



## **Lessons Learned from Summer Floods 2007**

### **Phase 2 report – Long-term issues**

### **Water UK's Review Group on Flooding**

**Executive summary, July 2008**

The Water UK Review Group on Flooding (Appendix 1) was established in the immediate aftermath of the floods of summer 2007. The review process considered from the viewpoint of the water industry what went well, what went less well, and what lessons can be learned for the inevitable next time when drinking water supplies and waste water services come under threat from extreme weather events.

The Review Group approached this task in two phases: initially reviewing the emergency response before addressing the longer term policy issues that arose.

The Phase 1 report identified measures the industry needs to take in order better to prepare for future flooding. The primary recommendations made by the Review Group in the Phase 1 report were that:

- water companies should review their emergency response and contingency plans to deal with more intense and more frequent storms.
- Water UK should use its existing emergency planning and security network to review the state of preparedness of the industry for future events; in particular the industry's Mutual Aid Scheme should be reviewed, paying particular regard to the readiness of plant and people for deployment, and the compatibility of equipment.
- water companies should be integrated into the national and local command structures for managing emergencies.

The Phase 1 report also contained a series of recommendations relating to the provision of emergency drinking water supplies and the maintenance of public health.

This Phase 2 report covers the more long-term topics that arose in analysis of the floods. The primary learning points and recommendations from this report are:

## **Climate change and the uncertainties of the weather**

- The Review Group believes that it would be beneficial for the industry to give priority now to the need to cope with intense rainfall and its consequences.
- Water companies must keep their focus on the impacts of climate change and weather forecasting, even if there is a lull before the inevitable next floods. Companies cannot work in isolation and must liaise closely with the Met Office. They need to share their knowledge, thinking and plans with the other parties who are involved in flood protection - the Environment Agency, local authorities, other utility suppliers - and with customers and customer bodies.
- Water companies need to ensure their own data are as complete and up-to-date as possible, and recorded in ways and on IT systems that are compatible with the needs of other parties.

## **Protecting water industry services from disruption from flooding**

- There are no specific standards that companies can work to that would provide guarantees to significant groups of customers that their water and waste water supplies would not fail. In our view, this needs to change. The Review Group considers that risk based standards need to be developed that set the minimum levels of protection to be afforded to vulnerable sites and groups of customers. We believe these standards should seek to define risk in terms of levels of supply interruption that ought not to be exceeded. Without such standards it will be difficult for both regulators and customers to understand how value for money in the necessary expenditures can be validated, or why there are limits to what should be done to avoid future catastrophes.

- Water companies both collectively and individually should continue to engage in dialogue with regulators to agree how best to determine investment plans for low probability, high impact events. As a minimum they should include the investment schemes that have been identified as priorities through their risk assessments in their business plan submissions. Economic regulators should accept their inclusion in the water company's investment programmes for the purpose of setting price limits.
- Water companies should be able to illustrate to regulators and the public the outputs of their risk assessments, stating for each asset whether significant groups of customers would be vulnerable in the event of a supply interruption, whether alternative options for provision of service are available and to what extent companies will be looking to invest in resilience measures or other options to reduce the risk.

### **Improving drainage and surface water management**

- Bigger pipes are not the solution to bigger storms. The water industry can build extra resilience into the sewer network at a cost but sewers and drains are not flood defences. There will be occasions when the network will not be able to deal with the volumes of water associated with extreme floods. Looking forward, new designs need to consider overland flow routes, sustainable drainage and sacrificial areas for flooding as an alternative to piped sewerage systems for the disposal of surface water.
- The water industry needs to engage with the EA and local authorities to define precisely what role the water companies are to play in managing surface water and how collaborative working is to be organised.
- Water companies should continue to promote integrated and sustainable approaches to surface water drainage. They should work to overcome the

barriers to these systems that are within their influence and help other parties to overcome theirs.

- Water companies should develop plans to improve the sewer network where this is the best option. They should prioritise activity based on cost benefit analysis and include the most urgent schemes in their business plan submissions.
- Water companies should give consideration to the development of 25 year plans for waste water management to complement those already in place for water resource management.

In writing the two reports and holding a series of workshops in spring 2008 the Water UK Review Group on Flooding has covered the main lessons to be learned by the water industry itself arising from the summer floods 2007. The water industry already has substantial work in hand to progress matters. A sustained determination is needed to bring about the improvements we have identified as necessary better to protect customers' water services from future floods.

The Review Group on Flooding itself has now completed its work. It recommends that the Water UK Flooding Implementation Group (Appendix 2), set up in response to the Phase 1 report, assumes responsibility for the implementation of recommendations and conclusions on behalf of the water industry.