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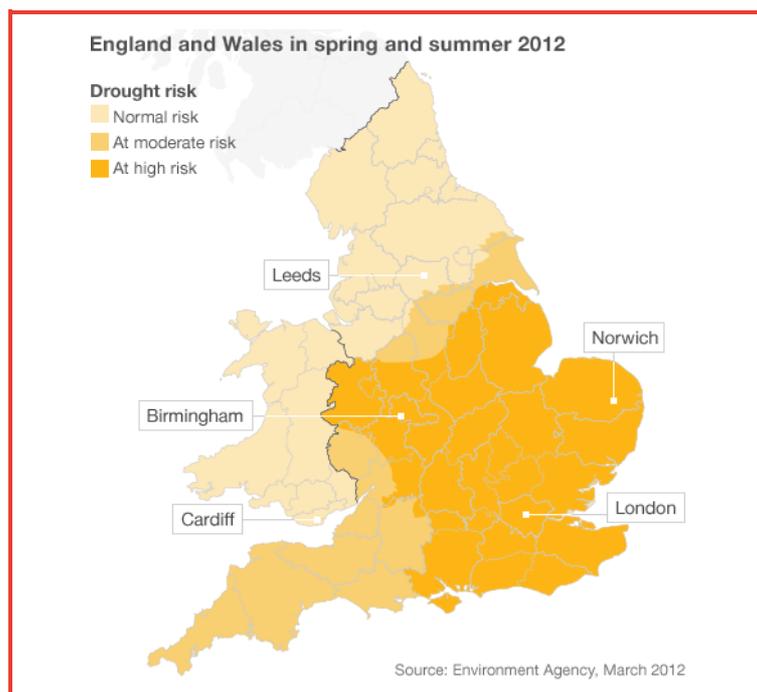
Scorched earth

COPING WITH HOSEPIPE BANS

On April 5th, seven water companies in England imposed restrictions on hosepipe use. After two exceptionally dry winters, the Environment Agency has announced drought conditions across the south and east of the country, from Southampton to Hull. These restrictions will heighten the debate on how we manage our water resources over the coming decades in the face of growing population and the impact of climate change.

Hosepipe bans are nothing new. They were imposed widely in the early 1990s, while the drought of 1975-76 led to crisis measures in many parts of the country. But in some areas this is said to have been the driest period for a century, and the imposition of a ban before summer has even begun has emphasised the seriousness of the situation this time.





The causes are not far to seek. Population has been increasing in the South East, where water resources are already considered to be scarce. At the same time, climate change scenarios suggest that winters will become significantly wetter and summers significantly drier. While the immediate cause of trouble this time has been an exceptionally dry winter, the risk of drier summers – with perhaps 20% less rainfall – threatens a “double whammy” – in hot weather, less supply of water from the heavens and more demand for it from the ground.

Abstraction reform can play an important role in determining how the available water is shared between different users: the public water supply, power stations, farmers and industry. In a previous bulletin, *Liquid Markets*, we explored the scope for reform of abstraction rights to promote trading of water rights. The experience from Australia, where years of drought prompted policy reform, showed that the creation of trading markets can mitigate the effect of water scarcity. And in a recent white paper,¹ the UK Government has committed to reducing barriers to trade in abstraction licences.

However, water companies also have to examine the ways in which scarcity affects their relationships with their customers. From the moment of the ban, households are forbidden to use hosepipes to water their gardens, wash cars and maintain water features, even where they have a meter to ensure they are charged fully for the water they use. Such restrictions cause frustration, with customers feeling they are not able to use the service they have paid for.

The lists of FAQs on affected water companies’ websites, and the defensive replies, illustrate these tensions. What’s more, they suggest that while customers do understand that water supplies depend, over time, on the weather, they do not realise the extent to which the risk of restrictions is built into the water planning

system. This frequency of restrictions is referred to as the level of service (LoS). For example, the risk of a hosepipe ban every 10 years would be a 1 in 10 LoS.

To achieve a higher LoS (i.e., less frequent hosepipe bans) a water company would have to invest more in increasing supply and building storage, and this investment cost would lead to higher customer bills. So for customers there is a trade-off between higher bills and fewer restrictions, or lower bills and more restrictions. Ofwat (the water services regulator) and the Environment Agency expect water companies to explore this trade-off with customers, so that their views affect decisions when these companies review demand and supply plans.

Without an increase in supply, the water companies' options are relatively limited:

- they can increase trading between different companies and sectors;
- they can develop water metering, water conservation incentives and even seasonal tariffs to check consumption per head; or
- they can persuade customers to accept more frequent water restrictions.

Finding the right balance between these different approaches requires companies to engage much more actively with their customers, and not just at times of crisis.

ALL IN THIS TOGETHER

To engage with customers on the level of service, water companies have used a range of traditional methods including focus groups, stakeholder workshops and so on. Customers are frequently asked to rank how important the frequency of hosepipe bans is to them, compared with other service attributes such as the quality of the water, or the frequency of service interruptions.

One of the more sophisticated methods used is the “willingness to pay” form of stated preference survey: customers are asked to make a quantitative trade-off between (higher) bills and (improved) service. For example, they are asked how much they would be prepared to pay to reduce LoS from 1 in 10 to 1 in 15.

There are, however, problems with this approach, which have been identified and categorised by the development of behavioural economics. For example:

- Customers are subject to “bounded rationality” - they are “limited by the information they have, the cognitive limitations of their minds, and the finite amount of time they have to make a decision”.²
- In particular, customers are affected by “availability bias” – in decision making they give greater weight to recent events or information. So their willingness to pay to avoid hosepipe bans is higher during and recently after a ban takes place. If customers were surveyed today in the south or east of England, the results from stated preference surveys are likely to be very different from those following a long period without hosepipe bans.

But of course it's not only the customer's "fault" if surveys yield misleading data. Customers may not be presented with the full set of options – perhaps out of a fear this would make the surveys too complicated - so that however rationally they respond, the results may not lead towards the outcomes they actually desire.

These weaknesses point to more sophisticated ways of exploring customers' preferences. Ofwat's new Customer Engagement Policy, published in August last year, states that "companies are required to take responsibility and accountability for creating effective new ways to communicate and understand customers' views and to provide innovative solutions to meet their needs".

So what would good engagement look like? The task is open-ended, but the signal is clear: companies will have to do more than conduct the odd survey or focus group. The following starting points would seem to be useful:

- Trade-offs should be communicated to a wide range of customers. People with gardens will take a different view of hosepipe bans from flat-dwellers.
- Engagement should be ongoing – to correct for "availability bias" – and should be co-ordinated with government campaigns to maximise impact.
- Close attention should be paid to trends – perceptions change over time and experience from other countries suggests that prolonged shortages change customers' views of the acceptability of both higher prices and restrictions.
- Surveys should reveal sufficient options to acquire good information, and should allow for different solutions to apply to different groups of people.

CONCLUSION

An extended hosepipe ban will inevitably lead to customer frustration, even as companies are raising their game with respect to engagement. Companies have been encouraged to take responsibility for the presentation of trade-offs between price and supply and the identification of customer preferences. While a prolonged period of water restrictions will increase demand for an improved national strategy for abstraction, storage and distribution, a more sophisticated dialogue between water companies and their customers is also needed.

NOTES

- 1 *Defra, Water for Life, December 2011, page 43.*
- 2 *Devinney, T., Pedersen, T., Tibanyi, L., (2010), The past the present and the future of international business and management*

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