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Environment  
Agency

River factfiles

The Northumberland catchment

# get to know your rivers



We are the Environment Agency. It's our job to look after your environment and make it **a better place** – for you, and for future generations.

Your environment  
and the ground you  
Government and  
environment clean

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**Information Services Unit**

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Published by:

Environment Agency  
Rivers House  
21 Park Square South  
Leeds LS1 2QG  
Tel: 08708 506 506  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

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The Northumberland area includes the Blyth, Pont, Wansbeck, Coquet and Aln river catchments, all running through areas that are mostly rural and used mainly for agriculture.

# The Northumberland catchment

Business and industry is focused mainly in the south east, as well as around the main population centres of Alnwick. The industry has changed and declined in recent years from heavy coal mining related industries to lighter industries.

The area is one of the most sparsely populated in England and Wales and more than half live in the urbanised south east.

While the water quality is generally very good, thanks to low population levels and limited industry, the Northumberland rivers still have to be protected from pollution to ensure their valuable waters stay clean and healthy.

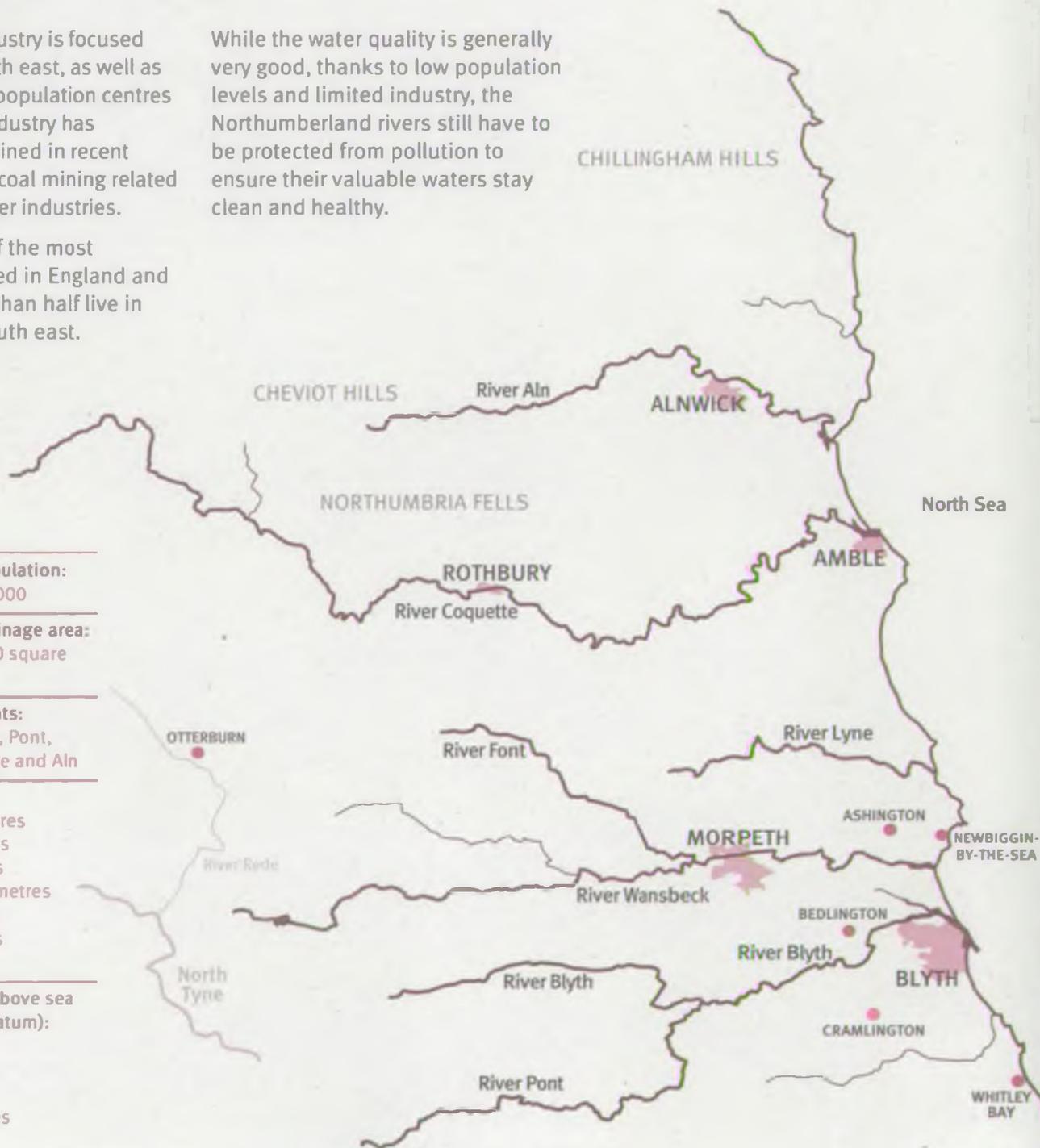
**Total catchment population:**  
Approximately 200,000

**Total catchment drainage area:**  
Approximately 2,790 square kilometres

**Main river catchments:**  
Rivers Coquet, Blyth, Pont, Wansbeck, Font, Lyne and Aln

**Length:**  
Coquet 84.1 kilometres  
Blyth 44.1 kilometres  
Pont 28.6 kilometres  
Wansbeck 50.1 kilometres  
Font 27.8 kilometres  
Lyne 21.5 kilometres  
Aln 34.4 kilometres

**Altitude at source (above sea level or Ordnance Datum):**  
Coquet 800 metres  
Blyth 215 metres  
Pont 225 metres  
Wansbeck 295 metres  
Font 400 metres  
Lyne 165 metres  
Aln 320 metres



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# How clean are your rivers?

Most stretches of the rivers are of good water quality but pollution is still an ever-present threat. Agricultural effluents pose a particular problem in rural areas and can have devastating consequences if they find their way into a watercourse.

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Silage liquor, which is produced when farmers compress cut grass for winter feed, is around 300 times more polluting than untreated sewage. Cattle slurry is highly polluting and sheep dip chemicals cause problems even at low concentrations. A single pollution incident can cause the deaths of many thousands of fish.

Another problem for some of the Northumberland rivers is the impact of abandoned coal mines. These can continue to seep iron oxide, which turns watercourses orange and yellow and can render them almost lifeless.

Improvements in water quality have been seen in some of the more heavily populated areas thanks to investment in sewerage and sewage treatment facilities and a further programme has been agreed until 2010 to build on the success of this investment.

Our officers will continue to work with industry, water companies, business and farmers throughout the area to ensure the water quality is protected and, wherever possible, improved for future generations.

Did you know you can check out the state of your local river by using our website? By accessing the 'What's in your backyard' section you can choose any one of the 7,000 sites where our officers sample and test the water quality. All you need is a postcode or a place name. Check out your river at [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk).

## Water quality classification 2004

The River Coquet and its tributaries, 179.5km



- Class A – very good 31.9%
- Class B – good 46.2%
- Class C – fairly good 21.9%
- Class D – fair 0%
- Class E – poor 0%
- Class F – bad 0%

The Rivers Blyth and Pont and their tributaries, 155.3km



- Class A – very good 0%
- Class B – good 77.8%
- Class C – fairly good 8.2%
- Class D – fair 8.2%
- Class E – poor 5.8%
- Class F – bad 0%

The Rivers Wansbeck and Font and their tributaries, 115.1 km



- Class A – very good 30.5%
- Class B – good 65.0%
- Class C – fairly good 1.4%
- Class D – fair 3.1%
- Class E – poor 0%
- Class F – bad 0%

The River Aln and its tributaries, 60.4km



- Class B – good 100%

**Class A and B rivers** are of a high quality – clean enough for salmon and trout to live in and to be used for drinking water. They also support a variety of invertebrates (worms, insects etc) including mayflies and stoneflies.

**Class C and D rivers** are often home to coarse fish such as roach and chub and sometimes trout in C waters. These rivers can be used for drinking water if it is treated and a good variety of invertebrate life can be found.

**Class E rivers** can still support coarse fish but cannot be used for drinking water.

**Class F rivers** are badly polluted. Worms and midges can live in them but fish cannot.

### Water company investment pays off case study

Major investment in the environment by Northumbrian Water since 1990 has had a dramatic effect on the quality of the North East's rivers and coastal waters.

The benefits of these improvements are far-reaching. Our watercourses have seen an increase in fish stocks and other wildlife and some of our rivers have undergone a dramatic transformation.

This is good news for conservation and anglers – and it is also good news for tourism, leisure and the general quality of life for people living in the region. The clean-up of coastal waters has been fundamental to the vital tourism revenue drawn into the North East and for the fisheries which keep some coastal communities alive.

Many of the region's cities and towns have been able to turn to their waterfronts as an important source of economic development thanks to the clean-up of the rivers running through them, which has reduced unsightly and smelly sewage litter and improved water quality.

Water company investment is a vital part of ensuring we can protect and enhance the environment for present and future generations.

We continue our work to safeguard rivers, estuaries, underground waters and coastal waters, and work with other industries to reduce pollution and discharges to the environment.

“The Northumberland rivers offer a wealth of opportunities for the angler from the Coquet, one of the finest game fishing waters in the north of England, to the Blyth's populations of trout and grayling.”

Philip Rippon, Environment Agency fisheries officer

## Fisheries



### The Aln

The River Aln is known for its sea trout, with relatively low numbers of salmon reported annually by anglers. Brown trout are found throughout the catchment and upstream of the obstruction at Little Ryle, wild brown trout thrive in high densities.

### The Coquet

This is one of the best known migratory fisheries in northern England with salmon, sea trout and wild brown trout present throughout most of the river system. The Coquet is also one of the few rivers where all three species of lampreys spawn. In recent years there has been a reported decline in brown trout numbers. To tackle this we have developed a strategy for trout and grayling, which aims to increase stocks through improved fisheries management.

### The Wansbeck

The River Wansbeck has developed predominantly into a brown trout fishery although a small run of sea trout and salmon enter the river every year.

### The Blyth and Pont

The River Blyth and its tributaries support populations of trout and grayling with a small population of coarse fish and eels. No salmon have ever been recorded by the Environment Agency. The River Pont also supports a population of grayling in addition to brown trout.

# Wildlife and conservation



Rare and protected species, including otters, our native white-clawed crayfish and the extremely rare moss, water rock-bristle, are to be found in these river catchments and work is taking place to protect them and their habitats. In the last century, around 17 species of plants and animals became extinct in the UK, emphasising the need to care for our native species and the areas in which they live.

The Blyth, Wansbeck, Coquet and Aln catchments are home to many sites of national and international importance for wildlife. A huge and diverse range of habitats can be found from the heath, bog and moorland of the uplands to the semi-natural woodlands and marshy grasslands of the lowlands. The estuaries feature sand dune and mudflat, salt marsh and coastal grazing marshes.

The upper reaches of the Coquet and Aln lie within the Northumberland National Park and the Northumberland Area of Outstanding Natural Beauty includes the Coquet and Aln estuaries.

We continue to work with many other organisations to protect and improve habitats and the wildlife they attract.

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**Water voles** are present on Rookhope Burn, Burnhope Burn, Lumley Park Burn and the River Deerness.

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**Otters** are found upstream of Durham on the River Wear and on the River Browney.

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**Daubenton bats** are found in the middle sections of the River Wear.

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**Red squirrels** are present in a few locations throughout catchment.

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The **great crested newt** population is stable or slightly declining. The species is quite abundant in the eastern lowlands.

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**Dippers** are found in the upper sections of the River Wear and on the River Deerness and River Browney.

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**Kingfishers** are found in the middle sections of the catchment.

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**Swallow and grey wagtail** are found throughout the catchment.

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**Golden plover** are found in the upper catchment.

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**Lapwing** are found throughout the catchment, mainly from the middle sections upstream.

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The rare **pale bristle moss** is found in Weardale.

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# Pollution watchdog

Pollution prevention and control is a vital part of our work. We are responsible for regulating many industrial processes to make sure they are not damaging the environment.

Major investment by industry over the past couple of decades, as well as much tougher limits on discharges to air, land and water, have all had benefits for the environment.

This work and investment is continuing throughout the Northumberland river catchments and will hopefully bring about further improvements in water quality and a reduction in pollution incidents.

But the work doesn't stop at big industrial processes – other businesses and the farming community also need to be pollution aware. We work with all these sectors to highlight the simple ways they can help protect the environment and even save money at the same time.

Slurry and fertilisers can have a devastating effect on water quality, wildlife and fish stocks. Every year we have to deal with damaging incidents caused by inadequate storage facilities or poor working practices.

Some of these are caused by the collapse of lagoon walls, leading to the release of slurry, which runs across land into watercourses and can wipe out fish stocks for miles downstream. Overfull slurry stores can also cause problems if heavy rainfall gets into them and they overflow.

Thankfully the picture is not all doom and gloom as very simple steps can prevent problems, and we are working with farming organisations in a bid to wipe out bad practice and reduce damaging incidents.

## Tackling the threat of minewater pollution case study

Ellington Colliery, the last deep coal mine in North East England was closed in early 2005 ending nearly 100 years of coaling operations. A multi-agency task force has been established to deal with the economic, employment and social consequences. The need to deal with environmental issues in a co-ordinated and comprehensive manner was also recognised and an environmental sub-group formed.

Minewater levels are being closely monitored to ensure that they do not rise to an extent that could cause pollution of either groundwater or the River Wansbeck. It is predicted that acidic water polluted with metals such as iron, for example, could cause pollution in about 12 years time.

In order to prevent this potential pollution, we are working with the Coal Authority and the colliery owners, UK Coal, to agree an appropriate system of pumping and treatment. This will ensure that water pollution does not occur, as any water that is eventually discharged will have been treated to ensure that the contaminants have been removed.

We will closely monitor this issue over the coming years and work with others to bring about wider environmental improvements in this area of south east Northumberland.



You can find out more about our regulatory role and powers, as well as details of industry discharges, on our website at [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk). Find out what's being emitted from industrial sites in your area, including into controlled waters. Go to 'What's in Your Backyard' click 'search for other topics' and click on 'pollution inventory'.

# Watching the waste

Every year more than 400 million tonnes of waste is produced in England and Wales, with about 25 million tonnes of this from households. All this waste has to be safely handled and disposed of.

The great bulk of waste at the moment is disposed of in landfills. When it breaks down it produces a liquid called leachate, as well as methane gas. Landfill site operators have to make sure this liquid doesn't escape into groundwater or rivers by lining their sites with impermeable barriers.

We regulate the movement and disposal of waste through a system of licences. We also work with landfill site operators and other businesses to make sure that deposited waste does not pose a risk to the environment.

## Recycling and reusing waste case study

A waste management company has invested £550,000 in a recycling facility that will allow 80 per cent of materials to be re-used by the construction industry.

Holystone Waste Management Ltd has provided the waste recycling facility at the Prestwick Landfill Site near Ponteland. The site was previously an open cast coal site and is now being in-filled with inert wastes and soils to restore the landscape.

A new unit has been brought on-line to screen, crush and wash the waste to provide aggregate materials, which can be used in the construction industry. The final products can be used as an alternative to new materials.

The plant is expected to process up to 100,000 tonnes of material a year of which 80 per cent will be re-used. This has the benefit of both reducing the need for valuable natural resources as well as minimising the amount of waste materials disposed of by landfilling.

The washing plant re-cycles the water used in the cleaning process and, because it is a wet process, the dust problems that can occur with some screening units are avoided.



# Water source

Water is essential to life and we have a duty to make sure our water resources are used properly. To do this our officers closely monitor water in the environment.

Abstraction licences are issued to regulate who can take water from the environment and the amount that can be taken over a period of time.

The Northumberland area provides a valuable water source. The majority of water taken from the area's rivers, springs and boreholes is used for public water supply with industrial, spray irrigation domestic and agricultural accounting for the rest of the water used.

# What's under your feet?



The oldest rocks are to be found in the north west of the area and progressively younger rocks to the east and south east. The area is dominated by rocks of Carboniferous age, between 360 and 286 million years old.

Carboniferous rocks are largely sequences of alternating sandstones, shales, limestones and coals of varying thickness. Many of the coal seams throughout the area have been mined to some extent.

# Dealing with flood risk

Recent years have shown how communities across the UK are at risk of flooding. Climate change will probably increase this risk and so it is as important as ever that people are aware of the steps they need to take to help protect themselves and their property if they live in a flood risk area.

We have invested in both flood defence and flood warning systems throughout the Northumberland rivers catchment.

The Northumberland rivers catchment is composed of several rivers. These are the rivers Pont, Blyth, Wansbeck, Coquet, Aln, as well as a number of smaller coastal streams.

The rivers are characterised by their steep upstream catchments in the hills of the Cheviots and West Northumberland and relatively short lengths, which lead to rapid changes in river levels under storm conditions. This reduces the amount of effective warning time that we can offer residents in the river corridors.

There is an extensive network of river gauging sites, rainfall and snow monitoring stations in

Northumberland. We continue to improve and expand this system in order to improve the information that can be given to the public and professional partners, such as the police, local authorities and emergency services.

Although Northumberland is a mainly rural area there are several towns at risk of flooding, including Morpeth, Ponteland, Rothbury and the coastal town of Blyth.

The speed at which river levels rise in the catchment means that most defences are permanent embankments and walls, as there is little warning time in which to mobilize and put in place portable or de-mountable defences.

In 2003, we spent around £100,000 in a pump system to protect properties in Rothbury, and

investment in ways to manage flood risk in the Northumberland rivers catchments will continue in the future.

In a bid to tackle flood risk we are starting to look at the catchment as a whole, rather than communities in isolation.

The way land is managed in the uplands of a catchment has impacts much further downstream, and every development in the floodplain can have an effect on flood risk.

Alongside this work is the on-going maintenance of existing defences and general maintenance of watercourses, which all helps in the battle to reduce flood risk.

3,950 properties have been identified as being at risk of flooding in the Northumberland rivers catchments.

Around 90 per cent of these properties currently receive warnings from us by various warning systems.

# Get the most from your rivers



**Walking** – Visitors are attracted to the unspoilt countryside and spectacular coastline of the Northumberland area. Favourite places for walking are along the coastline, on the banks of the rivers and around the Cheviot and Simonside Hills.

**Angling** – Angling is a popular recreational activity thanks to healthy stocks of salmon, brown trout and sea trout to be found. For more information get a copy of our **North of England Angling Guide** by contacting us on **08708 506 506**.

**Canoeing** – There are opportunities on inland stretches, including on the Coquet, Wansbeck and Aln.

## Useful contacts

Amble Tourist Information Centre **01665 712 313**

Alnwick Tourist Information Centre **01665 510 665**

Morpeth Tourist Information Centre **01670 511 323**

Otterburn Tourist Information Centre **01830 520 093**

Rothbury Tourist Information Centre **01669 620 887**

**Would you like to find out more about us,  
or about your environment?**

**Then call us on**

**08708 506 506** (Mon-Fri 8-6)

**email**

**enquiries@environment-agency.gov.uk**

**or visit our website**

**www.environment-agency.gov.uk**

**incident hotline 0800 80 70 60** (24hrs)

**floodline 0845 988 1188**



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