



CONSERVATION FACT FILE 3/9

*“Our job in conservation is to
conserve and enhance the
wildlife, heritage and
landscape of river catchments”*



ENVIRONMENT
AGENCY

the environment agency

The Environment Agency for England and Wales is one of the most powerful environmental regulators in the world. It provides a comprehensive approach to the protection and management of the environment, emphasising prevention, education and vigorous enforcement wherever necessary. The Agency's creation on the 1st April 1996 was a major step, merging the expertise of the National Rivers Authority, Her Majesty's Inspectorate of Pollution, the Waste Regulation Authorities and several smaller units from the Department of the Environment.

Thames Region

England and Wales are divided into eight Environment Agency regions. Thames Region is responsible for the protection of a 13,000 square km area of great diversity. The Region extends from Cirencester in the west to Southend in the east and from Luton in the north to the Surrey Downs in the south. Because this area contains a fifth of the nation's population, development pressures and demands on natural resources, particularly water, are greater than elsewhere in England and Wales. Thames Region is subdivided into three areas (West, North East and South East) which are the first point of contact for local issues.

Conservation, the subject of this leaflet, is one of our key responsibilities. The others - Flood Defence, Water Resources, Fisheries, Navigation, Recreation, Waste Regulation, Integrated Pollution Control and Water Quality - are covered in separate leaflets. In reality, we can't treat these responsibilities separately. Whatever we do must be done in the context of the whole catchment.

This means that the work of one specialist department is best carried out in collaboration with all the others. (So it's a good idea to read all the leaflets, and not just this one. In that way you'll get a better understanding of what we are trying to do).

This collaboration extends well outside the Environment Agency. In Conservation, we work closely with many other environmental organisations.

Examples of some of these external 'partners' are given below.

But the most important collaboration is with individual members of the public. Newspapers, magazines, TV and radio keep people informed about the environment. Local groups can highlight any threats. Only public opinion can ensure that the environment continues to be given the care and attention it needs.

"We also receive valuable guidance from the Thames Regional Fisheries Advisory Committee. Membership is drawn from a wide range of local and national bodies. Meetings of this committee are open to the public."

Some of our external 'partners'

- English Nature, the statutory body responsible for nature conservation in England.
- Countryside Commission, the statutory body responsible for the conservation of landscape and promoting access to the countryside.

- County wildlife trusts.
- National Trust.
- Royal Society for Nature Conservation.
- Royal Society for the Protection of Birds.
- Council for the Preservation of Rural England and, most importantly, thousands of individual landowners.

"Conservation is 'built in' right from the beginning of any project."

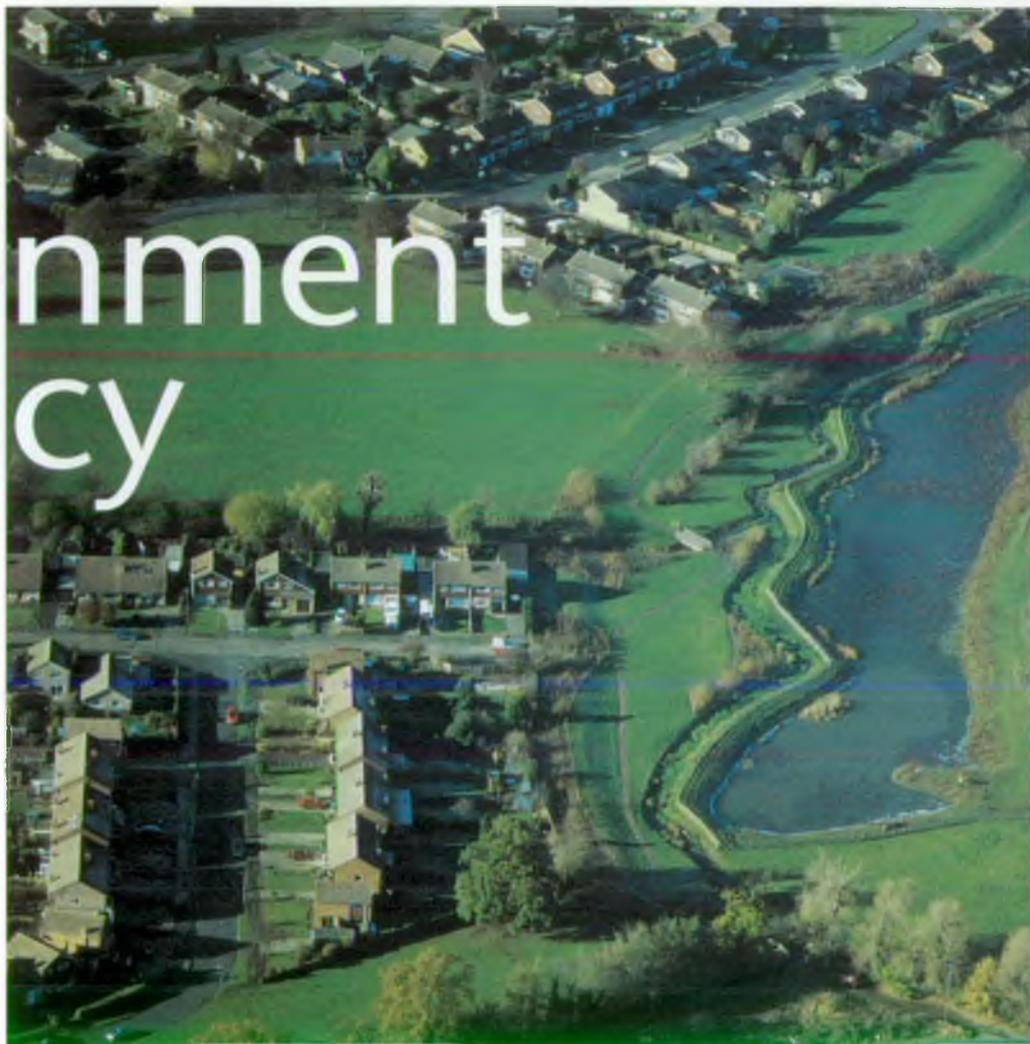
"Today, everyone expects more from the environment"

As individuals, we have two kinds of expectation from the environment.

On the one hand we expect that we can take more land for housing, industry, and roads ... use more water at home and at work ... produce more waste and pollution.

On the other hand: we expect that rivers will stay clean, that fish, animals, birds and flowers will multiply, and that the countryside will be as beautiful as it always has been.

These two sets of expectations are difficult to reconcile - to put it mildly, but our job in Conservation is to make sure that, as far as possible, they are reconciled.





Conservation from the word 'go'

It often happens that the best time to enhance the natural environment is when our colleagues in other parts of the Environment Agency are carrying out major works for other purposes.

By far the biggest of these 'other purposes' is flood defence. Thames Region spends about £20 million every year on flood defence works. A significant percentage of that money is devoted to the improvement or creation of habitats for local flora and fauna - not only those that may be directly disturbed by the works, but any others that could benefit from the investment of our money, time and expertise. Conservation is 'built in' right from the beginning of any project. When we design new projects we firstly identify the key existing features of heritage and conservation value and establish how to best integrate the new works with the site - by using appropriate local materials and by careful landscape design to reinforce local distinctiveness. This enables genuine enhancements of the river corridor to be implemented "on the back of" flood alleviation schemes - such as the stream

restoration and wetland creation at the flood storage area shown above left.

Here are some of the techniques we use to further conservation during flood defence works:

Two- stage channels

We create a flood 'berm' - a kind of wide ledge - immediately adjacent to the main channel of the river. When the river rises, the berm is covered with water, thus reducing the likelihood of flooding downstream. The berm can support a variety of habitats, from marshes and reed-beds nearest the river to damp grassland further away.



Flood bypass channels

Another successful flood defence device is the bypass channel. This is used to carry flood water only and so take pressure off the main channel. It also acts as a corridor of wetland habitat. This is always valuable, because such habitats are so scarce these days.

Willow spiling

Woven willow stems or "spiling" can provide a living and long-lasting protection for river banks. The space between the spiling and the bank is backfilled with soil to enable the willows to root into the bank.

Reed planting

Where the forces of erosion are comparatively weak, reeds can be planted to provide protection. They also provide homes for many unusual types of animals and birds, such as reed warbler and water rail.

Action - and influence too

There are two ways of achieving any objective - do it yourself or make sure someone else does it.

In Thames, so far as conservation is concerned, we do both.

So, in addition to all the mitigation and enhancement works described on previous pages, we also advise local authorities on any

planning applications that may affect the environment. This is a very important part of our work.

We are now recognised as the public body most concerned and most expert in all matters affecting the environment.

Landowners know where to go when they need help and advice about the rivers, streams and ponds near or on their land. And

anyone with a problem concerning the environment now has someone who will listen and who has the expertise to help put it right.

Conservation is no longer an enthusiast's pipe dream. It is a practical and increasingly successful policy for the Thames Region of the Environment Agency

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.

**ENVIRONMENT AGENCY
GENERAL ENQUIRY LINE**

0645 333 111

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

**ENVIRONMENT AGENCY
EMERGENCY HOTLINE**

0800 80 70 60



**ENVIRONMENT
AGENCY**

"If you have other ideas you think we could adopt we'd be delighted to hear from you."

Most rivers and streams in the region have been damaged in one way or another by human activities - particularly during the last 200 years. So there is no shortage of opportunities to improve habitats.

We have a separate budget of around a million pounds which we can spend as and when we think appropriate on the creation of new habitats. In order to decide on what enhancements should be carried out and where, we commission river corridor surveys and landscape assessments for targeted catchments - ie. particular rivers and the land they drain.

Sometimes we work entirely on our own. Sometimes we support schemes in which other bodies participate. The only proviso is that we want to be responsible for actually doing the work - we're not in the business of giving grants for conservation. In all cases we rely on the good-will and co-operation of landowners. We own very little land ourselves, and so without their support, the opportunities would be very limited.

Here are some examples of how we improve wildlife habitats :

- Many fish need riffles (mini-rapids) and pools for feeding or breeding We create riffles by introducing stones and gravel. The pools are formed in parts of the channel that we have deepened.
- If a channel has been previously widened or straightened, we encourage a variety of conditions by installing hurdles and groynes to make the channel narrower and more sinuous as in the example opposite.
- We reshape banks to make them shallower and to create terraces for wetland plants to thrive.
- Nesting and roosting sites for birds and bats are installed.
- We create new ponds and renovate existing ones.
- We plant native trees and shrubs close to watercourses, to provide shade and cover for wildlife.
- Where space allows, we like to create mosaics of wetland habitat near watercourses - like the nature reserve shown on the front cover. Such habitats could include open water, reed-beds, muddy 'scrapes' for wading birds, and damp grassland.
- In a few special cases, we work with others to restore large sections of rivers by re-creating meanders on previously straightened reaches such as the River

Restoration Project shown overleaf.

These are some of the things we do. If you have other ideas you think we could adopt, we'd be delighted to hear from you.

Taking care as we work

The work of maintaining the flow of rivers and streams can itself harm the water environment - unless the right care is taken.

When a river needs to be dredged in order to maintain its natural flow, we first prepare an environmental assessment. This summarises the habitats, flora and fauna that must be left undisturbed. It also specifies the precautions to be taken.

For instance our dredgers should normally only remove silt and debris from the river bed. Some silt and debris is left at the river margins to allow a strip of vegetation (such as reeds) to grow. Coarser materials, such as gravel, which provide habitat for aquatic invertebrates and spawning salmonids (salmon and trout), are left untouched. Features such as islands, cliffs, beaches, riffles and pools, ie. the natural features of the river, are also left intact.

The potentially damaging effects of dredging are considered and where possible avoided. One of them could be the lowering of water levels in nearby land. This could seriously alter the habitat of wetland and plant species, and make it difficult for wading birds such as redshank and snipe to probe the topsoil for invertebrates. Another problem arises if dredged silt is dumped on important habitats alongside the river.

Trimming of bankside trees and shrubs is done lightly wherever possible - and outside the bird-breeding season.

Pollarding and coppicing of riverside tree species such as willow, poplar and alder, prolong the life of the trees and reduce the chance of large dead branches falling off during a storm and blocking the watercourse. Stakes removed during pollarding are planted to create new trees - see below.

We aim to burn cuttings only when wind speed and direction makes it safe to do so. In many cases we leave a few logs and piles of brush wood to create habitats for fauna and fungal species.

"One of the most gratifying conservation successes of recent years has been the return of otters to Thames Region."

New homes for otters

One of the most gratifying conservation successes of recent years - on a par with the reappearance of migrating salmon in the Thames - has been the return of the otters to Thames Region. Otters need plenty of space, clean water and secluded holts (dens).



Otter projects in the region are excellent examples of our important collaboration with other organisations. We continue to work with local wildlife trusts and local landowners to improve otter habitats generally. In recent years we have implemented enhancements for otters in the Wey, Kennet, Upper Thames and Cherwell catchments.





Help on the way for water voles

Water voles were once commonplace in our waterways but they have suffered a drastic decline in the last 10 years or so. The abundance of mink and the loss of habitat are thought to have contributed to this decline. We are carrying out vital research on the problem and are leading the government's Biodiversity Action Plan group for the species in order to promote good habitat management practices which can halt "Ratty's" decline, and lead to future recovery.

Happy hunting for owls

We have worked with the Hawk and Owl Trust in a project to provide breeding sites for barn owls in the region. Flood plains in the Thames catchment are happy hunting grounds for this rare and beautiful bird, and some of our nest boxes now support breeding pairs.



The Man-made Environment

Our conservation duties also include archaeology and heritage. The Agency owns and manages some of the grandest places on the River Thames. The lock and weir complexes such as at Northmoor, Iffley, Marsh and Teddington contain valuable historic buildings and structures which give these places a unique character which we have a legal duty to conserve. Thus we need to take into account the presence of such features as Scheduled Ancient Monuments and Listed Buildings when we are proposing



to carry out any projects - even if they are wildlife habitat creation projects! When major new schemes are proposed in or close to areas of known archaeological interest, then we commission exploratory "digs" to determine the importance of the site, and consult the County Archaeologists to enable us to decide on appropriate modifications to our proposals where necessary.

"The beauty of the environment is worth conserving for its own sake."

Working with people

People are becoming more and more concerned about the environment. New laws governing the way we all use it are becoming more rigorous. As a result, Thames Region has increased the number of expert staff who work directly on environmental projects. They include landscape architects and conservation specialists. But everyone in the Thames Region makes environmental concern a prime requirement whatever the project.

The Environment Agency recognises that economic systems depend upon ecological systems (you can hardly manufacture anything without using the products of agriculture, fisheries, quarrying or mining, not to mention even more basic materials, such as water, air and space!). The overall aim has to be sustainable development, best defined as 'development that meets the need of the present without compromising the ability of future generations to meet their own needs'.

Environmental conservation is vital for that reason alone. But there is another reason. The beauty of the environment is part of everyone's heritage. It is worth preserving for its own sake and for the sake of everyone who enjoys the sight, sounds, and smells of clean water and all the wildlife that depends on it.

