

THE WORSHIPFUL COMPANY OF WATER CONSERVATORS

NOTES OF THE ANNUAL CITY WATER DEBATE ‘WATER LIQUIDITY – HOW TO FINANCE THE REQUIRED INVESTMENT IN THE UK WATER SECTOR TO 2050’

BAKERS’ HALL, 22nd NOVEMBER 2023

The Worshipful Company of Water Conservators is very much aware of the wide spread concerns about the provision of water services and husbandry of the water environment. It is seeking to share the wisdom of its members and to provide open spaces for balanced but vigorous debate on these matters. Our aim is to convene serious debate on a matter of national importance (and to move beyond the sometimes very fractious and partisan approach in parts of the media).

For example, it is responding to government consultations organising webinars, and organising these City Debates in the Bakers’ Hall. The first was in March 2023 ‘Does the governance of the water sector need to change to meet the requirements of the 2020s and 2030s, and, if so, how?’ The notes of this can be found on the WCWC’s website. One of the key questions arising was just how much was improvement to services were going to cost and how this would this be funded. This was highlighted by the publication at the same time of the House of Lords Industry and Regulators Committee report ‘The affluent and the effluent: cleaning up failures in water and sewage regulation’. So, this debate is the next step in the contributions of the Company.

Around 100 Water Conservators, visiting Masters and senior figures from the water sector were treated to a wonderful debate on the required investment in the sector up to 2050 and how it is to be financed. Our key speakers were:

- Baroness Brown of Cambridge DBE (Chair - Adaptation Committee of the Climate Change Committee)
- Graham Edwards* (Founder and Director of Castle Water)
- Dominic Nash* (Equity Research - Barclays UK)
- Cathryn Ross (Interim Co-Chief Executive - Thames Water)
- Colin Skellett OBE (Chief Executive - Wessex Water)
- Tim Williams (Director - Stantec)

* Liveryman of the Water Conservators Company.

We are deeply grateful to all our speakers and to our sponsors Agilia, Arup, Castle Water, Huber Technology, Mott McDonald, Thames Water and Wessex Water, who made this debate possible.

This by invitation event, was conducted under Chatham House rules. Our speakers gave a scintillating overview of the huge issues and challenges we face as a nation and attendees were left in doubt about the seriousness of the situation. Views and insights were wide and varied, superbly articulated and respectfully but forcefully argued. Comments made after the debate were positive and reported that was exactly how we should approach such an important topic. We hope that the Water Conservators have done a service in helping to crystallise the key issues for consideration by the country as a whole.

Key Highlights

Summaries of the presentations are provided at the end of this note but key highlights of these and discussion thereafter were:

- Massive investment is going to be needed as a country up to 2050 if we are to meet our environmental and water supply targets (perhaps £600bn in total);
- Half of this is likely to be the required renewal of facilities constructed in the period after 1990 as they approach the end of their original design life; this is masked by the fact that current industry accounting conventions seriously underestimate the replacement value of the sector's assets;
- The other half is likely to be major enhancement investment driven by a range of factors including: the urgent need to address climate change effects (including hotter drier summers and larger more intense storm surges); tackling the issue of combined storm overflows (CSOs) and associated sewage discharge into rivers where the amount spent will depend on our degree of ambition (addressing the most critical CSOs vs a complete re-engineering of our sewerage system); recent population growth; and leakage reduction;
- The above is predicated on the ability or willingness of all of us as consumers to reduce per capita water consumption from 145 to a projected 110 litres per day (whereas actual per capita consumption continues to increase);
- Within that total there is likely to be scope for increased less carbon intensive 'nature-based solutions' often centred on river catchment areas (the subject of next March's debate) but these on their own will not obviate the need for significant investment;
- Government funding is limited and the water sector will have to compete with other government priorities (notably health and possibly defence); hence the water sector will be reliant on significant private investment;
- Whilst private sector funding has historically been readily available, recent disarray and uncertainty in the sector means this is no longer the case; this is aggravated by the steep rise in interest rates – the long period of cheap debt may be behind us;
- There is a need to build trust not only within the community but with investors. Investment in UK Plc is not attractive so the water sector has to stand out;

- The current structure and governance of the water sector is a construct of the 1990s; there may be ways of changing or modifying this construct to meet current and future challenges (as was highlighted in our March 2023 City Water Debate on sector governance);
- Catchment management must be the way forward;
- Much greater cooperation of regulators is needed and there is an urgent need for an overarching water strategy into which the miscellany of plans initiatives fit together.

Notes for your diaries

The next City Water Debate on 21st March 2024 will be on Catchments and Nature-Based Solutions where the keynote speaker will be Baroness Barbara Young of Old Scone. This will be held at the Bakers' Hall.

Summaries of presentations and discussions

Baroness Brown of Cambridge DBE (Chair - Adaptation Committee of the Climate Change Committee)

Even if we achieve net zero globally by 2050, the effects of climate change since the 1960s will be locked in. Temperature rises in Europe are at twice the global rate. Droughts such as seen in 2018 and 2022 will occur annually rather than once in a decade in parts of England and Wales. East England, the Midlands and the east coast will be particularly vulnerable to water scarcity.

Climate change and population growth are the two greatest challenges we face today. We have the potential to be more resilient by 2050 than today, if the right measures are taken. Currently, four reservoirs are planned in south and east England. We may need more

Interdependence matters, consider the impact of a flooded electricity sub-station on the water or sewage treatment works that depend on it. In Germany, 85-90% of trees are in bad health, due to exposure to disease, drought and flood.

There needs to be a national focus on increased connectivity between water plans. This also calls for national monitoring of a number of water measures, including water use efficiency. Regulators need to agree common resilience standards. The government needs to facilitate innovation through investing in risk. It is now time for a move from planning (quite a lot done to date) to actual implementation.

Tim Williams (Director - Stantec)

From almost a standing start, the National Infrastructure Commission suggests we need to spend £12 bn pa in 2025-30 and £8 bn pa from 2030-50.

Full water spending needs to 2050 in England and Wales could be £340-370 bn, depending on the scenario used. This includes £56 bn on sorting out combined sewer overflows (with 1,700 combined sewer overflows need to be addressed as a priority), and £12-14 bn on water resources (as well as reservoirs, perhaps nine desalination plants will be needed).

There has been too much emphasis on reducing prices charges. Business plans for PR24 look for a 50% uplift for water and 89% for sewage. A huge ask. Will this get kicked down the road? In addition, assets put in during the 1995-00 AMP will need to be upgraded, rehabilitated or replaced in time. Constant competition between asset replacement and enhancement.

Has there been too much dependence on reducing demand? The real priorities are storm, flood and drought resilience.

Graham Edwards (Founder and Director of Castle Water)

Privatisation shifted public ire about price rises from the government to the companies. Dividend payouts exacerbate this discontent. Water services seen as a public good by the public.

We may be quite wrong in our current thinking. PR14 was the nadir, when planned spending was cut back by 50%. Current cost value for replacement of assets was £224 bn in 1989 (£354 bn today) against a market capitalisation of £8 bn at the time. There is something wrong here.

We spend £90 per person annually on drinking water and £21 on bottled water, which is often of a poorer quality. Think about the difference in the price of each. This is not appreciated by the public.

Dominic Nash (Equity Research - Barclays UK)

The sector's RAB (regulated asset base) is £85 bn. Capex growth is at 1% pa and needs to grow to 6-7% pa in 2025-50.

UK Plc is in a mess, the valuations of its businesses are marked down compared with Europe. UK electricity generators trade at 20-30% below those in France and Germany. Some of this stems from the politicisation of the utilities, especially water. Yet globally, UK regulators are held in good regard. We must make the water sector outstanding as an opportunity for investment. We need to build trust not only with the public but with investors

The return on equity for WaSCs (the water utilities privatised in 1989) is 6% when at 2% inflation. There is a 1% underperformance for water, which means a nominal 5% return on equity in reality. Bad actors have caused serious damage to the sector as a whole. How do investors get their investment back? In November 2022, Ofwat assumed 4.41% real growth, 6.14% nominal, with the cost of debt at 6%, there is no scope for a return.

The Listed utilities have a thin premium to RAB: Severn Trent, 15%, United Utilities, 13% and Pennon, 5%. This means that the UK water sector has the lowest premium to RAB of water utilities worldwide. Raising £1 bn for Severn Trent was achieved at parity with RAB, yet this is

for the second-best performing UK water company. So, invest £100 in water with the hope of getting £100 back. Compound the effect of debt at 5-6%, and value is getting destroyed. Bear in mind there are no ambiguities in debt rating; it is either investment grade or default.

Private Equity companies are unhappy and therefore downgrading their perception of the UK water market. The weighted average cost of capital is concerned with both the expected return and the expected distribution of this return. Perhaps having a low return for business-as-usual work and a higher one for the more innovative and progressive work.

Cathryn Ross (Interim Co-Chief Executive - Thames Water)

Climate change and population growth are the chief challenges today. Thames Water expects to serve 2.4 million more people by 2050 on top of the 10 million they currently serve for water and 15 million for sewage. They also have seen 50% spikes in demand during droughts. Now, the hosepipe bans are not seen as acceptable. This was not the case before.

The assumption of 250-year asset lives does not work. The rate of asset replacement needs to reflect on reality that these assets deteriorate. TW needs £4 bn pa to maintain its assets and a further £2 bn pa to reverse the decline. In all, £60-100 bn in new equity will be needed by 2050. Will the public accept the £272 bn total cost of sorting out water and sewer systems by 2050?

We need long term price settlements for long term investment programmes. We need new financing model. The Thames Tideway Tunnel has been a useful experience in this regard. As dividends become harder to fund, companies become less attractive. Can we make something new with Regulated Capital Value (equivalent to Regulated Asset Base)? Growth in RCV may attract a new class of investor.

In TW, 380,000 households currently have social tariffs, which will rise to 500,000. TW is now carrying out a trial with a rising block tariff, in order to consider the potential for higher fees for heavier users to create a revenue stream to fund social tariffs.

Colin Skellett OBE (Chief Executive - Wessex Water)

Not as pessimistic as some previous speakers. 2024 is a symbolic year, being both 50 years since the Water Authorities were founded and 35 years since privatisation. Privatisation was wholly about bringing in private capital.

The dead hand of Ofwat is being felt. In PR19, Ofwat in effect stripped £6.7 billion of proposed capital spending out of the AMP. At the same time, Ofwat washed its hands of the asset stripping by Private Equity. It could have intervened to prevent this, but declined to do so. Too much focus on price cutting .

Targets are being set by lobby groups and the media. By 2030, bills will be higher, yet in terms of a % of household income (1.3% currently) yet they will be lower than in 1989, let alone 1974.

The UK is broke, so we are dependent on international finance. To attract this, there has to be some certainty regarding capital growth in the next 5-10 years. Innovation, nature-based solutions and so on tend to be cheaper than conventional approaches. Catchment management must be the way forward

There are three principles to make investment attractive are:

- Rule of law
- Regulatory independence
- Certainty

Are we following those principles?

Question and answer discussion

Ofwat has to accept the thrust of HMG's strategic guidance. The Government intervened in PR19 (2020-25) and this saw a shift away from capital spending. More regulatory coherence is needed. There is concern about the thrust of the current debate, too much anger out there. Water will be in the Manifestos for the forthcoming general election. Any targets offer the danger of an arms race in either direction.

The water sector must be seen as a national asset More focus on the 25-year Strategic Position Statements reflecting this

Can we have a joined-op regulatory strategy? Environmental and economic regulation have drifted apart. Meanwhile, we need to act now, rather than to wait for outcomes. Stick to the science. Plastics may well turn out to be a bigger concern. We need to sort out wet wipes.

There are 180,000 employed in the water sector on the UK, with perhaps 50,000 vacancies. Meanwhile, 60,000 are expected to retire in the next decade, during a time when the workload is set to rise. People are interested in the sector; active engagement is needed for effective recruitment. Apprentices are the key here. We also need to address the impact of the five-year cycles. Water utilities provide a fundamental public service and can attract young people to a career with that in mind.

Sorting out sewer overflows is a societal challenge, not just for WaSCs. 27% of sewers are owned by the WaSCs, with the rest in private hands. Yet the water utilities are responsible for sewer performance. CSOs are not the real problem facing the sector. It will be interesting to compare the assumptions behind cost estimated for England and Wales with those under the EU's revised Urban Wastewater Treatment Directive. It may be a comparison of 'apples and pears' to compare the EU and UK.

Over the past decade, the EA has consistently declared that "all will be well" when this is manifestly not the case. Ofwat was empowered to prevent PE asset stripping by setting gearing targets and so on.

1989, climate change was not mentioned in the Offering Circular and population growth was only mentioned in passing by some of the companies.

Two questions were submitted in writing subsequently which will help develop our next steps

Q1 Water companies have been set up with a responsibility for assets of water resources collection and storage, water treatment, network distribution, wastewater collection and treatment and biosolids management. Most of the focus is on pipes, tanks and pumps. Baroness Brown set out the challenges that we now face from climate change and other speakers have emphasised how sewer overflow, nutrient and flood issues should now be addressed by catchment and nature based rather than concrete based solutions. The future for managing water challenges especially in the light of climate change seems to lie in changing what happens as rainfall lands on surfaces. It is those surfaces that need to change to be more absorbing and attenuating of the rainfall and to allow and enhance natural processes to store water and maintain healthy water quality rather than pollute. In rural areas most of these surfaces are the farmed fields, in urban areas are part of the built environment. Changing these surfaces to meet the needs of the water industry means doing things on other people's property. The individuals and communities that own or manage these surfaces need to be the ones investing and taking initiative to make the changes. This will not happen without support, advice, incentives and finance. As we debate how we will finance the water sector in the future what are the panel's opinions on how the water industry will restructure as a catchment management industry and change the regulatory, project implementation and contractual frameworks to enable the required changes to other peoples; surfaces to happen and to channel finance to drive this?

Q2 How will water (or catchment) companies then coordinate with the multiple stakeholders in urban and rural areas concerned with agricultural products, ecosystems services, transport, industry and housing etc who also have interests in transformation of surfaces and the services provided. Every intervention can provide multiple benefits to multiple stakeholders and so with the right metrics and regulatory frameworks multiple funding streams could be coordinated to incentivise land and property owners to make changes to make their land to be steadily more regenerative and nature embracing providing services that are valued and paid for by others.

Dr David Lloyd Owen, Court Assistant & Dr Peter Matthews Past Master