

Factsheet No.6 in the Environment Agency educational series

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Uses of the Water Environment

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ENVIRONMENT
AGENCY

Some 12 million people live within the Thames Region of the Environment Agency. This covers an area of 13,000 square kilometres and has a population density of 923 people per square kilometre.

This is one of the highest in England, putting enormous pressure on the environment. The character of a river is very dependent upon the type of land-use next to it and how the river has been managed or controlled in the past.

Large areas of the Thames Region are designated by English Nature as Sites of Special Scientific Interest (SSSI). These are special areas that host a rich variety of wildlife habitats, plants and animals. In the Region there are over 450 of these SSSIs. There are also very important wetlands including parts of the Thames Estuary. Within these areas, certain activities are prohibited and rare plants and animals are specifically protected to conserve and protect the environment. These areas are very attractive since they are often unspoilt by human activities such as urban sprawl (large areas covered by towns and cities) and industries, and are in great demand from many different groups.

1. HOUSING

Developers want to build new houses, particularly high price 'executive homes' for London **commuters**. These are people who work in London but prefer to live in the countryside, and are prepared to pay a great deal for the privilege. Urban areas produce waste such as sewage, as well as an increased demand for water. Problems are also caused by houses and roads preventing **infiltration** (water sinking into the ground). Another problem caused by these types of development is that any nearby rivers have been straightened or deepened to prevent flooding, thus destroying natural habitats and the general character of the landscape.

2. FARMING

Parts of the country are very intensively farmed. Farms are operated as businesses and must make a profit or, at least, break even. For this reason, the farmer may want to use **fertilisers** (which help the plants grow) and



pesticides (which kill weeds and pests) to get the best possible crop from the land. **Run-off** (when rain washes loose materials off the land and into rivers) may cause pollution of rivers and streams if it contains these chemicals. The farmer may also take water to use for **irrigation** (watering crops), which can lead to water shortage problems. Another problem can be **overgrazing** when too many farm animals are kept on a small area, causing damage to the riverbank.

3. INDUSTRY

There are many large industries, as well as even more small factory units and a lot of **mineral extraction**, when rocks such as gravel or clay are dug up. Factories may take water for cooling or cleaning. As the water cools the machinery it heats up and so may lead to warm or polluted water being released into the river. However, discharges are very carefully monitored by the Environment Agency to prevent any pollution.

4. RECREATION

Unspoilt areas are very attractive as places for recreation and leisure pursuits, such as boating and canoeing. Areas under threat include popular holiday areas such as parts of the Cotswold Hills and the River Thames. As well as the problem of dropping litter, large numbers of people can cause damage to the environment by walking or cycling along towpaths or on footpaths next to rivers, since they can increase **erosion**, wearing away the riverbank. However, according to government reports, there is not evidence that leisure and tourism activities cause any significant damage to the environment.



5. FISHING

Each year the Environment Agency issues several hundred thousand fishing licences.

6. NAVIGATION

Boats can also cause riverbank erosion if they travel too fast, so the Environment Agency enforces strict speed limits on navigable waterways, such as the Thames. Its 200 km of inland waterway is the responsibility of the Agency, who issue approximately 19,000 boat licences each year, and another 6,000 craft that visit the Region from other waterways on temporary licences.

7. WATER ABSTRACTION

For example, within the Thames Region of the Environment Agency, 20,000 licences have been issued giving people / companies permission to abstract up to a total of 4,700 million litres of water per day. Over 85% of this is for public water supply. As the population of the area continues to grow, more water is demanded. However, if too much water is taken from a river, it can lead to destruction of riverbank habitats or even dry up the river completely, so the Agency works to prevent this from happening.

8. WASTE DISPOSAL

There are almost 20,000 current **discharge consents** held on the Region's Public Register. These give people permission to release waste into the water environment. Although the amount and quality of this waste is very carefully monitored by the Environment Agency, it places serious pressure on rivers and coastal areas. Disposal of sewage into the sea is a special concern for many people, particularly if it is near to a popular beach.

THE ROLE OF THE ENVIRONMENT AGENCY

Among its many roles, the Agency is responsible for **flood defence**, protecting people and property from flooding, and the **conservation** of the natural habitat - two duties which are not always completely compatible, as well as managing natural water resources. The Agency works in partnership with many other agencies and interested groups to ensure that the water environment is protected while also encouraging recreational uses of the water. The guiding principle is always to attempt to prevent problems rather than wait for them to occur.

In order to achieve these aims, the Agency produces **Local Environment Agency Plans (LEAPs)**, based on river catchments. A catchment is not only a river and its **tributaries** (the smaller streams that join the main river), but all the land and underground water connected with it.

LOCAL ACTION

In producing a LEAP, the Environment Agency accepts that every area of great scenic attraction has its own particular issues so it is not practical to produce national, or even regional, plans or sets of rules or guidelines. In consultation with other groups such as English Nature, the Agency produces specific guidelines for each area. This means that the individual needs of what can sometimes

be a very small area can be met.

Before they can begin to address the needs of any small area, the Agency carry out detailed assessments. These can relate directly to the quality of the water or be wider reaching to include a **'River Corridor Survey'**, which includes the river together with the land up to 50 metres on either side, or a full **'River Landscape Assessment'** which investigates the rivers and all the surrounding area. These serve as a starting point from which an Action Plan can be produced explaining how to work to maintain and/or improve the water environment.

The aim of a LEAP is to balance all the demands on the water environment in a realistic way. In other words, accepting that activities such as water abstraction and waste disposal must take place, but making sure they cause little damage to the natural environment or affect recreational activities. They would rather plan than ban!

Similarly, all the groups involved must make realistic and acceptable demands on the water environment. In effect, after weighing up all the arguments, the Agency makes judgements on the best way to use the water environment, causing least damage.

THE ENVIRONMENT AGENCY

The Environment Agency was formed by a merger of the National Rivers Authority with Her Majesty's Inspectorate of Pollution and the Waste Regulation Authorities. This new organisation began operating on 1 April 1996, and has responsibilities for the environmental protection of water, land and air.



ENVIRONMENT AGENCY



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MANAGEMENT AND CONTACTS:

The Environment Agency delivers a service to its customers, with the emphasis on authority and accountability at the most local level possible. It aims to be cost-effective and efficient and to offer the best service and value for money.

Head Office is responsible for overall policy and relationships with national bodies including Government.

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For general enquiries please call your local Environment Agency office. If you are unsure who to contact, or which is your local office, please call our general enquiry line.

The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water.

ENVIRONMENT AGENCY GENERAL ENQUIRY LINE

0645 333 111

ENVIRONMENT AGENCY EMERGENCY HOTLINE

0800 80 70 60



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