

# How ready is the legal and governance framework in the United Kingdom to meet the challenge of climate change?



## Sectoral summary: water industry regulation

### Q1: Is climate change expressly recognised in the legal framework for water industry regulation?

The principal prism through which the water industry engages with environmental issues is through the Water Framework Directive (“WFD”). Part 5 of the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (which implements the WFD) sets out a series of environmental objectives which do not refer to climate change at all focussing instead on water quality.

In respect of water resources planning, the obligation on the Environment Agency when exercising its powers such as determining abstraction licence applications (under ss 15 and 38 of the Water Resources Act 1991) is to *‘have particular regard’* to the duty imposed on water undertakers to supply water effectively to all who require water (the so-called ‘supply duty’). Importantly though, the Secretary of State and Ofwat are obliged to consider the ‘resilience objective’ when assessing proposals by water and sewerage undertakers. The resilience objective is broadly defined to include *‘securing the long term resilience of water undertakers supply systems [...] as regards environmental pressures, population growth and changes in consumer behaviour’*. Therefore this undoubtedly requires both regulators and water undertakers to consider the effects of environmental pressures arising from climate change when considering how to supply water to the population in England and Wales.

### Q2: What are the main issues arising from climate change for the sector?

Climate change is most likely to feature as a discrete issue in water resource management where a water undertaker’s desire to extract water from, for instance, watercourses or through desalination plants may be in tension with the requirement to ensure that the supply is truly ‘resilient’ as extracting too much water from watercourses (particularly if there is a drought) may have very adverse consequences and desalination plants in particular have a heavy carbon cost. Similarly, the construction of infrastructure required to transport water

across significant distances or to treat water so it is capable of being drunk also requires significant carbon-intensive activities to occur.

Climate change also features significantly as an issue in water industry regulation as it relates to flooding. The Environment Agency is a statutory consultee for planning applications (Planning and Compulsory Purchase Act 2004 s 54) and, under s 4 of the Environment Act 1995 must seek to attain the objective of achieving sustainable development which, through statutory guidance, requires the Agency to discourage inappropriate development in areas at risk from flooding. When considering whether property is at risk from flooding the Agency uses models which take into account the possible increase in water levels arising from climate change.

### Q3: What initiatives are taking place within the sector to further the goal of achieving Net Zero and how might other sectors learn from that?

The political and public focus of the water industry in recent years has been on water quality rather than on climate change and there are few obvious examples of the sector focussing on climate change.

There have been some modest initiatives by water and sewerage undertakers to reduce their carbon emissions by encouraging consumers to use less water, by using novel wastewater treatment processes which are less energy intensive such as advanced anaerobic digestion systems and capturing methane emissions from wastewater treatment plants. There have also been some steps by water undertakers to reduce demand from their customers and to reduce leakage from their system.

More generally, there is a better understanding of the requirement to restore wetland and peat areas by water and sewerage undertakers. In addition, there have been efforts by the industry to educate landowners into the necessity to reduce nitrate run off into watercourses which deliver reductions in emissions.

#### **Q4: What initiatives are taking place within the sector to adapt to climate change and how might other sectors learn from that?**

In water resource management, water and sewerage undertakers are undoubtedly considering the resilience of their supplies many years into the future through the requirement to produce a Water Resource Management Plan and a Drought Plan every five years which covers water resource management and drought management for 25 years into the future and which is appropriately scrutinised by the regulator. This is a sensibly long-term view to take and other sectors could benefit from their requirement to look regularly into the future.

#### **Q5: Is the regime effective in light of future challenges?**

Reducing consumer demand for water and reducing leakage are crucial both to increase resilience in the system and to ensure that desalination plants or other carbon-intensive infrastructure is not required to be built. While steps have been taken in this regard, progress is limited and the statutory regime is not entirely effective.

#### **Q6: What are the top additional interventions (of any kind) that would improve the legal and governance framework in the sector?**

1. A specific requirement on OFWAT and the Environment Agency to consider climate mitigation and adaptation when carrying out their statutory functions.
2. A robust system for ensuring that sustainable urban drainage systems are implemented and enforced for all new property developments – i.e. updating and bringing into force Sch 3 to the Flood and Water Management Act 2010. This would reduce the pressure on the water industry and increase resilience to change generally.
3. A stronger regulatory system requiring water and sewerage undertakers to reduce leakage. This in turn will reduce the requirement for carbon-intensive infrastructure and carbon-intensive treatment.