

GUARDIANS OF THE WATER ENVIRONMENT



NRA

*National Rivers Authority
Thames Region*

CHAIRMAN'S FOREWORD

September 1 1989 represented a turning point in the history of environmental protection in England and Wales.

On that date the National Rivers Authority took up its duties. Overnight the NRA became the strongest environmental protection agency in Europe, invested with extensive powers and responsibilities by Parliament.

The Authority comes into existence at a time when there has never been more concern about the damage mankind inflicts on the natural systems on which we all depend.

The responsibilities of the NRA are far-reaching. Foremost amongst them is to control pollution and improve the quality of our country's river systems and coastal waters.

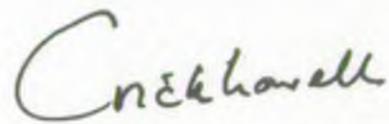
The NRA will do this by raising environmental awareness within industry, commerce, farming and among the public, and enforcing strict standards of environmental control.

We have both the resources and the expertise to be effective, and to strike a balance between all the competing interests that use our rivers, while at the same time providing the strongest protection for their plant and wildlife.

In carrying out its duties as a tough and effective regulator, the NRA will ensure that its standards take full account of European Community guidelines. We will operate openly by publicising our policies and publishing available information.

The existence of a powerful, impartial and independent organisation with a clear statutory responsibility to carry out its duties transforms the way in which our water environment is guarded. It is an immense improvement on the arrangements that have existed before.

The strength of the NRA goes beyond the authority invested in it by Parliament and the assurance of the Government that it will give us all the necessary support. It taps as well the vast reservoir of public opinion, with its strong feelings about the importance of the environment. In the years to come the NRA will use these strengths to ensure that the rivers, lakes, coasts and underground waters of England and Wales are protected and improved for the sake not only of this generation – but of those to come.



**The Rt. Hon.
The Lord Crickhowell – Chairman**



INTRODUCTION: THAMES REGION



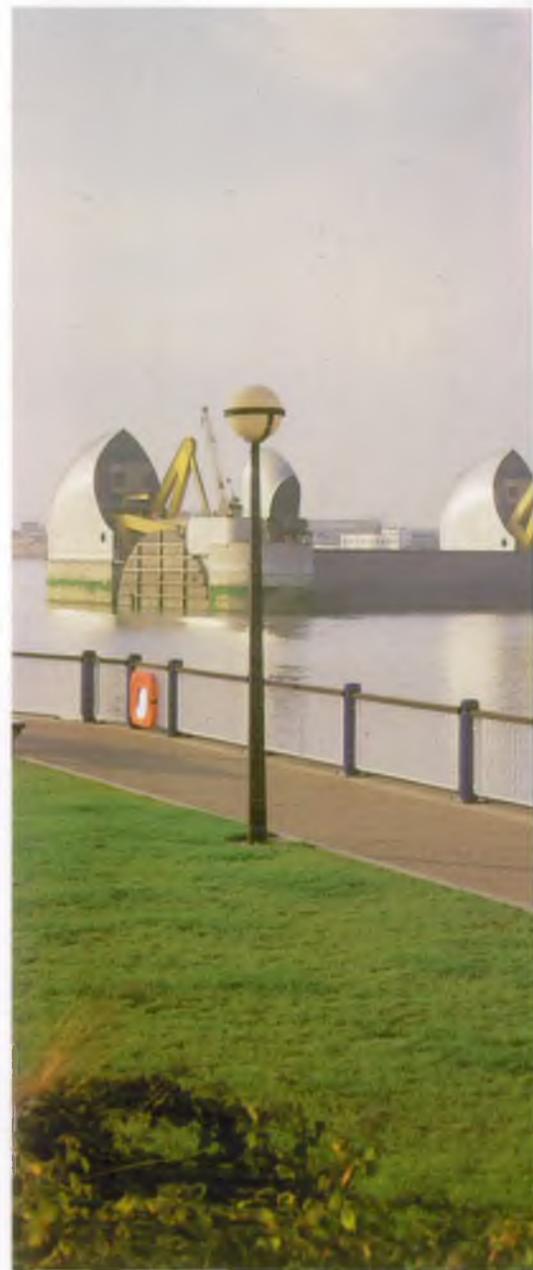
The NRA Thames Region is one of ten regional units which comprise the National Rivers Authority. Established by the 1989 Water Act, the NRA is a major environmental protection agency responsible for safeguarding and improving the natural water environment. It is an independent public body serving England and Wales with a policy making board of 15 members appointed by the government. The Board is supported by a small central staff of about 60, headed by a Chief Executive.

The aim of the NRA Thames Region is to safeguard the total river environment, not just the many rivers, streams and lakes in the area but also the quantity and quality of underground water.

Regulating the rivers and groundwaters in the region is only part of our work. We are also responsible for the Region's flood defence, for protecting and improving fish stocks and for promoting water based recreation of all types. In carrying out these responsibilities we are committed to improving wildlife habitats and conserving the natural environment.

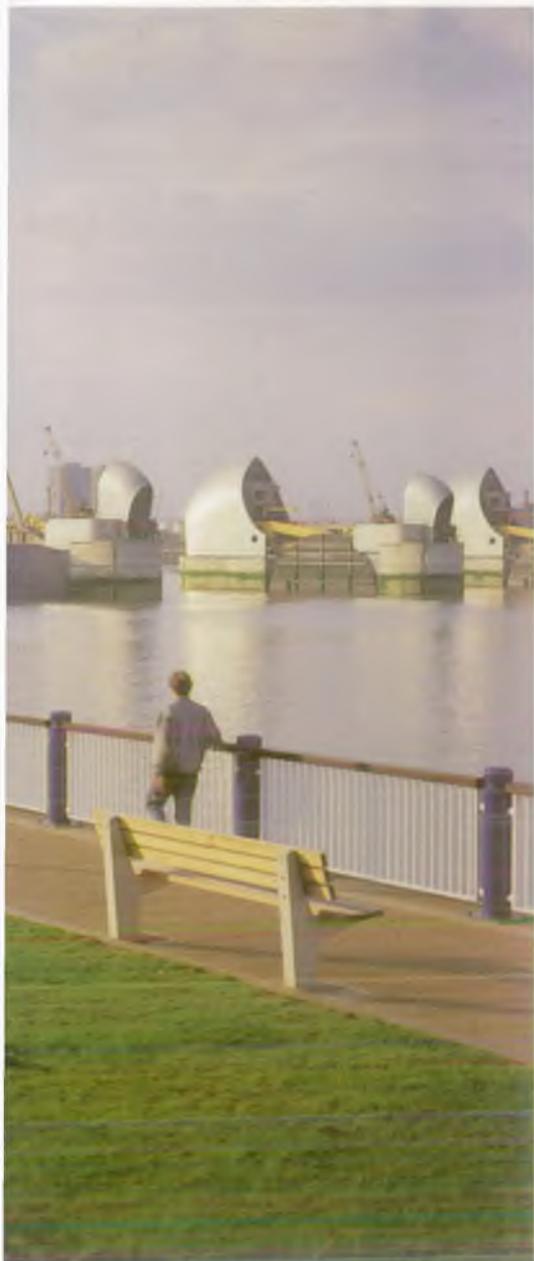
The Thames Region has a resident population of over 11 million and covers around 5,000 square miles from Cirencester in the west to Dartford in the east and from Luton in the north to the Surrey Downs in the south. Carrying out our activities over so wide an area provides a constant challenge to our 1,300 employees, based at various site offices throughout the Region and at Headquarters in Reading.

Three committees with their membership drawn from a wide range of local and national bodies assist with our activities and provide direct channels of communication for interested parties. They are a Regional Flood Defence committee (which has executive functions), a Regional Fisheries Advisory Committee and a Regional Rivers Advisory Committee to



cover the remaining functions. Meetings are open to the public.

Our activities are financed from a combination of Local Government precepts, direct charges and Government grant aid. Our policy is to recoup the maximum possible proportion of our costs directly from those who benefit. We intend investing over £20 million on capital projects every year with operating expenditure in the region of £35 million.



We are committed to running our activities efficiently and effectively and to carrying out our regulatory role responsibly and fairly. Consideration for individual customers and the community at large is a guiding principle which we carry through in our working practices.

The following pages outline the various tasks of the NRA, Thames Region, in more detail:-

POLLUTION CONTROL



Water is a vital resource and the Region is committed to achieving improvements in quality wherever possible.

Protection starts with setting a framework of water quality objectives. These vary from one river to another, and from one stretch of river to another (a river flowing through heavily urbanised areas cannot easily match the water quality of a river flowing through open, uncultivated countryside).

Our staff play a part in setting these objectives with the Government; a task calling for a sound knowledge of the chemical and biological processes involved. Standards are drawn up for each stretch of river and these are taken into account when deciding whether to allow additional discharges. Permission to discharge is issued in the form of a "consent" which governs both the quality and quantity of the effluent to be discharged.

Teams of pollution control staff regularly monitor major watercourses, including rivers, canals and streams as well as effluent discharges. This monitoring is carried out either through site visits or by using automatic monitoring devices which transmit information back daily. All water samples taken are sent to our laboratory staff for analysis.

When informed of a possible or actual pollution incident, our first aim is to prevent the pollutant from entering a watercourse. If the pollutant has already reached the water, the aims are to clear it as quickly as possible and to warn anyone who might be affected, such as downstream abstractors.

Where appropriate, booms of absorbent material are placed in the water to trap any floating pollutants such as oils or petrol. Staff can then oversee their safe removal and disposal. The polluter either organises and pays for the clean-up operation themselves or we recover the costs for them.





(Left)
Inspecting Thames Tideway storm water overflow

Monitoring levels of dissolved oxygen.

*Thames Bobber : Aeration Barge owned by
Thames Water and mobilised as instructed.*



WATER RESOURCES

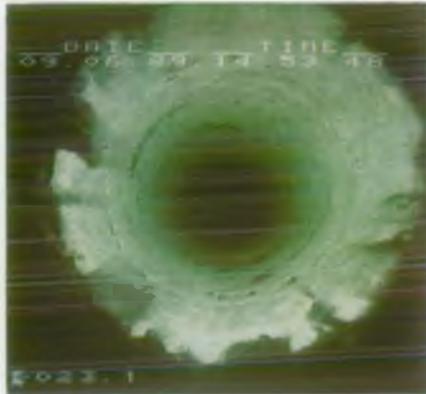


The Region's rivers are used for many purposes. They form the area's drainage system and as such provide a natural and efficient means of diluting and disposing of discharged effluent. Rivers are also a major source of water supply, thousands of people are attracted to them every year for recreation and they are "home" to all kinds of wildlife. Ensuring that there is enough water to go round calls for a delicate balancing act on the part of our water resources staff.

Generally speaking, water can only be abstracted (whether for water supply, for cooling at power stations or for agricultural and other private uses) under licence. The licence states how much water can be taken and how often. Our water resources staff are responsible for licensing abstractions throughout the Region and consider all applications to take water from boreholes or rivers. We offer advice as necessary, and then either grant an abstraction licence or where appropriate, refuse the application.

Much of the water available on a reliable basis in the Region is already "spoken for". This means that planning for future demands, particularly for public water supply, is a major challenge. Staff not only need to understand the hydrology of the area but must also assess the environmental and economic consequences of various strategic options.

To support these planning and licensing activities, the amount of water in the Region's rivers is measured continuously and the level of water in boreholes is regularly checked to assess the amount of water available for use.



(Left) Television inspection of a borehole

Taking measurements in an overflowing borehole.



Geophysical logging of a newly drilled borehole.

THAMES REGION FACTS

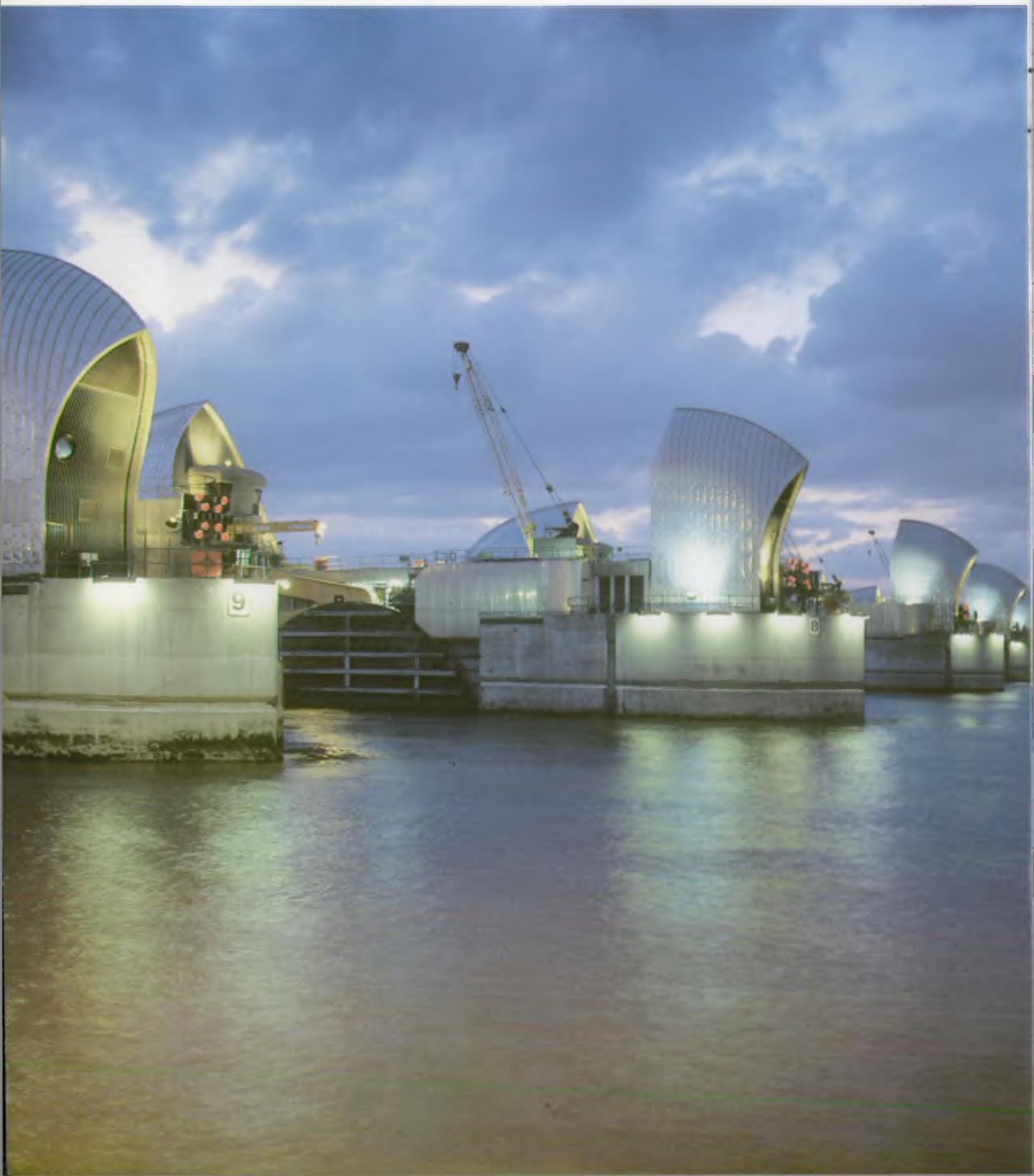


Population	Over 11 million
Area	5,000 square miles
Length of main river	3,230 miles
Total area of floodplain	211,000 hectares
Length of tidal defences	120 miles
Largest single asset	Thames Barrier, £535 million
Length of navigable River Thames	136 miles
Lock and Weir complexes	44 on Thames, 1 on Kennet and 1 on Lee
Registered Craft	19,000
Different species of fish	100
Sites of Scientific Interest	450
Planning Applications/Development Enquiries	8,000 per annum
Abstraction/Impounding Licences	3,193
Discharge consents under the control of Pollution Act	9,321





FLOOD DEFENCE



The prospect of flooding either from heavy rainfall or from abnormally high tides in the Thames estuary is a prime concern. Reducing the risk of flooding from rivers on a day to day basis and planning major flood defence projects forms a large part of the region's work and involves more than half our manpower.

Flood defence staff keep a check on proposed land developments and advise local authorities on any flood problems these may create. They also carry out studies to discover the source of existing problems and to identify how best to cope with changing land use within each river catchment. When necessary our engineers design flood defence measures and oversee their construction.

From our flood control rooms we keep a round the clock check on weather conditions and river levels. Staff interpret the information and give the emergency services early warning of possible floods.

Flood defence teams are based at site offices around the Region to carry out regular river maintenance work. Activities range from dredging, weedcutting and the removal of blockages to the maintenance and operation of the Thames Barrier and London's other tidal defences.

These teams are mobilised during flood emergencies to keep rivers clear of obstructions so that flood waters can be conveyed away as quickly as possible.



Thames Barrier.

FISHERIES AND CONSERVATION



Fisheries and conservation staff encourage the development of a natural healthy river system, both above and below the water line. They provide the specialist advice needed to ensure that the Region's activities are carried out in an environmentally sensitive way.

During the design of flood alleviation schemes, engineers consult with our internal experts and outside consultants so that conservation measures can be built in from the start. Fisheries and Conservation staff are also involved in planning river maintenance programmes; advising when best to cut weeds, dredge river beds and trim banks and trees. Whenever possible, additional conservation measures are incorporated. These include planting reed beds for wildlife habitat and ensuring any new structures such as bridges and weirs, blend in with the local environment.

A thriving fish population is a sign of a healthy river hence, our commitment to improving the area's fisheries. From bases across the region, fisheries staff carry out surveys to determine the number and condition of fish, restock watercourses and monitor the health of fish moved by angling clubs. Staff are often called on to rescue fish in distress, either as a result of natural causes, such as low oxygen levels in rivers during hot weather or from pollution incidents. They are also available to offer expert advice on a wide range of fishery management problems.





Fisheries survey work.



Reed bed creation as part of river maintenance

RECREATION



Our recreation staff aim to ensure the best possible use of rivers and other inland waters, for all kinds of recreation. Anglers, birdwatchers, boating enthusiasts, canoeists, divers, ramblers and rowers are amongst those attracted to the area and we provide facilities for all these activities.

Less vigorous activities such as a stroll by the river, picnicking at a nearby beauty spot or a day out at a place of interest are also catered for by the creation of picnic areas and riverside walks and the management of the visitors centre based at the Thames Barrier.

We become involved with a wide range of recreational projects. Some we handle ourselves whilst others receive our specialist advice or financial support.

On the River Thames itself, our Navigation staff are on hand to ensure that people enjoy their recreation safely. Guidance of craft through locks, overseeing river-based events and conducting launch safety inspections are just some of the elements involved in the managing of Thames navigation.



Launch Inspection.





CONTACTS

Thames NRA Headquarters
 Kings Meadow House
 Kings Meadow Road
 Reading RG1 8DQ
 Tel: 0734 535000
 (Before December 1989)
 Tel: 0734 593333
 Out of office hours
 general emergency numbers as above

Pollution Control:
 Dial 100 and ask for
 Freephone River Pollution
 0734 575268

Departments contacted at the above address:-
 Regional General Manager
 Public Relations
 Pollution Control
 Fisheries
 Navigation
 Water Resources
 Recreation and Conservation

Rod Licences and Craft Registration
 PO Box 214
 Reading RG1 8HQ
 Tel: 0734 535000
 (Before December 1989)
 Tel: 0734 593333

AREA POLLUTION OFFICES

Crossness Pollution Office
 Rivers House
 Crossness Sewage Treatment Works
 Abbey Wood
 London SE2 9AQ
 Tel: 01-310 5500

Waltham Cross Pollution Office
 Aspen House
 The Grange
 Crossbrook Street
 Waltham Cross
 Herts EN8 8LX
 Tel: 0992 23611

Amersham Pollution Office
 67 Rickmansworth Road
 Amersham
 Bucks HP6 5JW
 Tel: 0494 722361

Reading Pollution Office
 Fobney Mead
 Rose Kiln Lane
 Reading RG2 0SF
 Tel: 0734 311422

Guildford Pollution Office
 Ladymead
 By-Pass Road
 Guildford GU1 1BZ
 Tel: 0483 577655

Oxford Pollution Office
 Denton House
 Iffley Turn
 Oxford OX4 4HJ
 Tel: 0865 749400

AREA FISHERIES OFFICES

Metropolitan Fisheries
 Rivers House
 Crossness Sewage Treatment Works
 Abbey Wood
 London SE2 9AQ
 Tel: 01-310 5500

Thames East
 The Grange
 Crossbrook Street
 Waltham Cross
 Herts EN8 8LX
 Tel: 0992 23611

Middle Thames
 Ladymead
 By-Pass Road
 Guildford GU1 1BZ
 Tel: 0483 577655

Upper Thames
 Denton House
 Iffley Turn
 Oxford OX4 4HJ
 Tel: 0865 749400

DISTRICT NAVIGATION OFFICES

No 1 District
 Osney Lock
 Oxford OX2 0AX
 Tel: 0865 721271

No 2 District
 Kings Meadow House
 Kings Meadow Road
 Reading RG1 8DQ
 Tel: 0734 535000
 (Before December 1989)
 Tel: 0734 593333

No 3 District
 Baulter's Lock
 Maidenhead SL6 8PE
 Tel: 0628 22491

No 4 District
 Riverside Works
 Fordbridge Road
 Sunbury on Thames TW16 6AP
 Tel: 0932 781946

AREA FLOOD DEFENCE OFFICES

Lee Area
 Broadmeads Pumping Station
 Hertford Road
 Ware
 Herts SG12 9LH
 Tel: 0920 468021

Thames Barrier
 Eastmoor Street
 Charlton
 London SE7 8LX
 Tel: 01-863 4081
 Visitors Centre: 01-854 1373

Lower Thames
 Riverside Works
 Fordbridge Road
 Sunbury
 Middlesex TW16 6AP
 Tel: 0932 789833

Upper Thames
 Osney Yard
 Bridge Street
 Oxford OX2 0AS
 Tel: 0865 244161



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