

**Time to Adapt -
Climate Change and the European Water
Dimension
Vulnerability - Impacts – Adaptation
12 - 14 February 2007, Berlin**

Ladies and Gentlemen,

1. Introduction Water UK/EUREAU

Water UK is the representative body for the licensed water and wastewater operators - that's private companies in England and Wales and public sector organisations in Scotland and Northern Ireland. Water UK is also a member of EUREAU, the pan-European association of public and private drinking water and wastewater operators.

Climate change is of critical importance to the water industry everywhere. The institutional or regulatory framework makes no difference. Whether it is privately or publicly owned climate change is affecting the water industry from its source materials, to its customer base, to its disposal routes.

Companies or municipalities that do not plan to adapt will have insufficient capacity to maintain current levels of service. Everyone should understand that their water and wastewater services will become unsustainable if we don't take full account of climate change effects in our planning and investment.

The water sector is prepared to undertake its share of the work and has already started to do so. But we cannot succeed alone.

We have to appreciate that “less than 1 percent of the world’s freshwater supply is readily available for human use. Of all the water we use globally, 70 percent is for agriculture, 20 percent for industry and about 10 percent for domestic use.

In the UK each person uses about 150 litres of water each day from water company supplies. In fact this is a tiny amount compared with the amount of water that is embedded in our lifestyles, and the goods and services we consume. On this basis the average UK citizen uses over 3000 litres a day, 70% of it embedded in imports. The same would be true in other rich countries.

So at very least we must accept that water efficiency in every part of the water cycle is essential at the local and global scale.

And this means that we must all look at our lifestyles and somehow re-organise our priorities. We have a collective responsibility and we all need to take action.

2. Impacts of climate change on the water industry

Over these last two days, the conference has been focussing on the impacts on water resources – this is absolutely right.

But for the water sector, climate change means more. All aspects of water services will be affected, from infrastructure to operations to demand to finances.

- Reservoirs will be impacted in terms of operation, quantity, quality and structure.
- Pipe systems for both drinking water supply and sewerage will be more prone to cracking as climate changes lead to greater soil movement, as a consequence of wetting and drying cycles.
- Water availability will be affected by changing weather patterns and we will need to build additional infrastructure, for example winter storage capacity.
- Assets on the coast or in flood plains (that covers most of them) will be at increased risk from flooding, storm damage, coastal erosion and a rise in sea level.

- Existing sewerage systems were not designed to take climate change into account. This means that more intense rainfall is likely to exceed the capacity of parts of the network and cause local flooding.

There is more – the quality of water in the environment will be affected.

Climate change will lead to lower river flows and reduce the dilution of wastewater effluent. We may need additional treatment to meet higher standards which are likely to be achievable only by using energy- intensive processes with all that means for greenhouse gas emissions.

This highlights a shocking dilemma for the sector and policy-makers.

If we maintain or improve our high European standards there will almost certainly be a conflict with the need to reduce carbon emissions. Will we choose to maintain or improve the standard on the one hand, or reduce the emissions?

The answer is that integrated policies are absolutely essential. “Integrated policies” is easy to say but difficult to do.

When we are making water and climate change legislation we need to recognise the possible conflict between ever higher environmental standards and the impact on the climate of using more energy to meet these standards.

There is only one environment. We must have only one policy.

Have we asked ourselves about the net impact on the environment of today’s policy decisions? This is a difficult question.

But I have an even more difficult question. Would we be willing to consider reviewing past legislation for its carbon impacts?

But the difficulty is not only about legislation. Let's talk about another 'easy and enjoyable' subject – money!

- What will be the economic and financial consequences of climate change? The Stern report concluded that there is a strong economic case for action now.
- What will the effects be on investment plans in the water sector?
- What will be the effects on water charges?
- Or on general taxation?

Everyone here today is a water consumer. Are we willing to pay for mitigating the impacts of climate change and adapting to it?

My colleagues at the Environment Agency have estimated that the costs relating to storm water management alone for England and Wales could be up to £20bn.

And adaptation costs such as network improvements and reservoir development will have to be front end loaded; in other words today's customers are likely to pay for tomorrow's customers. Are we ready for this scenario?

So much for legislation and economic impacts. Let's look at some other major implications of the approach covering both adaptation and mitigation.

3. Twin-track approach – Adaptation/Mitigation

I am going to talk briefly about four: the importance of water efficiency; the importance of increasing adaptability; the need for shared responsibility; and why communication with consumers will be vital.

I have raised a lot of questions. We may have different answers to all of them but nobody can deny that if we don't get the answers for water right, the wider debate on climate change will be irrelevant!

So, what needs to be done in the water sector?

We have already initiated actions combining mitigation and adaptation – they are generally complementary.

This conference rightly focuses on adaptation. But there is a fundamental link between mitigation and adaptation. We must take our mitigation actions into account to refine our adaptation strategies. This was mentioned by our previous speaker.

Adaptation will require much more efficient use of water. Choosing the right methods and engaging and communicating is essential.

Water efficiency is not just about the end user - irrigation techniques or water saving appliances. It also means making the most of water at every stage that it is provided. This will mean looking at changes in behaviour and water use, in households, in industry, in agriculture, in food production.

Did you know that growing animal feed for the production of a single hamburger requires 2,400 litres of water? This is remarkable – especially as it doesn't include water used in processing, packaging, or transport.

Adaptation also means building the capacity to adapt.

For instance, as the science improves, we need to undertake modelling of impacts on assets and tailor future investment programmes accordingly.

One of the few certainties is that the climate is becoming more and more uncertain. Whether we think about return periods for droughts and floods, or temperatures ranges, or average rainfalls and water flows, we can no longer rely on the patterns of the past.

This uncertainty makes planning, prediction and investment extremely difficult for the water and wastewater sector. We must make the process flexible enough to respond to uncertainties and new findings and developments. But, we cannot afford to postpone

decisions, so we also need to make decisions now based on the best available information.

I said at the beginning that the water sector cannot deliver on its own. There are clear interactions with other sectors including agriculture, construction, manufacturing and process industry and health and bioscience and we must work together to succeed. A challenge for this particular conference will be to reconcile the different interests expressed in the parallel sessions which are currently taking place.

The need to share responsibility lies at the operational, policy and implementation level.

For example, we need to ensure that all significant urban communities have surface water management plans that will be implemented through partnerships with local government. Engaging regulators will always be a strategic measure in a coherent adaptation framework.

We have to ensure adequate water resources and the right economic and financial planning frameworks for the medium-to long-term. We have to prepare for potential changes in wastewater infrastructure, in agricultural practice, in the impact of new infrastructure on biodiversity and wetlands. And more generally regulation and policy must reflect the broad social implications of climate change.

Similarly, at the EU level Climate Change and water should formally be recognised as a priority including in the impact assessments of Directives.

On the widest front good communication on all aspects of the climate will be essential.

Our EU Emissions Trading Schemes are important, but will not work if we don't consider the global picture. There is an international communication need here.

And at national and regional level, it will be crucial to communicate better with consumers. Their support often seems absent from the EU process, but it will be

essential for success. This is particularly true in the case of water which is one of our most political industries.

So to sum up.

The importance of climate change in the future of Europe's water and wastewater service cannot be over stated. We are in the front line. If we don't get water right, we will not be able to get right any other sector.

The impacts are real and happening now. We must consider all the consequences for new legislation – for the implementation of existing directives. And we must do everything we can to bring all stakeholders with us including the consumers whose actions will help determine if we are to be successful in responding to this biggest of all long-term challenges.

It's not a question of winners and losers. It's a question of can we, together, come up with one, agreed, set of policies for one planet – this planet.

Ends.