

# European Legislation

*Briefing note*

October 2015

It's part of our  
Blueprint for Yorkshire



YorkshireWater

# Overview

European legislation has a significant impact on the running of Yorkshire Water and has brought many substantial benefits to our region. This briefing note highlights several examples of key investment which has led to environmental changes in our region.

## Water Framework Directive

The Water Framework Directive has led to significant environmental changes in Yorkshire. These improvements are good for Yorkshire Water and good for our region. We have a higher quality environment as well as higher quality drinking and bathing water. Our rivers have significantly benefited as they are no longer industrial and have seen an increase in biodiversity. Over the next five years we'll be investing even further to improve the ecological status of our rivers with more fish passes and river restoration schemes.

## Rivers

Rivers have always been essential to our region. During the industrial revolution we relied upon them for manufacturing and transport, to the extent that they became largely inhospitable to wildlife.

More recently rivers are recognised for the ecosystem services they provide, such as flood protection and a source of recreation and relaxation. Over the past 25 years investment by water companies has transformed the water quality of our rivers. Key migratory fish have even been seen in sections, for instance sea trout have reached Shipley on the Aire and salmon are regularly seen at Sprotborough on the Don.

In the last few years the Water Framework Directive has started driving European countries to further improve their rivers, to a new, higher standard they class as having "good ecological status". Yorkshire Water have been investing millions of pounds to meet the directive and ensure that Yorkshire's waters are of the new higher standard.

The Water Framework Directive sets limits on the ammonia levels that can be discharged from our waste water sites in order to meet a water quality standard for ammonia in a river (formerly included in the Freshwater Fish Directive).

We've made considerable investment at many of our sites to reduce the ammonia discharged rivers across Yorkshire.

## Example- River Don

Yorkshire Water is one of several companies collaborating to drive the identification and delivery of improvements to Yorkshire's rivers. The River Don is of particular interest to us as it is the watercourse with the largest proportion of our waste water treatment works and other sites close to its banks. Its catchment, i.e. the land which drains to the River Don, covers a large area including Barnsley, Chesterfield, Doncaster, Goole, Rotherham and Sheffield.

Over the last 5 years we've invested over £150 million into improving water quality and wildlife in the Don catchment, and we expect that to increase over the next 5.

We've invested in various ways to deliver these improvements:

- Catchment action planning alongside the Don Network
- Projects to reduce the ammonia released from our waste water treatment works (WWTW)

- Projects to reduce the chance of pollution during extreme weather events
- Improvements to the river habitat

We want to focus on bringing people back to rivers to enjoy them. Helping to protect our rivers and taking care of this vital piece of Yorkshire is also a way in which we're living up to our company Vision of "taking responsibility for the water environment for good".

### Example- Rodley Fish Pass

Many of the structures we've inherited in Yorkshire's rivers and streams can prevent the free movement of fish and other freshwater species up and down stream. They can prevent species like salmon returning from the sea, and stop them coming back to breed. Part of our commitment to protecting and improving our water environment is to find ways to allow fish and other wildlife to move freely, and maximise the benefits to Yorkshire's other wildlife.

The 1.8m high Rodley weir in the River Aire has been preventing fish from passing over it since its construction during the Industrial Revolution. In 2013 we completed a weir by-pass channel, which not only makes it easy for fish to travel around the weir, but provides a whole new stretch of river habitat for Yorkshire's freshwater wildlife.

Working in partnership with our Environmental Advisory Panel, we've prioritised work on the remaining barriers to fish movement that are under our ownership. Between 2015 and 2020 we'll be working on further barriers to fish passage. This is an investment of over £6 million to open up our rivers to the free movement of migrating and local fish. These fish passes will be located on the Rivers Aire, Calder, Don and Wharfe.

## Bathing water

For the period 2015 - 2020 we've allocated £110 million to help create some of the best beaches and cleanest bathing water in Europe. By working together in partnership with other organisations we aim to secure the highest possible water quality standard at Yorkshire's 20 designated bathing beaches.

Bathing water quality in the region is already very high, but new European standards are raising the bar. Thanks to our Blueprint for Yorkshire we have a plan that will help us meet these excellent standards. Six organisations have come together to give our beaches the best chance possible of achieving the new 'Excellent' standard. We will share expertise and local knowledge as no one organisation can achieve all the required improvements alone. This is why a partnership approach is essential.

The quality of sea water at officially designated bathing beaches is monitored and measured each and every year. For over 30 years the European Bathing Water Directive has set the standards for these bathing waters and has driven huge improvements in water quality.

Until 2014, bathing waters could achieve one of two possible quality levels:  
Mandatory (required standard for a beach to 'pass' the current directive)  
Guideline (the highest possible current level)

The original directive however needed updating to recognise big developments in scientific understanding. That's why the 'revised Bathing Water Directive' has been agreed. This new directive sets much higher water quality standards, has different measuring criteria and puts more emphasis on information available to the public. Quality standards for the revised directive will be reported from 2015 onwards.

Under the revised directive bathing waters will be classed as one of four different levels: Excellent, Good, Sufficient, Poor.

## Drinking water

A catchment is the basin of land that feeds water into a river system. Essentially this is the land that rainwater falls upon, this water generally feeds into a reservoir, river or to the sea. The water we collect from our catchments is termed 'raw' water because this water has not been treated.

The quality of the raw water we collect has been deteriorating in many of our catchments over the past two decades. This is a consequence of pollution, unsustainable land management practices and climate change. Whilst we invest in enhanced water treatment works capabilities to ensure our customers always receive the highest quality drinking water, we know that the issues need to be addressed at the source.

Our catchment management programme includes managing our 25,000 hectares of natural habitats to protect Yorkshire's raw water and biodiversity. In our region, many of the key catchments contain upland peat which must be in a good natural state to provide clean water to our reservoirs, rivers and water treatment works. In an area with high biodiversity and good land management practices, the diverse and complex community of plants, animals and micro-organisms work efficiently to filter and remove contaminants. Our programme also includes tackling a range of water quality issues such as colour, pesticides, nitrates and saline intrusion.

Whilst peat has been forming in our uplands for many thousands of years, a variety of pressures have resulted in great loss of peatlands, and a deterioration in the biodiversity of these habitats. Pressures include acid rain from industrial emissions, digging of drainage channels to provide water to grazing lands, increased grazing, wildfires and inappropriate burning for grouse moor management. As peatlands are a major storage of carbon in the world, damage to peat causes it to release its stored carbon in to the atmosphere contributing greatly to greenhouse gas emissions and therefore impacting the environment. Damage to peatland also contributes to colour and sediment in the raw water we collect, making the drinking water we supply to our customers more difficult and expensive to treat. It is in our interest and the interest of the wider environment to return our peatland back to their original state.

### Peatland restoration

Over the last 10 years we have invested in extensive monitoring, research and innovative land maintenance and restoration techniques. Through multi-agency partnerships such as the Yorkshire Peat Partnership, we have delivered a range of industry-leading activities.

We have worked with others to restore up to 3250 hectares of degraded peat. We have installed bunds to block up gullies and grips which allow water to be stored, areas have been seeded with nurse crops, such as grasses, which stabilise the surface, then covered with heather brush (cuttings from the management of old patches of heather). This allows the return of good peatland plant species, such as sphagnum mosses and cotton grass. The habitat begins to regenerate and develop allowing other rarer species to colonise such as insects and upland birds - widening the biodiversity.

In December 2013 we published our operational and investment plans for the period from 2015 to 2020. Our plans were developed using a multi-agency approach and responded to our recent investigations and modelling into the reasons for raw water quality failures associated with catchment management. In 2013, together with the Environment Agency, Natural England and the National Farmers Union (NFU) we started to establish a partnership approach to the development and implementation of Safeguard Zones and supporting Safeguard Zone Action Plans. These zones and plans are being established to better protect the catchment areas that influence the quality of water collected for drinking water.

In early 2014, our catchment manager joined Defra's Best Practice Burning Group to help them develop sustainable land management guidance and policy that will better protect and enhance UK uplands. We are working with a range of relevant organisations including the Moorland Association, Natural England and the National Farmers Union.

Our future moorland management programme will deliver investigation and implementation activities in the catchments where colour pollution is likely to overwhelm water treatment works capacity in the longer term. We will also be investigating nitrate and other pollutants that present risks to a number of our groundwater sources.

### **Improving our water supply**

We produce around £1.3 billion litres of water a day from 250 water sources, treated at 73 water treatment works to produce high quality drinking water. We then use our water grid which includes over 31,000 km of water mains to deliver this water to our customers.

Between 2010 and 2015 we improved (replaced or cleaned) 450 miles of pipework. We've just spent £8 million replacing 40,000 lead pipes in Leeds to improve drinking water quality – that's enough pipework to stretch from Leeds to Sydney and back!

As well as pipes, we operate 73 water treatment works across Yorkshire which treat water to the highest standards found anywhere in the world. Some of these works are very old. Our oldest works at Irton near Scarborough was built back in 1884!

We are investing hundreds of millions of pounds into works including £12 million at Rivelin in Sheffield and £18 million at Acomb Landing in York to improve the quality and security of clean water to our customers.

For more information please contact

Emily Brady  
Public Affairs Advisor  
Yorkshire Water

01274 692408

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yorkshirewater.com