

Environment Agency

North West Region



The North West Region









The North West region covers around 14,000 square km, from Cheshire in the south to Cumbria in the north. Around 7 million people live in the region; most in the urban areas of Merseyside and Greater Manchester.

The landscape is varied and beautiful, from mountains and lakes in Cumbria, to the seaside at Blackpool and the industrial heritage of Manchester. Agriculture covers 80 per cent of the region, and important habitat and wildlife areas include nearly 400 Sites of Special Scientific Interest.

The region has significant environmental challenges, with 35 per cent of England's derelict land and a third of the poorest quality rivers in England and Wales.

The Agency is working hard with partner organisations to repair damage caused by previous industrial activity and to protect and enhance the region's environment for future generations.



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Wildlife

About 15 per cent of all British wildlife, including the brown hare, the skylark and the otter is thought to be endangered.

The Agency, together with many other environmental groups, works to help protect our rare wildlife and its surroundings.



Waste

Waste comes in many different forms, some of which is easier to get rid of than others. Materials like paper, plastic and glass are typical of the waste produced in our homes that can easily be recycled.

The Agency regulates the management of waste and works to reduce the effects it has on the environment.



Flood

Put simply, a flood is too much water in the wrong place at the wrong time. It is a natural occurrence that can have far-reaching effects on people, their property and the environment.

The Agency works to minimise the risk of flooding. We do this by closely monitoring weather conditions and issuing flood warnings when needed.



Regulation

The Environment Agency advises companies on how best to operate so that any waste and pollution is kept to a minimum. We also issue licences, enforce legislation and are responsible for prosecuting those who break the law.

Whenever we regulate, we aim to be open, fair and consistent.



Water

Water is essential to life. It is the Environment Agency's job to make sure the water we use is not polluted and that we have enough clean, safe water to meet the needs of people, the environment and industry.



Climate Change

A warmer climate has led to a change in weather patterns all over the world. Scientists predict that in the future there will be more flooding in winter and more droughts in summer.

We need to keep on cutting greenhouse gas releases but some damage has already been done. We must learn to cope with the inevitable effects.



An Environmental Vision

The Agency has a vision for the environment and a sustainable future. Our sights are set on a future where everyone will be able to enjoy the benefits of a clean, safe and healthy environment.

To achieve this we have highlighted 9 themes which we will work towards. These are;

- · A better quality of life
- An enhanced environment for wildlife
- · Cleaner air for everyone
- Improved and protected inland and coastal waters
- Restored, protected land with healthier soils
- A 'greener' business world
- Wiser, sustainable use of resources
- Limiting and adapting to climate change
- Reducing flood risk

Delivering this vision will be challenging for the Agency. We will work with a wide range of partners that share our enthusiasm and expertise. It is a long-term plan but a worthwhile one. Because a healthy environment is vital for everyone.









Wildlife

Fishing is regarded as Britain's most popular pastime with more than 115,000 licensed anglers in the North West.

What does the Environment Agency do to protect wildlife?

The Agency is working towards ensuring wildlife will be able to thrive in the cities and the countryside for us all to enjoy.

We have a duty to help protect wildlife and preserve the landscape of the North West.

The Agency employs ecologists to make sure that the work we do is environmentally friendly.

Certain areas of England and Wales are protected because of the wildlife that lives there, some of which are endangered. About 15 per cent of all British wildlife, including the brown hare, the skylark and the otter is thought to be at risk. The Environment Agency, together with many other environmental groups, works to help protect our rare wildlife and its surroundings.

Fisheries

The overall health and quality of rivers, reservoirs and lakes is best illustrated by the number and variety of fish that

Fishing is still regarded as Britain's most popular pastime. There are more than 115,000 licensed anglers in the North West region.

Within the North West there are a vast number of fisheries and a wide range of fish, from the common roach, to rarer breeds such as the artic char and vendace.

The Agency employs around 70 full-time fisheries staff in the North West, ranging from scientists who monitor the health, size, breed and numbers of fish populations, to bailiffs who protect fisheries from poaching.



Anyone over the age of 12 must buy a rod licence. Almost half of the work that the fisheries people do is enforcement work. Anyone that fishes without a licence can be prosecuted and fined up to £2,500 by the courts.

The money that we get from these licences is ploughed straight back in to fisheries work. It pays for:

- habitat improvements
- regular surveys to check the health and number of fish
- rescuing fish when pollution incidents occur
- research to maintain, improve and develop fisheries
- fish restocking
- the enforcement of fishery laws and byelaws

Improvements to fisheries

A programme of fish habitat improvements is underway throughout the North West. This includes:

- building fish 'passes' to help fish on their way to the areas where they give birth, known as spawning areas
- cleaning of spawning areas
- bankside improvements to help protect nature and wildlife

Rivercall

The Environment Agency operates a Rivercall service for people using the rivers in the North West. This keeps them informed about the state of rivers across the region, including flow levels. The Rivercall number is 0906 619 7733 and the recorded message is updated daily.

Through the efforts of the Environment Agency and other partners, many of the North West's rivers, including the River Mersey, have been cleaned up dramatically. Fish are returning to these rivers now that the water quality is good enough for them to thrive.

Conservation and Planning

The Agency also advises local authorities on planning applications to make sure that the effects on the local wildlife are considered.



THE ENVIRONMENT AGENCY NORTH WEST REGIONAL OFFICE

PO Box 12, Richard Fairclough House, Knutsford Road, Warrington WA4 1HG Tel: 01925 653 999 Fax: 01925 415 961

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Water

Water is essential for life.

It is the Environment Agency's job to make sure that the water we use is not polluted and that we have enough clean, safe water to meet our needs.

We regularly take samples of the region's water to test it for a variety of chemicals. If we discover pollution, we work to put things right and to bring those responsible before courts.

As a result of the Agency's work, the rivers of the North West Region are cleaner now than they have been for over 100 years, and our bathing waters are continuing to improve year after year.

We have a lot of rain in the North West. In an average year, over three and a half metres of rain falls over the Cumbrian fells and just under a metre of water falls over the Cheshire plain. About half the rainfall evaporates or is used by plants. The rest either runs off to the sea, soaks into the ground, or is stored in lakes and reservoirs. To make sure we all have enough water, the Agency keeps a regular check on how much water is available - both above ground and below.

Managing our water

Many people take water from the region's rivers, canals and reservoirs, mainly for use on farms or in factories. This is known as abstraction. The Environment Agency licenses the abstraction of around 14.5 million litres of water every day. Less than 20 per cent of this water is used by the public.

There are 3,500 licensed water abstractors in the region, each paying a fee according to the volume they take. The money the Agency receives is used to help manage and protect water resources.

The biggest demand comes from industry. Most of this water is taken from rivers and estuaries, and it is returned to the environment after use. Fiddlers Ferry Power Station, west of Warrington, is typical of how water is used by industry. It is licensed to use over 17 million litres of water an hour as part of the process to generate power.

A relatively small amount of water is also taken by farmers to water their crops.



Where does our water come from?

Water is stored in many different places. In the North West about 200 reservoirs provide for public supply. The rest of the region's fresh water comes from underground springs and wells, and from rivers and lakes.

Managing drought

Not having enough water can cause serious problems. Long periods of dry, sunny weather can leave us with less water to use. If this happens, the Agency works to make sure that we have the water we need, whether it is for our homes, industry or for farming.

What puts pressure on our freshwater resources?

In a word, people. On average, every member of the population uses about 140 litres of water a day. That's enough to fill two baths.

By using water wisely both at home and at work, we can all help to prevent rivers drying up and the loss of wildlife areas.

At home there are some simple steps you can take like;

- making sure that taps are always fully turned off
- taking showers rather than baths
- not leaving the tap running while brushing your teeth

Safeguarding resources

The Agency is also responsible for looking after the quality of groundwater - natural supplies of water found underground. It is particularly important to protect groundwater because if it does get polluted, it is almost impossible to clean it up.

How valuable is water?

Water is a precious commodity. It is a vital resource that is in constant demand.

The challenge is to strike the balance between the needs of those who use water and the long-term future of the environment.



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Regulation

Prevention is better than cure. By working in partnership, we help businesses find solutions which are right for them as well as for the environment.

Why do we regulate?

The Environment Agency advises companies on how to operate so that any waste and pollution is kept to a minimum. We also issue licences, enforce legislation and are responsible for prosecuting those who break the law.

We do this to make sure the air we breathe, the water we use and the land we live on is as free from pollution as possible.

Whenever we regulate, we aim to be open, fair and consistent. The way we do this is to work within the legal and financial constraints placed upon us.

Who do we regulate?

The Agency regulates many different industries in a number of ways. We issue permits, licences, consents and registrations that allow people to:

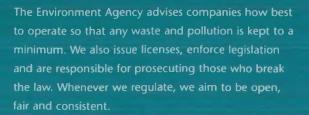
- stock fish in inland waters
- fish
- carry out works on, or next to, a river or canal
- carry out large, or technically complicated processes or activities that could pose a real threat to the environment
- keep and use radioactive materials and waste
- put waste water into rivers, canals or into the ground
- transport, use and get rid of waste
- take water from a lake, river or underground source (groundwater)
- collect and store water from a river or lake

Inspection and monitoring

The Agency regularly inspects and monitors the licences and permits that we give out.

We do this to make sure that necessary standards are being met. Some operators carry out their own monitoring and report the results to the Agency.

If we find that regulations have been broken, we have the power to prosecute. In some cases we may issue warnings or offer advice and guidance if the mistake is genuine.





Areas of regulation

Water resources

Many people take water from the region's rivers, canals and reservoirs, mainly for use on farms or in factories. This is known as abstraction.

We manage the abstraction of the region's water to ensure there is enough to meet the needs of people and the environment.

Pollution prevention and control

We regulate the activities of industry in different ways. At the moment, a set of rules known as Integrated Pollution Control (IPC) covers the industries that are the most technically complicated or most likely to cause pollution. IPCs are used to help prevent pollution by reducing the amount of pollution that is released into the environment.

The Agency works with the Health and Safety Executive to make sure that industrial sites have proper safety plans in place.

It is important that pollution is dealt with quickly, to keep any damage to a minimum. We have set up a 24 hour Emergency Hotline - 0800 80 70 60, so that people can ring and report pollution or other environmental incidents direct to us.

Radioactive Substances regulation

Radioactive materials give off radiation which can be very harmful. We also have a role in regulating how these materials are kept, used and got rid of.

Waste Management

We give advice to industries on how to manage their waste, making sure that it is dealt with both safely and legally.

We also register people who transport waste from one place to another. If any 'special waste' – waste that might be dangerous in some way - is being moved, we have to be told so we can make sure it is handled in the right way. Some companies that produce or handle a lot of packaging material are also monitored.

Water Quality

We always try to prevent pollution and control it when it does happen. We monitor the quality of all types of water – freshwater supplies, groundwater and sea water - up to three miles from the coast.

We also give permission to put water back into rivers, groundwater and the sea by water treatment works and industry.

The Agency offers smaller businesses easy-to-understand guidance on environmental legislation. Find out more at **www.environment-agency.gov.uk/netregs**



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Flooding

Be prepared for flooding.

What is a flood?

Put simply, a flood is too much water in the wrong place at the wrong time. It is a natural occurrence that can have far-reaching effects on people, their property and the environment. Floods can happen at any time of the year.

What causes floods?

In most cases, floods are caused by heavy rainfall, which makes a river burst its banks. Floods generally develop over a period of days. However, flash floods can happen very quickly if a downpour is heavy enough.

Coastal areas are also at risk from flooding, when storms push sea water onto the land. The worst cases of flooding may occur when bad weather and high tides happen at the same time.

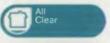
What are the effects of flooding?

Flooding cannot always be prevented and can seriously disrupt our lives. Floods can damage our homes and our property as well as blocking roads and railways.

In serious cases it can be dangerous to even walk in floods. It takes just 6 inches of fast-flowing water to knock a person off their feet and 2 feet of water to float a car.

What is the Environment Agency doing to prevent flooding?

The Environment Agency works to protect people and their property from the effects of flooding. We do this by closely monitoring weather conditions and issuing flood warnings when needed.











Floodline

The Agency runs Floodline, a 24 hour flood hotline on 0845 988 1188



What can you do?

- find out if you are at risk from flooding call Floodline 0845 988 1188 or log on to www.environment-agency.gov.uk/floodline for advice and information to help prepare yourself, your family and your home
- sign up to the Agency's Automatic Voice Messaging (AVM) service where available. Once signed up to the AVM system you will receive a phone call when your home is at risk from flooding, giving you time to protect you family and property
- get into the habit of storing valuable or sentimental personal belongings upstairs or in as high a place as possible
- make sure you know where to turn off your gas, electricity and water supplies. If you're not sure, ask the person who reads the meter when they next visit
- check your insurance policy to ensure you have adequate flood cover
- make up a Flood Kit include a torch, blankets, waterproof clothing, wellingtons, a portable radio, first aid kit, rubber gloves and key personal documents

Flood defences

Along with our work to warn people about flooding, we also build flood defences to help protect homes and businesses. In the North West, the Agency works to minimise the risk of flooding along 280 km of sea defences and 6,000 km of main rivers.

The programme of work includes improving rivers to cope with more water in the event of a flood, building new defences and improving existing ones, adapting pumping stations and strengthening defences by the sea.

We also carry out relatively simple river maintenance work - such as dredging, weed cutting, tree maintenance and removing blockages that could obstruct water flow. This work is essential to allow high levels of water to pass safely and quickly to the sea.

We also check new development plans and advise local authorities about any flood-related problems these may create.

Flood defence and environmental needs

We have a duty to promote conservation along rivers wherever possible. We therefore make sure that our maintenance and improvement work is timed to cause the least disruption to plants and animals.

Paying for flood defence

County and Metropolitan District Councils pay a Flood Defence Levy to fund the Agency's flood defence work. This is recovered from Council Tax funds.

We also get grants for certain major work from the Department for Environment, Food and Rural Affairs (DEFRA) and contributions from developers.



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Waste

Recycling - making something new out of waste material - is good for the environment.

What is waste?

Waste comes in many different forms, some of which is easier to get rid of than others.

Materials like paper, plastic and glass are typical of the waste produced in our homes, all of which can be easily recycled.

In addition to household waste, industry also produces waste, some of which is classified as 'special waste'.

Special waste is potentially hazardous and as such is subject to very tight controls. The Agency closely monitors its storage, movement, treatment and disposal. In the North West we produce around 5 million tonnes of this special waste each year.

How much waste do we produce?

Each year in England and Wales, 375 million tonnes of waste is produced.

Of this, around 25 million tonnes is household waste with each home throwing away around half a tonne of rubbish every year.

Here in the North West it is forecast that in 20 years' time, households will produce enough rubbish to fill the M60 Manchester ring road waist high each year.

Where does our waste go?

Of the more ordinary waste that comes out of houses, factories and offices, around 81 per cent is buried in 'landfill sites'.

A landfill site is basically a hole in the ground where waste is buried. Of the rest, 9 per cent is recycled, and 8 per cent is burned in special power stations where it helps to generate electricity. The remaining 2 per cent is burned without generating any power.



What does the Environment Agency do?

The Environment Agency regulates the management of waste and works to reduce the effect of waste on the environment. We issue licences to treat, keep and dispose of waste - anyone who operates without one of these licences is breaking the law.

The Agency also registers people to carry waste.

We also offer advice to businesses on how they can reduce or recycle the waste they produce.

What can you do?

There are several ways that you can help reduce the amount of waste that is thrown away. These include buying less pre-packed and more freshly grown food, separating newspapers and magazines, bottles, aluminium cans and old clothes from household waste and taking them to your nearest recycling centre. Almost all councils collect recyclables along with rubbish.

Recycling, making something new out of waste materials, is good for the environment for many reasons. Glass is just one example of a common material that can be recycled.

Why should you do something?

The amount of waste we produce is staggering.

- 14 million glass bottles or jars are thrown away every day in England and Wales.
 When 1 glass bottle is recycled, enough energy is saved to light a 100W bulb for 4 hours
- milk bottles can be refilled around 20 times before they become scratched and need to be recycled. Glass is not biodegradable, so unless it is recycled, it will take up valuable landfill space
- by recycling a single plastic bottle, enough energy can be saved to light a 60W light bulb for 6 hours. Most plastics can be recycled, but at the moment, only around 3 per cent actually are
- recycling paper and cardboard saves trees. Each year the average family British throws away 6 trees worth of paper
- steel or aluminium drink cans can be recycled too. A recycled aluminium can saves enough energy to run a TV for three hours. The average person in the UK uses 240 steel cans each year, of which only a quarter are recycled

Textiles too can be shredded and the fibres made into new fabrics.

We all need to cut down on the amount of waste we produce.

If we continue throwing waste away at the present rate, the North West will run out of landfill space in 5 years' time. Either by buying less packaging or recycling where possible, we can all play a part in reducing the amount of waste we produce.



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Climate change - why worry?

Records show that temperatures around the world have risen steadly since 1900.

What is climate change?

It is an inescapable fact that the planet is getting warmer. This is global warming. Though we might find it difficult to tell the difference from year to year, records show that temperatures around the world have risen steadily since 1900, mostly since 1970. The warmest year on record was 1998 and 2002 was a close second. This trend is set to continue - by 2080 the average annual temperatures in the North West could have risen by 1 - 5°C.

Why is climate change a problem?

Changes are taking place in weather patterns around the world, with more extremes of weather likely in the future. In the 1990s, there were five times as many serious weather disasters as in the 1950s.

Before the end of the Century, winter rainfall in the North West could increase by up to 30 per cent but fall in the summer by up to 60 per cent. This means that there will be more flooding in the winter and more droughts in the summer. With warmer, wetter weather we will also see less snow, even on higher ground.

As temperatures climb, the world's oceans will expand in volume, which will lead to a rise in the sea-level. Melting glaciers will add to this. In this region, a higher sea-level could increase the risk of floods on the coast and swallow-up special shoreline areas for wildlife, such as mud flats.

As well as having to cope with changes to their surroundings, wildlife will also be affected by the warming itself. Plants are already flowering earlier than they used to and birds are nesting about two weeks earlier than they did 20 years ago. Different conditions may also mean new plants and animals will be able to thrive here, which may bring problems for existing species. Additionally, a change in the quality of our soil may force farmers to change the crops they grow which in turn may mean they need to use more fresh water to help them grow.

It's an inescapable fact. The planet is warming up. Though we might find it difficult to tell the difference from one year to the next, records show that temperatures around the world have risen by half a degree Celsius since 1900.



Why is climate change happening?

The Earth's climate does not stay constant - it changes naturally. However, natural causes can't explain the recent high level of warming that we have seen.

One of the biggest impacts on climate change is Carbon dioxide (CO2), known as a greenhouse gas. This is produced when fossil fuel, such as oil, gas and coal, is burned. Since the Industrial Revolution, massive amounts of CO2, along with other greenhouse gases, have been released into the atmosphere. These gases form a blanket in the upper layer of the atmosphere, which prevents the sun's heat escaping into space. This causes the temperature of Earth to rise and is known as "The Greenhouse Effect".

Studies in the North West have shown that industry, transport - especially road transport - and households produce the majority of greenhouse gases in the region, almost 75 per cent.

So what can we do to reduce climate change?

We need to drastically cut emissions just to stabilise the situation – this would mean cutting them by 60 per cent by 2050. This will only limit the effects because a lot of the changes in climate over the next few decades are predetermined by past and present releases of greenhouse gases.

Our plan of action must look at two things:

- how do we cope with the effects?
- how do we limit climate change to lower levels (1-2 degrees) this will still have serious effects but hopefully not an overwhelming impact

Coping with climate change

The Agency is the largest flood defence organisation in England and Wales responsible for water resource planning. This means we are in the frontline, dealing with the major impacts of climate change.

To help manage the situation, we are incorporating the possible effects of climate change into all of our plans and policies. We are also members of the North West Climate Group and through this we encourage our partners and those we regulate to understand and take account of the effects of climate change.

Reducing greenhouse gas emissions

We regulate the big industrial plants that release about 24 per cent of the North West's greenhouse gases.

Through working in partnership with industry we are encouraging investment in energy efficient methods and new technology to reduce emissions drastically.

Sustainable energy sources, such as wind farms, are a major new hope because they do not produce any greenhouse gases. Studies have shown that the North West could produce 8.5 per cent of its electricity from renewable sources by 2010. The Agency also buys some of its electricity from renewable sources – about 40 per cent nationally.

Road transport is the third most important source of greenhouse gas emissions. We all have a responsibility to reduce the amount of miles we drive. The Agency has developed the largest video conferencing network in Europe and has invested in low emission vehicles and encourages car-sharing.

There are many ways that we can all try to reduce the greenhouse gas emissions - at home and at work. Think of ways that you could use less power and start making a difference today. For other helpful ideas about saving energy log on to the Energy Savings Trust's website at www.est.org.uk.



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In the North West will produce enough rubbish

to fill the M60 Manchester ring road waist high each year.

Reduce the amount of waste you produce by buying food with less packaging.

Each year the average British family
throws away 6 trees' worth of paper.

Recycle waste paper along with glass,
aluminium cans and old clothes.

Every household in Britain throws away just over a tonne of rubhish each year. That's the same weight as 10 adults.

Almost all councils collect racyclables along with rubbish,

find out when yours is collected.

On average, every person uses about 140 litres

of water a day. That's enough to fill 2 baths.

Use water wisely by turning off the taps whilst brushing your teeth or by taking showers rather than battes where possible.

The Environment Agency manages 5,750 kilometres of river in the North West.

That's enough to stretch from Land's End to John O'Groats more than 4 times.

Respect and care for your environment.

CONTACTS:

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PO Box 12, Richard Fairclough House, Knutsford Road, Warrington WA4 1HG Tel: 01925 653 999 Fax: 01925 415 961

www.environment-agency.gov.uk

NORTH WEST AREA OFFICES

NORTH AREA - CUMBRIA **Environment Agency Ghyll Mount** Gillan Way Penrith 40 Business Park Penrith Cumbria CA11 9BP

Tel: 01768 866 666

Fax: 01768 865 606

CENTRAL AREA - LANCASHIRE

Environment Agency Lutra House PO Box 519 South Preston

Lancashire PR5 8GD

Tel: 01772 339 882 Fax: 01772 627 730

SOUTH AREA - CHESHIRE, GREATER

MANCHESTER AND MERSEYSIDE **Environment Agency**

Appleton House 430 Birchwood Boulevard Warrington WA3 7WD

Tel: 01925 840 000 Fax: 01925 852 260

Regional Boundary Regional Headquarters NORTH CENTRAL

Area Administrative Boundaries

ENVIRONMENT AGENCY GENERAL ENQUIRY LINE 0845 9 333 111 0845 988 1188

ENVIRONMENT AGENCY EMERGENCY HOTLINE 0800 80 70 60

