

## CONSERVATION IN THE ANGLIAN REGION



Guardians of  
the Water  
Environment



**NRA**

*National Rivers Authority  
Anglian Region*



*Fenland lode.*



*The 1953 floods.*

## The Anglian Region

The Anglian Region hosts a rich variety of wildlife habitats, flora and landscapes associated with its streams, rivers, ponds, lakes, wetlands, estuaries and coastal waters. Many of these are protected by statutory designations, for example, 75% of the coastline is covered by a conservation and/or landscape designation. Five Areas of Outstanding Natural Beauty fall either partially or wholly within Anglian Region, along with England's newest National Park - the Broads. A fifth of England and Wales' internationally important wetlands, from large estuaries such as the Humber and the Wash, to washlands such as the Ouse Washes, occur within this region. Along with over 700 Sites of Special Scientific Interest and 30 National Nature Reserves there is a very large conservation heritage and resource to protect.

A substantial proportion of the region's aquatic environment and associated land has been subjected to a long history of modification, drainage for agricultural, industrial and residential development. The Anglian Region is the



*1910 drainage of the Fens.*

most intensively farmed area of the country and the creation of canal like rivers and the drainage of extensive areas of wetland has adversely affected much of the region's natural heritage.

Within Anglian Region there is, therefore, a large conservation role in which the NRA is involved within its remit to both protect areas of value, and undertake rehabilitation and enhancement work.

## Conservation and Flood Defence

Flood defence works are of particular importance in Anglian Region because 20% of the region is below high tide level, making it vulnerable to tidal and freshwater flooding. In 1953 over 300 people died and more than 8000 hectares of land were inundated in the East Coast floods, with the result that vast tracts of agricultural land were made temporarily infertile by saline intrusion.

Conservation is a dominant factor in the decision and planning of flood defence programmes. Each proposed scheme undergoes an environmental assessment which involves examining the impact on the environment of the different options. This process is designed to identify local needs, sensitive environmental issues, and to collate the differing views of the public and environmental bodies. Through this, we are able to decide on a strategy that is not only effective, but sympathetically meets the needs of the environment.

# Guardians of the Water Environment



*Heacham beach recharge in progress.*

The use of soft engineering options such as beach recharge (Heacham, Norfolk) and managed retreat have helped ensure that the need to protect people and property from flooding are balanced with the need to protect our coastal and riverine environment by creating a defence which is both natural and effective.

## Conservation and Water Resources

The NRA is required to manage water resources not only to meet the important demands of life in the aquatic environment but also to meet the legitimate demands of abstractors of water. In most instances these demands are in competition and the NRA has the job of striking the right balance between the two. Our task is particularly difficult in Anglian because of the region's low rainfall and high evaporation rates.

The Region contains some of the largest and most important areas of fen and marsh wetland in Britain, for example the Fens and the Norfolk Broads. These remaining wetlands are the remnants of ancient swamps which once covered much of lowland Britain.

Many plant and animal species depend for their survival on these aquatic/semi-aquatic habitats, and have evolved special adaptations to cope with the wet conditions.



*Fen Raft Spider.*

Courtesy of Arthur Rivett.



*Typical wetland site.*



*Dragonfly.*

Courtesy of the Wildfowl & Wetlands Trust.



*Spray irrigation.*

Conservation and Water Resources personnel work together to ensure that all applications for water abstraction consider possible impacts on the environment, and licences are only issued where there will be as little adverse effect on sensitive areas as possible.

## Catchment Planning

River catchments are subject to increasing use by a variety of activities. Many of these interact and some conflicts arise. The competing requirements and interests of users and beneficiaries must be balanced.

The NRA is in the process of undertaking a rolling programme of plan development for catchments in Anglian Region. The process involves the NRA liaising with external bodies and using its statutory powers to produce long-term strategies for the protection of rivers, lakes, coastal and underground waters.

The plans identify vulnerable sites which require sensitive management in order that we can protect, and where possible, enhance these areas for the benefit of future generations.



*Welney Washes.*

## Planning

Under Section 16 of the Water Resources Act 1991, the NRA has a statutory duty to take into account the conservation and enhancement of the water environment when commenting on planning applications. This work is carried out by the Area conservation staff who carefully consider applications aided by a comprehensive set of standardized responses.

## Surveying

To function effectively it is important that the NRA is able to classify and monitor the conservation resource. In Anglian Region we meet this requirement by surveying our rivers, coastline and estuaries and then processing the data to monitor and increase awareness.



*Teal.*

Courtesy of the Wildfowl & Wetlands Trust.



*Flowering Rush.*

Courtesy of the Wildfowl & Wetlands Trust.

## Rivers Environmental Database System - REDS

REDS is a 3 year survey of plants and bird life present within the region's 6000km of river. By surveying the flora, fauna and features within a river, its banks and the land close by, important features which need protecting can be highlighted and habitats to be rehabilitated and enhanced can be identified.

## Coastal Wildlife Survey

In a scheme similar to REDS, a survey of the estuaries and coastline is also being undertaken. The survey provides the NRA with detailed habitat, botanical, breeding bird and wintering waterfowl data. The survey is used to ensure that NRA works are carried out in such a way so as to protect and enhance the coastal environment.

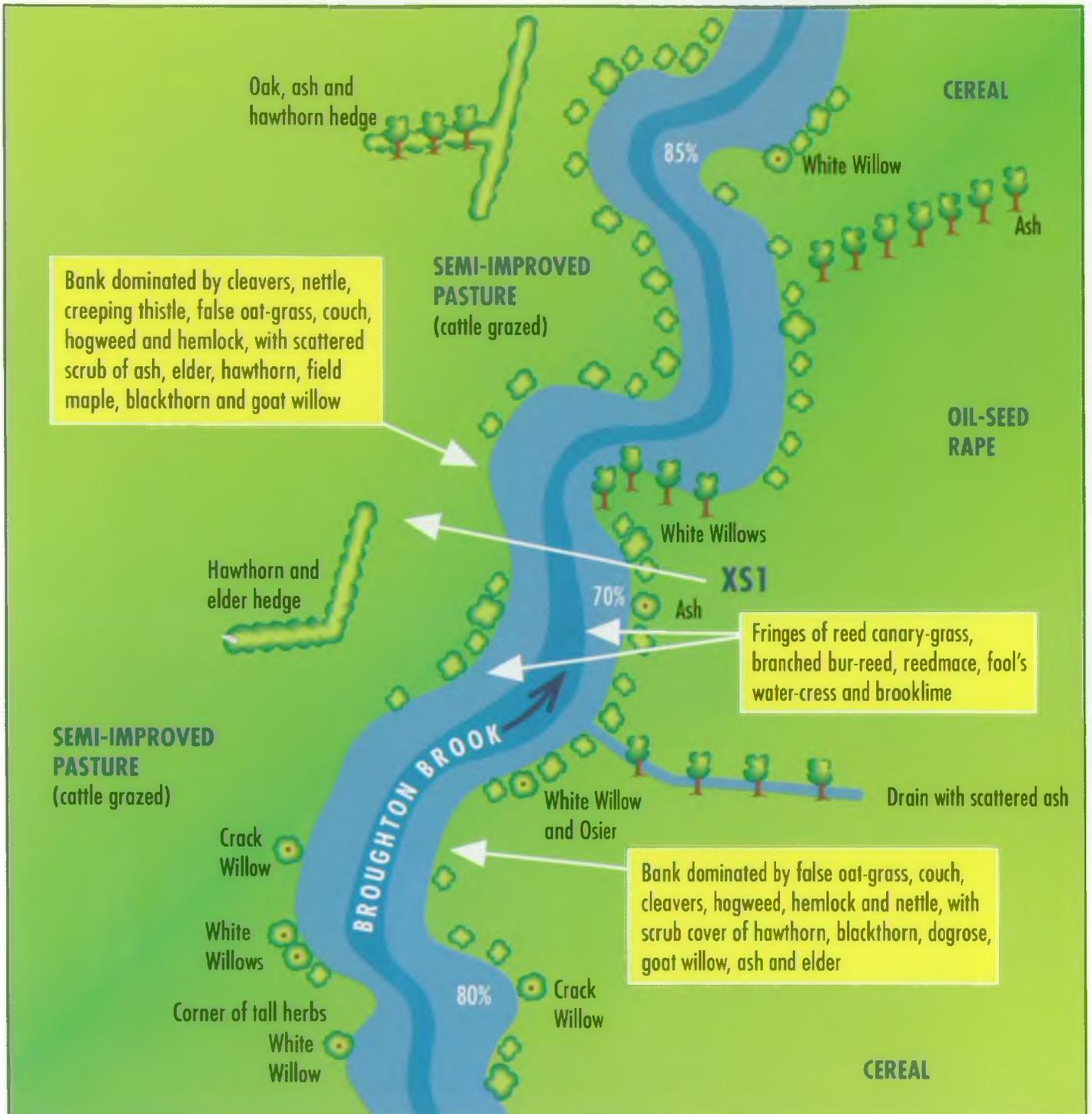


*River corridor survey.*

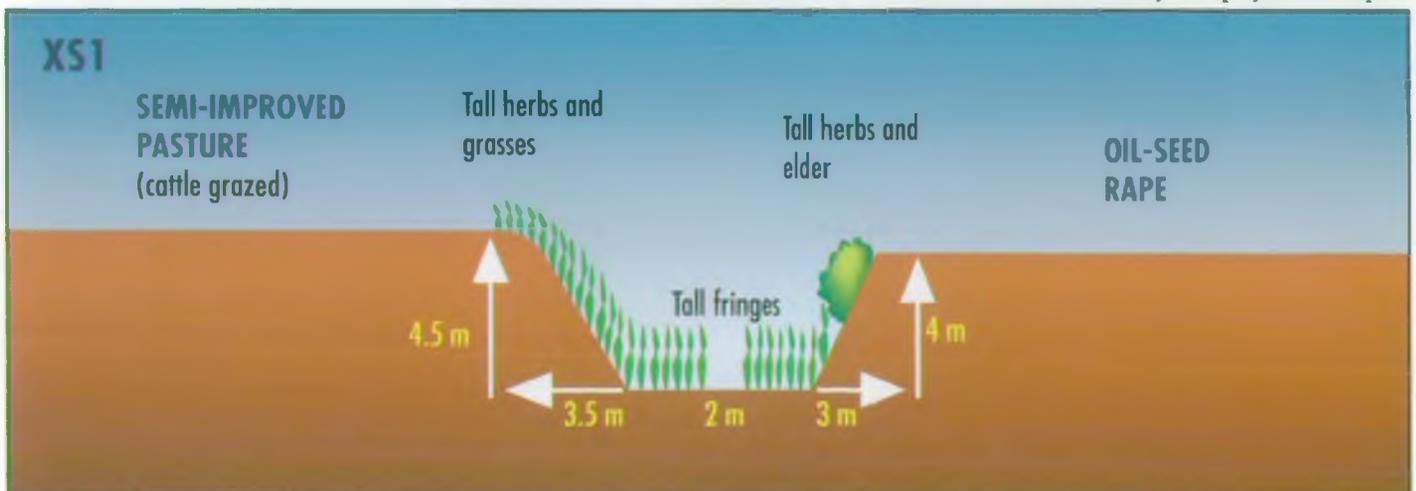


*Avocet.*

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River corridor survey: simplified example.



## Water Quality and Fisheries

Routine river monitoring by both chemical and biological sampling play an integral part in protecting and conserving our rivers. Healthy rivers mean healthy fish. Fish surveys are conducted to ascertain fish populations, diversity, size and health. Fish populations in estuaries and coastal waters are also monitored.



*Fish survey.*



*North Norfolk heritage coast at Cley.*

## Conservation Sites Register

In order to consider the effects of all work for which we are responsible it is imperative that we keep records of all sites of conservation value, both of natural and cultural interest. We therefore maintain and up-date a computer database of all notified sites of nature conservation, archaeological and architectural interest. Couple this with versatile mapping technology, and we have the ability to store, retrieve and present data quickly, in a form understandable by all personnel.

## Collaborative Projects

We have close links with many outside bodies concerned with conservation. These range from national statutory bodies (English Nature, Countryside Commission, County Councils, English Heritage) to local voluntary bodies (County Wildlife Trusts, Royal Society for the Protection of Birds, Wildfowl and Wetlands Trust).

The NRA welcomes participation in collaborative projects with these, and other bodies. Recently, such projects have included otter surveys of the rivers of Bedfordshire, Cambridgeshire and Northamptonshire and management plans for a number of NRA owned sites.

## Education and Promotion

NRA representatives are regularly interviewed for television and radio and often undertake talks. Through this and its presence at county shows, exhibitions and other high profile events, the NRA seeks to promote, inform and play a positive role in increasing public awareness.

The NRA also liaises with statutory and voluntary bodies for consultation purposes and on the implementation of conservation work throughout the region.



*Educational display.*

# The National Rivers Authority

## Guardians of the Water Environment

The National Rivers Authority is responsible for a wide range of regulatory and statutory duties connected with the water environment.

Created in 1989 under the Water Act it comprises a national policy body coordinating the activities of 8 regional groups each one mirroring the areas served by former regional water authorities.

The main functions of the NRA are:

- |   |  |
|---|--|
| Water resources                             | — The planning of resources to meet the water needs of the country; licensing companies, organisations and individuals to abstract water; and monitoring the licences.                   |
| Environmental quality and Pollution Control | — maintaining and improving water quality in rivers, estuaries and coastal seas; granting consents for discharges to the water environment; monitoring water quality; pollution control. |
| Flood defence                               | — the general supervision of flood defences; the carrying out of works on main rivers; sea defences.   |
| Fisheries                                   | — the maintenance, improvement and development of fisheries in inland waters including licensing, re-stocking and enforcement functions.   |
| Conservation                                | — furthering the conservation of the water environment and protecting its amenity.   |
| Navigation and recreation                   | — navigation responsibilities in three regions — Anglian, Southern and Thames and the provision and maintenance of recreational facilities on rivers and waters under its control.       |



ENVIRONMENT AGENCY

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