

EA REC + NAV Box 2



ENVIRONMENT AGENCY



CONSERVATION, ACCESS AND RECREATION  
ANNUAL REPORT 1996/97







# Introduction

This report covers the first year of operation for the Environment Agency.

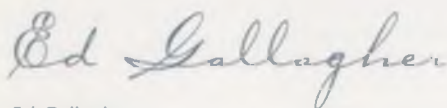
Formed in the spring of 1996, with the merger of the National Rivers Authority, Her Majesty's Inspectorate of Pollution and the local authority waste regulators, the Agency hit the ground running and surprised many by its ability to protect the environment and deliver services to customers from the word go.

This is due in no small measure to the transfer of specialist and dedicated staff to the new organisation and their willingness to accept change while continuing to perform at the highest level.

This is specially true of the small team of Conservation and Recreation staff who not only dealt with increasing demands for their expertise but also undertook projects worth more than £500k.

It is not possible to describe all of these projects in detail in this report and therefore we have selected a few from each of the Agency's eight regions which highlight the breadth and depth of our involvement.

The Agency will evolve over the next year or so to better meet the needs of its customers and the environment. I believe this report provides a good indication of the commitment of the Agency in the fields of conservation, access and recreation to provide a better environment for this and future generations.



Ed Gallagher

Chief Executive

Environment Agency  
Information Centre  
Head Office

ENVIRONMENT AGENCY



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# Conservation summary

In 1996, a national "re-launch" of conservation, targeting pollution control within the Agency, was undertaken. Conservation experts, representatives from other functions and external partner organisations were briefed as to our duties towards conservation. This was to ensure that we continue to fulfil our responsibilities for implementation of the Habitats Directive and Biodiversity Action Plan, and that conservation is fully integrated into pollution control and waste regulation.

We have major responsibilities for helping to implement action plans for a number of the species and habitats identified in the Government's Steering Group report on biodiversity. We are the contact point for 12 species, including the otter, water vole and crayfish, and one habitat (chalk rivers). We have started to incorporate actions and targets into Local Environment Agency Plans as part of the UK Biodiversity Action Plan. Performance against targets and actions taken to protect species and habitats will be published in a report later in 1997.

As part of our commitment to the UK Biodiversity Action Plan, we are continuing to support research at Oxford University on the interaction between water voles and mink. We chair the UK Water Vole Steering Group and we are collaborating with English Nature to produce a water vole habitat management handbook.

We have a target to review all Agency consents affecting Special Protection Areas and Special Areas of Conservation by 2004. A scoping phase to establish key sites and consents for priority review was initiated with English Nature and the Countryside Council for Wales (CCW) in 1996/7 with a view to establishing the resources necessary for a full appraisal from 1998 onward.

The key to much of our conservation work is partnership and collaboration. A total of 338 projects to enhance conservation involving the Agency were completed during the year, of which 296 were carried out jointly with other parties.

Guidance for the consenting protocols and summary strategies for 26 river Sites of Special Scientific Interest (SSSIs) in England and four river SSSIs in Wales was produced jointly with English Nature and CCW. This will streamline procedures for landowners and occupiers, clarify responsibilities and identify common objectives as part of the conservation strategy for each site. River SSSIs represent around 1800 km of rivers in England and Wales.

A three-year national sample of river habitats using River Habitat Survey (RHS) was completed in 1996/7. This will be used to publish the methods used for conservation evaluation. A report on river habitats in the UK will be published by March 1998. We are continuing to produce our quarterly monthly RHS newsletter, which now has an extensive external readership. We have a CD-ROM database containing RHS data and colour photographs for more than 5,000 sites in the UK. We carried out a feasibility study to look into developing this database into an educational tool for schools and colleges.

We have prepared 65 water level management plans, with priority given to wetland SSSIs, and a further 88 plans are in preparation.

We have produced an updated version of our leaflet on the control of invasive plants, which provides general information and advice on control of Giant Hogweed, Japanese knotweed and Himalayan Balsam.





# Recreation summary

During the year we produced and consulted on the draft Recreation Function Action Plan (F.A.P.). The plan 'clarifies our role in promoting recreation and sets out our aims and objectives for the future.' This F.A.P. will be published in early 1998.

A methodology for the development of recreation site management plans was developed and will again be published and circulated to all operations staff in early 1998.

Guidance notes which provide criteria for undertaking collaborative projects were also produced in 1996. These criteria help recreation staff to identify the type of projects that will provide the maximum benefits for water-related recreation, while also enhancing the water environment. The notes also provide advice on how to obtain maximum public awareness for partnership projects.

A very successful three-day seminar was held with the Agency, Sports Council and Countryside Commission in June 1996. All three agencies had recently undergone major organisational changes and in the Sports Council's case a change in remit. It was timely to discuss the issues behind the provision for water-related recreation and the roles of each organisation. These discussions have led to the drafting of Memoranda of Understanding between the three organisations which will be formally agreed in 1997.

A canoeing campaign designed to inform paddlers, aided by the publication of a leaflet, information card and poster, was extended to include a mailing to more than 200 universities and colleges. The Agency also exhibited at the International Canoe Exhibition at Birmingham in February 1996.

The Agency continued to financially support the Countryside Recreation Network (CRN). Agency staff attended and spoke at a number of workshops and conferences organised by the CRN. In January 1997, the Agency supported an "Access to Water" seminar in Sheffield which brought together a wide variety of interests including canoeists, anglers, governing bodies, statutory agencies, water companies and local government. The seminar was considered to be a significant step forward and a number of recommendations for the way ahead for access to water have been taken up by the Agency and others.



# Fisheries summary

We continued to protect and maintain the current status of fisheries. Where the need was identified and resources allowed, we undertook enhancement works to benefit fisheries. All our work takes account of the costs and benefits in all fisheries aspects.

The 1996 rod licence marketing campaign increased the number of licences sold by 17 per cent compared to 1995. Sales of the coarse and trout licence accounted for the majority of the extra sales. As a consequence, most of the extra income was used to improve coarse and trout fisheries. We were granted approval to increase the cost of the coarse and trout rod licence duties, up £1 to £16. The new duties are the first increase since the introduction of the two-tiered licence structure in 1994. This will apply from 1 April 1997 and will be held for at least two years. The extra income raised from the increase will be used to fund improvements to coarse and trout fisheries. The migratory salmonid licence duties were unchanged.

Phase one of the fisheries byelaw review was completed during the year. The purpose of the review is to standardise and simplify those byelaws which could be applied nationally. The following byelaws were confirmed during this year:

- a standard migratory catch return byelaw for rods and nets approved from 1 January 1997;
- use of the gaff was banned from 14 March 1997;
- maximum number of rods that may be used from 14 March 1997;
  - one for salmonids;
  - two for salmonids in stillwaters;
  - four for coarse fish in rivers and stillwaters;
- the close season for rainbow trout was dispensed with on stillwaters from 14 March 1997;
- the brown trout close season was retained on all waters.

The proposed byelaw setting out the design of keepnets and landing nets was referred to the European Commission, as the specification may be deemed to affect free trade.

The following issues were identified in Phase II of the review. Consultation will take place from April to June 1997, with implementation in 1998/9:

- otter guards on eel fyke nets;
- eel and elver catch returns;
- regulation of removal of fish by rod and line;
- fishing for crayfish and their use as bait;
- trolling from boats;
- unattended rods;
- minimum rod length;
- exemptions for Agency work.

The review of the position of the close season on canals continued. Currently four regions have no close season on canals in the whole or part of their area. We commissioned a study into the need for a close season on canals and will review the position following the outcome of this research. We will then consult with interested parties in 1998 with a view to introducing consistency.

The findings from our monitoring and survey work were used to identify and target sites for the fish stocking programme. More than 4.7 million fish were stocked to rivers, lakes and canals in 1996/7. Where stocking was considered inappropriate, fisheries habitat improvements were made at 230 sites. Improvements included the construction of fish-passes, cleaning spawning gravels, creation of riffles and pools and in-river and bankside improvements.

We produced an overall fisheries strategy and consulted between November 1996 and February 1997. All comments were collated and will be included where appropriate in the final version which will be published in 1997/8.

When A Strategy for the Management of Salmon in England and Wales was published in 1996, we planned to publish salmon action plans, for individual rivers, over the next five years. The standard format of these documents was developed in 1996, and draft plans for consultation were produced for 12 of our important salmon rivers. To complement the salmon strategy, a coarse fish strategy is proposed. The first draft of this document was produced in 1996/7 and it is intended to consult on the strategy during 1997/8.







# Navigation summary

## Facts and figures

- Some 37,000 boat registrations were issued by the Agency in 1996/97.
- More than 780,000 registration checks were made in the year and about 1,500 offences were detected.
- A total of 34 offenders were prosecuted and fined and 384 were issued with warning letters. The compliance rate of 99 per cent was well above the target of 90 per cent.

The increase to boat licence charges was held at inflation once again for 1997. It is hoped that registrations will increase following marketing and promotion of Agency waterways.

A review of the capital investment required to maintain all our navigation assets to an acceptable standard was initiated during the year and is now complete. This work will help the Agency to bid for additional funding so that essential maintenance to structures can be carried out.

A number of successful marketing initiatives were implemented during 1996, including the introduction of a twice-yearly newsletter, River Views. The first issue, which was mailed to all Agency boaters, introduced the Environment Agency and explained its many roles. A second edition produced in October was well received.

The Agency has worked with British Waterways and the British Marine Industries Federation (BMIF) and often other partners on a number of marketing projects:

- undertaking hire-boat market research looking at socio-economic profile and participation trends of hire boaters;
- working with the British Tourist Authority on overseas marketing of the inland waterway network;
- a joint stand with British Waterways at the Nottingham Boat Show in May and London Boat Show in January and our own stand at the National Waterways Festival in Dudley in August.
- organising a number of seminars and conferences to discuss issues facing the industry and navigation authorities.

The three Agency navigations, Thames, Anglian and Southern, are governed by separate pieces of legislation and operate slightly different registration and licensing schemes on each navigation. A business case seeking approval to modify the legislation and improve the service to users was developed in 1996/97. Following consultation, it is proposed to apply for a Transport and Works Act Order and associated byelaws in 1998 to introduce a standard system of registration across all our navigations in 1999.

A review of the standards of service offered to boaters in our three navigations identified shortfalls in facilities and services when the level of usage was taken into account. This information will be used as the basis of future financial planning, and was used to re-direct Grant in Aid in 1997 so that services to customers could be improved where severe shortfalls were identified.

The joint Agency and British Waterways Boat Safety Scheme, aimed at improving the safety of boats, was implemented for older boats in 1996 on British Waterways navigations and was applied to Agency navigations in 1997.

Following the Agency's recommendations to the Minister regarding the extension of the collaboration between navigation authorities, an Association of Inland Navigation Authorities (AINA) was formed at Stratford upon Avon on 4 December. This now has members from nearly 30 of the smaller navigation authorities and will meet to discuss areas and issues of mutual interest.

We continue our involvement with the Association of Inland Waterway Authorities to develop a national inland navigation strategy. It is planned to produce a draft for consultation in 1997.

The Rivers Wye and Lugg and their catchment represent a major river system of great importance for a variety of uses. In particular, the Wye is a Site of Special Scientific Interest (SSSI) of international conservation importance and renowned for its scenic and natural beauty. It is a premier salmon and sea trout angling river and has a public right of navigation from Hay on Wye down to its confluence with the River Severn. Above Hay there is a contested right of navigation which currently has an access agreement in existence. The river therefore is highly popular among canoeists and is the only navigation to provide natural white water in the UK.

The Agency believes it would be in the interest of the majority of users of the Rivers Wye and Lugg if it became the navigation authority. The Agency is charged with and capable of balancing conflicting interests, objectives and uses of the river. It also has experience of managing river navigations.

The Agency developed a Transport and Works Act Order to become the navigation authority on the River Wye this year. The promotion of the Order involved extensive consultation within 1996/97 and will be subject to Public Inquiry in April 1997.

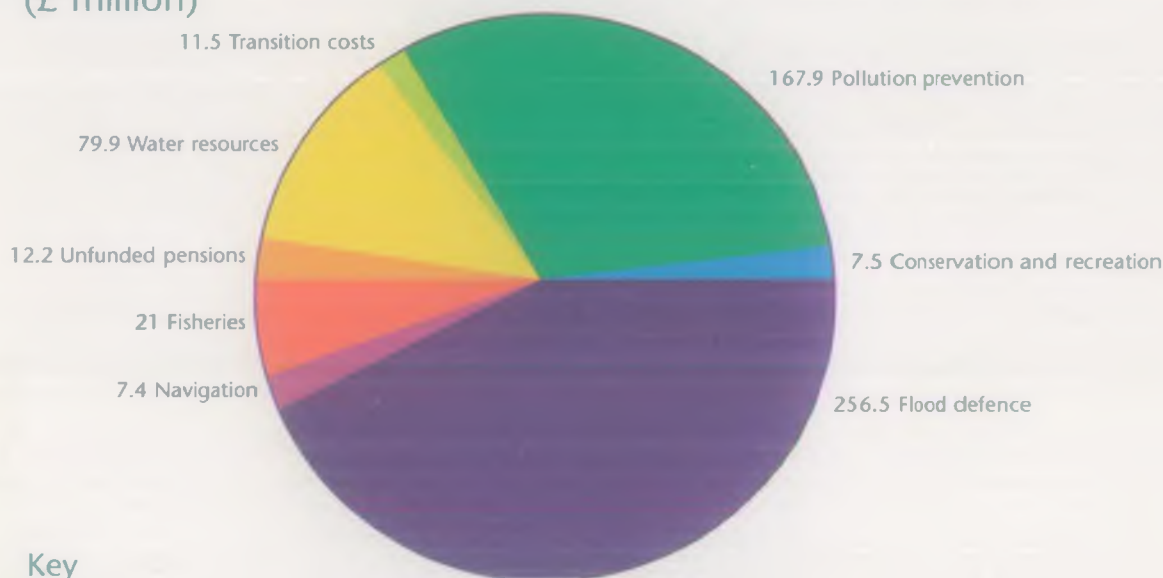






# Agency expenditure 1996/97

(£ million)

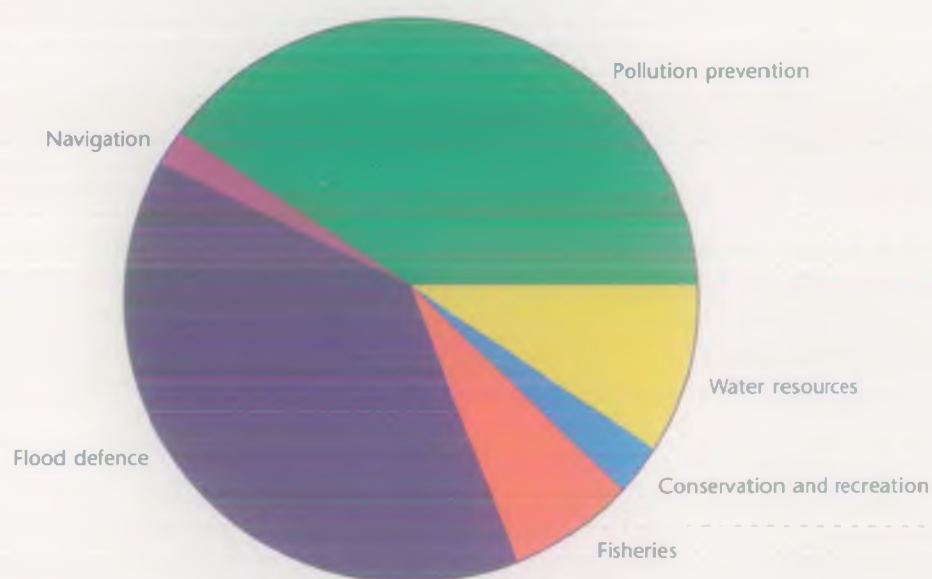


## Key

<span style="display:inline-block; width:10px; height:10px; background-color:purple; border:1px solid black;"></span> Flood defence 45.4%	<span style="display:inline-block; width:10px; height:10px; background-color:yellow; border:1px solid black;"></span> Water resources 14.2%
<span style="display:inline-block; width:10px; height:10px; background-color:blue; border:1px solid black;"></span> Conservation and recreation 1.3%	<span style="display:inline-block; width:10px; height:10px; background-color:orange; border:1px solid black;"></span> Unfunded pensions 2.3%
<span style="display:inline-block; width:10px; height:10px; background-color:green; border:1px solid black;"></span> Pollution prevention and control 29.8%	<span style="display:inline-block; width:10px; height:10px; background-color:red; border:1px solid black;"></span> Fisheries 3.7%
<span style="display:inline-block; width:10px; height:10px; background-color:lightgreen; border:1px solid black;"></span> Transition costs 2%	<span style="display:inline-block; width:10px; height:10px; background-color:purple; border:1px solid black;"></span> Navigation 1.3%



# Staff levels 1996/97



## Key

<span style="display:inline-block; width:10px; height:10px; background-color:purple; border:1px solid black;"></span> Flood defence 3,078	<span style="display:inline-block; width:10px; height:10px; background-color:orange; border:1px solid black;"></span> Fisheries 520
<span style="display:inline-block; width:10px; height:10px; background-color:yellow; border:1px solid black;"></span> Water resources 775	<span style="display:inline-block; width:10px; height:10px; background-color:green; border:1px solid black;"></span> Pollution prevention 2,881
<span style="display:inline-block; width:10px; height:10px; background-color:purple; border:1px solid black;"></span> Navigation 85	<span style="display:inline-block; width:10px; height:10px; background-color:blue; border:1px solid black;"></span> Conservation and recreation 121

# Projects

In order to provide a flavour of the projects undertaken by the Agency during 1996-97, four examples are highlighted in this report from each of the eight regions.

These highlight the Agency's commitment to species protection, habitat improvement, archaeology, river restoration, improvements to public access and recreation facilities.

## Anglian Region Projects 1996/97

### Angling Facility improvements at Toft Newton Reservoir

Following a major water resources project to enhance and maintain the Trent-Witham-Ancholm Transfer Scheme, improvements were made to the existing facilities for anglers and the public.

A series of dilapidated mobile caravans that previously served as a fishing lodge have been removed and modifications to an existing brick building have been completed to improve facilities for anglers at the reservoir. The building now offers an excellent fishing lodge which includes access for wheelchair users via a shallow ramp and toilet facilities for disabled persons.

These improvements complement a previous project carried out by the Agency's predecessor the NRA in conjunction with several other organisations. The project involved the purchase of a "wheely boat" and the construction of a suitable landing platform on the banks of the reservoir, as well as the provision of a mooring platform for 12 rowing boats. These improvements open up Toft Newton Reservoir, a premier trout fishery, to anglers who were previously restricted because of difficult bankside access. The "wheely boat" offers an unobstructed, protected and stable fishing platform which is virtually unsinkable. This special boat was originally conceived for use by wheelchair anglers, but is of equal value to people whose disabilities hamper their use of conventional craft.



### Humber Bank access improvements

The Humber Bank Catchment Management Plan identified that the recreation potential of the estuary was not fully developed. In particular, access to embankments is restricted for disabled people.

Sites along the bank have been identified as in need of improvement and Barton Outdoor Pursuit Centre was identified as requiring an access ramp. The site is owned by





North Lincolnshire Council but has a public footpath from the road to the bank. The ramp will also be used by groups of disabled people visiting Barton Outdoor Pursuit Centre. Spoil to construct the ramp was gained from excavation of a reedbed at Far Ings Nature Reserve. This was roughly shaped and left to settle.

The ramp was then surfaced with handrails and a kickboard erected. Eventually the area will be grassed and planted up and it is hoped the ramp will form part of a route along the Humber Bank which can be accessed by all pedestrians and disabled people.



## Environmental approach to operational work in the Anglian Region

The dredging of the Ely Ouse River in Cambridgeshire provides a typical example of the attention given to the assessment of the environmental impact of the Agency's operations.

The fenland area associated with this catchment has a one in 100 year standard of protection because of the large area of low lying land and hence the very serious consequences of flooding.

The entire length (14.7km) of the Ely Ouse main river is embanked. The washlands are important for breeding and wintering wildfowl, waders and raptors and also contain habitats that are uncommon to the area. The washland on the right bank has been designated as a potential Site of Nature Conservation Interest. The washlands are also of high landscape and amenity value and a specific survey of the river corridor was undertaken to determine suitable locations for depositing the excavated silt.

A popular and regularly used footpath which runs along the left bank adjacent to the river had to be closed for the duration of the works. Some of the dredged silt will be used by the Agency to reinstate and further improve the footpath to a standard which will allow for wheelchair access. Pollarding of selected willows on the right bank was also undertaken.

Great care was taken to minimise the impact of the dredging works and to ensure that the diversity of interests in this area were not compromised. A successful outcome was achieved through a wide consultation process and continued dialogue between the Agency, landowners, District Council, the Wildlife Trust and English Nature.

## Restoration of little Cressingham Windmill

The Agency has completed its input to a project aimed at restoring this unique Norfolk Mill. The Agency recreated the mill pool and restored a dam allowing water from a nearby brook to be diverted to fill the pool. The work has been carried out with the collaboration and financial support of Norfolk County Council and the Windmill Trust.

What makes this historic building so special is that the mill's original activities could be powered by both water and wind. Very few of these mills were ever built and effectively operated, and even fewer exist today to be enjoyed as a recreation facility for a new generation of water users.



# Midlands Region

## Barn Rooden Wetland enhancement



In partnership with landowners and the Forestry Authority a mosaic of wetlands and deciduous woodland has been created within this arable landscape which contains few hedgerows and trees and a small number of unmanaged, remnant ponds.

Relatively small numbers of water plants and amphibians have survived the recent agricultural improvements.

The project included the creation of two fish ponds and the renovation of old ponds which are specially designed to provide breeding areas for frogs and newts. An on-line pond has also been renovated by removing the silt build-up which has accumulated over a number of years.

The ponds at Barn Rooden are typical examples of the widespread problems faced by ponds from continuing land use changes and lack of management. The scheme will be completed by carrying out marginal and aquatic planting along with appropriate maintenance.

Additionally, within the areas of newly planted woodland, a network of "rides" are being created to maximise ecological diversity within the woodland.

## Disabled fishing platforms at Winthorpe

Further to earlier works undertaken by the region for improving access for the disabled, a number of purpose-built platforms for disabled anglers have been provided at the Agency-owned lake at Winthorpe, adjacent to the River Trent.

The site has been used for fishing and informal recreation for a number of years but recent steps taken to prevent vehicles damaging the grassland consequently made access for the disabled very difficult.

The provision of new platforms and ramps located next to the existing car park now allows access for disabled fishermen to an area previously inaccessible to them. The access track across fields from the nearby village of Holme has also been improved and a new cattle grid installed.

Material removed during the excavation of the bank have been used to reduce erosion elsewhere around the lake. This has now been planted with willows in an attempt to stabilise the bank.





## Severn Valley Wetlands project

Further progress was made in developing wetlands along the Severn Valley with the completion of "Pwll Penarth" in partnership with Severn Trent Water and Montgomeryshire Wildlife Trust.

This new education reserve opened by David Bellamy is Newtown's first nature reserve and has been well received by local schools, disabled and youth groups and the Town Council.

Habitat improvement works have also been completed at Venus Pool near Shrewsbury, in partnership with the Shropshire Ornithological Society.

The primary targets of the project are habitats and species identified in national and regional Biodiversity Action Plans



along with wading birds, particularly redshank, lapwing, curlew and snipe which have all declined in recent years as a result of agricultural improvements and continued land use changes.

To date the project has undertaken significant works at seven sites covering in excess of 170 acres and including the development of three new nature reserves. Public access and education provision form an integral component of these sites.

It has recently been agreed that the Agency becomes the lead organisation in partnership with the major conservation bodies in implementing a co-ordinated programme of protection, enhancement, creation and restoration of a whole string of wetlands along the complete length of the River Severn.



## River Tame improvements at the National Memorial Arboretum

Past river engineering works have reduced habitat diversity on the banks and bed of the lower reaches of the River Tame to a minimum.

Land either side of the Tame upstream of its confluence with the Trent has been worked for gravel by Redland Aggregates who recently handed over part of the site to the National Memorial Arboretum while retaining a large pool on the right bank as a nature reserve.

In co-operation with these organisations the Agency improved a length of the river bank by creating a wide underwater berm which is being planted with phragmites to encourage the development of a reedbed, a valuable habitat which, at present, is virtually unknown on the Lower Tame.

Fish fry will also benefit from the reedbed creation as it will provide them with much-needed shelter. Currently fish fry have a very low survival rate on the Tame because of a lack of shelter.

In addition to the berm the previously near-vertical bank was then pulled back to a slope of between one in eight and one in 16 and the 12,000 m<sup>3</sup> of excavated material was used to create excellent habitat features within the adjacent lake.





# North West Region

## Habitat improvements - rivers Eden and Derwent

The Agency has been working in collaboration with a number of organisations including the Eden Rivers Trust, Lowther Estates, Derwent Owners Association, Lake District National Park Authority and English Nature to undertake habitat improvement works on the Rivers Eden and Derwent.

Improvement of riparian habitat by fencing and tree planting has been found to benefit fish stocks and wildlife generally. Successful work of this nature has already been undertaken on other rivers in recent years, especially the Tweed, where significant improvements in fish stocks have subsequently been found.

Two sites on the Upper River Eden were selected for habitat improvement following detailed Investigation of Swindale Beck near Appleby and the River Lyvennet just south of Penrith. Fencing, tree planting and erosion repairs were undertaken and both sites are being monitored to assess development of the fishery and riparian vegetation.

Funding for habitat improvement work on the Derwent has also been provided by the Derwent Owners Association, Lake District National Park Authority, English Nature and the Agency. Work has been undertaken to identify specific sites in need of improvement and fencing and tree planting has also been completed. Monitoring work will be undertaken on these sites to assess improvements to the fishery and ecology of the associated river corridor.



## Disabled angling project

Successful projects to improve access for disabled anglers have been undertaken at Haslam public park, Preston, and in Darwen.

The work at Haslam involved the reformation of shoreline and restoration of the old angler's platform in partnership with Preston Borough Council.

A financial contribution was made by the Agency in a project to re-habilitate Arnold Mill Lodge for use by disabled and able-bodied anglers in an urban area where no fishing facilities for the disabled currently exist. Again, this was a collaborative project in partnership with the local angling club.





## Padgate Brook

The object of this scheme was the rehabilitation of a very straight watercourse, with floodbanks, over a 1km stretch.

Padgate Brook runs through an area of informal open space with adjacent land which includes residential land, a former "Twigger" and a drying out wetland with phragmites beds. The council has drawn up a management plan for this area. Historically the brook had been diverted and flowed in a highly channelised and straightened course, with floodbanks further restraining the wildlife corridor. The brook was heavily maintained by the Agency for flood defence



purposes and flow in the brook itself is relatively limited but backs up with water from the River Mersey, particularly at high tide.

Consultants worked on the feasibility and design stages with the in-house project team. Construction work was undertaken by the in-house flood defence workforce, with supervision from the Agency and the engineering contractor SWK. The earthworks commenced in September 1996 and were completed in November 1996. Marginal plating of low-level berms was also undertaken in spring 1997.

## Black Poplar project

The aim of this project was to increase the distribution of the native black poplar within the Weaver and Gowy catchments as a biodiversity initiative. The project was carried out between November 1996 and April 1997 and ties in closely with existing species action plans produced by English Nature and the Cheshire Wildlife Trust. It is hoped the project will assist in the work of these organisations and promote further partnership in the future.

The native black poplar is a nationally rare tree whose numbers are declining although a relic population exists in Cheshire. Seedlings are rarely found due to a lack of female trees in the wild and the spread of the tree is hindered due to the loss of suitable floodplain habitat.

The objective of the project was to establish 60 black poplar seedlings, provided by Ness Botanical Gardens, within the Gowy and Weaver catchments. The seedlings were grown from seed collected from mature trees at Ledsham SSSI on the Wirral with the permission of English Nature. This ensured that the genetic integrity of the local trees was maintained.

This project was also an awareness-raising exercise with articles published in the Farming and Wildlife Advisory Group

(FWAG) newsletter, local farming magazines and through wide coverage in the local press, as well as interviews on local radio. Coverage was also given in internal Agency newsletters.

The main partner of this project was the Cheshire branch of FWAG, a charitable organisation which promotes the integration of landscape and wildlife conservation with modern farming.

This complements a national project on black poplars being managed in the Midlands Region.





# North East Region

## Tyne and Wear watersports project

As previously reported the Agency is a major partner in the Tyne and Wear Watersports Development Project (TWWSDP) which is successfully implementing its watersports strategy "Making Waves".

This partnership project continues to improve the provisions for recreation activities such as sailing, boating and other watersports and has greatly improved the co-ordination and promotion of such activities, events and access.

By adopting a collaborative approach with TWWSDP the key issues have been addressed and all watersports in Tyne and Wear are developing in a way which is sustainable for the sports as well as for the environment.

The most recent improvements jointly funded by the Agency and other partners include the provision of a visitors' pontoon at Newcastle Quayside where the large tidal reach previously deterred boats and yachts from mooring, safer disabled access to the public pontoon at St Peter's Marina and improvements to the slipway at South Shields.

This thriving project has recently gained charitable status and is now self-financing.



## River Rede pilot project



Approximately two miles along both banks of the River Rede upstream of Otterburn have been fenced off. This is phase one of the project to enhance both the aquatic and terrestrial habitats along the river, with the ultimate aim of improving fish stocks and biodiversity.

The work was required because the banks have been heavily grazed by sheep and cattle, resulting in an almost total

absence of bankside cover. Grazing has also exacerbated erosion rates, with the released fines causing sedimentation which poses a threat to the extensive salmon nursery situated in this area. If left to continue unabated this could have a considerable impact on the Rede fishery.

The fencing will also greatly enhance the ecological value of the area. The removal of grazing stock will allow the Rede's rich suite of aquatic and marginal macrophytes to re-establish and the improved bankside cover will generally benefit fish and wildlife. Two species which will benefit from the work are the otter and the water vole. The Agency is committed to both these species through the UK Biodiversity Action Plan.

The next phase of the project will be the planting of locally native broad leaf trees such as alder, ash, willow, hawthorn and blackthorn along the riverbank.

Essentially the project will involve a comprehensive monitoring programme, including biology and fisheries surveys and a river habitat survey of the whole reach.

Finally, it is the intention to use this section of the River Rede as a demonstration site to show local landowners the benefits of conservation and environmental improvements. The ultimate goal is for landowners to implement similar schemes on their properties.



## Middle Swale recreation project

Due to long term habitat degradation the project has, over the last three years, improved more than 30 miles of riverside habitat by planting willows adjacent to the river along with a few standard oak and ash trees. Importantly the areas have been fenced off to prevent sheep and cattle grazing the new trees.

Historically the Swale has been subject to significant and environmentally damaging land drainage improvements where it has been deepened, straightened and had the tree cover removed to allow the water to "get away faster". The effect is one of an oversized drain, rather than a river! The volume and force of water which flows down the river continues to cause over-deepening, bank slumping and serious erosion.

Land use changes have also contributed to the erosion problems and to the paucity of habitat along the banks. Sheep numbers in North Yorkshire have increased by 40 per cent in the last 10 years and the banks of the Swale have been severely overgrazed, the soil exposed and the erosion problems exacerbated.



## River Dearne remodelling

Though rising in agricultural surroundings, much of the River Dearne's course is through a former coalfield, which once had the largest concentration of deep mines in the country. As a result of subsidence the natural gradient of the river bed was upset, ponding occurred in sections of the channel and there was flooding on adjacent land. This prompted the river engineering works of the 1960s which left the Dearne, near its confluence with the Don, a substantially re-channelled straight and ecologically poor river. While these works reduced the risk of flooding to people and property they did not take account of the river's ecological and leisure potential.

With the water quality improvements that accompanied the demise of the coal mining industry, it became apparent that the lack of natural habitat and channelised appearance was holding back the sustainable development of the river, as a fishery and as an amenity.

The remodelling was almost wholly on property owned by the Agency, or on land immediately adjacent. Meanders have been reintroduced to a section of river at Harlington, together with the imaginative placing of large stone and substantial earthworks to reshape existing features, within the confines

of the flood banks at each side. The work was undertaken to re-create a visually appealing, varied habitat with meanders, riffles, gravels and backwaters as well as improving the value of the river for fishing and other recreation activities.





# outhern Region

## On your bike

To mark the completion of a major improvement scheme on the River Medina, at Shide on the Isle of Wight, Agency staff undertook a cycle ride during National Environment Week.

The scheme involved the demolition of an old concrete structure in the river which historically measured river flows for water resources and for the Agency's flood warning system. The structure has been replaced with a new ultrasonic device located under the Shide Road Bridge.

In keeping with the Agency's environmental aims, concrete from the demolished structure was recycled on site to form a two-stage river channel designed to create a diverse range of habitats for a variety of species. The brick instrumentation hut, now redundant, was adapted to provide roosts for bats and barn owls.

Following completion of the major construction works, the Agency has worked closely with the Isle of Wight AONB Project to plant up the site with native trees, shrubs and aquatic plants. An interpretation board has also been erected to inform visitors about the project, the wildlife interest of the area and the history of the site.



## Greenlink: Environmental awards

Following the success of the NRA's Water Wise award scheme there was a need to further encourage schools to undertake projects designed to help children, teachers and the local community to focus on lessening their impacts on the environment. Green Link was established and extended the scope of the awards to all environmental projects, rather than just water-based projects.

The Green Link Play was commissioned to launch the award scheme. A local theatre company worked with A level students to write and perform an environmentally friendly play, about a ruthless businessman whose only thoughts were for profits. His environmentally conscious sister tried to change his attitude with the able assistance of "superbloke". The inclusion of audience participation made the play and its message highly memorable.

Nearly 600 children saw and enjoyed the play on its tour of Sussex schools. Although most of the schools were carrying out some form of recycling, thinking about their use of water was something they took away from the play. Awards were presented at a ceremony in March which was well covered by local newspapers, radio and television.





## South East Otters project

In October 1996 an Assistant South-East Otters and Rivers Project Officer was appointed in Kent. The post is funded primarily by the Agency and based at the Kent Wildlife Trust.

The aim of the project is to encourage the otter back into Kent through the creation of suitable habitat and positive river management along river corridors and by providing secure refuges. The Assistant Project Officer has been working closely with landowners, Countryside Management Projects and FWAG as well as the Agency and Kent Wildlife Trust.

An initial task was to set up a series of volunteer training days in the Medway and Stour catchments, encouraging local people to get involved in monitoring the riverbank for signs of otter, American mink and water vole. Other tasks have included setting up a landowner database, arranging a contract to

survey the Isle of Sheppey for riverine mammals and raising the profile of the otter in Kent. This is one of many excellent otter projects which the Agency supports and often leads throughout the country.



## River Itchen Crayfish habitat scheme: River Itchen

In 1995/96 the NRA (Southern Region) jointly funded with English Nature a survey of the River Itchen for native crayfish. The survey was successfully completed by Sparsholt College which produced a report in January 1996. The River Itchen Native Crayfish Survey Report concluded that: "The native crayfish stock in the River Itchen appears to have undergone a dramatic decline over the last five years". No signal crayfish were observed during the survey although crayfish plague has occurred in the past.

That report highlighted a number of recommendations including the need to undertake specific habitat improvement works to directly benefit and encourage our native crayfish.

Habitat work is focusing on cleaning the gravel in the stream bed to encourage de-siltation and water flow, importation of large flint substrate along channel sides, and appropriate small scale deflectors to improve flow conditions and create refuges. Appropriate tree and shrub planting to encourage overhanging tree roots and fencing to exclude grazing stock and protect recently planted whips was also undertaken.

The River Itchen Native Crayfish Habitat Enhancement Scheme is a collaborative venture between Sparsholt College, a private landowner and the Agency. Funding for the project is being provided by the Agency while Sparsholt College is providing expertise in the design and implementation of the scheme.





# South West Region

## Protection of Culm Grassland



In Devon Area, the Agency is supporting the purchase of 32.5 hectares (80 acres) of "culm" grassland habitat at Ashborough and East Volehouse Farm, on the banks of the River Torridge. About half of the site forms part of Kismeldon Meadows, an SSSI and candidate Special Area for Conservation (SAC).

The Culm grassland is extremely species-rich and supports a good population of the marsh fritillary butterfly, a threatened species. The River Torridge, with its salmon and otters, and the existence of a mature farm pond with associated marshy area provide high ecological diversity.

The Agency is contributing about 20 per cent of the capital cost, with other sums coming from the Devon Wildlife Trust, English Nature and a public appeal.

Traditional management will ensure that the site maintains its richness and diversity of habitat. Public access and interpretive material will be provided.



## Biodiversity



In an effort to protect the few remaining populations of native crayfish in the south west, a local Biodiversity Action Plan has been produced. This recommended the designation of the River Piddle in South Wessex area as a "no go" area under the Import of Live Fish Act 1990, but the proposal was turned down by the Ministry of Agriculture, Fisheries and Food.

The Agency is considering a programme of re-introducing native crayfish to the upper reaches of the River Avon in Hampshire, where the habitat is suitable.

Public awareness is being raised through the distribution of a leaflet advising on how to prevent the spread of crayfish plague to the remaining populations.

Until the 1980s, native crayfish were widespread in North and South Wessex Areas and were present in Devon Area. They are now restricted to the River (Bristol) Avon, the Rivers Piddle, Stour and Ebbles, and possibly the River Creedy.



## Parish Bridges Project



The bridges of Cornwall County are important features in the network of parish paths, which wander through some of the most scenically stunning landscape in England. Eight are being replaced in a collaborative venture between the Agency, Cornwall County Council and the parish councils of Perranzabuloe, Ladock, Cubert, Quethiock, Lanteglos-by-Fowey, St Mewan and Poundstock (which gets two).

Parish councillors identified the need for the bridges, the Agency supplied the bridges in kit form and the County

Council supplied the labour to erect them, ensuring that these important footpaths over watercourses are kept open.

In addition, a new bridge capable of taking horse traffic has been built on Agency land at Bissoe, near Wheal Jane, as part of the Minerals and Tramways project. This links the north and south coasts of Cornwall along the route originally used for transporting mineral ores from the mines to the docks at Devoran Quay.

## Pedal the Levels



In North Wessex Area, there are several initiatives to improve the network of cycleways and the Agency is collaborating with other partners to promote these.

Somerset County Council assisted by the Agency, is promoting a scheme called "Pedal the Levels", a cycleway through the Somerset Levels. A six-kilometre section from Glastonbury to Shapwick Heath, alongside the River Brue, is complete and extensions are planned.

The Agency, South Gloucestershire Council, Bristol City Council, the Forest of Avon and local cycling organisations are collaborating on a project to upgrade the towpath between Bristol and Hanham. About a third of the route has been re-surfaced, widened and drained to make it more cycle-friendly.

A footpath and cycleway is also being planned to link Taunton town centre with an out-of-town shopping area, using a route along the River Tone which incorporates Agency-owned land. This project is being developed in collaboration with Somerset County Council and Taunton Deane Borough Council.



# Thames Region

## Refurbishment of Rainbow Bridge

Towpath bridge No. 35 (better known as Rainbow Bridge) is a Grade II listed structure which carries both the towpath and Thames Path across the main Thames navigation channel at Medley in Oxford city.

In October 1994, during the course of undertaking remedial repairs to the bridge, extensive corrosion to the main structure was found which effectively rendered the bridge unsound. It was not possible to continue with, or extend, the ongoing works due to the need to agree with Oxford City Planning

Department an acceptable method of carrying out the major structural repairs which were required.

Following temporary repairs the towpath was closed in January 1997, a ferry was provided as an alternative method of access during daylight hours and the bridge was systematically taken apart and elements repaired or renewed as necessary, thoroughly cleaned by grit blasting, primed and painted.

A new timber deck was fixed to the structure with an anti-slip surface and the bridge was re-opened in the second week of April 1997.



## Barn Elms monitoring

Following the recent transformation of a large urban industrial site into the superb Barn Elms Wetland Centre, designed primarily for nature conservation purposes, the Agency is making a significant contribution to the ecological monitoring at the site through financial support

and practical and advisory work. The monitoring of this ambitious and pioneering development includes essential population studies of wildfowl, amphibians and reptiles, mammals and fish in addition to water quality and soil analysis.

As significant waterbodies have been created, essential monitoring of early colonisation is being undertaken within areas of natural colonisation and in designated areas where planting of desired vegetation assemblages has been undertaken. The monitoring will ensure that recommendations made by English Nature are implemented.

This innovative urban development has created an oasis for wetland wildlife just four miles from Hyde Park Corner and is available to visitors who can study wildlife on the site from the excellent visitor centre and hides overlooking the reserve.



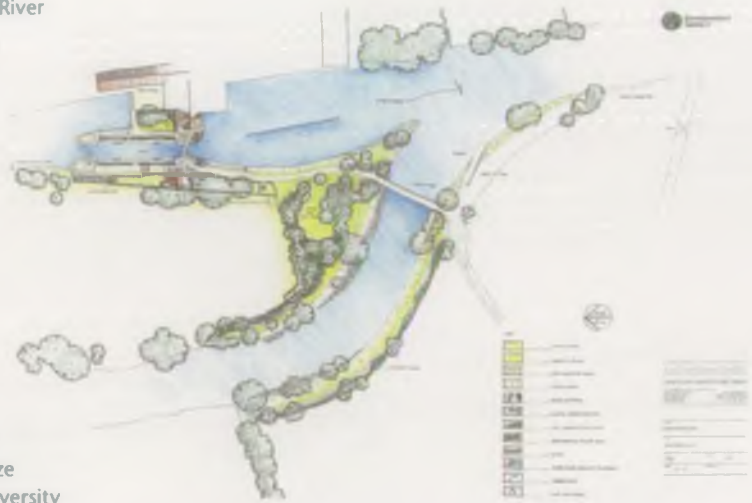


## Sandford Lock site management plan

Sandford Lock lies in an attractive location on the River Thames just south of Oxford. It is popular with visitors along the riverbank as well as on the river because of the nearby public house and car park. An area of Agency-owned land at the lock has historically received little attention but now, after the completion of a Site Management Plan, things are beginning to change.

Tree and shrub planting has been carried out, new wooden palisade fencing erected, a Tourist Information Point installed and a new grass maintenance regime introduced. These proposals were developed by a team of Agency staff and are aimed at creating a wide range of improvements. Visitors will be able to sit in the shade in summer and shelter from the breeze in winter and wildlife will benefit from a greater diversity of habitat.

Boaters and walkers alike on the Thames Path will be able to learn more about the locality from the information panels at the lockside. The whole site will become more attractive as the landscape planting matures and the Management Plan ensures that each element complements the others and that best use is made of the Agency's land.



Another proposal in the plan is to provide a small launching site in the car park beside the River. This is a much-needed facility which will allow small craft access to a part of the river where public slipways are few in number.

## Crane Park reedbed

A reedbed and pond system has been established at the Crane Park Island nature reserve, after years of neglect, at the site of the old gunpowder mills. The Agency has undertaken habitat improvement work on the island, most notably the planting of a phragmites reedbed which will offer a nesting site for birds such as the reed Warbler in addition to encouraging a more diverse flora. Planting of the 2,800 pot-grown reeds took six sessions using dedicated volunteers. This was muddy, back-breaking work but well worth it!

The first two months are critical in the establishment of phragmites as they can suffer from drowning or drought, so water levels were carefully controlled.

Two ponds have also been created with an inflow and outflow from the River Crane. These are now colonised by water voles which relish the soft earth banks, and are a national conservation priority.

Public access at the site has been managed to protect both the reedbed and the water voles.



# Welsh Region

## Magor Marsh habitat improvements - phase 3



Magor Marsh is the last remaining area of fen on the Gwent Levels, the remainder long improved for agriculture though still having a major nature conservation interest in its extensive system of ditches. The marsh is a nature reserve of the Gwent Wildlife Trust and an SSSI. The principal source of water in the reserve is a spring-fed lake which acts as a reservoir during the summer, water levels being kept higher than the surrounding land by a system of sluices. The reserve has a range of wetland habitats - willow carr, reedbeds, marsh and wet grassland - and supports a wide range of plants and animals. It is also an important educational resource for local schools.

The Agency has been involved in several projects on the site in previous years, including the construction of a boardwalk to improve access for the less-abled, the provision of water level monitoring equipment and willow pollarding. The Phase 3 work involved excavation to substantially increase the size of the lake, both to increase the reservoir capacity and the area of open-water habitat. The construction of secure housing for the monitoring equipment was also undertaken.

## Usk habitat improvements

In line with actions identified in the Usk Catchment Management Plan, a major rolling programme of habitat improvements in the Usk catchment has progressed.

Habitat creation work has been carried out at Gwent Tertiary College and Castle Meadows in Abergavenny as the first phase of "on-the-ground" implementation.

The Agency in partnership with the college and Gwent Wildlife Trust has been working for several years on the creation of a significant wetland conservation site at this agricultural college.

The project is judged to be doubly valuable in not only achieving direct conservation improvements on the ground but also presenting a highly valuable educational resource for the "next generation of farmers".

Work carried out to date has included the restoration of an existing wetland, otter conservation work on the Berthin Brook, to which otters have returned within the project's lifetime, and the creation of a wetland reserve on pasture land

adjacent to the brook. Work on the reserve has included the creation of a large pond along with a number of smaller scrapes and water features. These have been designed to complement existing carr and wet grassland forming a graded wetland habitat attractive to wading birds, particularly snipe. A bird hide supplied by the Agency has also been erected at the reserve which has been linked in with the college's nature trail. The college has agreed to manage the reserve according to a Site Management Plan produced by Gwent Wildlife Trust in consultation with the Agency.



The first phase of a two-year collaborative project between the Agency, Monmouthshire Council and Gwent Wildlife Trust has been carried out at Castle Meadows. This high-profile site is an extensive meadow along the southern edge of Abergavenny, along the river Usk, under local authority ownership and with considerable public access. The partners in conjunction with the local Tourist Association have worked up a plan to enhance existing wetlands and create new wetlands across the site. The work has been





carefully designed in conjunction with the existing trail network to maximise the recreational gain as well as the environmental improvements. Work carried out to date has included the restoration of some minor watercourses, the creation of a series of new ponds and scrapes, and the pollarding of many willows.

## Carmarthenshire coastal and riverside walks, South Wales

More than 40km of public footpaths and bridleways have been made more accessible in an exciting collaborative project between the Agency and Carmarthenshire County Council (CCC). The project was funded by the Agency following bids for additional Grant in Aid late in the year.

The project included the reconstruction of footpaths, way marking and the installation of stiles and gates to provide access along the coast at Laugharne and between Pendine and Telpyn, linking communities along the river Gwili and extending a walk along Kymer's Canal, the oldest canal in Wales. The work was carried out by enthusiastic volunteers from both the UK and overseas (as far as Sierra Leone) and local craftsmen under the supervision of CCC.

The local archaeological trust (Cambria) has produced interpretative panels of exceptionally high quality to illustrate scenes of the past and present cultures and local environments. The graphics are superb, including original water colours and pen and ink drawings, reflecting the skills and extensive research carried out by Cambria during this project.

The walks were officially opened during 1997 in a blaze of publicity and Conservation and Recreation staff have organised charity walks along some of the routes.



## Parc Slip Nature Reserve, Bridgend

The Agency funded the construction of a 30 foot long bird hide with access for the disabled at this Glamorgan Wildlife Trust reserve. The project included the excavation of a wader scrape and production of educational material. The project was officially launched by David Bellamy in June 1997.



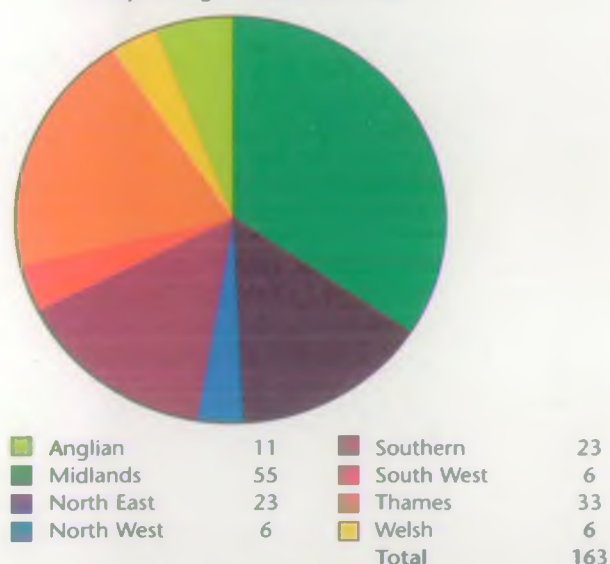
## Projects completed

The following table indicates the number of projects undertaken by each region and highlights the number of collaborative projects with other organisations and individuals.

	No of stand-alone C & R projects	No of collaborative C & R projects	Total no of C & R projects
Anglian	7	10	17
North East	7	43	50
North West	15	14	29
Midlands	15	44	59
Southern	7	101	108
South West	1	17	18
Thames	35	40	75
Welsh	2	52	54
<b>TOTAL</b>	<b>112</b>	<b>298</b>	<b>410</b>

## Conservation

No of Agency Capital Work Schemes incorporating conservation work



No of surveys: in reaction to proposed changes to river channel and for river habitat survey

	Reactive survey Length (km)	River habitat survey sites Completed (No)
Anglian	727.5	797
Midlands	85	142
North East	91	237
North West	42.5	54
Southern	70	820
South West	42	118
Thames	41	67
Welsh	190.4	80
<b>Total</b>	<b>1,289.4</b>	<b>2,315</b>

## Agency site information

Region	Recreation sites		Conservation sites	
	In use	Future use	In use	Future sites
Anglian	168	265	75	367
* North East	204	233	136	329
Thames	57	10	40	17
Midlands	46	12	35	24
Welsh	26	2	24	3
South Western	46	1	38	11
North West	19	12	24	7
* Southern	42	32	35	35

\* Although regions have been continually reviewing their site information both regions marked have been undertaking a major review of their initial site information. This refinement includes meeting the definition of a site: as an area larger than 0.5 hectares or strip of land longer than 0.5km. A number of sites have been consolidated which had previously been counted as separate sites. This has altered the data reported from previous years.



## Type of agency sites



Asset	166	Grassland	571
River	574	Wetland	93
Stillwater	100	Estuary	32
Woodland	67	Coast	31
Moorland/Heath	3		

## Land-based activities on Agency sites

Activity	Restricted access	Permitted access	Open access	Total
Bird watching	2	1	123	126
Cycling/mountain biking			37	37
Horse riding			22	22
Model boating	2		2	4
Motor sports			2	2
Orienteering			1	1
Jogging/running			46	46
Hunting/shooting	17		2	19
Walking	3		446	449

Restricted access is available for club members only or for groups organised by local authorities. Permitted access is open to everyone but a charge is made. Open access is free for everyone.

## Water-based activities on Agency sites

Activity	Restricted access	Permitted access	Open access	Total
Boating	15	10	71	96
Canoeing	14	10	54	78
Coarse fishing	71	74	92	237
Sea fishing	1	1	9	11
Game fishing	13	27	9	49
Jet skiing	2		2	4
Sailing	7	1	8	16
Sub aqua		1	1	2
Swimming	1		3	4
Water skiing	3		2	5
Windsurfing	5	1	4	10
Rowing	4	1	25	30
Rafting	1	1		2

Restricted access is available for club members only or for groups organised by local authorities. Permitted access is open to everyone but a charge is made. Open access is free for everyone. Note: we may or may not own the fishing rights at these sites.

## Designations on Agency sites

National Trail	44
Regional Trail	23
Country Park	4
National Park	11
AONB	30
Heritage Coast	2
SSSI	128
SNCI	85
NNR	7
LNR	11
RSPB Reserve	2
Ramsar Site	29
County Trust Reserve	17
SPA	29
SAM	8
Listed Building	5
SSAI	6
SIHI	1

## Rights of way on Agency sites

Public footpath	400
Bridleway	43
Permissive path	116

## Facility provisions on Agency sites

Facility	Number of sites	Suitable for disabled
Footpaths	477	67
Car parks	71	14
Picnic	22	9
Information/visitor centre	8	4
Interpretation boards	45	22
Toilets	40	12
Viewing points	15	7
Playground	2	
Cycle trail	18	3
Campsite	13	1
Fishing lodge	1	
Fishing platform	238	42
Clubhouse	9	1
Nature trail	7	1
Bird hide	12	3
Boat hire	2	
Slipways	18	
Moorings	177	18





# Leaflets and Publications produced by the Agency

## Head Office

### Conservation

Conservation Technical Handbooks:

- 1 River Corridor Surveys
- 2 Landscape Assessment
- 3 Otter Handbook

River Habitats in England and Wales - River Habitat Survey report no. 1, March 1996

1995 Conservation Directory

A Guide to Identifying Freshwater Crayfish in Britain and Ireland

Guidance for the Control of Invasive Plants near Watercourses

Conservation Strategy

### Fisheries

Fisheries Statistics 1989

Fisheries Statistics 1990

Fisheries Statistics 1991

Fisheries Statistics 1992

Fisheries Statistics 1993

Fisheries Statistics 1994

Fisheries Technical Reports:

- 1 Sea Trout in England and Wales
- 2 Sea Trout Catch Statistics
- 3 Sea Trout Literature Review
- 4 Sea Trout Gene Banks
- 5 National Anglers Survey 1994

Anglers and the Agency

Buyer Beware - your guide to stocking fish

Catch and Release - a guide to careful salmon handling leaflet

A Strategy for the Management of Salmon in England and Wales

Fisheries Strategy

### Navigation

Boat Safety Scheme - technical standards

(produced with British Waterways)

Oil Care for Boaters

Navigation Strategy

A Boater's Guide to Navigation Signs on Agency Navigations

Reciprocal Licensing Arrangements for Boaters (joint publication with British Waterways)

Environment Agency Navigations leaflet

River Views: Biannual Navigation Newsletter

### Recreation

Have Fun, Have a Care - information for river canoeists (leaflet, poster and plastic card)

Water Wisdom

Recreation Facility Design Manual (for internal use)

Recreation Strategy

## Anglian Region

### Fisheries

Fisheries Byelaws

Your Complete Guide to Fishing in the Anglian Region - Rivers and Still waters (produced with Angling Times)

Conservation in the Environment Agency: A quick guide to environmental assessment/appraisal guidance documents and other related documents

### Conservation

Conservation in Anglian Region

East Anglian Salt Marshes

Rivers Environmental Database System

Coastal Wildlife Survey

Recreation and Navigation

Waterways - A code of conduct

Navigation in the Anglian Region

Navigation Notes - Advice to boat owners

Navigation - The Anglian Experience

Map - Navigation in the Anglian Region

## North East Region

### Conservation

River Coquet and Coquet Valley Woodlands - A Site of Special Scientific Interest

Freshwater Crayfish in Leeds

The Ouse Ings - History and Natural History

North East Region Conservation Strategy

Water Weed Control - take care to protect the aquatic environment

Farming and Wildlife Advisory Group

Ponds and Conservation

Conservation in the Catchment documents - Ure and Swale catchments

Floodbanks in Flower

Understanding River Erosion - from a conservation perspective

Otters and eel netting

### Fisheries

North East Region Angling Guide

North East Region Coarse Fish Strategy

North East Region Salmon and Sea Trout Strategy

Domesday to Dawn of the New Millennium

Kielder Salmon Hatchery

Buyer Beware Poached Salmon

Catch magazine

Fisheries Byelaws - North East Region

Stillwater Fisheries - their creation, development and management \*

Predators and pest control \*

Fish and fisheries biology \*

Water plants: their functional control \*

Construction and disilting of stillwaters \*

Fisheries habitat improvement \*

Environment of fish \*

Fisheries advisory booklet series

## Recreation

Northumbria Canoeists Access hotline card  
Hazard Warning - Rubbish in River  
Barmby Barrage Amenity Site  
Rivercall - an information guide for river users  
Enjoying the Rivers and Coast of the North East  
Step into Teesdale - six circular walks around the Baldersdale and Lunedale Reservoirs  
Coquet Estuary Zoning Leaflet

## North West Region

### Conservation

Conservation and Rivers  
Bassenthwaite Lake - Home sweet Home  
Silt - and its effects on the river  
When did you last see an otter in the North West ?  
Ullswater  
Coniston  
Derwent Water  
Brothers Water

### Fisheries

Protecting and Improving Fisheries in the North West of England  
1994 Annual Fisheries report  
1995 Annual Fisheries report

### Recreation

Spending a Penny on Windermere Could Cost You a Fortune!  
1995 Annual report on Conservation & Recreation

## Midlands Region

### Conservation

Provision and Maintenance of Nest and Roosting Sites on River Bridges  
Operations and Protected Species  
The Water Environment - Our Cultural Heritage (produced with English Heritage)  
Coed Cymru - Riverside Trees  
Dredging and Archaeology  
River Severn Otters Project - bringing otters back to our rivers  
Water Plants  
Conservation Designations  
Mink  
Conservation Work in the Midlands Region  
Rivers and Wetlands: Best Practice Guidance  
Conservation Designations

### Fisheries

Environment of Fish  
Fish and Fisheries Biology  
Monitoring and Control of Fish Stocks  
Construction and Desilting of Still waters  
Fisheries Habitat Improvement  
Management of Specialist Stillwater Coarse Fisheries  
Management of Stillwater Trout Fisheries  
Trout Farming  
Predator and Pest Control in Fisheries  
Useful Information for Angling Clubs  
Fisheries News - magazine

## Recreation and Navigation

Navigation in the Severn-Trent Region  
Environment Agency Recreation Sites  
Canoeist's Guide to the River Severn  
River Avon Users Guide  
The Severn Bore  
The Trent Aegir  
The Trent Angling Guide  
The Soar and Wreake Angling Guide  
Regional Fishing Guide 1997 - 1998  
Angling Contest Waters

## Southern Region

### Conservation

River Darent conservation project  
Ponds and Conservation - pond pack  
Managing Aquatic Plants  
Otters - the South East Otters and Rivers Project  
Spotting the Otter  
New Life for Hermitage stream  
Green Link

### Fisheries

Fishing in the South (new edition)  
Freshwater Fish of the Southern Region  
Buyer Beware of Poached Salmon  
News Reel for Anglers (bi-annual newspaper)  
Fisheries information leaflets - 19 various subjects (revised)

## Recreation and Navigation

Guide to the Medway Navigation  
The Medway Navigation  
Boating on Sussex Rivers  
Harbour of Rye  
Rye Harbour Byelaws  
Medway River Project  
Guide to the Harbour of Rye  
Sailor's Guide to Rye

## South Western Region

### Conservation

Pond Pack  
Wildlife Along Rivers  
Somerset Levels and Moors water Level Management and Nature Conservation  
River Tone  
Identifying Freshwater Invertebrate Life  
Preventing the Spread of Crayfish Plague in the South West

### Fisheries

The Guide to Angling in South West England 1995 - 1996 (published in partnership with West Country Tourist Board)  
Angling Guides : Avon and Dorset, Somerset, and Bristol Avon  
Buyer Beware Leaflet  
Fisheries Technical reports:  
1 The status of spring salmon stocks in Devon and Cornwall  
2 Electric fishing monitoring - regional policy  
3 Reporting guidelines for catchment overview surveys



- 4 The Exeter Canal coarse fishery
- 5 Biological problems associated with IFIM
- 6 Fisheries targets and their measurement on the Rivers Taw and Torridge
- 7 Review of fishery regulations on the Rivers Taw and Torridge

## Recreation

The By Brook

## Thames Region

### Conservation

Pinkhill Meadows Nature Reserve  
 Invertebrate Animals of the Tidal Thames  
 Nature and the Freshwater River Thames  
 Restoring Land for Otters  
 Ponds and Conservation  
 River Ash Enhancement Project  
 Go with the Flow - Education Pack for Wandle, Beverley, Hogsmill  
 The Agency Files - Education Pack for Wandle, Beverley, Hogsmill  
 The Tidal Foreshore  
 Partnership in Planning  
 Millennium Experience: Legacy of Riverbank Design  
 Invertebrate animals of the Tidal Thames  
 Fish of the Tidal Thames  
 Birds of the Tidal Thames  
 Thames 21  
 Wetland Creation and Management Posters - series of three  
 Conservation Fact File 3/9  
 Pinkhill Meadow Nature Reserve Poster  
 Wetland Wildlife (with tracks and signs)  
 Chalvey Ditch Enhancement Scheme Post-project appraisal  
 Distribution of Crayfish in the Thames Region  
 A Simple Key to Canal Water Quality using a Biological Technique

### Fisheries

Fisheries Byelaws 1978

### Navigation

A User's Guide to the River Thames  
 Cruising on the River Thames  
 Locks and Weirs on the River Thames - how do they work ?  
 Navigation Levels of Service  
 Annual Navigation Newsletter  
 Thames Navigation Byelaws 1993  
 The Thames Navigation General and Licensing Byelaws 1993 - An Introduction  
 The Royal River Thames  
 Narrow Boats on the Thames  
 Thames Region Fact File - Navigation

### Recreation

The Thames Barrier, The Eighth Wonder of the World  
 Abingdon Riverside Walk  
 The Two Rivers Walk  
 The Thames Valley Walk  
 The Beane Valley Walk  
 England's River - the attractions, wildlife and people  
 England's River - the sporting and leisure life of the River

Enjoy Oxford's Waterways  
 Camping beside the River Thames  
 A Guide to the River Thames, Lock and Weir Fishing  
 A Recreation Strategy for the River Thames  
 A Recreation Strategy for the River Thames - an overview  
 Thames Region Fact File - Recreation  
 Willow Tree Wander  
 Thames Down Link  
 Discover the River Thames and Path

## Welsh Region

### Conservation

Conservation and Recreation: The Wye Challenge  
 Conservation and Rivers  
 Tryweryn Otter Trail

### Fisheries

Juvenile Salmonid Monitoring Programme Report  
 Reward for Tagged Fish  
 Buyer Beware of Poached Salmon  
 Rod and Line Byelaws 1996  
 'Glas y Dorian'  
 Stocking of Trout Waters  
 Rod Fishing Byelaws (1996)  
 Rod Fishing Byelaws (1997)  
 Welsh Coarse Fish Strategy: Implementation Plan  
 River Wye Angling Guide  
 An introduction to eel and elver fishing  
 Angling Guide for the Rivers Dee and Clwyd 1994 - 1995  
 Fishing the rivers of Wales (trout and salmon) 1996  
 Fisheries Technical Reports;  
 Usk Salmon - Recommendations for Action  
 Spring Salmon - A review of factors affecting the abundance and catch of spring salmon from the River Wye and elsewhere, and proposals for stock maintenance and enhancement  
 Resident Brown Trout - A management strategy, implementation and progress report  
 Dee Stock Assessment Annual Report 1992  
 Dee Stock Assessment Programme Report 1993

### Recreation

Canoeists' Guide to the River Wye  
 Access on the River Usk, Sennybridge to Usk  
 River Wye Handbook  
 River Wye Code of Conduct  
 Calendar of Major Events on the River Wye 1997

## 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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