AGRICULTURE IN OUR REGION

"FARMERS NEED TO USE PESTICIDES AND FERTILISERS TO PRODUCE OUR FOOD. FARMERS ARE KEEN TO ENSURE THEY USE THE MINIMUM NECESSARY – FOR BOTH ENVIRONMENTAL AND FINANCIAL REASONS. THE NFU IS PROACTIVELY INVOLVED WITH WATER COMPANIES IN CATCHMENT PARTNERSHIPS AROUND THE COUNTRY TO ADDRESS THESE ISSUES AT SOURCE."

Rob Wise, National Farmers Union

Agriculture is one of the region's key industries, with farm sales exceeding £3 billion. Our region is the breadbasket of the country and produces more than two thirds of England's sugar beet crop and a third of its potato crop. It's also a major producer of cereals, fruits, vegetables, eggs, pigs and poultry. Over three quarters of the region's land area is used in agriculture.

This brings massive benefits for the region but also challenges for the environment and water quality. For example, the fertilisers, herbicides and pesticides used in agriculture can find their way into watercourses, typically after rainfall or by seeping through the soil into groundwater.

We know farmers are some of the biggest advocates of sustainability and we believe we have a shared responsibility to ensure raw water quality in our region is maximised. By working in partnership with landowners to promote best practices such as sustainable pesticide use, the prevention of soil erosion and managing the catchment in a more sustainable way, we can maintain a profitable agricultural industry and deliver environmental and legal requirements for water quality.

HOW CAN WE MANAGE NITRATE AND PHOSPHOROUS?

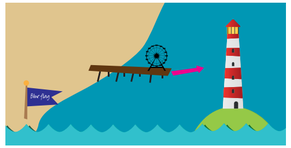
Nitrate and Phosphorous are essential components of fertilisers needed for growing crops. We recognise farmers need to run a profitable business and without fertilisers sustainable food production would not be possible. But there are big gains to be had for water quality by reducing the amount of these nutrients leaching through soil into groundwater. We want to encourage and support more farmers to test their soil so that they only apply what the soil really needs.

COASTAL

As a region, we have one of the longest stretches of coastline. Our 48 bathing waters are some of the cleanest in the UK and have met European requirements since records began. We've achieved this through a long term commitment to the coast, and more than £300 million investment in our coastal network, while working closely with others, including councils, the Environment Agency, landowners, businesses and homeowners.

We've developed sophisticated technology and marine models to understand the factors affecting bathing waters in our region, investing over £2 million to develop our state-of-the-art system, called BeachAware. This allows us to inform beach owners when coastal assets have operated and suggest whether water quality could have been affected. We are one of the first water companies to provide this kind of service and have a similar system to notify shellfish harvesters too.

Many different factors can impact water quality at the beach, such as misconnected private drains, run-off from highways and farmland, even dog and wild animal fouling. Our newly appointed Coastal Catchment Managers are working closely with councils, coastal communities and businesses to investigate and address issues of third party or diffuse pollution which can make all the difference to bathing water quality.



WHY DO WE NEED COLLABORATION?

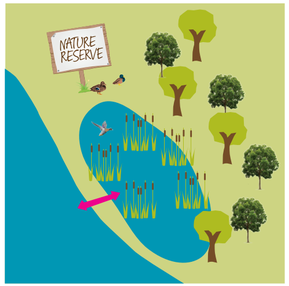
Everyone influences the quality of our catchment and water, whether that's through their behaviour at home, management of their land or operating their business. To truly make a difference, cooperation between local and national agencies, NGOs, scientists, businesses and communities is essential.

FACT
The criteria for coastal waters is getting tougher with new guidelines being brought in from 2015. It's imperative that we all play our part in controlling coastal pollution if we are to protect the beaches and estuaries in our region.

BIODIVERSITY

Our watercourses and catchments are home to a huge range of important wildlife, which will benefit from a sustainable catchment management approach.

Getting people and organisations involved in their local watercourse is key to improving water quality and achieving added benefits like removing non-native species or improving wildlife habitats.



WHAT'S ANGLIAN WATER DOING?

We're a long-term supporter of the Lincolnshire Chalk Streams Project and Water for Wildlife which funds Wildlife Trusts across our region to conserve rare species such as the water vole; provide advice to landowners; work with them to restore important river features and engage with local communities.

Also, in partnership with Keep Britain Tidy, we run RiverCare and BeachCare initiatives to help volunteers preserve the excellent standards of our region's waterways and coastline. There are now more than 40 RiverCare groups who've given 22,000 volunteer hours clearing litter from rivers, removing invasive plants and graffiti, and reducing anti-social behaviour.

To find out how our coastal and catchment management work is progressing, go to **www.anglianwater.co.uk/catchmentmanagement** or if you want to know more about Love Every Drop visit **www.anglianwater.co.uk/loveeverydrop**

More information about our partnership work with the Rivers Trust and local groups in the Cam and Ely Ouse catchment is available at **www.cameopartnership.org**

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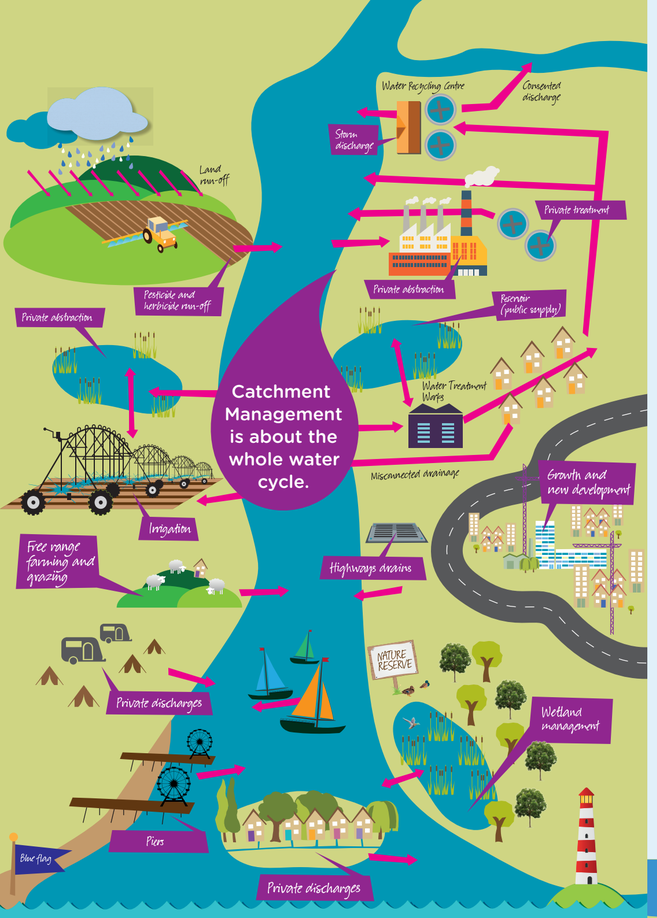
CATCHMENT MANAGEMENT AT ANGLIAN WATER

We supply drinking water and sewerage services to around six million people in the East of England. This water comes from a range of sources including the ground, rivers and reservoirs.

Growing populations, climate change, agriculture, industry, tourism and recreation all put pressure on these resources and a co-ordinated approach is needed to manage these.

European legislation called the Water Framework Directive has set ambitious targets to find more sustainable ways to do just this.

Catchment Management is the UK government's preferred approach. It's central to its plan to improve all UK waters, aiming to put communities at the heart of protecting and managing their local environment. Catchment Management is the most sustainable way to protect water resources.



WHAT IS CATCHMENT MANAGEMENT?

Catchment Management is about preventing pollution from getting into raw water sources rather than relying on 'end of pipe' solutions, like water treatment, while delivering other benefits for the economy and environment.

OUR VISION

Anglian Water's vision for Catchment Management is built on what our customers have told us is important to them, what legislation tells us we need to do, and our own aspirations in our Love Every Drop strategy.

Access to secure supplies of water is one of the most pressing global challenges we face and through Love Every Drop we aim to raise awareness about how essential water is to life, to people, the environment, and to a vibrant economy.

Customers also consider it a priority and have told us they're happy for us to spend money on protecting the quality of our river and coastal waters.

OUR PLAN

To improve raw water quality and minimise the need for additional water treatment – both of which are key outcomes in the Water Framework Directive – we are:

- Working with key partners, such as farmers and local businesses, to understand the challenges and opportunities to safeguard raw water sources.
- Building on our existing modelling to understand where the high risk and priority areas are.
- Using these models to show which initiatives will deliver the greatest benefits.
- Employing Catchment Advisors to carry out extensive investigations on the ground to identify and reduce pollution.
- Taking a 'Catchment to Coast' approach to find and reduce pollution to maintain the excellent standards of our region's coastal waters.
- Enhancing biodiversity across our region and managing invasive species.
- Supporting the catchment partnerships in our region.

FACT
As a water company we also practice catchment management to ensure the amount of water we take out and what we return has a minimal impact on the environment.

WATER TREATMENT

We enjoy drinking water that is among the best in the world. It's treated to extremely high standards and thoroughly tested. However, some pesticides, such as metaldehyde, cannot be completely removed by treatment. The concentrations that remain are nowhere near levels that might affect human health, but they can still exceed drinking water standards in the Drinking Water Directive.

Over 20 per cent of our raw water supplies are treated to reduce nitrate and 55 per cent treated to remove pesticides.

To meet the Water Framework and Drinking Water Directives we're leading a 'Catchment to Coast' approach that is a more cost-effective and environmentally friendly way to manage the factors that affect raw water quality and to reduce the amount of contaminants getting into watercourses right across our varied region.

FACT
Raw water is classed as 'polluted' when it no longer meets the quality standards expected for its use.

FACT
Legislation says we cannot rely on more treatment to achieve safe, compliant drinking water. Instead we must protect and prevent deterioration in raw water quality at its source.

FACT
The key challenges in our raw water catchments are:

- Pesticides
  - Metaldehyde
  - Clopyralid
  - Propyzamide
- Nitrate
- Phosphate
- Pathogens

WATER FRAMEWORK DIRECTIVE – WHAT IS IT AND WHY IS IT IMPORTANT?

The European Union's Water Framework Directive came into force in 2003 aiming to improve and protect the whole water environment. The Directive focusses on bringing all UK waters to a 'good ecological status' and protecting drinking water, which will change how water is supplied in future. It says the UK must not rely on additional treatment to achieve safe and compliant drinking water, and instead look to protect and prevent deterioration in raw water quality through more sustainable means.

WHAT IS THE GOVERNMENT'S CATCHMENT BASED APPROACH?

The Government's catchment-based approach (CaBA) aims to decentralise the management of our water environment to deliver environmental improvements. New and existing partnerships have formed across England to host defined catchments to engage with local communities, business and interest groups. To deliver CaBA in our region, Anglian Water co-hosts the Cam and Ely Ouse management catchment with the Rivers Trust.

WATER RECYCLING

Phosphorous in used water is one of the biggest issues to be addressed by Catchment Management. It's found in household cleaning products and foodstuffs but it can also enter the river from sediment washed off of the surrounding land, natural soil erosion and erosion caused by livestock walking along the riverbank.

New legislation to reduce the amount of phosphorous in detergents is due, and a ban is already in place for laundry products, but it's not enough to tackle the scale of the issue.

We've invested in additional treatment at 117 of our biggest water recycling centres to reduce phosphorous in used water before it's returned to the river. But providing additional water treatment like this won't be possible in future. Not only does it have a high environmental impact, it impacts customer bills and goes against the Water Framework Directive. It's more efficient and environmentally friendly to tackle the problem at source by encouraging people to use less phosphate-based products.

FACT
Anglian Water doesn't use the term 'wastewater' because we don't believe water is waste. Used water is cleaned and treated before it's returned to the environment. We use what's left to generate renewable energy and soil conditioner for farmland.