

Briefing note 2

Why water services need so much investment

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www.water.org.uk

Summary

For much of the 20th century investment in water supply and sewerage, like other essential public services, was the minimum necessary to avoid service failure. In the past 30 years changing priorities about health and the environment, reflected in European Union directives, led to major improvements.

These priorities and the threat of prosecution by the European Commission led to major investment in the quality of drinking water and wastewater treatment. As a result of this investment, two thirds of UK beaches are now classed as excellent, compared with less than a third 25 years ago and wildlife returning to rivers that had been biologically dead, with otters being spotted in every region in England having been thought to be on the verge of extinction 30 years ago.

More recently, maintaining equipment and pipe networks, and ensuring that supplies continue to resilient as the climate changes and our population grows, have also become priorities – but investment in all aspects is likely to be needed for the foreseeable future.

A public service

Throughout the 20th Century, investment in this humdrum but essential work was never enough.

Water supply involves 4 main processes: collecting water from the environment (abstraction); treatment; distribution to homes and businesses; and customer services, including billing. The wastewater service uses similar processes in a different order.

Collection, distribution and treatment all use physical assets. Reservoirs, mains, sewers and treatment works are the most obvious, but companies also need pumps, vehicles, IT, remote monitoring and control systems, and other equipment.

All are essential water industry infrastructure, although the word 'infrastructure' is often used to refer only to mains and sewers (the 75% of assets that are underground and were for too long out of sight and mind).

The assets are used 24 hours a day, year in year out, and must be well maintained to stay fit for purpose. They need continuous monitoring for either repair or replacement.

But throughout the 20th century investment in this humdrum but essential work was never high enough. How did this happen?

Inadequate investment

Investment rose but by enough to do the job while keeping bnills at acceptable levels.

About Water UK

Water UK represents and works with the major water and wastewater service providers from both the private and public sectors in England, Scotland, Wales

and Northern Ireland. Our vision is of a water sector that provides customers and communities with world-class services and enhances the UK's quality of life.

For three quarters of the 20th century it is probably true to say that the country looked the other way.

As long as there were no major service failures – and no embarrassments like the ‘Great Stink’ of 1858 which led to construction of the famous London sewer network – we relied on the achievements of Victorian engineers with improvements and repairs only when necessary.

In the last quarter of the century the consequences of this neglect were beginning to be understood.

EU directives began to bite and the urgent need for better wastewater treatment and higher quality tap water was accepted. Failing to comply with directives would have meant the shame of prosecution.

Following privatisation of the water industry in England and Wales in 1989, investment was doubled, and has been maintained similar levels over the last 30 years.

The £150 billion worth of investment has resulted in major improvements:

- customers are 5 times less likely to suffer from supply interruptions, 8 times less likely to suffer from sewer flooding, and 100 times less likely to have low water pressure
- two thirds of UK beaches are now classed as excellent, compared with less than a third 25 years ago
- wildlife has returned to rivers that had been biologically dead, with otters being spotted in every region in England having been thought to be on the verge of extinction 30 years ago

Changing nature of investment

Over the last 30 years, the nature of investment in the water industry has changed.

Initially, the overriding objectives were better quality drinking water and a cleaner environment - especially cutting the pollution of rivers and beaches that was bringing shame on the UK as “the dirty man of Europe”.

There was also investment in ensuring that we have enough water to meet the country’s needs and expectations – the right supply demand balance – and in enhanced serviced levels.

New treatment works were built, and networks were enhanced to address the legacy of past underinvestment.

The replacement value of the industry’s tangible assets is well over £250 billion – a very large sum but not so surprising when you think it meets the daily water and sewerage needs of over 55 million people and hundreds of thousands of businesses.

All these assets need to be maintained so they continue to provide a reliable service well into the future – and as the investment to improve drinking water and the environment increased the industry’s asset base, spending on maintaining assets has increased too.

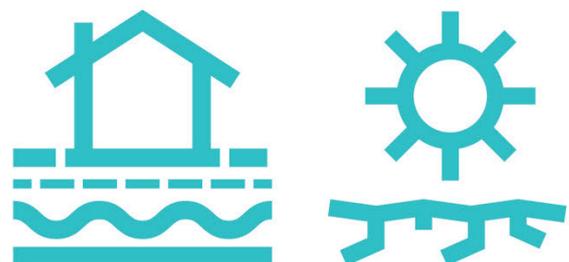
Climate change and resilience

More recently, the impacts of climate change have become more apparent and better understood.

The water industry is a long-term industry – many of the assets that are used today were built generations ago, and investment decisions made today will affect the service customers in future generations receive.

So, companies need to plan for what conditions will be like in 25 or 50 years into the future, and factor in how climate change and population growth into their investment plans.

Drier summers, wetter winters and more variable weather patterns mean that companies need to invest in ensuring that services are resilient, whatever the weather.



Investment in the future

Everyone connected with the water industry believes that the need for investment is set to continue into the future.

While priorities may change in the future, history has shown that the water industry needs sustained investment to deliver the services the country expects.

In September 2018, companies published their plans for the five years from 2020-25, with over £50 billion of investment planned for England alone. Over the next year, there will be an intense debate about the scale of investment needed and the impact on customers' bills and the economy.

Priorities in each part of the country are different, as companies base their plans on local priorities – but for all companies priorities include improving the environment, meeting the supply-demand balance and reducing leakage, capital maintenance and the impact of climate change.

Improving the environment

Much of the environmental improvements over the last 30 years have been driven by European legislation, such as the Water Framework Directive.

As the UK leaves the EU, the UK Government has made clear that high environmental standards will be maintained, and intends that this generation should leave the environment in a better state than it inherited it.

Water and sewerage companies will play an important part in delivering further improvements through their investment programmes but many other sectors, including farming, transport, construction, manufacturing (including household products) and consumers, have essential parts to.

Supply-demand balance and leakage

Water companies aim to guarantee a reliable supply through 25-year water resource

management plans. The plans are based on a twin-track approach – managing demand so that water is used efficiently, and ensuring the right level of available supply.

Companies invest in regional water grids, increasing water storage in reservoirs and many other supply side measures. To reduce demand, they work with customers and stakeholders to encourage wise use of water through meters and water efficient appliances and invest in minimising leaks. Companies' plans for the next five years, 2020-25, include an ambitious goal of cutting leakage by 16%.

Capital maintenance

Companies and regulators agree that we will have to go on investing maintain the service provided by water and sewerage networks; companies are continually improving their knowledge of the condition of pipes and plant which will help make improvement work more effective.

Find out more

More information on the water industry is available at www.working4water.org.uk.

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