

SOUTH EAST

R WATER **Resources** **Update**

Spring 2012

DROUGHT: Special Issue



Bewl Water reservoir in February





Drought leads to Temporary Use Bans and hits wildlife and habitats

Seven English water companies – six in the South East – introduced Temporary Use Bans on the use of hosepipes on April 5 as the continuing drought in large parts of the country increased fears about water supplies.

The seven companies which announced the ban on March 12 are: Thames Water, Southern Water, South East Water, Veolia Water Central, Veolia Water Southeast, Sutton and East Surrey Water and Anglian Water. However, Southern Water's ban does not include their customers in Hampshire and the Isle of Wight.

Most of South East and eastern England is now in drought as a result of two consecutive dry winters with below average rainfall. Across East Anglia, the last six months have been the driest since records began in 1921. The cumulative effect of months of below average rainfall has been enormous.

Water companies have appealed to their customers to save water and have stepped up their leakage control.

Speaking on behalf of the companies introducing bans Mike Hegarty, Sutton and East Surrey Water's Operations Director, said: "We very much regret having to impose these Temporary Use Bans but we have no choice if we are to protect the best interests of all our customers by ensuring the long-term security of their water supply. We must

be mindful of the possibility – albeit unprecedented – of a third dry winter.

"Most people will be aware that all the water companies in the South East have been warning for some time that the continuing drought was likely to lead to restrictions having to be introduced."

Spring last year was the driest in large parts of the South East since records began. Barely 1mm of rain fell in April – the lowest for any month of the year.

The Temporary Use Ban mostly affects the use of hosepipes and sprinklers by domestic customers. Most commercial

use of hosepipes remains permissible.

"But we are appealing to commercial users to please use water with extra care," said Mr Hegarty. "We are making the announcement now to ensure everyone knows about the ban before Easter and the gardening season gets fully underway."

The last time South East companies imposed a hosepipe ban was during the 2005/6 drought. "Our customers responded magnificently then," said Mr Hegarty. "Overall demand for water went down significantly, enabling us to manage our resources and not have to introduce wider measures. We are sure all of our customers will respond in a similar way this time because they will understand we are asking them to help us to help them."

While not common, droughts occur periodically and water companies must plan for them. "We have all activated our Drought Plans and are now following the phased procedure agreed with our regulators," said Mr Hegarty.

According to a recent Environment Agency report Drought Prospects for spring and summer 2012, river flows and groundwater levels are exceptionally low for the time of year. Soils are unusually dry across an area encompassing most of the country from the Dorset coast to Grimsby through to the south and east, including London.

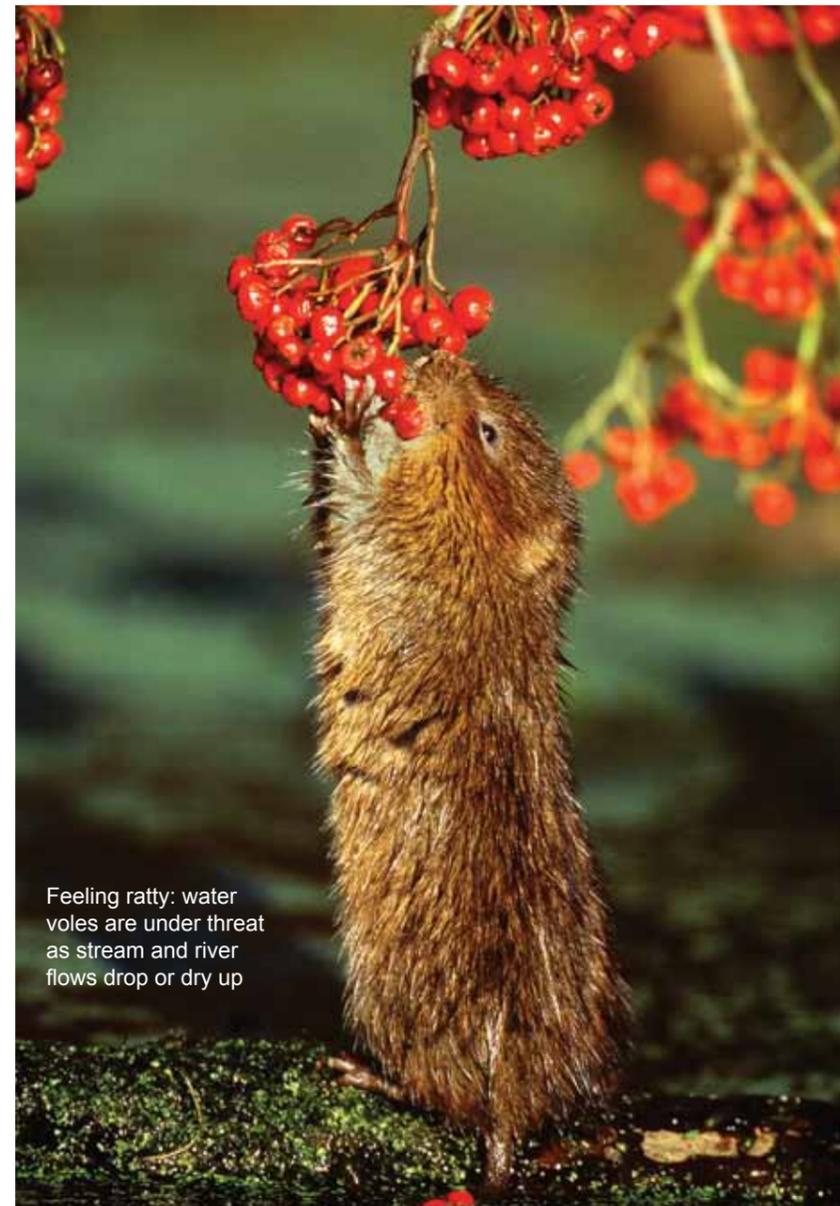
The low winter rainfall and dry soils have led to little or no groundwater recharge across the affected areas. Some streams have dried-up and low river flows and an unseasonal number of drought impacts on the environment are wide-spread. Wildlife – such as water voles – and wetland areas are threatened or stressed.

For example, the Environment Agency has had to run stream and wetland support pumps and has rescued fish. Some farmers have been unable to fill their winter storage reservoirs.

The Environment Agency and Secretary of State, Caroline Spelman, have granted drought permits and orders to Anglian Water, South East Water, Sutton and East Surrey Water and Southern Water to help



Safety net: teams of Environment Agency staff are rescuing fish from stretches of dried-up streams and rivers and releasing them in safer areas



Feeling ratty: water voles are under threat as stream and river flows drop or dry up

refill reservoirs from rivers.

Most, or a high percentage, of the water supplied by the seven companies introducing Temporary Use Bans comes from aquifers deep in the chalk or greensand, but further groundwater recharge is now unlikely. Most rainfall will be sucked up by growing plants or will evaporate as it becomes warmer. Soils will dry out further and the ground will become harder.

The scenarios the Environment Agency and water companies have

modelled show that even with above average rainfall there will still be significant drought impacts. The low groundwater levels will lead to low river flows and drying of wetlands that rely on groundwater, with widespread effects for the environment and all water users.

The Environment Agency report says: "We are anticipating a severe drought in spring and summer 2012."

The Secretary of State chaired a drought summit meeting on 20 February, at which representatives of many

sectors affected reviewed the situation and agreed actions to manage the drought. The main focus is on continuing to work together to make good use of reduced water resources this year. It was also agreed to develop contingency plans should the drought extend into 2013.

Actions already in progress, or planned, include convening a national cross-sector high level drought team, flexibility in how the Environment Agency allows farmers to fill irrigation reservoirs and maintaining water levels for the environment and for navigation.

The Environment Agency says: "We cannot predict the spring and summer weather, which will influence the severity of some of the drought impacts. A hot, dry summer would worsen effects, whilst a cool damp one would lessen them."

Key points

- The powers companies have under Temporary Use Bans were widened in recent legislation. They are not the same as 'hosepipe bans'
- A hosepipe can use as much water in an hour as a family of four uses in a day
- All seven companies have extensive advice on their websites about how to save water – including offering free water efficiency devices
- Under the terms of the Temporary Use Ban customers can still water their gardens, provided they use a watering can. And they can still clean their car, provided they use a bucket not a hose
- Hosepipes cannot be used for gardening, recreational use such as filling swimming or paddling pools or cleaning purposes unless specific exemptions are given
- Full details of the restrictions and exemptions are available on the companies' websites
- A dripping tap wastes 10,000 gallons of water in a year – the amount used by 250 people in the UK each day

How the Temporary Use Bans may affect you

The restrictions introduced by the seven water companies are Temporary Use Bans as detailed in The Water Use (Temporary Bans) Order 2010. Their scope is much wider than it used to be as a sprinkler/hosepipe ban. Currently, the companies are applying them primarily for the domestic use of hosepipes but this could change for some or all of the companies if the drought continues and the resource situation worsens. Other water companies may also introduce bans.

WHAT IS BANNED

- Watering a garden using a hosepipe
- Cleaning a private motor-vehicle using a hosepipe
- Watering plants on domestic or other non-commercial premises using a hosepipe
- Cleaning a private leisure boat using a hosepipe
- Filling or maintaining a domestic swimming or paddling pool, except by using a hand held container filled directly from a tap
- Drawing water, using a hosepipe, for domestic recreational use
- Filling or maintaining a domestic pond using a hosepipe, except where fish or other aquatic animals are being reared or kept in captivity
- Filling or maintaining an ornamental fountain, except where an ornamental fountain is in a fish pond.
- Cleaning walls, or windows, of domestic premises using a hosepipe
- Cleaning paths or patios using a hosepipe
- Cleaning other artificial outdoor surfaces using a hosepipe

What is the definition of a garden?

- A “garden” includes all of the following:
 - A park.
 - Gardens open to the public.
 - A lawn.
 - A grass verge.
 - An area of grass used for sport or recreation.
 - An allotment garden.
 - An area of an allotment used for non-commercial purposes.
 - Any other grass space

But companies have exemptions . . .

However, while the list of activities (left) are banned, the companies are prepared to sanction exemptions for a range of reasons, such as disability, health and safety or, in some cases, to protect livelihoods – particularly for small businesses.

Given that the resource situation and customer profile differs for each company, the extent of the bans and range of exemptions may also vary slightly.

For details, go to your local company's website at:

Thames Water	www.thameswater.co.uk
Southern Water	www.southernwater.co.uk
South East Water	www.southeastwater.co.uk
Sutton and East Surrey Water	www.waterplc.com
Veolia Water Central	www.veoliawater.co.uk/drought
Veolia Water Southeast	www.southeast.veoliawater.co.uk/thedrought
Anglian Water	www.anglianwater.co.uk

Portsmouth Water avoids ban – so far

Portsmouth Water has no surface water storage and is entirely dependent upon groundwater supplies. These reserves benefitted from some limited recharge following heavy rainfall in December and early January so the groundwater situation is not as severe as in other parts of the South East.

The company is closely monitoring groundwater levels and while it has asked its customers to show voluntary restraint, the first phase of its Drought planning, it has not yet decided whether restrictions will be needed this year. It depends upon the weather conditions in April and May.

A Drought Management Team is carefully monitoring the situation while encouraging customers to join the company's Saving Water Challenge. A new 'Can you shower in four minutes' campaign has been launched in the local press.

At the same time the company has increased its leakage detection activity with a target of repairing all reported leaks within three days.

www.portsmouthwater.co.uk

Support for Temporary Use Bans

Rose Timlett, freshwater manager at WWF UK, said:

“Rivers are running dry or getting too low, which can have devastating effects on wildlife such as trout, salmon and water voles. All the water we use comes from rivers and the natural environment, so anything we can do to reduce the water we take will lessen the impact on wildlife. It's so important for us all to make the most of every last drop and help our rivers through this drought.”

Mark Lloyd, chief executive of the Angling Trust, said:

“We support this decision, and we urge all water users to do everything they can to reduce their water use as well

as hanging up the hose. Most of us waste more water than we actually use, which is unacceptable at the best of times, but inexcusable in the middle of a catastrophic drought which is killing wildlife by draining rivers, lakes and wetlands dry.

“Anglers, who spend a great deal of money and volunteer time maintaining and improving their local water environments, are despairing witnesses to the impact of this drought. The Angling Trust will be pressing the Government, Environment Agency, Ofwat and the water companies to develop a long-term comprehensive strategy for water resources based on the Blueprint for Water as it seems likely

that these droughts might happen more frequently in future.”

Chris Corrigan, RSPB regional director in the Southeast, said:

“This serious and prolonged drought has already had a big impact on RSPB wetland nature reserves across the region with dry conditions threatening to impact this spring's breeding season at many sites, such as Northward Hill and Elmley Marshes in North Kent.

“While we are taking steps to use water as efficiently as possible on our reserves in the South East, in the wider countryside, prospects are bleak for wildlife that needs moist soil conditions and healthy rivers.”

WHAT IS NOT BANNED

This list is not definitive as there may be some variations in how companies are applying specific restrictions and exemptions. Check your water supplier's website (above) for details.

- Using a hosepipe in a garden or for cleaning walls or windows of domestic premises, paths or patios, a private leisure boat or an artificial outdoor surface, where such use is necessary for health and safety reasons
- Using a hosepipe in the course of a business to clean a private motor vehicle, or for cleaning walls or windows of domestic premises, paths or patios or an artificial outdoor surface, where this is done as a service to customers
- Using a hosepipe to water a garden attached to a domestic dwelling or to water plants on domestic premises by people with severe mobility problems
- Using a drip or trickle irrigation watering system fitted with a pressure reducing valve and a timer, that are not handheld and which place water by drip directly onto the soil surface or beneath the soil surface, without any surface run off or dispersion of water through the air using a jet or mist.



New partnership aims to promote water efficiency

With water resources in the South East of England under particular pressure, mainly due to a combination of high population density, high personal water consumption rates and some of the lowest average rainfall in the country, a partnership has been set up to encourage and co-ordinate long term water efficiency activities across the region.

The Partnership, under the name Water For All, aims to work with a wide range of stakeholders. The focus of the first year, which runs through to August 2012, is the development of a series of plans that will lay the

foundations for on-the-ground action in subsequent years. The Partnership will be undertaking stakeholder mapping, a review of water efficiency initiatives, communications planning, non-household water use scoping and consultation workshops.

The Partnership encourages public, private and third sector organisations already taking action on water efficiency or thinking about taking action in future to get in touch. There will be opportunities to join and support the Partnership, and at this stage expressions of interest are helpful in developing the stakeholder map and

ensuring future plans are in line with other activities in the region.

The partners are the Environment Agency South East Region, Portsmouth Water, South East Water, Southern Water, Sutton and East Surrey Water, Thames Water, Veolia Water Central, Veolia Water Southeast and Waterwise.

Steering Group Members include the Consumer Council for Water, Energy Saving Trust, Kent County Council and WWF.

For more information, please contact the Chair of the Steering Group, David Howarth at david.howarth@environment-agency.gov.uk

Environment Agency publishes Drought Prospects Report for spring and summer 2012



For South East England the last 18 months have been the driest on record since 1922.

We have experienced two winters in a row with below average rainfall, with only two thirds of average rainfall in recent months (October 2011 to February 2012).

These dry winters have a great significance for the South East where we are very dependent on groundwater (underground water that is held in soil and rocks).

Groundwater normally replenishes during the winter months and our monitoring shows that in certain areas this hasn't even started.

We published our nation-wide Drought Prospects Report in March which set out the likely impacts of drought continuing into the spring and summer. We found that even with above average rainfall over the next seven to eight months there will be significant drought impacts for people, business and the environment.

The report highlights the need for water companies and farmers, as well as businesses and consumers, to take action now to protect water supplies.

Howard Davidson, Environment Agency South East Regional Director's response to the report was to assure everyone that:

"We will continue to work with water companies to meet the challenges of a continued drought. We will be watching to make sure water companies follow their drought plans, and expect them to demonstrate they are doing everything possible to reduce water demand including

stepping up their publicity campaigns."

He went on to explain that "the Environment Agency's role is to balance the water needs of people, businesses and the environment. Using water efficiently will help to make sure we all have enough water for our homes, to produce food, products and services, and to protect our valuable natural environment and wildlife."

Getting the balance right will be the challenge as we go through the summer and into the autumn. We all have a role to play to reduce the demand for water placed on the environment by using available water resources more

efficiently. The key message - saving water is about reducing waste, not restricting essential use.

Looking to the future we are working with water companies in London and the South East as they develop a unified and practical approach to regional water resource management to secure public supply for the next 25 years. This work is also supported by Natural England, Ofwat and Consumer Council for Water.

You can read our Drought Prospects Report: www.environment-agency.gov.uk/research/library/publications/131328.aspx



Running on empty: Ardingly reservoir in November last year when it was 12 per cent full

South East companies working together

As the South East and east of England prepare for what could be a long drought, work continues on a well-established project to identify long-term measures to secure water supplies for customers of the South East water companies.

The South East is the most densely populated region of the UK, with more than 18 million people. As the current drought demonstrates, water companies in the region are facing increasing pressures in maintaining public water supplies due to continuous population growth, high demand and the impact of climate change. They must balance this by taking into account wider environmental considerations – particularly the need to protect important habitats.

Together with government departments and regulators, the companies have set up the Water Resources in the South East (WRSE) Regional Modelling Project. It aims to identify strategic options which they can consider for inclusion in long-term water resources management plans – particularly for the next 25 years. It is exploring opportunities for sharing existing and new resources while meeting environmental objectives. At the same time it is evaluating alternatives for managing demand for water – all of which are intended to minimise the costs to customers.

The Partners

The WRSE Group consists of the following organisations who are contributing to the project.

- Central Government through the Department for the Environment, Food and Rural Affairs (Defra)
- Regulators in the form of Ofwat and the Environment Agency (EA)
- Key stakeholders such as the Consumer Council for Water (CCW) and Natural England (NE)
- The principal water supply companies in the South East: Portsmouth Water, South East Water, Southern Water, Sutton and East Surrey Water, Thames Water, Veolia Water Central and Veolia Water Southeast. Other water supply licensees and key stakeholders are also invited to participate. Northumbrian Water (Essex and Suffolk), Anglian Water and Severn Trent Water have already contributed.

The Aims of the Project

The principal aims of WRSE are to:

- Engage key stakeholders in the development of the WRSE Strategy while informing regional stakeholders and the wider general public of the results of the WRSE Regional Modelling Project.
- Ensure potential new entrants to the water supply market are aware of the work being undertaken and enable access and participation in all aspects of the project as appropriate.
- Present an overview of the modelling to customers, highlighting the work being done to ensure security of supply while minimising both costs and environmental impacts. Project outputs will be explained; these being the model results and the options for a regional water resources strategy, which have been agreed by the WRSE Group.
- Demonstrate that the industry and regulators are working cooperatively and that an open and transparent approach is being taken which will identify the benefits the modelling work could deliver for water customers and the natural environment. The group's focus is on identifying the means to maintaining the security of supplies to customers in the most sustainable way possible. Through communication with stakeholders and wider groups it hopes to ensure all relevant issues are taken into account.

Principal Elements

These are the principal elements which are expected to influence the outputs of the modelling project:

- Potential options available and their costs. The water companies are providing cost estimates for both managing customer demand and proposals for new resources. Consultants are reviewing them to ensure consistency across the region.
- Potential sustainability reductions. In order to satisfy the requirements of the European Water Framework Directive, it is expected reductions will have to be made to abstraction licences to meet new environmental flow indicators. The Environment Agency has provided the project with indicative licence reductions. Costs associated with delivering these reductions will need to be identified and the potential impact on customer bills assessed.
- Potential barriers to the adoption of regional solutions. As well as highlighting the likely changes required for inter-company transfers of water, a sub-group is seeking to identify other potential obstacles to the development of strategic options. Consultants have been employed by the Environment Agency to conduct the detailed modelling work, but the base data is being provided by the water companies.



Networking: companies are creating greater resilience and the ability to transfer water within their distribution systems



to ensure there's enough water long-term

A number of sub-groups consisting of company and regulator representatives have been established to manage key activities. A Project Management Board oversees the management of the work and is responsible for its delivery. It reports to a Senior Manager's Group which is accountable for the overall WRSE project.

Key Outputs

The Project anticipates a staged approach to publication and dissemination of its work.

Stage 1: this took place in January this year (2012). A Briefing for key stakeholders was held (see panel) to explain the background for – and extent – of the work currently being undertaken. This article is also a part of that public information process.

Stage 2: expected to take place in April this year (2012) with the publication of Phase 1 of the detailed modelling. The outputs are expected to validate the regional mathematical model while at the same time providing initial guidance for further development of options for inclusion in Phase 2 modelling. A new WRSE website containing much more information and details about its work is also now "live" at <http://wrse.org.uk/>

Stage 3: due in September this year (2012). It will outline the results of the Phase 2 modelling. It is expected to provide companies with a central set of results they can consider when developing water resources management plans which they will need to publish for consultation in the spring of 2013.

Briefing held to 'launch' WRSE and explain Modelling Project

WRSE held a Briefing in January to inform key stakeholders about its existence and work to ensure the security of water supplies for the region long-term. Invitations were sent to MPs, councillors, environmental groups and others who had expressed an interest in this work.

The Briefing was well attended by more than fifty people and a lively discussion took place.

It was introduced and chaired by Howard Davidson, Regional Director of the Environment Agency and Chair of the Water Resources in the South East Group. The presentations covered the work of the group so far as follows:

What we are modelling and how we are doing it
Lee Dance, South East Water and L.Lovell, Halcrow (consulting engineers)

What are sustainable reductions and what might be their impact upon Water Resources Management Plans?
Mike Pocock, Veolia Water

Potential barriers to regional solutions
Lester Sonden, Sutton and East Surrey Water

Plans for communicating the outputs of the Modelling Project
Andy Neve, Portsmouth Water

Feedback from attendees was very positive with requests more briefings to be held. This has been 'taken on board' by the group and more are being planned to take place when further progress can be reported.

A copy of the presentation will be available on a new WRSE website which will go live at the end of this month. Visit your local water company website at the time to find the link.



Growing problem: the South East is the most densely populated and fastest growing region in the UK

How we can all save water In the home



- Put full loads only in washing machines and dishwashers
- Have a shower instead of a bath
- Fix leaks and repair dripping taps
- Use a water-saving cistern option
- Buy appliances that use less water
- Turn off the tap while brushing your teeth



Check out your local water company website (see back page) for details of free water efficiency devices or for more ideas on how to save water



In the garden



- Use a butt to collect rainwater for use in the garden
- Choose drought tolerant plants
- Let your lawn grow, it will stay greener longer
- Water at night or early in the morning to limit evaporation
- Use a watering can



Water companies plant drought resilient message at Chelsea

Four of the water companies with water restrictions have joined forces to create an inspiring Climate Calm garden at this year's Chelsea Flower Show.

The garden, sponsored by Southern Water, Thames Water, South East Water and Sutton and East Surrey Water, is being produced by award winning designer Nicholas Dexter and will reflect the cracks in the earth produced by prolonged, dry weather during droughts.

It will also demonstrate a dynamic method of irrigation with rainwater which is collected and stored in a water butt and rainwater pool. Water from the pool will irrigate

channels running through the garden – an old technique originating from Persia.

Natural hedging and trees will add structure and shade to the garden, which will otherwise be a wild haven with a minimal carbon footprint. A concept example is produced below.

The plants are based on Steppe and Prairies planting from East European plains. They are tough enough to tolerate extremes in temperatures and rainfall which may become more typical in the UK.

The prestigious flower show – which attracts around 160,000 visitors – will run from Tuesday, 22 May to Saturday 26 May.



Plants to look out for:

Structure: *Pinus mugo*, *Santolina pinnata*

Infill: *Tiarella cordifolia*

Block planting: *Achillea Taygetea*, *Geranium Kashmir White*, *laserpitium siler*

Grass matrix: *Sesleria autumnalis*, *sesleria heufferiana*

Dots plus fillers: *Dodecatheon meadia*, *iris sibirica*, *micromeria thymifolia*, *Iris sibirica*
Papillon, Veronica gitanoides

For further information you can contact your water supply company on:

Thames Water	0845 9200 888	www.thameswater.co.uk
Portsmouth Water	023 9249 9888	www.portsmouthwater.co.uk
Southern Water	0845 278 0845	www.southernwater.co.uk
South East Water	0333 000 0002	www.southeastwater.co.uk
Sutton and East Surrey Water	01737 772 000	www.waterplc.com
Veolia Water Central	01707 277 110	www.veoliawater.co.uk/drought
Veolia Water Southeast	0845 888 5888	www.veoliawater.co.uk/thedrought
Anglian Water	08457 919155	www.anglianwater.co.uk

CONSUMER COUNCIL FOR



The Consumer Council for Water, as the independent consumer watchdog in the water industry, constantly puts pressure on water companies to communicate well with their customers. This becomes even more crucial in times of drought when customers are being asked to reduce their use of water, either voluntarily or through restrictions on water use. Our customer research tells us that the vast majority (80%) of customers accept, albeit reluctantly, the need for restrictions when our supplies are under intense pressure. They are prepared to play their part as long as they see that the water companies are doing everything they can to make best use of available water supplies, control leakage and help their customers become more water efficient.

Customer research we carried out after the last drought in the South East in 2005/6 highlighted the importance of clear, consistent messages and information on what customers can and cannot do when restrictions are in place. The Consumer Council for Water has been working with the water companies to ensure that the lessons of the last drought have been learned. We will be monitoring the companies' implementation of their drought plans closely and how well they manage the developing situation. As the consumer representative, we will be paying particular attention to the advice and support they provide to their customers, both household and commercial, during this challenging time.

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+44 (0) 1372 460111