond as part of the consultation process you can download the full report from our website [www.southernwater.co.uk](http://www.southernwater.co.uk). This will detail how you can send your responses to the Department for Environment, Food and Rural Affairs, and there is also an opportunity to do this online.