



3. The natural environment is protected and improved in the way we deliver our services

What do customers want?

Customers, stakeholders and regulators expect us to improve the quality of the environment. We are delivering a programme of environmental improvements and, where possible, achieving this in a more sustainable way which can be maintained over the long term and protects resources for future generations. We aim to run and maintain assets such as wastewater treatment works, water sources and pipelines in an effective way which avoids polluting the environment. We are also looking to adapt to the effects of things that are outside our control, such as climate change and population growth, and encourage customers to make changes to their behaviour so we can reduce the amount of water we need to take from environmentally sensitive sites where water is sometimes scarce.

We have made nine performance commitments about protecting and improving the natural environment through the way we provide our services. We have achieved our target, or are on track with delivery, for seven of these in year four.

What have we done?

We have seen an increase in our pollution incidents, which is mainly linked to unpredictable weather conditions and the high number of Met Office named storms. As a result, we had 27.93 incidents per 10,000 kilometres of sewer. This performance includes only one category-1 incident and no category-2 incidents, which are considered the most serious in terms of environmental effect. Despite the negative effects of the weather, we continued to introduce a number of strategic initiatives and targeted approaches, covering topics such as:

- culture;
- systems thinking (understanding how individual parts of the water network system interact in order to identify patterns of behaviour and so predict what will happen in different circumstances);
- training; and
- maintenance;

which are all brought together in our Pollution Incident Reduction Plan (PIRP).

This year we have continued to treat and successfully recycle all of our biosolids, which is the final product from our bioresources operations (our work to treat and dispose of sewage sludge). The biosolids were used in agriculture and

for land reclamation (to restore soil quality and ecosystems). Measures have been put in place to improve training at our bioresources sites and to increase focus on sampling practices. This has resulted in us meeting our performance commitment for a third year running. We expect to maintain this performance over the rest of the AMP.

To improve air quality, we want to reduce the environmental effect of emissions from bioresources sites, where we use sewage sludge to produce energy. Work carried out in years one to four has meant we released less nitrous oxide per unit of energy produced from our facilities. Continued monitoring and maintenance of assets meant we were able to reduce the amount of nitrous oxide released per unit of energy produced to 0.96 NOx/GWh (nitrous oxide per gigawatt hour), beating our target of no more than 1.42 NOx/GWh. This year we have been able to generate more renewable energy while minimising the effect of emissions on air quality.

We have also continued with our overall improvement plan so that our water and wastewater treatment works meet the conditions of their Environment Agency permit, and have put in place individual intensive care plans for sites we consider to be at high risk of failing to meet these in the future. This year, 98.97% of treatment works met the conditions of their Environment Agency permit, against a target of 100%. This means that four treatment works (out of a total 388) did not meet all the conditions of their permit. We carried out a detailed investigation for each of the four treatment works to make sure we understand what caused them to fail, and we have put action plans in place to reduce the risk of any similar failures in the future.

Our performance commitment on protecting the environment from growth and development measures the extra capacity that we build at our wastewater treatment works to allow for the future growth in population. This year we have delivered two projects and are currently ahead of our target. We are also considering additional options to further beat our target for building extra capacity within the last year of the AMP.

7/9

measures achieved

