



# Blueprint for Water

10 steps to sustainable water by 2015

The EU's Water Framework Directive says we must restore the ecology of Europe's rivers, lakes and wetlands by 2015, with each member state's plans in place by 2009.

This is a once-in-a-generation opportunity.

With the Blueprint for Water we, a coalition of leading environmental organisations representing some six million people, are calling on the Government to act now to give the water of England and Wales a future.

[www.blueprintforwater.org.uk](http://www.blueprintforwater.org.uk)



# 10 steps to sustainable water by 2015

Water is our most precious natural resource. It is vital to people's health and happiness, vital for the environment and our wildlife, and vital to our economy.

Our water environment is in crisis. Providing enough clean, safe water is becoming ever more difficult and expensive, and climate change is increasing the challenge. Our rivers and lakes are under pressure from pollution and abstraction, while most of our wetlands have been lost to drainage.

It need not be this way. The Blueprint for Water offers an alternative. An alternative where we are less wasteful of our water; where we keep our rivers flowing, clean and healthy and our wetlands wet. Where the water we use is priced fairly and those who pollute it are made to pay; where our waste is properly treated and not washed straight into waterways.

The Government has made a commitment to meet the objectives of the Water Framework Directive, which says the ecology of our waters must be restored to health by 2015. This Blueprint sets out the steps needed to meet this target.

# Blueprint for Water

10 steps to sustainable water by 2015

## **Waste less water**

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

## **Keep our rivers flowing and wetlands wet**

Amend or revoke those water abstraction licences that damage rivers, lakes and wetlands

## **Price water fairly**

Make household water bills reflect the amount of water people use

## **Make polluters pay**

Ensure that those who damage the water environment bear the costs through more effective law enforcement and tougher penalties

## **Stop pollutants contaminating our water**

Introduce targeted regulations to reduce harmful pollutants in water

## **Keep sewage out of homes and rivers and off beaches**

Upgrade the sewage system to reduce discharges of sewage into urban environments and ecologically sensitive areas

## **Support water-friendly farming**

Help farmers to prevent pollution and restore degraded soils, rivers and wetlands through advice, training and payments

## **Clean up drainage from roads and buildings**

Construct modern drainage systems that prevent pollution entering rivers from buildings and roads

## **Restore rivers from source to sea**

Regenerate rivers, lakes and wetlands in partnership with local communities

## **Retain water on floodplains and wetlands**

Restore large areas of wetland and floodplain to create vital wildlife habitats, improve water quality and quantity, and reduce urban flooding

# Waste less water

Every year we use more and more water in our homes. Today, each person uses on average 150-180 litres per day, with much of that wasted. Climate change is likely to result in drier summers and, if we don't start wasting less, there may not be enough water for us or for our environment.

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

- By 2007, the Department for Environment, Food and Rural Affairs (Defra) and the Department for Communities and Local Government (DCLG) must introduce a mandatory Code for Sustainable Homes, with a target maximum use of 125 litres of water per person per day in most areas, and 100 litres per person per day where water is scarce.
- By 2008, Ofwat should introduce tougher leakage targets to reflect environmental impacts and public concern.
- By 2008, Defra and DCLG should introduce mandatory high standards for water efficiency in existing homes and buildings.
- In the 2009 price review, Ofwat must approve water company investment in fitting water-efficient devices and appliances into existing homes, and in conducting free water audits for businesses.
- By 2012, all new housing in areas where water is scarce should be 'water neutral'. Developers will have to ensure water use in new housing is offset by efficiencies elsewhere.

Individual water use  
has increased by  
more than **30%** since 1970



## Small steps go a long way Install water efficient devices in every home

In England, we have become careless in our use of a scarce resource. If we followed the example of Germany, where water use has been reduced by a fifth to 125 litres per person per day, wildlife and people would not be facing water shortages. There are many cheap and effective ways to reduce the amount of water that we waste. By installing low-flush toilets, and water efficient taps and showers in our homes, we could reduce household water consumption by up to 40%.

# Keep our rivers flowing and wetlands wet

We remove billions of litres of water from our environment every day to use in homes, industry and agriculture, and our land is drying out. If we don't slow down this rate of abstraction, many of England's and Wales's most precious rivers and wetlands will continue to suffer.

## Amend or revoke those water abstraction licences that damage rivers, lakes and wetlands

- By 2008, the Environment Agency should introduce a better way of determining how much water is needed to protect freshwater species and habitats.
- In the 2009 price review, Ofwat should approve water companies to end damaging abstractions and meet any resulting loss in supply through increased efficiency and the development of alternatives.
- By 2010, the Environment Agency must amend or revoke abstraction licences that threaten nationally and internationally important wildlife sites.
- By 2015, the Environment Agency must amend or revoke abstraction licences that damage the ecology of all other rivers, still waters and wetlands.

**500** rivers, lakes and wetlands in England are **AT RISK** of damage from excessive water withdrawals



## Where has our river gone?

Over-abstraction dries out Hertfordshire's River Mimram

The River Mimram is a chalk stream that joins the River Lea at Hertford. Because so much of its water is taken for use in homes, a full 14km of the river suffers from low flows, and long stretches dry out completely.

The Mimram is just one example of the rivers, streams and wetlands that now dry out or suffer chronic damage under pressure from over-abstraction. We are devastating the internationally important spring-fed rivers of England, including the Rivers Stour, Wey, Itchen, Avon, Piddle, Tarrant, Bourne, Kennet and Darrent, and as demand for water rises and the impacts of climate change are felt, the situation can only get worse.

# Price water fairly

Over 70% of households in England are charged for water regardless of how much they use. This system cannot deter waste or reward people for using water wisely.

## Make household water bills reflect the amount of water people use

- By 2008, Defra should publish a plan for installing a water meter in every home, accompanied by tariff schemes that protect vulnerable customers and deter waste.
- By 2015, all homes in areas where water is scarce should be fitted with a water meter.
- By 2020, every home in England should have a water meter.

The **UK** is one of the last  
European countries without universal  
**water metering**



## Saving more, paying fairly

### Water meters in every home

Many of us have no concept of how much water we use. Most people don't realise that each day we waste most of the expensively purified drinking water that comes into our homes. We drink only a fraction, with the rest being flushed down the toilet or the plughole. Many of our European neighbours find it incredible that water meters are not standard in our homes. By installing water meters, we can introduce tariff schemes that protect vulnerable customers while penalising waste. Introducing full metering and intelligent tariff schemes to southern England could halve the deficit between supply and demand predicted by 2030.

# Make polluters pay

Much of the pollution of our water goes undetected and those responsible often get away with it. Even when we know who they are, polluters typically pay for only a fraction of the damage they cause.

## Ensure that those who damage the water environment bear the costs through more effective law enforcement and tougher penalties

- By 2007, Defra and the Department for Constitutional Affairs (DCA) must publish new guidance for Magistrates and Crown Courts for significant increases in the fines for pollution incidents, such that they reflect the damage caused.
- By 2008, Defra and DCA must amend both the Water Resources Act 1991 and the Salmon and Freshwater Fisheries Act 1975 to remove the statutory limit on fines and require fines to take account of the damage caused.
- By 2008, Defra and its agencies should significantly increase investment in the monitoring and enforcement of existing pollution laws, including cross-compliance requirements for EU farm payments.
- By 2009, the Environment Agency and Ofwat must ensure that the charges paid for water abstraction and industrial waste discharge reflect the financial and environmental costs.
- By 2012, the Government should introduce a levy on damaging agricultural chemicals and use the funds raised to help farmers reduce water pollution.

The source of over  
**40%**  
of recorded pollution incidents  
is **NEVER** identified



## Polluting our rivers

But let off with a slap on the wrist

In July 2004, a farmer spread pig slurry on a field during wet weather, contrary to all guidance on the management of farm waste. The rain washed the slurry straight into two waterways, the Caldon Canal and a tributary of Staffordshire's River Churnet, killing over 10,000 fish, including roach, perch, pike and carp. The Environment Agency classified the pollution as a Category 1 incident and had to pay for remedial action. The farmer's penalty? A 'Formal Caution'. No prosecution and no fine. It was left to the Anglers' Conservation Association, a not-for-profit organisation, to bring legal action and successfully recover £15,000 from the polluter on behalf of the affected angling club. The money is being used by the local community to restore the river.



# Stop pollutants contaminating our water

Our groundwater and rivers are being polluted by contaminants from industry, agriculture and homes, and current regulation is not doing enough to prevent it. As a result, the costs of treating water are increasing and some sources of drinking water can no longer be used.

## Introduce targeted regulations to reduce harmful pollutants in water

- By 2007, the Veterinary Medicines Directorate and the Environment Agency, in partnership with the sheep industry, fisheries and conservation organisations, must publish a timetable for the withdrawal of all sheep dips.
- By 2009, Defra should ban the use of phosphates in detergents, soaps and shampoos.
- By 2012, Defra must introduce a single programme of regulations covering agricultural nutrients, pesticides and soil erosion.
- By 2012, the Government must introduce a package of measures to address the damaging effects of endocrine disruptors on fish.

As a result of environmental damage,  
over **70%** of our rivers  
are failing to support a sustainable  
population of **SALMON**



An example of algal bloom at Stourhead, Wiltshire

## Would you swim in this?

### Algal scum on polluted water

Toxic algal blooms are caused when pollution by agricultural fertilisers or sewage stimulates excessive algal growth. For example, two lakes on the River Tamar that supply drinking water to Cornwall have experienced huge algal blooms in recent years as a result of pollution from local farms. This has led to a massive increase in the cost of treating water, both from the lakes themselves and from the downstream river. At their worst, the algal blooms have also made the lakes unsafe for recreational use. Even when the source of pollutant is removed, the pollutant itself remains trapped in the silt, so such lakes can take decades to restore.

# Keep sewage out of homes and rivers and off beaches

Most of our sewers were built in Victorian times, for a population less than half what it is today. As a result of significant investment we have made huge progress in modernising this ageing infrastructure, but problems still remain. Whenever we experience heavy rainfall, sewers struggle to cope and raw sewage overflows, entering homes and polluting rivers and beaches.

## Upgrade the sewage system to reduce discharges of sewage into urban environments and ecologically sensitive areas

- By 2008, the Environment Agency must review and replace all 'deemed' consents given to water companies around the time of privatisation or earlier that allow them to discharge sewage into the environment without penalty.
- In the 2009 price review, Ofwat must approve an investment programme to tackle the remaining intermittent sewage discharges that cause environmental damage, health risks and sewage flooding to homes.
- In the 2009 price review, Ofwat should approve significant investment in sustainable alternatives to traditional high-energy and high-cost sewage treatment methods.
- By 2009, Defra should remove the automatic right of connection of new developments to existing public sewers.

In August 2004, **600,000** tonnes  
of raw sewage overflowed  
into the River Thames  
KILLING **10,000** fish



## A squandered resource

London still uses its river as a sewer

London's Victorian sewers discharge 18 million gallons of raw sewage and urban run-off into the Thames every year. This outdated system that combines drains and sewers can no longer cope with sustained heavy rain. Storm water washes sewage into the river between 50 and 60 times a year, carrying waste from the city's toilets, kitchens and roads through overflows along the Embankment. As a result, oxygen levels in the water drop catastrophically in summer, killing thousands of fish and other aquatic life. More storms due to climate change will only increase the strain on this system.

# Support water-friendly farming

Agriculture is responsible for significant water pollution and damage to the physical condition of soil, rivers and wetlands. Many rivers and groundwaters are now polluted with high levels of agricultural fertilisers and pesticides. However, changes in the huge financial support to farming could protect rural economies while reducing this damage to water.

## Help farmers to prevent pollution and restore degraded soils, rivers and wetlands through advice, training and payments

- By 2007, Defra should commit to funding a sustained national programme of support, training and advice for farmers, building on the Catchment Sensitive Farming Programme.
- By 2007, Defra must extend the 'Nitrates Directive' action plan to the whole of England.
- By 2008, Defra and the Treasury must fully fund the Environmental Stewardship Scheme to reward farmers for improving water and soil quality at a catchment scale, without compromising existing biodiversity objectives.
- The Common Agricultural Policy (CAP) must be reformed at the earliest opportunity to replace current farm subsidies with a single rural fund that pays for public benefits from land management, including better water quality, more wildlife and sustainable rural economies.

More than 50% of public water  
requires treatment to control  
**POLLUTION** from agriculture  
at an annual cost of over  
**£200million**



## Water and the landscape

Clean water depends on good land management

Waters such as Bassenthwaite Lake in the Lake District, one of Europe's top wildlife sites, suffer from pollution. This includes fine sediments from soil erosion, both from the high fells as a result of intensive grazing and on lower ground from slurry and silage. A Catchment Adviser is helping farmers to reduce pollution through one-to-one advice, training sessions to share best practice and grants to reward good environmental stewardship. This is a critical part of an ambitious 20-year partnership programme to restore Bassenthwaite Lake involving the National Trust, the Environment Agency, Natural England, the Lake District National Park Authority, the Forestry Commission and United Utilities.

# Clean up drainage from roads and buildings

During heavy rainfall, water pouring off roofs and roads washes pollution from our towns straight into natural waterways. There are cheap and effective measures to hold this water back, reduce flood risk, and treat it before it contaminates rivers and wetlands.

## Construct modern drainage systems that prevent pollution entering rivers from buildings and roads

- By 2007, DCLG must reform Planning Guidance and Building Regulations to make Sustainable Urban Drainage Systems (SUDS) the standard method of disposing of surface water.
- By 2009, DCLG and Defra must decide who is legally responsible for the construction and maintenance of SUDS.
- In the 2009 price review, Ofwat should encourage water companies to provide grants and educational material to help remove sources of diffuse urban pollutants like heavy metals, solvents and fats.
- By 2012, local authorities, the Highways Agency and water companies should launch a major programme installing SUDS in built-up areas where surface run-off causes pollution.

Due to improper connections,  
the waste water from  
**1.3 million** properties  
(an estimated 5% of houses and 20% of industrial properties)  
goes **STRAIGHT INTO RIVERS**  
rather than the sewage system.



## A cleaner future for drainage Green filters that clean our cities' water

Too often, we pour fats, solvents, oils, paints and garden chemicals down the drain and close our eyes to the problems they cause. Where drains are badly connected and when there is heavy rain, this polluted run-off flows untreated into waterways.

Sustainable Urban Drainage Systems (SUDS) are a simple and effective way of removing pollution from drains and roads, which can also provide valuable urban green spaces and reduce the risks of flooding. They include porous surfaces, constructed wetlands or ponds, and grass filter strips – and don't need high levels of energy to work.

# Restore rivers from source to sea

We have critically damaged our watery landscapes. We have straightened, dammed and constrained rivers within flood defences; destroyed lakes, back channels, wetlands, river banks and floodplains; and over-grazed, drained and damaged our uplands with plantations of non-native conifers.

## Regenerate rivers, lakes and wetlands in partnership with local communities

- By 2007, Defra and its agencies and local authorities must require forestry to comply with the Forestry Commission's Forests & Water Guidelines.
- By 2008, Defra must give the Environment Agency the power to restore river and floodplain morphology, including river banks, channels and wetlands.
- By 2009, the Environment Agency should establish a well-resourced 'Catchment Restoration Fund' in each River Basin District, financed from pollution fines and public funds, to support public agencies and non-governmental organisations to restore river catchments.
- By 2009, the Environment Agency must approve a comprehensive programme of work in each River Basin District to restore natural riverbanks, floodplains, backwater channels, buffer strips, native woodlands, local wildlife sites and wetlands, and to ease barriers to migratory fish.

**85%** of lowland rivers in England have been **DAMAGED** through dredging and canalisation, and the building of weirs and embankments



## Restoring Eden

Reversing the damage: Cumbria's success story

Cumbria's River Eden is an excellent example of how by working together, we can restore our waterways for everyone's benefit. Like many of England's rivers, the Eden has suffered from upland drainage, bankside destruction by farm animals, agricultural run-off and urban pollution.

In 1999 a £415,000 civil claim was settled, after seven miles of the river was polluted with agricultural chemicals. English Nature and the Eden Rivers Trust worked together with local farmers to restore the river, including promoting less polluting farming methods, easing barriers to migratory fish such as salmon, and restoring 90km of riverbank. The River Eden is now on the road to recovery and is drawing tourists and visitors from around the UK.

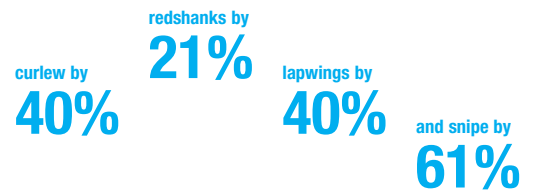
# Retain water on floodplains and wetlands

Wetlands are the engines of the water world – filtering water, sustaining flows, reducing flood risk, and providing important wildlife habitats. England was once rich in wetlands, but we have drained and pumped them dry. In the past 100 years, we have lost more than 90% of lowland raised bogs, and 75% of our ponds and floodplain grasslands.

## Restore large areas of wetland and floodplains to create vital wildlife habitats, improve water quality and quantity, and reduce urban flooding

- By 2007, local planning authorities should no longer be able automatically to approve major development in floodplains.
- By 2008, Defra must authorise the Environment Agency to intervene where local authorities and Internal Drainage Boards fail to meet their statutory obligations to wetland habitats.
- In the 2009 price review, Ofwat should approve water company investment in upland wetland restoration to enhance biodiversity and protect raw water quality.
- By 2010 Defra and DCLG must stop supporting uneconomic drainage and defence of agricultural land.
- By 2012, the Environment Agency should begin a national programme of large-scale floodplain restoration to enhance biodiversity and reduce flood risk.

Between 1982 and 2002, bird numbers in England's and Wales's floodplain wet grasslands have declined:



## Otmoor – restoring a floodplain?

An oasis for wildlife

By the 1990s drainage and arable cultivation had destroyed much of the old fenland at Otmoor in Oxfordshire. In 1998, the RSPB, in partnership with the Environment Agency, began to restore the site to wetland. 275 hectares of former arable land are now managed as grazing marsh, traditional grazing has been re-introduced, and nearly 50km of ditches have been improved or created. This has increased breeding wading birds threefold, and there are now ten times as many wintering ducks. Scarce wetland invertebrates including hairy dragonflies, Roesel's bush crickets and black hairstreak butterflies have also colonised the site. It is hoped that in the future if the polluted River Ray which flows past the site is cleaned up, it can once again be reconnected to these restored floodplain wetlands.

# Further information

For further information and contact details visit:

[www.blueprintforwater.org.uk](http://www.blueprintforwater.org.uk)

For further information on the coalition members visit:

<b>The Anglers' Conservation Association</b>	<a href="http://www.a-c-a.org">www.a-c-a.org</a>
<b>The Association of Rivers Trusts</b>	<a href="http://www.associationofrivertrusts.org.uk">www.associationofrivertrusts.org.uk</a>
<b>The National Trust</b>	<a href="http://www.nationaltrust.org.uk">www.nationaltrust.org.uk</a>
<b>RSPB</b>	<a href="http://www.rspb.org.uk">www.rspb.org.uk</a>
<b>The Salmon and Trout Association</b>	<a href="http://www.salmon-trout.org">www.salmon-trout.org</a>
<b>Waterwise</b>	<a href="http://www.waterwise.org.uk">www.waterwise.org.uk</a>
<b>The Wildlife Trusts</b>	<a href="http://www.wildlifetrusts.org">www.wildlifetrusts.org</a>
<b>WWF</b>	<a href="http://www.wwf.org.uk">www.wwf.org.uk</a>
<b>The Wildfowl &amp; Wetlands Trust</b>	<a href="http://www.wwt.org.uk">www.wwt.org.uk</a>

**FACT** – the Fisheries and Angling Conservation Trust – can be contacted on 01794 884736



November 2006

Design and production: Mark Noad Design  
Printed by Mayfield Press using vegetable based inks  
on Revive Silk 75% recycled paper,  
bleached using an Elemental Chlorine Free (ECF) process.

Photography:  
NTPL/Joe Cornish – p17  
Simon Ford – p13  
Chris Gomersall (rspb-images.com) – back cover (lower)  
Andy Hay (rspb-images.com) – front cover (upper), p23  
Caroline Irby – p3 (lower), back cover (upper)  
Ernie Janes (rspb-images.com) – p25 (upper)  
City of Malmö ([www.malmo.se/sustainablecity](http://www.malmo.se/sustainablecity)) – p19  
Jiri Rezac/WWF – p7, p11, p15

