**THE WORSHIPFUL COMPANY OF WATER CONSERVATORS**

**City Water Debate**
**Bakers Hall, London**
**Go with the flow: Working with nature and managing catchments**
**21 March 2024**

## Overview

The management of environmental water quality and the impact of agriculture and effluent discharges has been a subject of intense debate in recent times. The Worshipful Company of Water Conservators (WCWC) has responded by organising a programme focusing on the 'wisdom of water' in which there is a series of debates, webinars, and think pieces (one was produced last year on catchments) and responses to consultations, which are archived on its website. These provide a space for open non-confrontational debate and draw on the knowledge and experiences of its members. Previous debates have included governance and finance. The next step is this event on catchment management and nature-based solutions.

The evening was opened by Professor Martin Bigg, the Master of the WCWC and Chaired by Colin Drummond, OBE DL, Deputy Master of the Company. Our guest speakers were Bart Schoonbaert (Associate Director, Arup), the Right Hon Ruth Kelly PC (Chair, Water UK), Mark Lloyd (Chief Executive, the Rivers Trust), Richard Bramley (Chair, Environment Forum, National Farmers' Union) and Peter Simpson (Chief Executive, Anglian Water). After an extended question and answer session with members of the WCWC and guests, there were further informal discussions.

The event was held under the Chatham House Rule, so no names will be attributed to the presentations, questions or deliberations.

## Principal insights from the Debate

- Whilst progress on catchment-based management is being made, more focus and speed is now needed, based on a National Water Strategy, embracing catchment management and nature based solutions, which should always be the default option.

- Management of water resources and quality, biodiversity, flooding, landscape and land use must all be brought together more effectively. There is a need for a national template of catchment management with plenty of flexibility for the needs of each catchment. Each catchment is unique; urban catchments will be different to rural ones, but always involving local communities.

- The benefits of nature-based solutions are evident. New regulatory integrated models for environmental objectives and delivery are emerging, such as SSWAN (Sustainable Solutions for Water and Nature); launched in early March, it advocates a new partnership model for a catchment-based, holistic approach to managing our water courses, putting the emphasis on nature-based and low carbon.

- Catchments must be part of any review of Water Company licences and Ofwat Price Review processes.

- Catchment management and NBS will provide new opportunities for socially aware investment.

- New metrics are required to show progress.

- Fresh ways are needed to attract employees in catchment management and this needs innovation in skills development.

- There is a need for better communications to explain more widely what is happening.

## Presentation and discussion highlights

### Setting the scene

1 April marks the fiftieth anniversary of the formation of the ten Water Authorities serving England and Wales. This has a historic resonance as the Water Authorities were organised within river basins each with sets of catchments. While catchment management had been established before, the formation of the Water Authorities gave it more formality. Nature-based solutions (NBS) have also been around for a long time, arguably forever, have actively been used in England and Wales since the mid-2000s.

NBS schemes are most effective when they are considered from the onset, rather than an afterthought. They have a different cost profile to traditional hard-engineered approaches, often taking time to develop and having a greater emphasis on long-term operating, rather than up-front capital costs. Where NBS can do the job, consider it as a default option.

### Regulation

Environmental policy needs to be devolved so that it reflects local concerns and prioritises these. People identify with catchments while national targets can inhibit local innovation. The utilities depend on changes in land management if river water quality is to improve. Regulation needs to better configured towards outcomes, rather than outputs. Deliveries are fragmented. A balanced scorecard approach is needed. The recently launched Sustainable Solutions for Water and Nature (SSWAN) project and projects in Anglian Water were cited as examples of evolving good practice and collaboration.

As an example, the zero good chemical status of rivers is driven by factors other than sewage effluents and agriculture. None of the current investments or NBS plans will change that; new metrics are required.

Regulators need to have the authority to act differently when they need to. Some regulators feel hamstrung by statutory obligations that mitigate against the wider adoption of NBS. There is a need to showcase what can be done.

Too much of the sector is being run in a reactive manner and there is too much pressure built into the system. People need time to think and to develop trust in each other. Distrust can be a greater risk.

The concepts of flexibility envisaged in 1974 have never been allowed to flourish.

An overarching National Water Strategy is needed which would set out how catchments will work in practice

**NBS and RAB**

NBS as applied to effluent management is comparatively small scale and it does not have a significant impact on the regulatory asset base/regulatory capital value (RAB) model. More work is needed to develop the model to better support NBS. RAB is used at the expense of operating costs. Capital spending is dominating the current TOTEX system. Maintenance of assets is not encouraged by the RAB model and so it does not reflect the positive values of NBS compared with hard engineering.

Climate change is redoubling the impact of changes. NBS is far more effective in dealing with agricultural impacts than hard engineering. Storage tanks do not deliver any other benefits except periodic flood amelioration.

**Catchment-based approaches**

NBS need to be managed on an ongoing basis to work well. NBS in all its forms works well as a catchment management tool but is effective on local basis for sewage treatment, per se, and as a contribution to climate change mitigation. Catchment-based approaches need effective collaboration and farming can only be changed by consensus. Aggregate projects into packages to attract institutional investment. This will result in a massive increase in the quantity and quality of data generated. Concerns about a catchment tend to remain within that catchment. The earlier the water in the cycle is managed, the more carbon is bound into the soil. It is important to remember that each catchment is unique. Urban catchments will need different NBS tools to rural ones, such as urban green and blue spaces concepts.

One challenge with community-based solutions is that a community can export problems to other areas. This needs a workable approach. National objectives given to communities to get over the NIMBY aspects. Collaborative approaches are needed towards funding NBS, within a total value framework. De-risk specific areas through locally applicable schemes and make these projects as flexible as possible towards their local circumstances.

**Making NBS matter**

Interest in NBS remains comparatively small. Target interventions where they can make the most impact, look at local trade-offs. There is an artificial conflict between farming and nature. In reality, they depend on each other.

People tend not to appreciate how NBS can address old and emerging pollution challenges. NBS is also about its positive impacts on nature and the enjoyment of nature. Consider the indirect benefits of NBS, for example, in helping to meet biodiversity targets.

## Catchments, NBS and farming

The most fertile farmland is also often the most vulnerable to flooding. Such waters need to be integrated into the planning processes. If farmland is to be considered as a flood soak, the costs of this need to be factored in.

Changes at the farm level can take years to filter through in terms of improved water quality. Consider potential markets for net environmental gain, nutrient neutrality and carbon sequestration. Farmers can group together to work better with marginal land, looking at nutrient levels and markets for biodiversity net gains. It is also important to note that regenerative farming is moving ahead fast.

Have we properly thought through the impacts of cutting back on sludge application to land during the autumn?

The Norfolk Water Fund has scaled up local responses with the support of the Local Authority. £30 million of investment has generated £200 million in benefits, covering 26,000 Ha and lowering phosphorous emissions by 40% along with less nitrates.

Farmers have limited time to consider management options. Which funding route should they go down? There is a lack of clarity here. In a 30-year biodiversity net gain, what happens in terms of farm value in ten years' time? Neglecting the role land plays in flood management is a recent occurrence.

The food supply chain does not want to pay for improved water and environment. It blames this on consumer demand for cheap food. The late Tony Allan's observation "underpriced food for underpaid people" is as valid as ever.

## Engaging with people, engaging with communities

We need to engage better with the people who live and work in catchments. We need to develop a better syntax that enables what is being done to be better explained to, and understood, by, all the communities and media.

Avoid the extremes, listen to the middle ground.

## Engaging with people responsible for delivery

Education exists in silos. Real enthusiasm about environmental improvements tends to spread beyond silos and it can in turn get fragmented. There is a skills shortage that must be addressed. We need to get new human capacity, and so to make the business attractive to graduates.

Footnote

The Worshipful Company of Water Conservators (WCWC) is a City of London Livery Company focussed on the long-term health of our water resources and the broader environment. Our members include senior professionals from water, environmental and related industries and regulators, along with others who share our concern for water and the environment. Our experience and knowledge ranges from the complexities of environmental sciences, through the application of engineering to deliver the goals identified by those sciences, and the subsequent management of the assets created. The WCWC's purpose is *promoting a diverse and sustainable environment.* Information on its programmes and activities, and joining the Company can be found on its website (https://www.waterconservators.org/).