



Blueprint for PR14

Environmental outcomes for the price review

10 steps to sustainable water

Keep our rivers flowing and wetlands wet

Reform abstraction licensing to reduce pressure on rivers, lakes and wetlands and increase flexibility to adapt to future climate change.

Waste less water

Reduce water consumption by at least 20% through more efficient use in homes, buildings and businesses.

Price water fairly

Make household water bills reflect the amount of water people use, with higher costs for high discretionary water use.

Make polluters pay

Make those who damage the water environment bear the costs through more effective law enforcement, tougher penalties and fairer charges.

Stop pollutants contaminating our water

Introduce targeted regulations to reduce harmful pollutants in water.

Keep sewage out of homes and rivers and off beaches

Reduce discharges of sewage into urban environments and ecologically sensitive areas.

Support water-friendly farming

Support and reward farmers who deliver healthy rivers, lakes, ponds and wetlands, and provide a range of other benefits to society.

Slow, manage and clean drainage from roads and buildings

Create a modern urban drainage network that can mitigate surface water flooding and trap pollution.

Protect and restore catchments from source to sea

Protect, and restore rivers, lakes, ponds and wetlands in partnership with local communities.

Retain water on floodplains and wetlands

Restore large areas of wetland and floodplain to create and link vital wildlife habitats, improve water quality, protect soil carbon and reduce urban flooding.

Environmental outcomes for the next price review

The 2014 price review (PR14) is a welcome opportunity to engage with the bill-paying public about water and deliver much-needed environmental improvements. It also provides a chance to address some significant and uncertain challenges: climate change, changing water use and population growth. Striking the right balance between today's customers and tomorrow's, and the need for water for people, the economy and the environment, has never been more pressing.

PR14 takes place against a new backdrop. Since PR09, there have been some substantial changes in the water policy landscape, including the Water White Paper and Ofwat's Future Price Limits. There is much to be welcomed – the Government's commitment to abstraction reform and Ofwat's shift to outcome-based regulation are just two examples.

We, the Blueprint for Water coalition, have high hopes for the next round of Water Resources Management and Business Plans. Many of the barriers encountered in PR09 have been swept away and many of the water companies are developing and delivering exciting projects, which are blazing new paths in sustainable water management, and raising expectations about what is possible.

As environmental and conservation organisations, we are a voice for nature for which water is a critical and life supporting resource. In PR14, in the context of competing pressures on our water environment and on people's pockets, we need to ensure our voice is heard. We represent 8 million bill paying customers, and through our staff and volunteers, locally, regionally and nationally, will be working with water companies in the run up to PR14 to engage with the process and help deliver solutions.

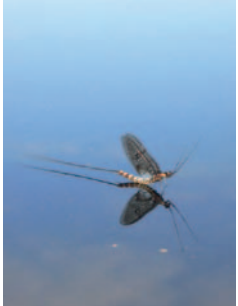
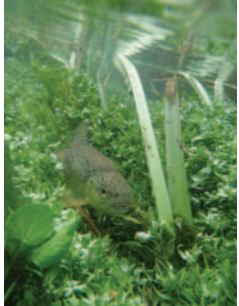


Summary of approach to setting outcomes

The Blueprint's ten targets for sustainable water are as relevant today as when they were first set back in 2006. This document focuses on those most important to the water industry. For each, we have set out the specific environmental outcomes we would like to see from the PR14 planning process, to be delivered between 2015 and 2020.

After developing an initial set of 'Blueprint for PR14' propositions, we developed a survey and spent some time in discussions with the water industry, regulators and others. We wanted to inform and sharpen our understanding, seek out exemplar initiatives and take a check of the scale of ambition across the sector. We would like to thank the 12 water companies, plus Ofwat and CC Water, for taking the time to engage with us.

Interestingly, discussions around our initial propositions ranged from the overwhelmingly supportive to the overwhelmingly negative on the same issue, showing the diversity of views across the water industry. Positions and aspirations varied quite markedly between water companies on critical matters such as the balance between customer, economic and environmental considerations. Some companies viewed themselves as stewards for the freshwater environment, while others felt that concern for environmental matters was an indulgence that should be carefully considered against affordability concerns.



All respondents expressed a clear need for tailoring of actions to local circumstances and customer priorities; the majority were against having any specific targets. We agree that specific environmental targets are not needed if there is proper accounting of environmental costs and benefits in options appraisals; abstraction charging that reflects the volume and scarcity of water; and tariffs that ensure everyone can afford their water bills (so that investment is not capped by the ability of the poorest to pay) and that those with high discretionary consumption pay the real cost of what they take. For PR14, our concern is that these things won't be in place; in this context, targets and incentives will play a critical role to make progress on key frontiers, including demand management.



Keep our rivers flowing and wetlands wet

Abstraction licence reform is needed to keep rivers flowing and manage growing water demand from population growth and climate change. The process for long term reform set out in the Water White Paper will take a decade to come into effect. In the meantime, PR14 is crucial to urgently address the legacy of unsustainable abstraction.

Outcome

All high environmental risk abstractions reduced to sustainable levels

Where the Environment Agency's Restoring Sustainable Abstraction (RSA) programme or Water Framework Directive investigations have concluded that abstraction from particular sources carries too high a risk of environmental damage, abstraction should be reduced to sustainable levels as an outcome of PR14. Solutions to replace the 'lost' resource (demand-side and supply-side) should be developed as part of a company's Water Resource Management Plan and financed through price limits. In cases of serious damage, the costs should be borne by companies, without compensation.

The companies we spoke to were overwhelmingly supportive of addressing unsustainable abstractions through price limits, subject to cost-benefit analysis. As environmental costs and benefits are difficult to quantify in monetary terms, it is important that the process is fully transparent and open to stakeholders.

Outcome

Water companies managing abstraction sensitively, in response to where and when water is scarce

At present, companies manage resources to ensure long term security of supply at least cost, within environmental permissions. But it is widely recognised that those permissions do not adequately reflect environmental costs.

Therefore, where the opportunity arises, companies should manage day-to-day operations to take less water from sources that support ecosystems in times of scarcity, even though they may be legally permitted to do so. One way to do this is the Abstraction Incentive Mechanism (AIM) – being developed by Ofwat – that uses a system of notional scarcity charges and budgets to incentivise companies to take the freshwater environment into account in their operational abstraction decisions. The Blueprint supports the AIM as an interim measure prior to abstraction reform; we want to see every company make use of the AIM in the next price review.



The Abstraction Incentive Mechanism

The Abstraction Incentive Mechanism (AIM) rewards water companies to help the environment where and when it needs it, without prejudicing security of supply. It encourages the substitution of abstraction from vulnerable sources at times of environmental need by greater abstraction from other sources and/or by more demand savings. The AIM covers the higher operating costs usually entailed, and provides an incentive premium proportional to the value of the reduced abstraction. Initial tests with Wessex Water and United Utilities have proved the validity and the attractiveness of the approach, and have revealed temporary substitution costs that are far lower than the equivalent costs of permanent licence reductions. Further tests in different situations are proceeding with Thames Water and Essex & Suffolk Water.

Waste less water

The Water White Paper devolved many decisions on metering and efficiency to companies. Much is riding on PR14 to deliver the step-change needed to reduce the level and the 'peakiness' of demand. Many companies have shown that it is possible to reduce annual average demand to less than 130 litres per person per day – in line with many European countries – and the rest should follow. If we don't act now we are storing up greater costs for the future. The needs of tomorrow's customers, as well as today's, must be considered in price setting.

We presented a number of efficiency targets to water companies, which many were not comfortable with, stressing the need for flexibility. They were right. We want to see demand reduced and it's up to companies to decide on the most effective means of achieving it (be it tackling losses in treatment, networks or in the home, or promoting water efficiency and meters to commercial or domestic customers).

Alongside demand management, we support resource efficiency including: greater integration between sources and demand centres; enhanced inter-connectivity between adjacent regions and storage to capture water when it's available (at the right scale and place).



Outcome
Water resource options consistent with the true value of water in the environment

It is essential that environmental costs and benefits are fully included in determining between supply and demand options. It's time to bring "environmental externalities" fully into the frame and to reflect the scarcity value of water. In the next round of water resources planning this should include the use of environmental shadow charges and ensuring that the same rules, rigour and point of comparison are applied to supply-side and demand-side options.

Outcome
No net increase of water into supply

In the absence of a system that recognises full environmental costs, we believe a 'water into supply' reduction target would be more effective than individual leakage or water efficiency targets. We want to see companies keeping total Water into Supply (Distribution Input) at or below 2010 levels, irrespective of growth in population. This, combined with a percentage (totex) expenditure target, would give companies greater flexibility and increase the role of demand management.



Companies changing water demand

There are great examples of projects that: raise awareness about the value of water (e.g. Thames' drought campaign, Anglian's Love Every Drop); encourage and enable water efficiency (e.g. Thames' Save Water Swindon, Severn Trent, Sutton and East Surrey and Anglian's Tap into Savings), and; provide customers with the right incentives and triggers to reduce demand (e.g. Wessex's Smart Metering Trial, Southern's Universal Metering Programme).

But with per capita consumption close to 150 litres / day, it is evident that more needs to be done to increase the scale of demand management activity across the industry. For this to happen, there needs to be a compelling business case for companies to focus resources and investment, helped along by financial mechanisms, regulatory targets and competition (e.g. Business Stream's competitive edge comes not from undercutting the unit price of water, but by providing customers with an effective service to reduce the volume of water that they need to buy).

Price water fairly

In spite of compelling evidence for water metering and charging reform, the Government has not adopted a national strategy for widespread implementation. Instead it is relying on companies to make decisions on when and how to roll out metering programmes, making PR14 essential to implementing fairer and more sustainable water charging.

The Walker Review showed that the current mixed method of water charging is socially regressive – hitting the poorer harder than the richer, with low water users subsidising their high consuming neighbours. Universal metering, coupled with intelligent tariff design, is the solution to affordability issues. It can keep the cost to average users low, whilst encouraging households with high discretionary use to reduce consumption. Social and transitional tariffs can cushion households from unaffordable rises in water bills and are a necessary enabler of large scale metering.

Around 50% of domestic households in England and Wales will be metered by 2015. Most of the companies we talked to agreed that more metering is needed but wanted discretion on the pace of implementation.



Outcome **A suite of tariffs to protect vulnerable customers and encourage water efficiency**

We want all companies to develop a basket of measured tariffs that deliver: affordable water for vulnerable, needy and socially disadvantaged households, and; high marginal prices for high discretionary consumption, to encourage users to reduce their consumption. These should be made available to customers to opt for from 2015.

Outcome **80% households with a water meter by 2020**

Based on current optant rates, it is likely that 80% of the country will be metered by 2030. This is too long to wait – we want to see household metering increased to 80% by 2020 (with priority given to water scarce areas), in order to realise the benefits identified by the Walker Review including an overall saving for customers. Water companies should evaluate the benefits of metering in a strategic way now, rather than continue to pick up the higher unit costs of opt-in metering over years to come. The new customer engagement agenda will be an opportunity for companies to develop acceptable metering programmes. We are also calling on Government to remove the legislative barriers to universal metering in the forthcoming Water Bill.



What's the plan for metering?

Our discussions revealed that views are split when it comes to metering:

- A number of companies advocated universal metering. One believed that it had the biggest effect on demand, having observed steady declines since their programme began. One company suggested that while metering may yield negligible or no additional benefit on average, savings on peak demand appeared to be 30% plus.
- Other companies suggested alternative approaches, such as a longer, phased transition to universal metering, promoting voluntary switches to metering or change of occupier. One company felt that the lack of Government mandate or strategy

on metering would significantly limit future plans. One company wanted to see further evidence of positive impact before any further metering programmes would be rolled out.

- All companies stressed the importance of working through affordability considerations. One company indicated that 60% newly metered households enjoyed reductions in water bills, with the remaining 40% experiencing an increase being those with high consumption (including those entitled to subsequent help through social tariffs). Most companies had in place variations of social and transitional tariffs to help customers move to metering.

Protect and restore catchments from source to sea

UK water companies rank amongst the best in the world for managing the quality and security of supply to customers. Poor raw water quality and water scarcity are huge risks to business. In light of this, many companies are now considering themselves as stewards of the water environment, and the focus is turning away from selling water as a commodity to providing high quality water services.

In PR14, all sewerage companies should provide menus of trade effluent charges that vary according to the nutrient and chemical loads of wastewaters received, to prompt industries to reduce loads upstream of sewage treatment works.

We believe water companies have a lead role in managing and conserving the wider environment of the water bodies within their supply areas and are well positioned to galvanise other sectors and stakeholders to protect and enhance the wider local environment. Many are already doing this.

In PR14 we expect all water companies to put forward catchment projects that aim to deliver multiple benefits for water, the wider environment and society. We hope that water companies look at the full potential offered by catchment management and consider the role it could play in not only protecting raw water quality, but in securing deployable output, reducing outage and providing capacity for waste water discharges. Other sectors will need to play their part, including Government reform of £3 billion agricultural payments which remain poorly targeted at public benefits.

Outcome
Improved water quality and quantity, enhanced biodiversity and lower bills for customers delivered through widespread catchment management

Water companies are ideally placed to deliver improvements in biodiversity, raw water quality, resources and efficiency by working in partnership to manage company landholdings and wider supply catchments. In doing so, companies can reduce costs to customers through reduced treatment costs and increase water available through increased recharge. Such action will play a critical role in delivering the Natural Environment White Paper commitments to establish more coherent and resilient ecological networks and to align measures to protect the water environment with action for biodiversity. It will also improve bathing water quality and support key England Biodiversity Strategy outcomes related to SSSI condition, habitat creation, ecosystem function and pollution management. Finally, it will encourage delivery of vital water-friendly farming.

Outcome
Water bodies impacted by company operations meeting Good Ecological Status

The water industry took the lead in PR09 in terms of implementing the Water Framework Directive. Thousands of investigations are now underway or complete. PR14 is a huge opportunity to act on their outcomes and deliver improvements. We would like to see the companies leading innovation to overcome the barriers related to technical feasibility and disproportionate cost, working with customers and stakeholders.



Sustainable Catchment Management

The hundred plus catchment management investigations and schemes delivered via PR09 and the Environment Agency's new Catchment Approach, provide a firm platform from which to ramp up catchment management delivery. Exemplary approaches we want to see rolled out across the country include South West Water's Upstream Thinking, Wessex Water's projects in Dorset and Wiltshire and United Utilities' SCaMP.

United Utilities' SCaMP was the first large-scale water company intervention in land management. Since 2005, thousands of hectares of upland habitat have been restored, livestock numbers have been cut, 85 kilometres of drainage channels have been blocked, 109 ha of bare peat has been re-vegetated and over 20 new farm buildings for overwintering, lambing or muck handling have been constructed. This huge effort has brought 98% of the SSSIs into favourable condition and an intensive monitoring programme has begun to demonstrate improvements in water quality through reductions in colour and suspended solids and through a reduced risk of cryptosporidium. However, catchment management is long-term, taking many years before the full range of benefits are realised. Patience and continuing monitoring efforts are needed.

Stop pollutants contaminating our water

Keep sewage out of homes and rivers and off beaches

Wastewater treatment plants discharge a range of damaging pollutants including phosphorous and Water Framework Directive priority substances. The true source of these pollutants lies elsewhere – with industry and domestic premises – and more needs to be done to tackle these pollutants at source. Water companies can, however, play a role in reducing the impact on our rivers and beaches.

Companies can also play a key role in influencing the behaviour of their customers. Evidence suggests that the setting of appropriate trade effluent charges can play a key role, encouraging industries to reduce chemical waste and implement recycling. We think that sewerage companies should better incentivise their industrial customers to reduce the pollutant load within their wastewater that is subsequently sent to treatment works.



Outcome Water companies must continue to tackle nutrient-rich wastewater discharged into rivers and seas

The charges for wastewaters of specified composition should include the full cost of treatment, including environmental costs. The outcome of this will be better upstream practices, more efficient treatment and better quality discharges.

In order to raise public awareness of this issue and to bring peer pressure on industry, sewerage companies should release full details of discharge content at each site and this information should be embedded in the River Basin Management Plans.

Nutrient-rich sewage effluent discharges and misconnections must continue to be tackled, particularly where receiving waters are sensitive to eutrophication or such discharges are having an adverse impact on bathing water quality. In PR14, we would like to see companies develop and implement innovative approaches to deal with effluent loads



Innovative approaches to dealing with sewage

Severn Trent Water's Balancing Carbon and Ecology scheme is piloting new ways of meeting Water Framework Directive targets using less energy. It is investigating new 'dynamic operation' of sewage treatment works in response to real time conditions of the river. For example, it is able to meet WFD targets by treating to tighter ammonia limits at low river flow and more relaxed limits at high flow, with a net saving in carbon emissions.

Europe's first facility to turn sewage into premium-grade phosphate-based fertiliser is being built at Thames Water's treatment works in Berkshire. The reactor will extract struvite, a compound containing phosphorus and turn it into premium-grade, slow-release fertiliser ideal for lawns and gardens. The new plant will yield 150 tonnes a year of high-value fertiliser and will save Thames Water up to £200,000 a year in maintenance costs and will reduce the overall discharge of phosphorous to the freshwater environment.

Slow, manage and clean drainage from roads and buildings

Keep sewage out of homes and rivers and off beaches

Intermittent wet weather discharges, including combined sewer overflows, continue to impact upon our rivers, estuaries and coastal waters. Sewer flooding is a big issue for households too, with 5,000 properties currently at risk, and water bill customers footing £1.2bn investment to protect 1,400 properties over 2015-2020.

New sewer systems are built to withstand 1 in 30 year rainfall events yet climate change suggests that extreme rainfall is increasingly likely. The pressure on current urban drainage capacity will increase, compounded by increased urbanisation and population and housing growth. To ease the pressure on sewer networks, it is important that we develop a 'twin-track' approach and invest in developing innovative ways to reduce the demands placed on sewers at source.

Sustainable drainage systems (SuDS) are an important part of the solution. With an increasing evidence base here and overseas, SuDS have been found to be a cost effective and sustainable way to prevent sewer flooding and pollution by dealing with excess surface water at source and reducing the load on combined sewerage systems.

Water companies have a pivotal role to play through both their own operations and in the development of Surface Water Management Plans. Water companies can provide leadership in enabling, facilitating and developing SuDS in both new and existing developments as well as helping deliver the multiple benefits that SuDS can provide (e.g. increased quality of receiving waters, decreased pumping costs, groundwater recharge, urban greening and biodiversity benefits).

Outcome

Raw sewage from combined sewer overflows is prevented from entering and damaging homes and the environment in wet weather

Given the climate and population pressures on the sewerage network, we would like to see companies engage customers in a planning process (akin to the 25-year Water Resource Management Plans) to develop options for addressing sewerage capacity. Schemes including SuDS should be explored and the all-in social and environmental costs considered. In PR14, we would like to see all sewerage companies: investing in SuDS and other demand-side innovation pilots and schemes; providing more information to customers about SuDS and drainage disconnection, and; agreeing service levels with customers.

Where it is cost efficient to do so, and the need is already identified, we would like to see an increase in targeted investment directed at poorly functioning sewerage systems, so that they are less likely to pollute areas of known importance for freshwater and marine wildlife.



Reducing pressure on the sewer network

Thames Water's Counters Creek trial in West London is investigating the effectiveness of retrofitted SuDS to reduce flood risk in a combined sewer catchment. Analysis so far suggests that property-level and highway SuDS could be retrofitted in and around properties to help reduce flood risk to 7,000 households. SuDS installation will begin in 2013 and the pilot will test SuDS performance in reducing peak sewer flows and the most suitable locations for installation, as well as public acceptability and alignment with local planning policy. The company hopes that results will inform PR14, allowing a wider programme of retrofit SuDS to be rolled out in the future.

About the coalition

The Blueprint coalition's 10,000 staff, 8 million members and 170,000 volunteers are ready to play their part in delivering a sustainable water environment.

The document is supported by the following organisations:



For further information and contact details visit:

www.blueprintforwater.org.uk

You can also call 020 7820 8600 or email enquiry@wcl.org.uk

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