

Thames 21—A Planning Perspective and a Sustainable Strategy for the Thames Region



CONSULTATION DRAFT



NRA

*National Rivers Authority
Thames Region*

Mission and Aims

Mission Statement:

- "We will protect and improve the water environment by the effective management of water resources and by substantial reductions in pollution. We will aim to provide effective defence for people and property against flooding from rivers and the sea. In discharging our duties we will operate openly and balance the interests of all who benefit from and use rivers, groundwaters, estuaries, and coastal waters. We will be businesslike, efficient and caring towards our employees".



ENVIRONMENT AGENCY

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Our aims are to:

- Achieve a continuing overall improvement in the quality of rivers, estuaries, and coastal waters, through the control of pollution.
- Manage water resources to achieve the right balance between the needs of the environment and those of the abstractors.
- Provide effective defence for people and property against flooding from rivers and the sea.
- Provide adequate arrangements for flood forecasting and warning.
- Maintain, improve and develop fisheries.
- Develop the amenity and recreational potential of inland and coastal waters and associated lands.
- Conserve and enhance wildlife, landscape, and archaeological features associated with inland and coastal waters of England and Wales.
- Improve and maintain inland waters and their facilities for use by the public where the NRA is the navigation authority.
- Ensure that dischargers pay the costs of the consequences of their discharges, and as far as possible, to recover the costs of water environment improvements from those who benefit.
- Improve public understanding of the water environment and the NRA's work.
- Improve efficiency in the exercise of the NRA's functions and to provide challenge and opportunity for employees and show concern for their welfare.

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Foreword

The Government has set out the need for local authorities to treat sustainability issues as central to the planning process through its publication of 'This Common Inheritance', 'The UK Strategy for Sustainable Development', and recent Planning Policy Guidance Notes. The NRA is therefore seeking to address the issue of sustainability in the context of the water environment in practical terms, and to emphasise that water-related issues impinge on, and are critically influenced by, the planning process.

In order to work towards this objective NRA Thames Region is seeking to work in close partnership with the Government's recently established Integrated Regional Offices, the Regional Planning Conferences, the London Planning Advisory Committee and local authorities, as well as other NRA Regions, water companies, agencies and organisations concerned with conserving and enhancing the water environment.

This consultation document has two purposes. Firstly, it provides the organisations listed above with an easy to use summary of NRA policies. Secondly, it serves to open up a dialogue with a range of organisations responsible for strategic planning. The views of such organisations on land use and water-related issues may influence the measures that the NRA is taking to address its own planning and investment strategies, providing a fresh focus on them. The more detailed views of local authorities on specific catchments will also be invited by our Areas during the production of our Catchment Management Plans.

The document describes the characteristics of the Thames Region in terms of its water environment, which is a major and vital resource. Key planning and development issues within the region are identified

LES JONES
REGIONAL GENERAL MANAGER



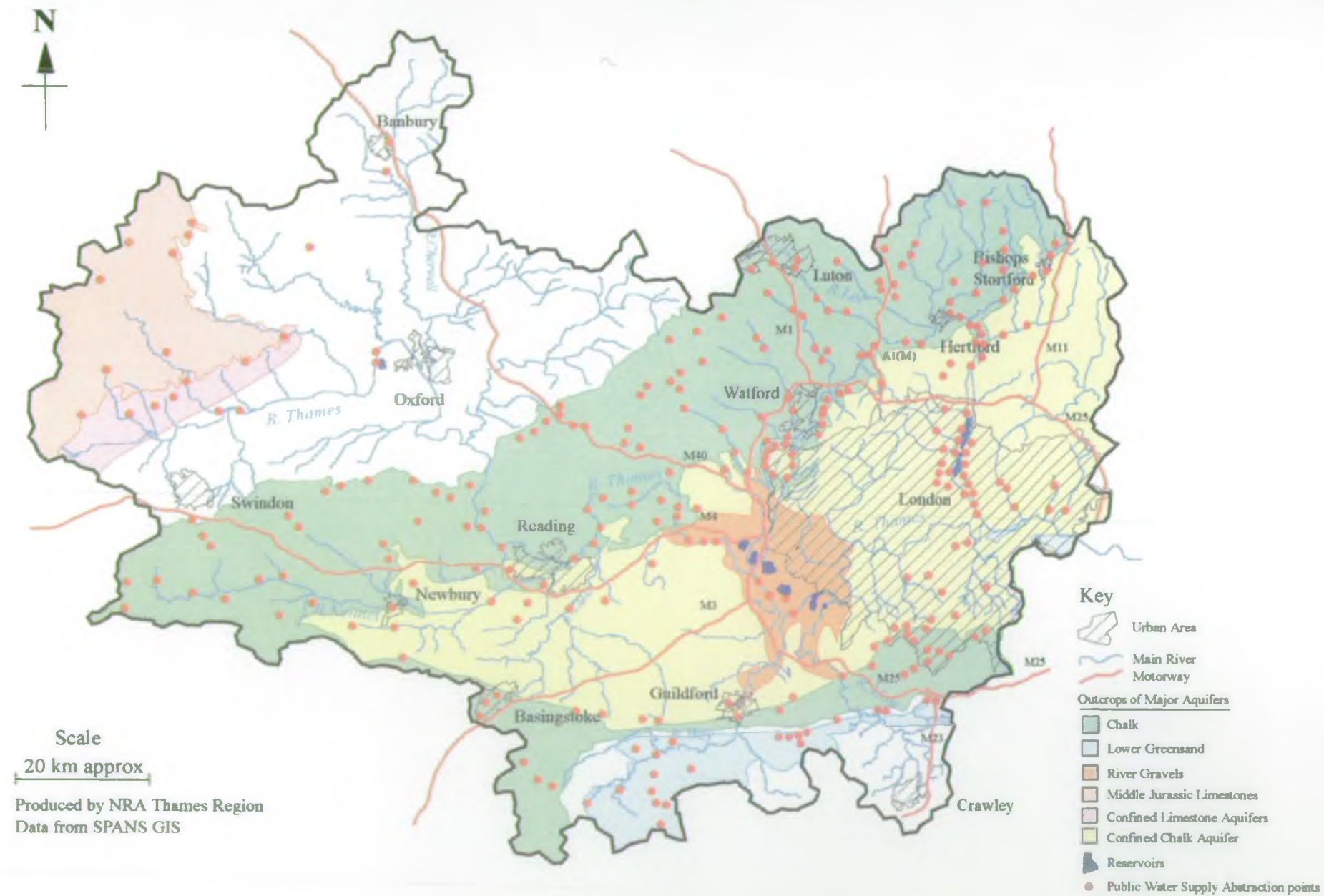
in terms of both current and future likely development pressures. The NRA's functional responsibilities in relation to these pressures are then outlined together with the main sustainability issues as they affect each county. Finally, the NRA's Proposals for the water environment are identified.

We would be glad to receive your views on the issues raised in this consultation draft by 30th November 1994, in time for the review of our Corporate Plan for 1995/6. This will be a first step towards achieving a shared vision for the sustainable development of the Region.

A handwritten signature in dark ink, appearing to read 'Les Jones', written in a cursive style.

LES JONES
REGIONAL GENERAL MANAGER SEPTEMBER 1994

The Water Resource



1. Introduction

Water-related issues are assuming an increasingly important role in the strategic planning of the region, and have attained a higher profile in recent years. In practice they extend well beyond the river bank and may even affect an entire catchment.

The NRA recognises the scope of the Town and Country Planning system for providing major opportunities to integrate water and land use issues at both area and regional levels. In Thames Region we have a comprehensive structure for contributing to the planning process. There are three area teams based at Wallingford, Rickmansworth and Sunbury which act as our front door for both local authorities and developers. There are local offices at Waltham Cross, Albert Embankment - London and at Reading all with planning staff. These teams deal amongst other things with consultations on planning applications and development plans and drainage consents and the preparation of Catchment Management Plans. We also have a regional team based at Reading which deals with policy and strategic matters.

Conservation and enhancement is central to the NRA's role as 'Guardian of the Water Environment'. The system within which development proposals are considered should be one where the broader environmental costs are taken into account in line with the principles of sustainable development. In practical terms, this can be achieved through identifying environmental thresholds for the region, which establish the limits of acceptable environmental change.

Through the planning system, the NRA will seek to prevent damage to environmental assets likely to be important to current and future generations, and identify opportunities to remedy past damage.

This Regional Planning Perspective presents a synoptic overview of NRA policies across the whole of the Thames Basin, giving strategic guidance to local authorities, and other agencies and environmental institutions. It offers an opportunity to review the planning of the region, identifying those parts of the water environment that are threatened, under stress or degraded, and outlining remedial actions.

NRA Thames Region is particularly anxious to extend its dialogue with those organisations responsible for long-term strategic planning, in order to achieve a shared vision of regional issues. Accordingly this document identifies the emerging pressure points, the current state of the environment in the region and the NRA's own proposals for forestalling future problems, rectifying past mistakes and, where possible enhancing the environment.

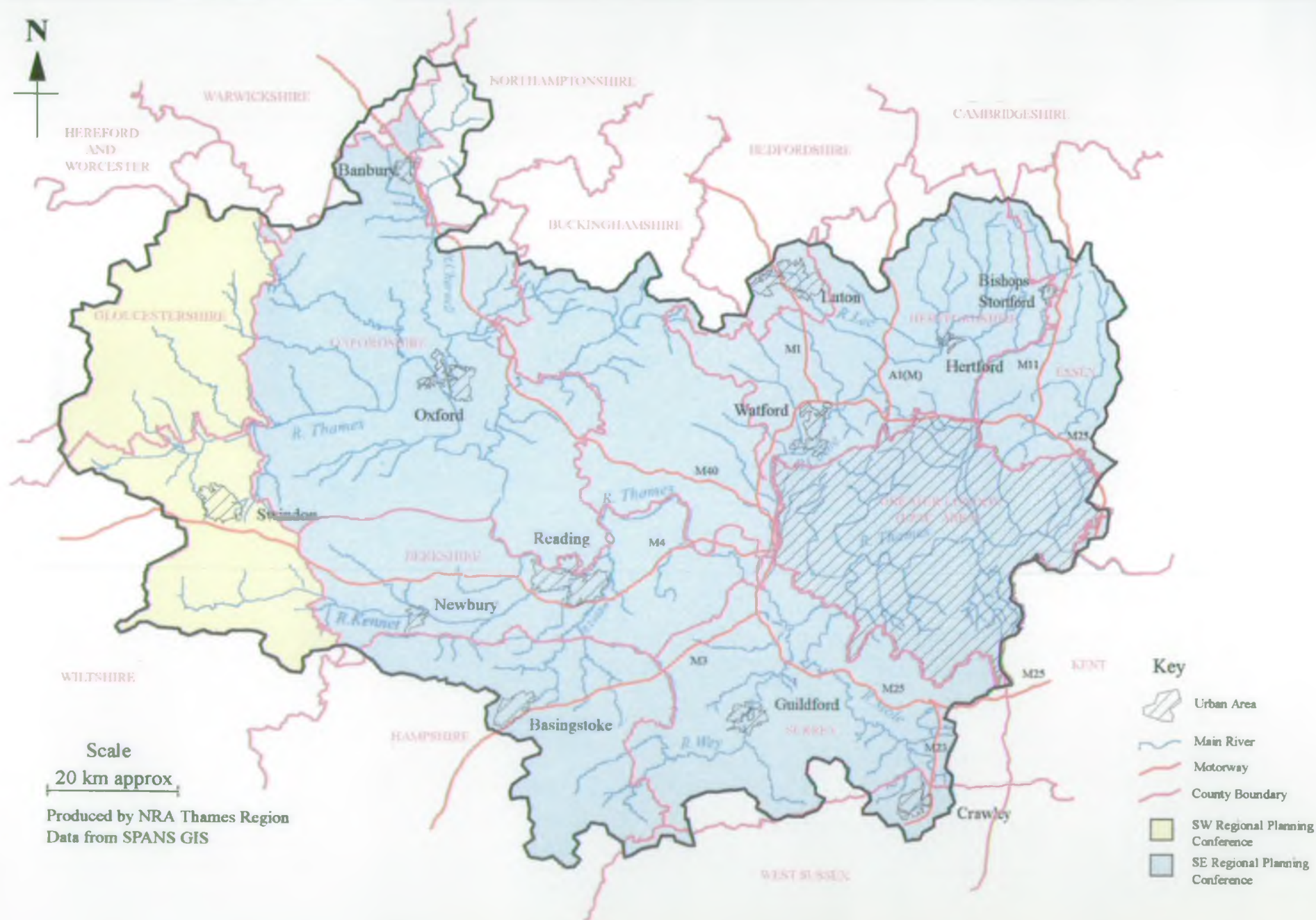
We would be particularly pleased to hear whether we have correctly identified the main issues and pressure points to which we may need to pay special attention and whether our programme of proposals is appropriate to deal with these issues. This will be an important starting point for achieving sustainable development in partnership with local authorities, water utility companies and other organisations.

The NRA has established its own programme of proposals for Thames Region based on its own perception of opportunities, needs and priorities in terms of its core functions. The purpose of this consultation exercise is to bring together development planning and water-related issues within a wider regional planning perspective.

Please send your response by 30th November 1994 to:

Hugh Howes - Principal Strategic Planner
National Rivers Authority Thames Region
Kings Meadow House
Kings Meadow Road
Reading RG1 8DQ
Tel:-0734 535792

The Thames Region



2. The Thames Region

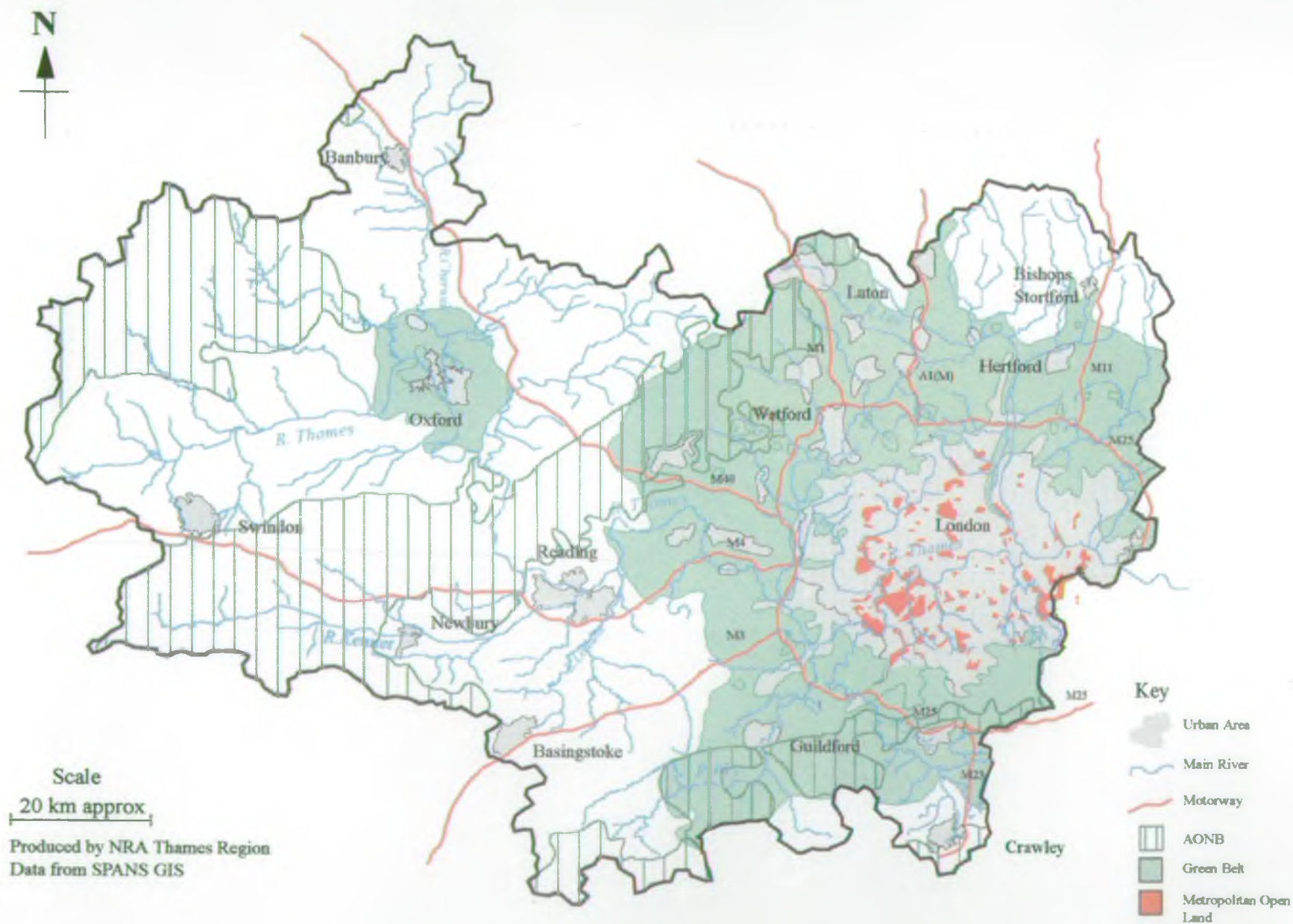
Thames Region comprises the main drainage basin of the River Thames, and its tributaries including the Cherwell, Colne, Kennet, Lee, Roding, Loddon, Mole and Wey.

It is the most developed and densely populated of the eight NRA regions. The region has a resident population of nearly 12 million people, and covers about 5,000 sq miles. It stretches from Cirencester in the west to Dartford in the east, and from Banbury and Luton in the north to Crawley in the south. The region is an area of great diversity ranging from the rural west through the high-tech industry of the Thames Valley, to the metropolitan built-up area of London. Fourteen Counties, fifty eight District Councils and thirty three local planning authorities in London lie wholly or partly within the region.



Pinkbill Meadow Nature Reserve. This joint project between Thames Water Utilities and the NRA has achieved a mosaic of six different wetland habitats, supporting a wide variety of wildlife.

Planning Context



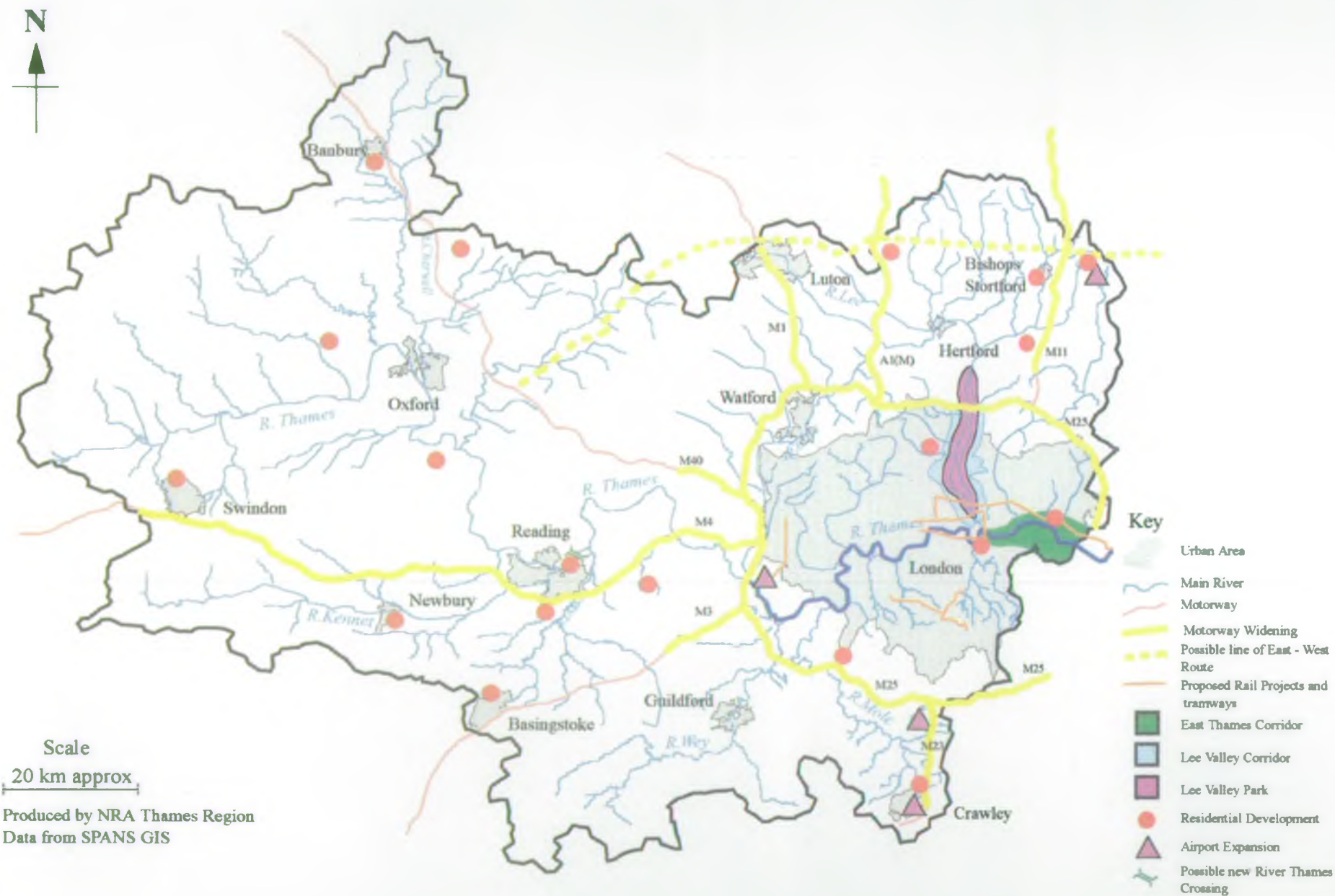
The region faces considerable development pressures. In geological terms the region contains extensive areas of limestone, chalk and river gravels and this has led to a continuing programme of mineral extraction. Growth in housing and infrastructure has placed pressures on the water environment. These include pressures on water resources and water quality. Development in floodplains often against the advice of the NRA or its predecessor authorities has had permanently damaging results elsewhere.

The River Thames, its tributaries and its estuary are a national asset of worldwide renown. Not only does the river system provide important commercial and water supply benefits but it also caters for a wide variety of recreational uses, and supports a high level of ecological diversity. This highlights the need for any development to be carried out in an environmentally sensitive manner. It is therefore important to conserve and enhance the character, ecology and landscape setting of the river.



Reconstruction of Hambledon lock 1994

Major Infrastructure and Development Proposals



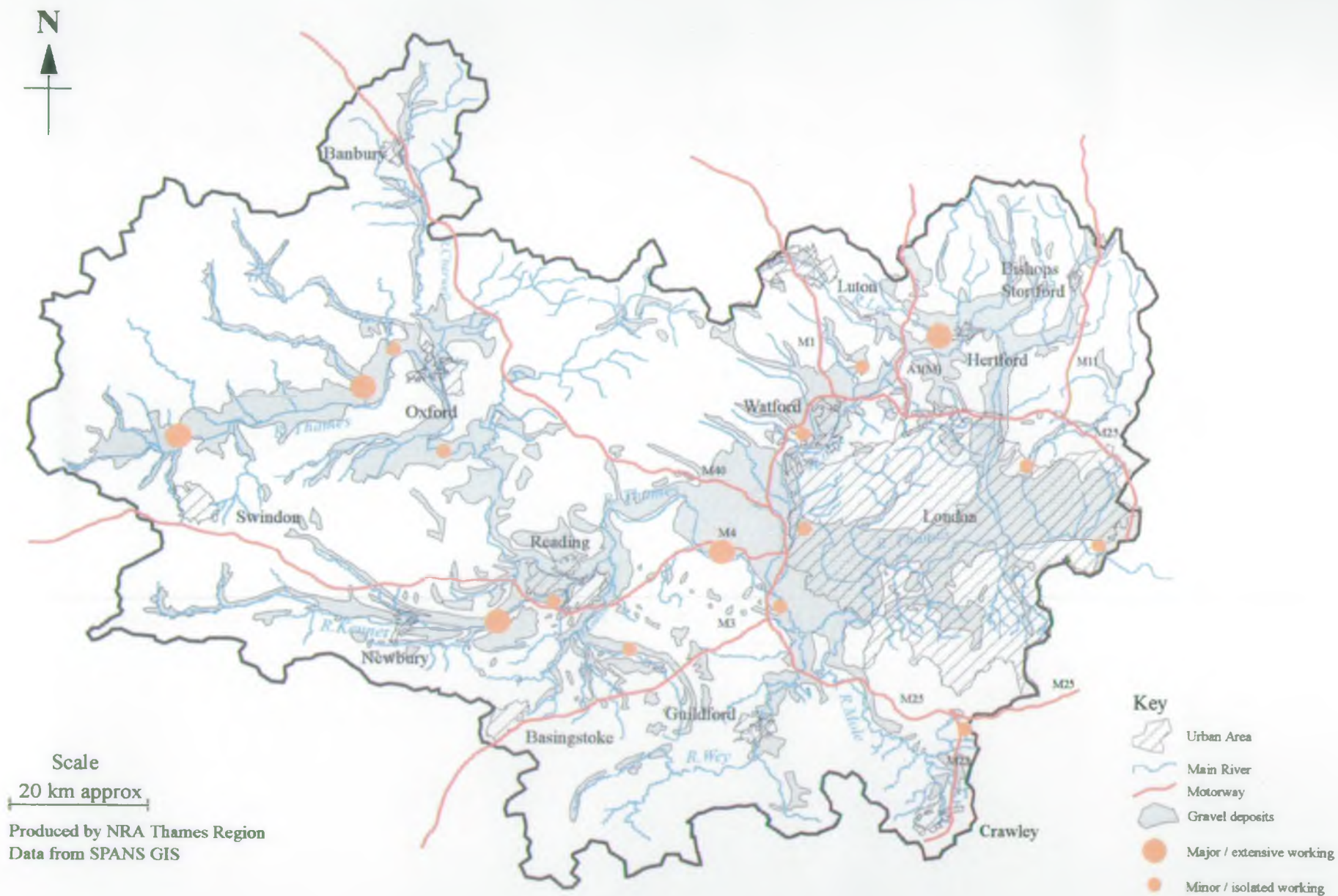
3. Key Planning and Development Issues in Thames Region

Regional Planning Guidance for the South East (RPG9) and for the South West (RPG10), both published by the Department of the Environment, aim to secure the best environmental strategy for the region as a whole and includes advice on rivers, water supply and waste water disposal. The NRA has participated in their preparation in order to influence the extent, and disposition of residential and commercial development, mineral extraction, waste disposal and large scale infrastructure schemes.



A well designed surface water balancing pond at Theale has created a new environmental asset.

Mineral Extraction








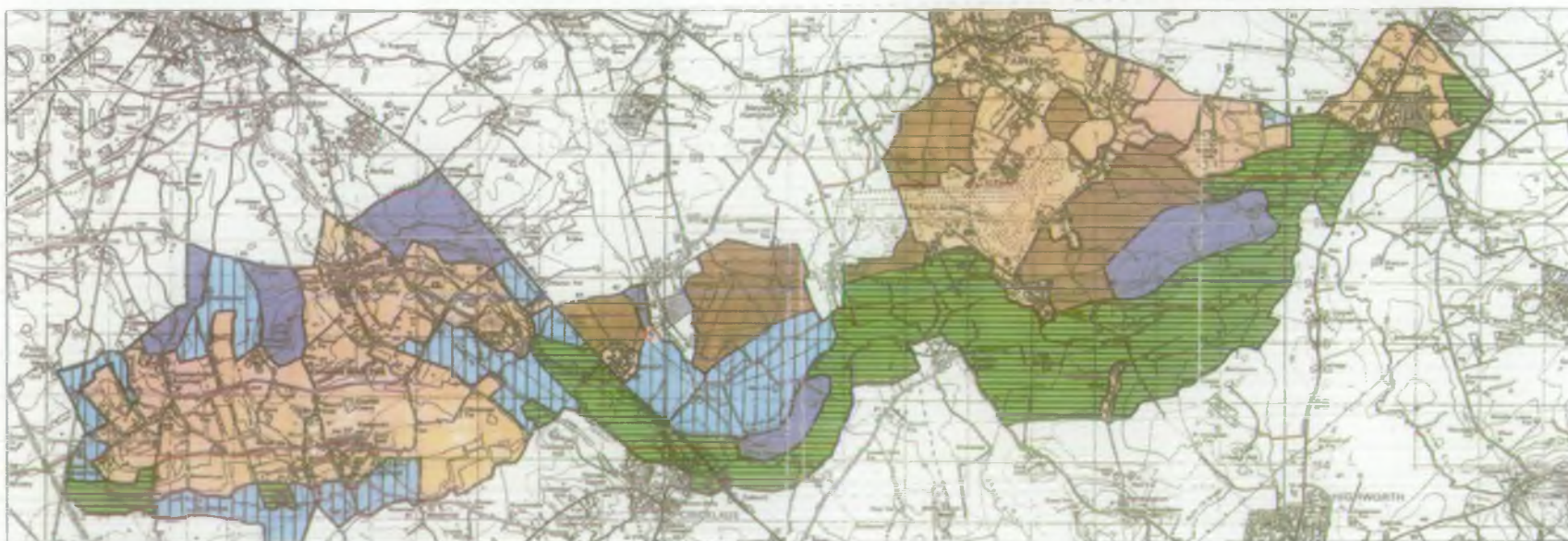
Pressures on the water environment can arise from many sources including:-

- Sites for major residential and commercial development.
- Infrastructure schemes such as water transfer and storage, railway projects, motorway widening, major highway and airport-related schemes.
- Areas of concentrated mineral extraction.
- Waste disposal activities.
- The redevelopment of urban sites.
- Agricultural diversification and extensification.

The impacts of development on the water environment concern sustainability at every level. In this context the NRA has published '*Guidance Notes for Local Planning Authorities on the Methods of Protecting the Water Environment through Development Plans*' in order to have appropriate policies in statutory plans for dealing with the impacts of development affecting the water environment.

KEY

-  Areas where the NRA Thames Region is likely to object to mineral extraction
-  Areas where mineral extraction followed by restoration to agriculture is acceptable
-  Areas where mineral extraction followed by restoration to diverse wildlife habitats including open water and wetland for nature conservation purposes is preferred
-  Existing settlements and worked land
-  Non sand and gravel bearing land



The Cotswold Water Park. This strategy which the NRA has recommended to the local planning authorities in the area is an example of the NRA's proactive approach to planning issues

Landfill



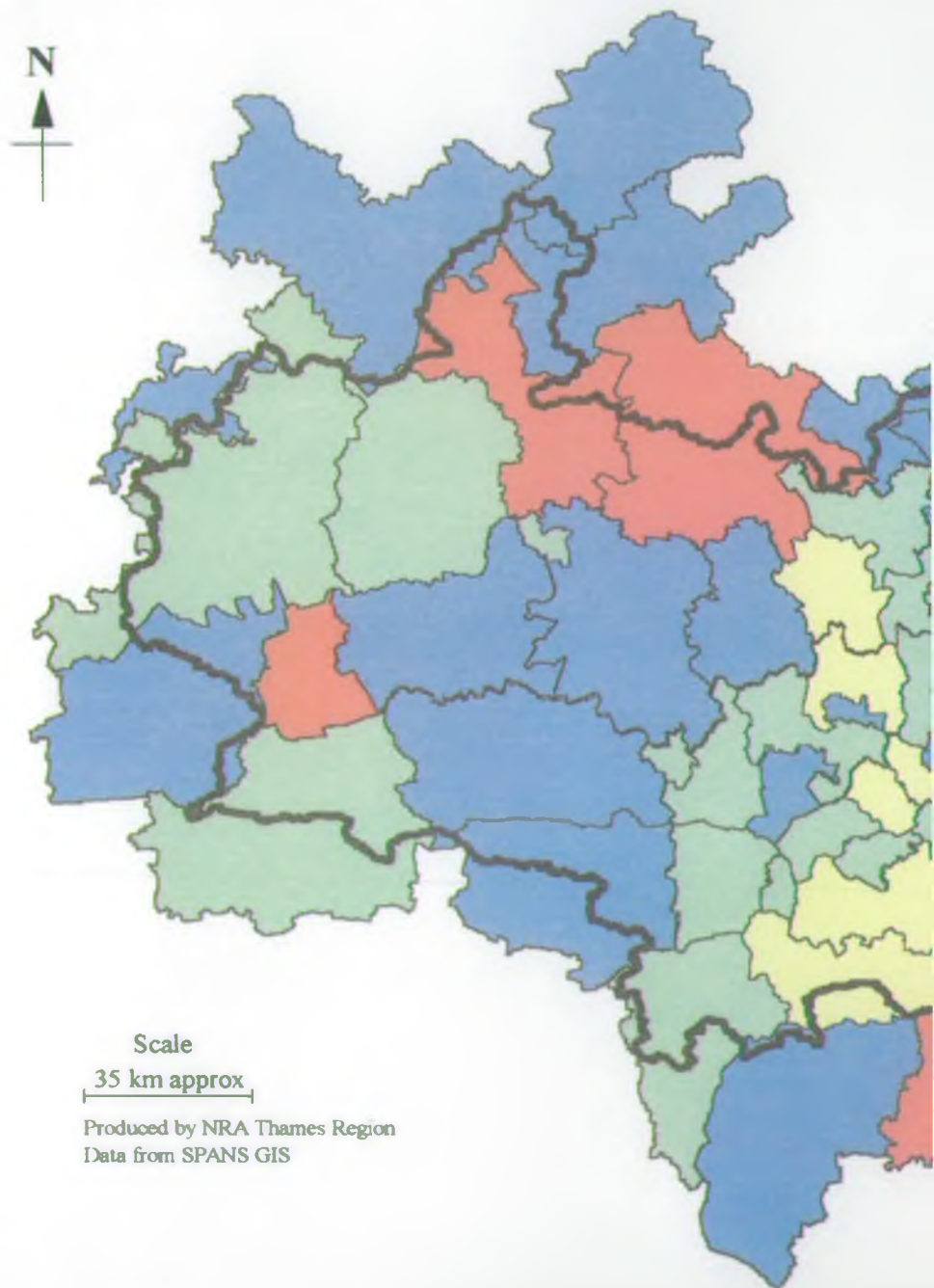
There are particular problems relating to mineral extraction and waste disposal sites for both tend to be located in river valleys. Concentrations of mineral workings in some parts of the region are leading to stress on the water environment. Waste disposal issues are assuming an increasing significance in regional terms as the requirement for landfill is likely to exceed the capacity of available sites. Much of the Thames Basin is geologically unsuitable for landfill, leading to risks of groundwater contamination.

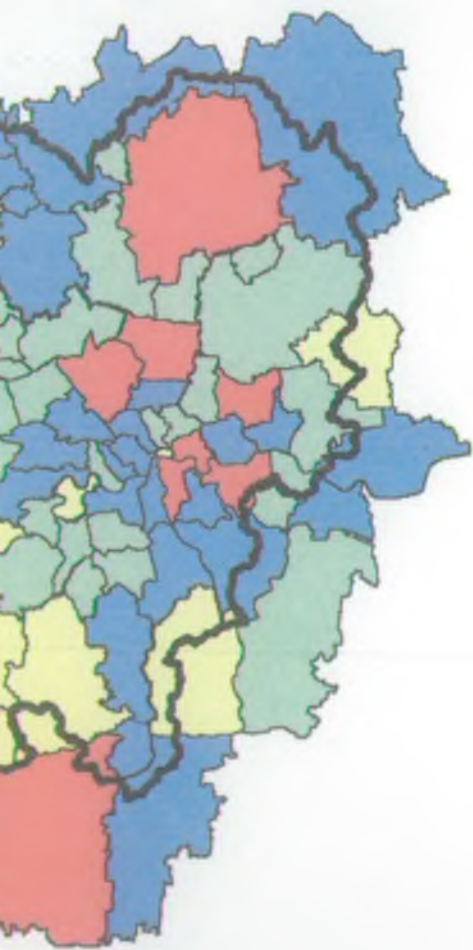
The NRA Thames Region believes that appropriate levels and locations of development can only satisfactorily be identified after the environmental characteristics and capacities of the region have been adequately assessed. This approach avoids critical or irreversible changes to environmental assets which are, or may be, important for any aspects of the well-being of present or future generations. It seeks to give protection to irreplaceable environmental assets against development pressures.



Dealing with a spillage of fuel oil in the River Kennet

Housing Allocations





Key

Structure Plan Dwelling Allocations
(15 Year period)

-  0 - 2999 dwellings
-  3000 - 5999 dwellings
-  6,000 - 9,999 dwellings
-  10,000 - 12,999 dwellings

4. NRA Functional Responsibilities

This section briefly outlines the NRA's core functions:-

Water Resources The NRA has recently published '*Water: Nature's Precious Resource*', a document which addresses the development of an environmentally sustainable water resources strategy for England and Wales. A separate document addresses strategic water resources planning issues for the Thames Region. This is titled '*Future Water Resources in the Thames Region*' and may be obtained from NRA Thames Region, Kings Meadow House, Kings Meadow Road, Reading, RG1 8DQ.

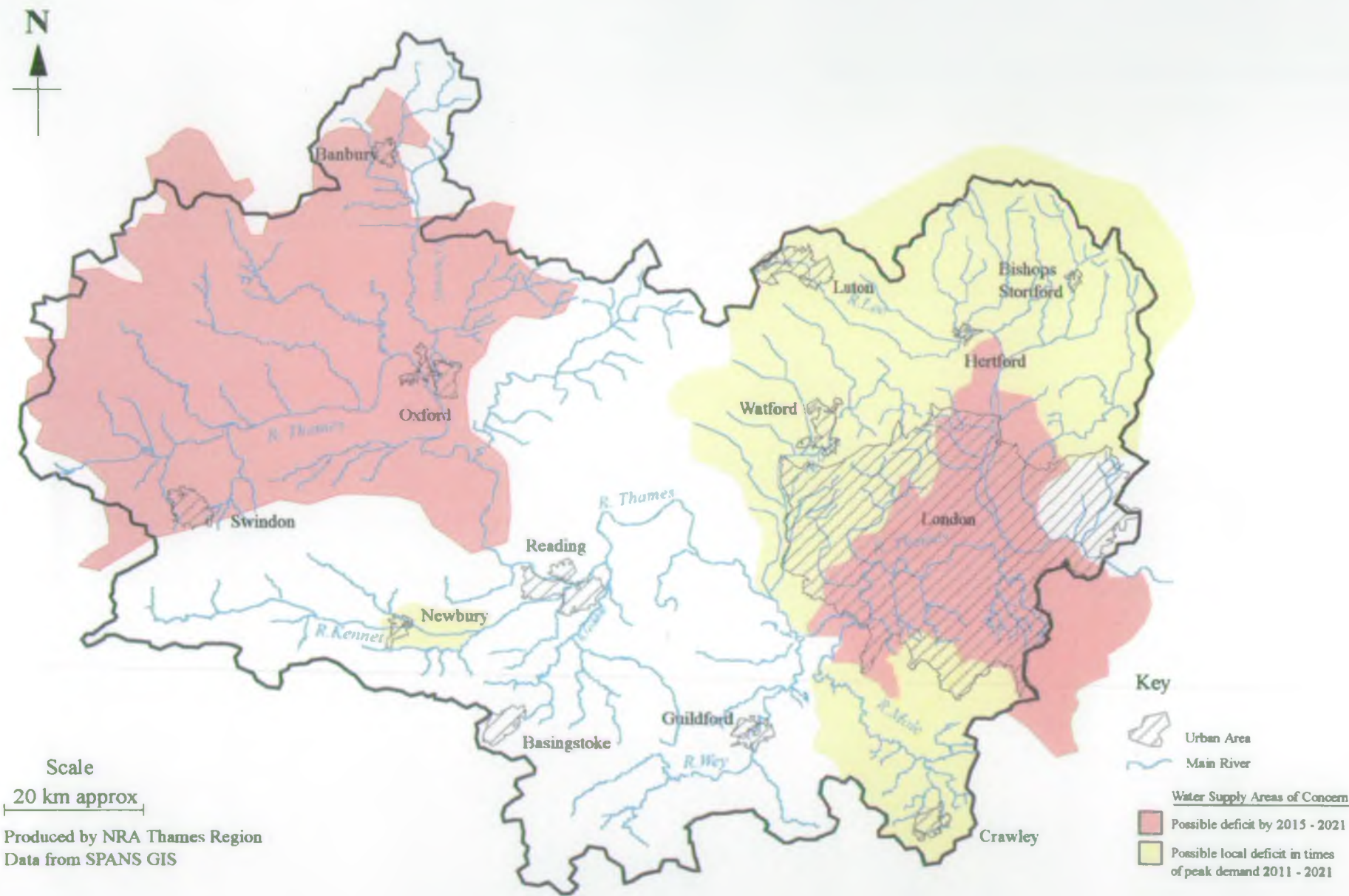
The NRA has a duty to conserve, redistribute, augment and secure proper use of water resources, and to maintain and improve the quality of water to the environment for all who use it. The NRA continually monitors and reviews the need for water and new water resource development schemes. The key aim is to manage water resources to achieve a balance between the needs of the environment and those of abstractors.

The total quantity of water abstracted within the Thames Region is approximately 4700 megalitres a day, and 79% of this is used for public water supply. Of the remainder 9 % is used for agriculture and 12% by industry. Until recently trends in the growth in demand for public water supply have been in the order of 1.7% per annum. However current indications are that the level of future demand growth could be significantly lower, perhaps no more than 0.3% per annum. The reasons for this include slower rates of growth because of reduced house building levels, reduced demands from industry, and improved leakage control. Nevertheless without positive action in various ways there are likely to be significant deficits in water resources in parts of the South East of England within the next 30 years.



Alleviation of low flows of the River Ver – before and (see over)....

Water Supply



The NRA has constructed a range of scenarios of future water demand, taking account of:-

- Economic recovery and commercial water use.
- Changes in domestic water use.
- The practicalities and economics of leakage control.
- The spread of domestic metering.

While there is scope to limit abstraction through leakage control and demand management, there is no guarantee that significant reductions can be achieved.

In Thames Region demand projections suggest that there are possibilities of future water resource deficits within the London and Upper Thames supply areas of Thames Water, and marginal deficits in the Sutton District Water Company Area. With the exception of certain peak demands all other water companies appear to enjoy adequate resources to 2021. There is however, still a need to plan for new resources in the longer term. RPG9 indicates that the rate of development across the region should take into account the ability of the infrastructure to meet demands for water.

Additional pressures on water resources may arise as a result of reducing environmental stress due to over-abstraction. Flows in several rivers have been depleted as a result of large groundwater abstractions close to the headwaters. Remedial schemes aimed at 'the alleviation of low flows' on the Rivers Ver and Pang are in hand and are already achieving significant results, largely through the reduction of groundwater abstraction to allow baseflow recovery. Other schemes are currently being investigated.



...after

Water Quality





Results relate to readings taken
January - December 1992
(LUT Method)

Water Quality The NRA is committed to maintaining and improving the quality of rivers, estuaries, and groundwater through the exercise of its power to control, prevent, and remedy pollution. Specifically, the NRA seeks to maintain waters that are already of high quality, improve waters of poorer quality, and ensure that all waters have appropriate quality for their agreed uses.

Discharges to all controlled waters require consent from the NRA. Consents are set to ensure water quality objectives, relevant European Community Directives, and international agreements, eg. North Sea commitments, are met. Standards are specified in many of these Directives, and consents are set to ensure that they are achieved. The NRA samples consented discharges and non-compliance is dealt with through a strong enforcement and prosecution policy.

The NRA monitors rivers and estuaries, chemically and biologically, to assess achievement with water quality objectives. In 1990, 61% of the rivers in Thames Region were of good or very good quality, 32% of rivers were fair, and 7% of rivers were of poor water quality.

The NRA also works with other regulators, industry and the public to encourage pollution prevention. Pollution incidents from point sources give rise to more than 3,500 reports from the public each year. Where pollution occurs, the NRA has powers to alleviate its effects and to charge costs to the polluter. We also undertake pollution prevention activities which include advisory site visits to commercial premises, promotion of best practice to industry and input to water companies capital programmes. This is backed up by our prosecution policy.

River pollution from diffuse sources particularly from pesticides and nitrates is less easily controlled, but is a key issue for the water environment. The NRA promotes public awareness and works closely with trade, industry, agriculture, and the Waste Regulation Authorities to minimise this problem.

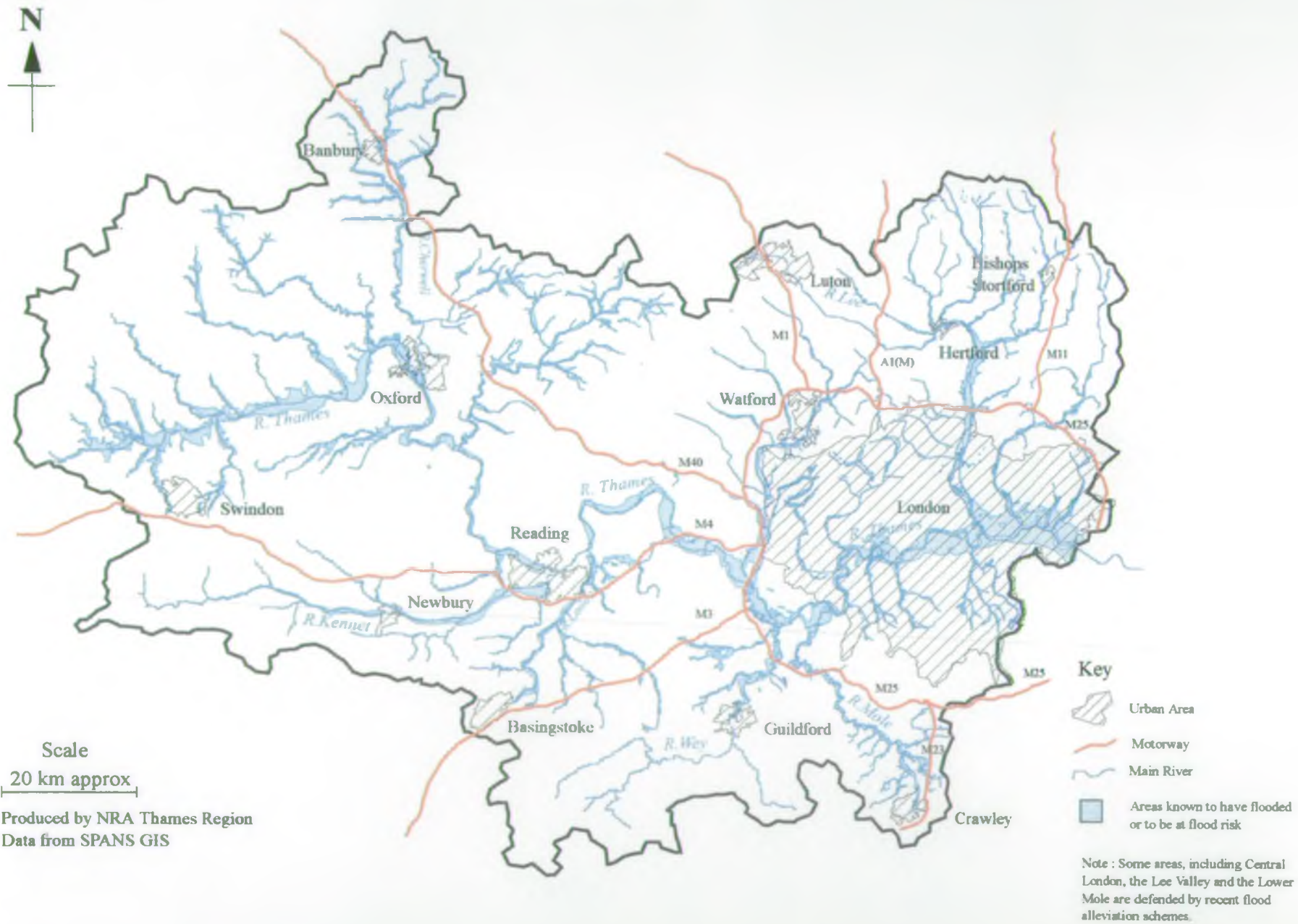
It is also the duty of the NRA to monitor and protect groundwater and conserve it for water resources usage. The NRA has published a policy document *'Policy and Practice for the Protection of Groundwater'*, which seeks to protect groundwater through the use of controls and restrictions on the way potentially contaminative activities are carried out.

Groundwater is constantly under threat from pollution which may come either from one particular source (such as industrial waste storage) or from the wider more diverse use of chemicals (such as the application of fertilisers and pesticides to land). As part of the protection policy, specific protection zones are being defined around public supply boreholes and other sources where water might be put to potable uses. In view of the number of groundwater abstractions in Thames Region, these zones will cover large areas of aquifer outcrop. Consent will not usually be granted for discharges into groundwater because of the risk of long term pollution.

In nitrate-sensitive areas farmers have been encouraged to join a scheme to limit the amount of nitrate entering the groundwater. The NRA also seeks to limit pesticide applications within sensitive areas or around aquifers to those least harmful to groundwater.

The redevelopment of urban sites often provides an opportunity to deal with contamination. While this is welcomed, cleaning up operations need to be undertaken with care to avoid adding to water pollution. In addition the NRA also seeks particularly strict control on landfilling in areas where groundwater is used extensively for public supply.

Flood Risk



Flood Defence The NRA aims to provide effective defence for people and property against flooding from rivers and sea, and to provide adequate arrangements for flood forecasting, warning and response to flood events. Our policy has two complementary elements, the protection of both tidal and non tidal floodplains from development and the control of surface water run-off at or near its point of origin.

Continued loss of floodplains to development is of deep concern to the NRA and considerable emphasis has been placed on the incorporation of floodplain protection policies in development plans. The NRA has little control over development which is the responsibility of local planning authorities. However a new agreement entitled '*Development and Flood Risk*' has been signed with the local authority Associations. It seeks to strengthen control over development at risk of flooding particularly through the development plan process. The natural floodplains of the region form a vital part of the total water environment. They are hydrologically important in limiting flood risk through both storage of water and providing flood flow routes in times of flood, and also comprise valuable wildlife corridors and wetland habitats.

Whilst the NRA will consider objecting to development within the 1 in 100 year fluvial floodplain, it may also use its permissive powers to provide flood alleviation to the most appropriate standard. In the area of the tidal Thames the target standard of protection is from a flood with a return period of 1 in 1000 years. No objection is raised to the redevelopment of sites within built up areas that are adequately protected by tidal defences.

The level of risk in floodplain areas depends on the management of surface and groundwater in the rest of the catchment. Techniques to control surface water run-off at or near the point of rainfall represent a significant change from traditional surface water disposal practices. With the help of these methods, development may take place without exposing downstream settlements to increases in flood risk or rates of riverbank erosion. Such source control techniques combined with negotiated agreements between the NRA and developers over proposals for works which are subject to consent under the Water Resources Act 1991 can conserve and enhance the environment associated with development.



Flooding at Maidenhead

Conservation, Recreation and Navigation





Conservation Conservation is an integral part of all the NRA's statutory duties and functions. The NRA seeks to conserve and enhance the wildlife, ecology, landscape and archaeological features associated with inland and coastal waters.

The Authority's Conservation Strategy is underpinned by the following key objectives:

- to assess and monitor the conservation value of inland and coastal waters and associated lands
- to ensure that the NRA's regulatory, operational and advisory activities take full account of the need to sustain and further promote conservation
- to conserve and enhance the quality of aquatic and related environments for the benefit of wildlife and people.



The NRA will continue to work closely with others to protect sites of conservation value, and to promote the enhancement, rehabilitation and restoration of aquatic and associated sites.

Navigation The NRA aims to improve and maintain inland waterways and their facilities for use by the public, where the NRA is the navigation authority. It will perform these navigational duties in close co-operation with other NRA functions. Within the Thames Region, the NRA is responsible for navigation on the River Thames upstream of Teddington and a short stretch of the River Kennet.

Recreation The NRA aims to develop the amenity and recreational potential of waters and associated riparian land. It has a duty to take account of recreation in the performance of all its functions. In practice this means promoting the use of water and associated land for sport, recreation and the enjoyment of natural and historic landscape. The authority will also ensure that water and land under its control is made available for recreational purposes, taking into account the needs of persons who are chronically sick or disabled.

Thames Region and the Southern and Greater London Regions of the Sports Council are jointly funding a three year project to prepare a recreation strategy for the River Thames. The strategy will include the use of both the river and its banks. Geographically the project covers the river from its source in Gloucestershire to the Thames Barrier.

Fisheries The NRA has a duty to maintain, improve and develop fisheries through the protection and conservation of salmon, trout, freshwater, and eel fisheries. To achieve this the Authority has a strategy which seeks to balance recreational and commercial fishing and the conservation of fish populations. The strategy's key elements are:-

- Regulation of fishing and the raising of income through licensing.
- Powers to deal with illegal fishing methods.
- Powers to require the construction of fish passes on weirs or other dams.
- Powers to control the movement and introduction of fish into any waters other than fish farms.
- Duties to control fish disease.
- Monitoring of fish stocks.

Catchment Management Plans



Catchment Management Plans Catchment Management Plans provide a method by which all concerns related to the water environment can be co-ordinated and translated into action plans. They will be used by the NRA as the basis for deciding on the allocation and deployment of resources. These plans enable us to develop integrated strategies taking into account all the NRA's core functions regarding the management of the water environment. In particular they seek to protect areas of unspoilt natural beauty and to improve and protect the water environment.

Through the Catchment Management Planning process the NRA seeks to:-

- Integrate all aspects of its work.
- Identify present and future uses of catchments.
- Draw up a five year programme of action plans.
- Encourage interested parties to help the NRA put the plans into action.
- Monitor and report progress annually.
- Update each plan every five years.
- Influence local authorities in the preparation of development plans.

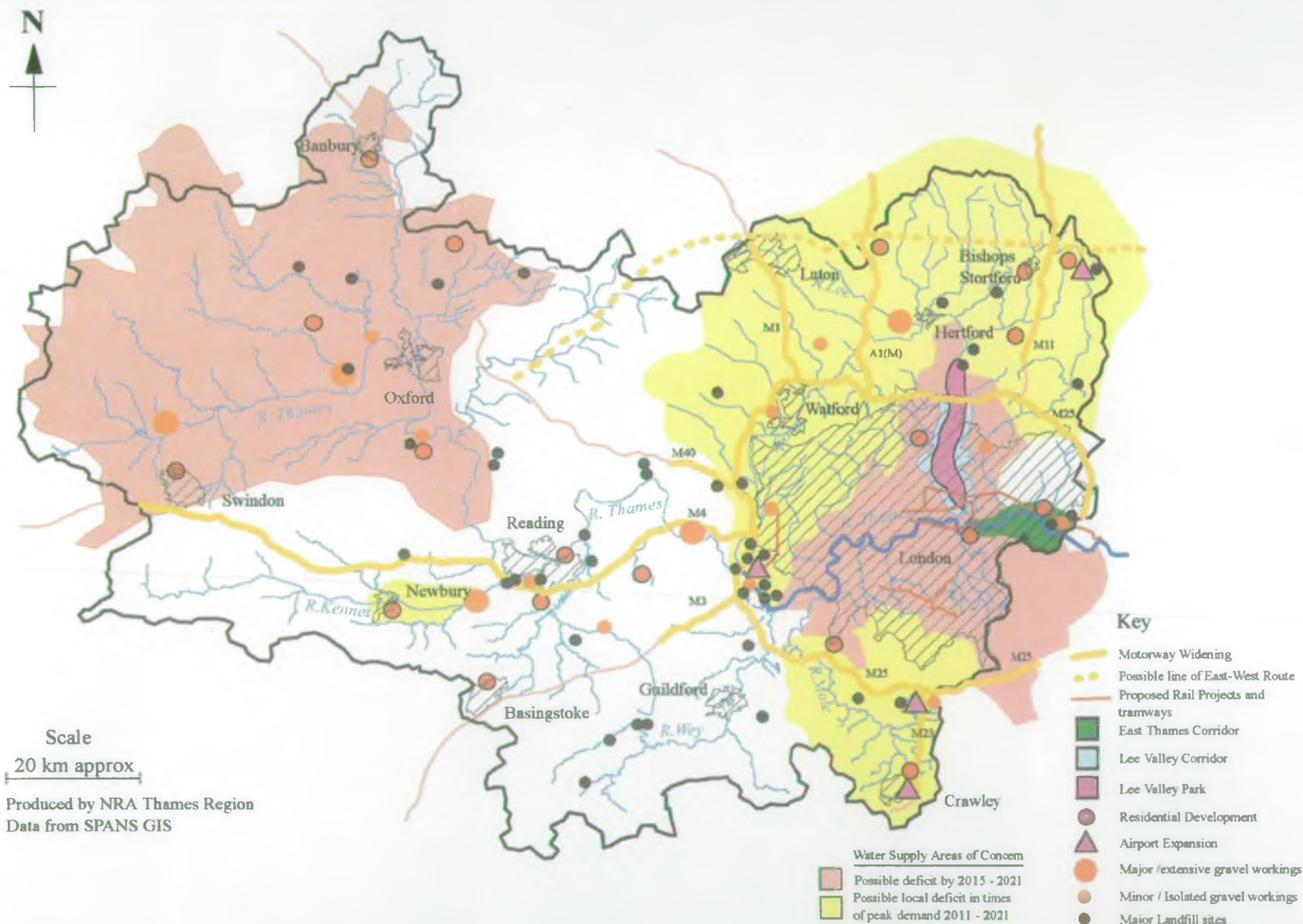
Catchment Management Plans are being prepared by our area teams at Wallingford, Sunbury and Waltham Cross. The teams will consult with local authorities and other statutory bodies, the water companies, local business and farming organisations, environmental groups, residents associations and those who use the water environment for recreation. Partnership will be sought between the NRA and other organisations seeking to achieve similar ends.

The NRA has a nation-wide programme for the completion of Catchment Management Plans by 1998.



Hurley Weir, a flood defence structure managed for recreational use, and providing a unique opportunity for white water canoeing in Southern England

Growth Pressures



5. Water – Related Issues, Pressure Points and Current NRA Proposals and Other Initiatives

The NRA has set out below its views on the major sustainability issues relating to the water environment on a County by County basis. The schedules also set out the NRA's management proposals and seek to identify potential Pressure Points across the Thames Region. These proposals are likely to evolve further as we progress towards full coverage of the Region with Catchment Management Plans.

BEDFORDSHIRE

Structure Plan

Structure Plan alteration number 3 adopted 2/92. Structure Plan review consultation draft published 4/94. Deposit version expected at the end of 1994.

Minerals Plan

Public Inquiry held Spring 1994.

Waste Management Plan

Survey work underway. First draft expected late 1994.

State of Environment Report

State of the Environment Reports produced in 1991, 1992 and August 1993. There are no plans to produce a report in 1994.

Land Use/Water Issues

- Water Quality and Local Flooding in Luton.
- Surface water run-off from the expansion of Luton Airport.
- Whilst there is a high capacity for landfill (outside Thames Region) this is likely to diminish in the future.

Pressure Points

- None identified.

Current NRA Proposals and other Initiatives

- Catchment Management Plan for Upper Lee.
- Pollution Prevention Activities at Luton Airport.

BERKSHIRE

Structure Plan

Deposit Structure Plan published in 1992. Examination in Public in 6/93. Proposed modifications published Spring 1994

Minerals Plan

Public Inquiry in Autumn 1993.

Waste Management Plan

Consultation held 4/94. Environmental Appraisal to be carried out. Expected adoption early 1995.

Waste Local Plan

Consultation ended 4/94. Deposit version expected late Autumn 1995.

State of Environment Report

First report published Spring 1994.

Land Use/Water Issues

- Possible water supply problems west of Reading.
- Potential major developments at Newbury/Thatcham/Greenham Common, South of Reading and North Bracknell.
- Green Belt generated pressures around Slough and Maidenhead
- Development of Oracle site in Central Reading.
- Housing and commercial development pressures along the Thames at Reading and Caversham Lakes.
- Construction of Thames Bridge between Caversham and Sonning.
- Motorway widening.

Pressure Points



Cotswold Water Park,
mineral extraction, recreation,
leisure, development.

Housing development,
water resources



Newbury / Thatcham / Greenham
housing development and water
resources.

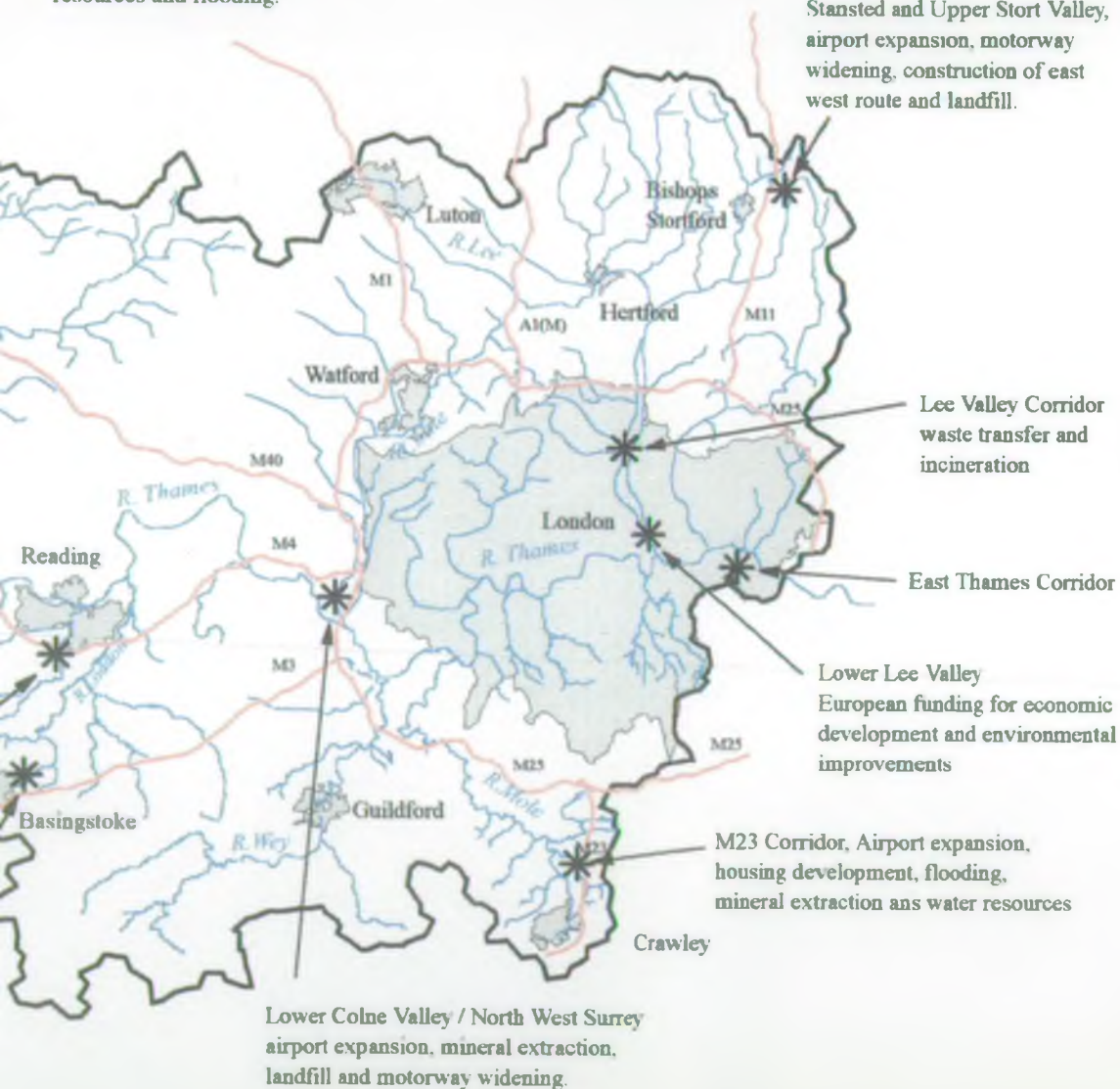
South / South - West Reading
housing development, mineral
extraction, landfill and motorway
widening.

Scale

20 km approx

Housing development, water resources and flooding.

Stansted and Upper Stort Valley, airport expansion, motorway widening, construction of east west route and landfill.



BERKSHIRE (Cont'd)

- Effect of Newbury bypass on Kennet floodplain.
- Maidenhead flooding.
- Major aggregates sites in Kennet Valley, Blackwater Valley and South of Slough.
- Low capacity for landfill.
- Slough: Sewage Treatment and Surface Water Drainage.

Pressure Points

- South and South West Reading.
Development pressures, mineral extraction, landfill, motorway widening.
- Newbury/Greenham/Thatcham.
Development pressures and water resource issues.
- West of Heathrow, Airport-related development pressures.

Current NRA Proposals and other Initiatives

- Catchment Management Plan for Blackwater.
- Catchment Management Plan for River Kennet.
- Thames-Benson to Hurley Catchment Management Plan.
- Area specific planning study of Greenham Common Airbase.
- Area specific planning study of Beech Hill.
- Area specific mineral study of River Kennet between Newbury and Reading.
- Local industry links in Reading.

- Maidenhead and Windsor flood alleviation scheme.
- River Pang. Channel improvement following alleviation of low flow scheme.
- Measures to prevent Water Quality Objective failure in River Loddon.
- Pollution prevention measures at Reading and Chalvey Ditch plus River Pang and farms at Foudry Brook.
- River Quality survey on River Loddon.
- Fisheries surveys for River Thames.
- General Environmental Quality Improvements in River Kennet.
- River Kennet Habitat improvement works.
- River Corridor Survey of Kennet and Loddon Catchments.
- Salmon passes for Rivers Kennet and Loddon.
- Thames Recreation Strategy.

BUCKINGHAMSHIRE

Structure Plan

Structure Plan, deposit document published 4/94.

Minerals Plan

Published with modifications in 1993.

Waste Management Plan

The document is currently awaiting a decision from the Secretary of State for the Environment.

Waste Local Plan

A consultation draft is expected by the end of 1994.

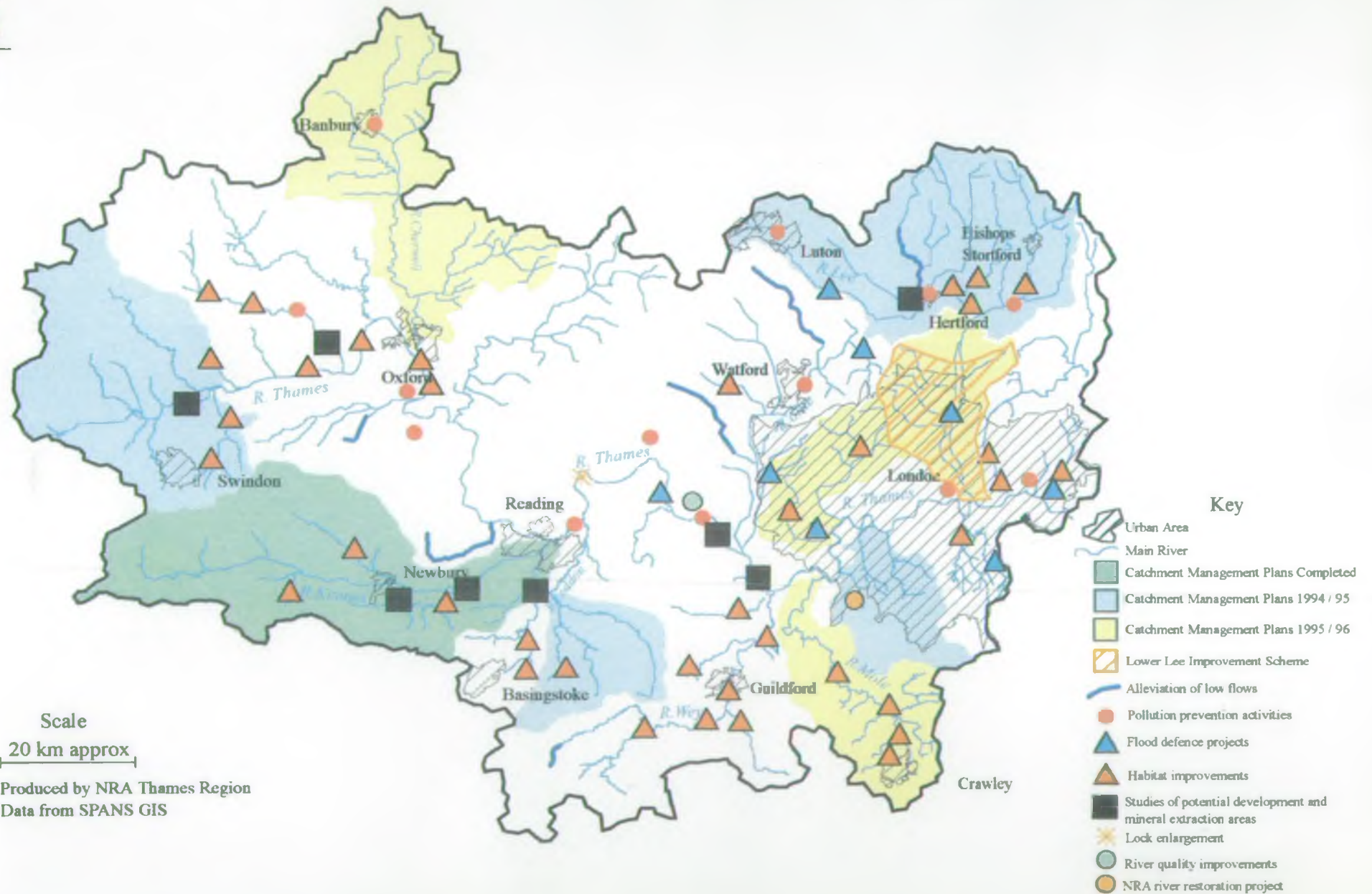
Land Use/Water Issues

- Low flows in Rivers Misbourne and others.
- Motorway widening/impact on Colne Valley Regional Park.
- Expansion of Heathrow Terminal 5 and associated infrastructure proposals, support industries and development pressures.
- High capacity for landfill (outside Thames Region).

Pressure Points

- Colne Valley - minerals, airport expansion, motorway widening.

NRA Thames Region Priorities



BUCKINGHAMSHIRE (cont'd)

Current NRA Proposals and other Initiatives

- Thames-Benson to Hurley Catchment Management Plan.
- River Cherwell Catchment Management Plan including valley of R. Ray.
- Colne Catchment Management Plan.
- Maidenhead and Windsor Flood Alleviation Scheme.
- Flood forecasting improvements on Lower Colne Improvement Scheme.
- Pollution prevention activity at Aylesbury and High Wycombe and at farms in catchment of River Ray.
- Improve Water Quality in Roundmoor Ditch.
- River Corridor Survey on R. Misbourne.
- Habitat improvement scheme R. Chess.
- Habitat improvement works near Aylesbury.
- Wetland enhancement near Marsh Gibbon.
- Proposed fish passes on Colne.
- Site Management Plan at Hurley Lock.
- Hambledon Lock enlargement.
- Thames Recreation Strategy.

ESSEX

Structure Plan

1st Alterations approved 7/91. The 2nd (limited) Alterations are expected to be adopted shortly.

Mineral Plan

Under review, consultation draft expected shortly.

Waste Local Plan

Consultation draft expected in 10/94 and a deposit draft in 3/95.

State of Environment Report

Report published in 5/92.

Land Use/Water Issues

- Sites for potential major development at Easton Park, Stansted and Church Langley, Harlow.
- Airport expansion at Stansted.
- Motorway widening.
- Mineral sites at South Ockenden and Rainham.
- Medium capacity for landfill.
- Channel Tunnel Rail Link.

Pressure Points

- Stansted area - Airport expansion and related development, motorway widening, construction of East West route and landfill.

Current NRA Proposals and other Initiatives

- Catchment Management Plan for River Roding, Ingrebourne and Beam.
- Pollution prevention activity at Harlow.
- Habitat improvement works on R. Stort
- Flood defence works on R. Lee

GLOUCESTERSHIRE

Structure Plan

1st Alterations published in 1/92. Consultation on 2nd review expected end of 1994.

Minerals Local Plan

Adopted Upper Thames Minerals plan. Countywide plan to be prepared.

State of Environment Report

In course of preparation.

Land Use/Water Issues

- Potential development sites at Cotswold Water Park.
- Flooding problems in villages in Cotswold Water Park.
- Major mineral sites in Cotswold Water Park
- Low capacity for landfill.
- Low flows and protection of water quality in Cotswold Rivers.
- Upper Thames Tributaries ESA.

Pressure Points

- Cotswold Water Park - Mineral extraction, recreation, built development related to the leisure industry.

GLOUCESTERSHIRE (cont'd)

Current NRA Proposals and other Initiatives

- Upper Thames Catchment Management Plan.
- Strategy for mineral extraction in Cotswold Water Park.
- River Corridor Survey in Upper Thames and tributaries.
- Windrush enhancements.
- Fisheries Surveys in Upper Thames and R. Leach.
- Thames Recreation Strategy.

HAMPSHIRE

Structure Plan

Structure Plan approved in 12/93. Review being compiled for release shortly.

Minerals and Waste Local Plan

Public Inquiry due to start 10/94.

Waste Management Plan

Plan adopted in 1989 is under review.

Land Use/Water Issues

- Residential development at Basingstoke - constraint imposed by Groundwater Protection Zones.
- Re-use and redevelopment of Ministry of Defence premises.
- Pressures to identify new settlements eg. Bramshill plantation.
- Low capacity for landfill.

Pressure Points

- Development pressures in NE Hants due to environmental/landscape constraints in rest of County.

Current NRA Proposals and other Initiatives

- Catchment Management Plans for Rivers Blackwater and Wey.
- Alleviation of low flows in R. Wey at Alton.

HERTFORDSHIRE

Structure Plan

Consultation draft of Review published in 5/94.

Minerals Local Plan

Public Inquiry in 7/93. Proposed modifications being prepared.

State of the Environmental Report

Agenda 21 project commenced 1992 with annual updates.

Waste Local Plan

Deposit document expected end of 1994.

Land Use/Water Issues

- Site for major development at Wellfield Park, Stevenage.
- Motorway widening/construction of East-West Route.
- Flooding at Mimmshall Brook and other sites.
- Major minerals sites in Upper Lee.
- Medium capacity for landfill.
- Low flows in River Beane and other rivers.

Pressure Points

- Upper Stort Valley. Airport- related developments, motorway widening, East-West route, landfill.

HERTFORDSHIRE (cont'd)

Current NRA Proposals and other Initiatives

- Catchment Management Plans for Upper, Middle and Lower Lee and Colne.
- Area specific minerals study of Upper Lee and tributaries.
- Lower Lee Improvement Scheme.
- River Beane Alleviation of Low Flow Investigations.
- R. Ver - channel enhancements following Alleviation of Low Flows.
- Flood Defence Schemes at Mimmshall Brook and Wheathampsted.
- Pollution prevention schemes at Watford and Hertford.
- Habitat improvement schemes to R. Lee area.
- Middle Lee River Corridor Survey.
- Fisheries surveys for R. Ash, Rib and Bulbourne.

NORTHAMPTONSHIRE

Structure Plan

The existing Structure Plan was approved in 1992. It is now proposed to review the whole plan so that it extends from 1991 to 2011 and to prepare an issues report in 1994.

Minerals Local Plan

The plan is at Public Inquiry which commenced at the end of 2/94 and has yet to formally close due to an adjournment to assess the impacts of MPG6.

Waste Management Plan

Production is commencing in 5/94 with the consultation draft expected the beginning of 1995.

Waste Local Plan

This is being produced in parallel with the Waste Management Plan due to the linkages between the two plans.

State of the Environment Report

A report has not been produced, but is under consideration.

Land Use/Water Issues

- Potential development in the floodplain of the Upper Cherwell.

Pressure Points

- None identified.

Current NRA Proposals and other Initiatives

- River Cherwell Catchment Management Plan.

OXFORDSHIRE

Structure Plan

The current plan was adopted in 1/92. Review to extend Plan to 2011 commenced.

Minerals and Waste Local Plan

The Deposit draft went to Public Inquiry in 7/94.

Waste Disposal Plan

Update of current plan likely to commence in 1994.

State of Environment Report

An Environmental Audit of the county has been produced.

Land Use/Water Issues

- Restricted capacity of water supplies in Oxford and Banbury.
- Development pressures at Caversham Lakes.
- Greenbelt-generated pressures around Oxford.
- Low flows in the R. Cherwell.
- Third Thames River crossing between Caversham and Sonning.
- Major minerals sites at Cassington and Lower Windrush.
- Medium capacity for landfill.
- Upper Thames Tributaries ESA.

Pressure Points

- Banbury - development pressures, water resources and flooding.

OXFORDSHIRE (cont'd)

Current NRA Proposals and other Initiatives

- River Cherwell Catchment Management Plan.
- Thames-Buscot to Eynsham Catchment Management Plan.
- Thames-Benson to Hurley Catchment Management Plan.
- Area specific minerals study of Lower Windrush.
- Flow Fluctuation and General Environmental Quality Works - Pinkhill to Oxford.
- Investigation of groundwater contamination at Ewelme, Oakleywood, Harwell and Benson.
- Otmoor Management Plan.
- Pollution Prevention Activity at Witney, Abingdon, Didcot, Banbury and at farms in Ock, Ray, Windrush and Thame catchments.
- River Corridor Survey for R. Cherwell.
- Habitat improvement works in Upper Windrush.
- Site Management Plan at Rushey Lock.
- Fisheries Survey for R. Cherwell.
- Thames Recreation Strategy.

SURREY

Structure Plan

Modifications on Structure Plan Review were published in 2/94 and representations are now being considered.

Minerals Local Plan

Adopted 7/93.

Waste Management Plan

Producing an interim policy statement.

Waste Local Plan

Consultation took place in 9/92. A deposit draft is expected at the end of 1994 to early 1995.

State of Environment Report

Agenda 21 processes underway.

Land Use/Water Issues

- Restricted capacity of water supply in Sutton and possibly parts of East Surrey.
- Site for major development at Epsom Hospitals.
- Motorway Widening.
- Airport expansion at Gatwick and Redhill.
- Potential development at Horley in the floodplain.
- Mineral sites in NW Surrey and on the Surrey Greensand.
- Diminishing capacity for landfill.

Pressure Points

- M23 Corridor - Airport expansion, development pressures, water resources, flooding, mineral extraction.
- North West Surrey - Restoration and after use of minerals sites, motorway widening.

Current NRA Proposals and other Initiatives

- Catchment Management Plan for R. Mole.
- Catchment Management Plan for R. Wey.
- Habitat improvement schemes R. Mole.
- Habitat improvement schemes R. Wey.
- Fisheries Survey for Basingstoke Canal.
- Habitat improvement R. Bourne.

WARWICKSHIRE

Structure Plan

Current plan standing since 9/91 while awaiting the publication of regional guidance.

Minerals Local Plan

Draft for consultation published 1994.

Waste Disposal Plan

Latest plan adopted 1988.

Waste Local Plan

Due to resource constraints and shortage of survey information the production of this plan has not progressed.

Land Use/Water Issues

- None identified

Pressure Points

- None identified

Current NRA Proposals and other Initiatives

- River Cherwell Catchment Management Plan.

WEST SUSSEX

Structure Plan

Approved 3/94. 1st review is under way with the consultation draft expected at the end of 1994.

Minerals Local Plan

Consultation draft expected late 1994.

Waste Disposal Plan

Consultation draft expected late 1994.

Waste Local Plan

Work to commence shortly.

State of Environment Report

Report published 2/94.

Land Use/Water Issues

- Surface water run-off from Gatwick Airport.
- Low capacity for landfill-

Pressure Points

- Crawley - airport expansion and related development.

Current NRA Proposals and other Initiatives

- Catchment Management Plan for R. Mole.

WILTSHIRE

Structure Plan

Approved Structure Plans for North East, South and Western Wiltshire. Countywide review underway.

Minerals Local Plan

Consultation draft published Autumn 1994.

Waste Management Plan

Plan prepared 1984.

Waste Local Plan

Draft expected late 1994.

Land Use/Water Issues

- Restricted capacity of water supply at Swindon.
- Potential expansion of Swindon.
- Major minerals sites in Cotswold Water Park.

Pressure Points

- Swindon - development pressures and water supply.
- Cotswold Water Park - mineral extraction, recreation, development pressures related to the leisure industry.

Current NRA Proposals and other Initiatives

- River Kennet Catchment Management Plan.
- Upper Thames Catchment Management Plan.
- Strategy for mineral extraction Cotswold Water Park.
- Pollution prevention, Swindon.

GREATER LONDON

Strategic Plans

'1994 Advice on Strategic Planning Guidance for London' produced by the London Planning Advisory Committee (LPAC).

Forward Plans

33 Unitary Development Plans.

Land Use/Water Issues

- Restricted capacity of water supply. Any major new development proposals could result in an increase in the frequency of water use restrictions.
- Potential development sites at Enfield Island, Havering Riverside, Beddington/Mitcham, Bell 'Green Gas Works Lewisham, Stratford and East Thames Corridor (Thames Gateway).
- Development pressures in wetland area of Marsh Dykes, south of River Thames near Greenwich.
- Major transport projects including Heathrow Terminal 5, Channel Tunnel Rail Link, Jubilee Line Extension, Cross Rail, Dockland Light Railway Extension, Heathrow Express and Croydon Tramway.
- Stratford Infrastructure links and city challenge project funding.
- Lee Valley £50m expenditure through Objective 2 ERDF funding. NRA joint bid with Lee Valley Park and BWB for additional £10m and UK Life funding of £5.5m.
- Flood Defence. Significant areas of London are protected by flood defences, a breach of which could lead to flooding extending a considerable distance.

- Minerals sites at Roding Valley and Hillingdon.
- Low capacity for landfill but high waste generation.
- Rising Groundwater Levels. Could have significant implications for existing and proposed development particularly for tunnels and buildings with pile foundations.
- Zonings of surface water discharge may restrict development in some areas.
- Water Pollution. The redevelopment or disturbance of contaminated land can cause both surface and groundwater pollution.
- River Corridor rehabilitation, providing protection from flooding and opportunities for nature conservation and recreation.
- River Thames under-used in terms of recreation, amenity, environment and transport.

Land Use/Water Issues in the East Thames Corridor (Thames Gateway)

- Restricted capacity of water supply.
- Vital for strategy to be environmentally led.
- Maintenance of Tidal Defences.
- Conservation and enhancement of the Thameside marshes.
- Remedial work on contaminated sites.

Pressure Points

- East Thames Corridor (Thames Gateway).
- Lee Valley Corridor.
- Heathrow area - airport expansion, infrastructure development and mineral extraction.

Current NRA Proposals and other Initiatives

- Catchment Management Plans for Lower Lee; Hogsmill, Beverley Brook and Wandle; Ravensbourne; Tidal Thames; Brent and Crane; Roding and Colne.
- Flood Defence Works R. Crane and Ingrebourne.
- Lower Lee Flood Relief Channel.
- Flood Alleviation Scheme R. Ravensbourne.
- Thames Tideway Visual Improvements.
- Monitor improvement at Mogden Sewage Treatment Works
- Pollution Prevention Activities at Dagenham and Tottenham.
- River Corridor Survey R. Brent.
- Fisheries Survey R. Brent.
- Lower Lee improvement scheme.
- River Restoration Project - Hogsmill River.
- Thames Recreation Strategy.
- Tidal Thames Landscape Assessment, Planning and Design Guidance.

National NRA Policy Statement

The following policy documents published by the NRA, may also be of interest.

- Guidance Notes for Local Planning Authorities on the Methods of Protecting the Water Environment through Development Plans. January 1994.
- Policy and Practice for the Protection of Groundwater 1992.
- Contaminated Land and the Water Environment 1994.
- Water Nature's Precious Resource: An Environmentally Sustainable Water Resources Development Strategy for England and Wales. March 1994.
- Corporate Strategy 1994/5
- Water Quality Strategy 1993.
- Water Resources Strategy 1993.
- Flood Defence Strategy 1993.
- Fisheries Strategy 1993.
- Conservation Strategy 1993.
- Navigation Strategy 1993.
- Recreation Strategy 1993.
- Research and Development Strategy 1993.

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