

# Local Environment Agency Plan

Colne, Upper Lee, North London &  
Roding, Beam & Ingrebourne



Annual Review - 2001



ENVIRONMENT  
AGENCY







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*A healthy river enhances the rural landscape*

## Introduction

**Welcome to the year 2001 Annual Reviews for the Colne, Upper Lee, North London and Roding, Beam & Ingrebourne (RBI) catchments. This document will summarise relevant LEAP actions from these four catchments and provide information on other Agency work in the area.**

The LEAPs were published at different times over the last three years, RBI in September 1997, Colne in September 1998 and the Upper Lee and North London LEAPs in January 2001. The Annual Review provides information on the actions that the Agency and our partners have been carrying out in the area over the past year. This newsletter aims to give an overview of that information.

## The Environment Agency

The Agency was set up to protect and enhance the environment through our duties which include land, water and aspects of air quality. We are working towards sustainable development – meeting the needs of today without compromising those of our children and future generations, as well as continuing our role as a regulator, for example controlling pollution from industrial processes. We also work towards creating opportunities for recreation and making our countryside better for native wildlife and for us to enjoy.

## Our Vision

The Agency's new environmental Vision is for "a healthy, rich and diverse environment in England and Wales, for present and future generations". The aims and challenges this presents go beyond what can be dealt with purely by regulation and what can be funded through our existing budgets. We will, therefore, require imaginative new approaches to deal with environmental pressures. In order for the Agency to be a champion for the environment, the Vision identifies several themes for the future. These themes are:

- A better quality of life
- An enhanced environment for wildlife
- Cleaner air for everyone
- Improved and protected inland and coastal waters
- Restored, protected land with healthier soils
- A greener business world
- Wiser, sustainable use of natural resources
- Limiting and adapting to climate change
- Reducing flood risk.

This Vision will be realised through raising public awareness of the need to protect the environment, by maintaining strong links with local communities, and through working in partnership with external organisations, government agencies, local authorities and industry.



## Working With Others

The Agency is very aware of the need for working in partnership to encourage and implement environmental change. Our partners range from government organisations to community groups. Some of our priorities in the LEAPs areas are the Greater London Assembly, Local Strategic Partnerships, London's Waterway Partnership, the Five Objective 2 Partnerships, Roding Valley Park & the Chilterns Chalk Streams Project.

Pressure to develop land within the area is intense. The Agency provides advice to developers and works closely with Local Authorities to include environmental considerations in their development plans. We also commented on the Regional Planning Guidance for the South East (RPG9) which was published in March 2001.

### The Agency and the Greater London Authority (GLA)

The GLA, and therefore the Mayor, have wide ranging powers across the capital to promote economic and social development and to improve the environment. The Agency has established valuable links with many of its members and exchanges information and views on London's environmental issues whenever possible.

Throughout 2001 and 2002, the Mayor will publish a series of strategy documents setting out his policies for London, covering areas such as air quality, biodiversity, culture, economic development, energy, noise, transport, spatial development and waste.

### Local Strategic Partnerships (LSPs)

LSPs are partnerships of statutory, voluntary, and community organisations whose actions affect local quality of life. As a result of the requirements of the Local Government Act 2000, these partnerships aim to improve social, economic and environmental conditions in a locality – helping to deliver sustainable development.

One of the key roles of LSPs is to produce Community Strategies. Community Strategies are locally driven, and

aimed at improving the area. Regeneration and renewal activities will be guided by these strategies, therefore, getting Agency priorities and issues addressed within these strategies will help us achieve our Vision on a local scale. We will be getting involved with individual LSPs on a range of levels, reflecting Agency priorities in the area.

### London's Waterway Partnership (LWP)

The London's Waterway Partnership is a partnership between the Agency, British Waterways, Lee Valley Regional Park Authority, Groundwork Foundation and representatives of the North London local authorities. It is now in its fifth year and this year will see more projects carried out to improve the quality of London's water corridors.

One of the biggest projects will be the enhancement of Pymmes Park Lake, incorporating measures to reduce pollution into the lake, such as silt traps and reedbeds. With the installation of the Automatic Water Quality Monitoring Stations on the River Lee last year, we will now be able to identify and tackle pollution trends in the river. Improvements to the River Brent through Tokyngton Park are also scheduled to commence next year.

### West London Objective 2 Partnership

The West London Objective 2 Partnership aims to tackle social exclusion, provide sustainable employment opportunities and enhance the quality and environmental sustainability of the area.

The Partnership is currently funding improvements to the River Brent through Tokyngton Park. This project aims to restore and reintegrate the river as a key landscape feature within the park improving amenity and access.



## Roding Valley Park Enhancement Project

The Roding Valley Park Enhancement Project is a partnership project between the Agency and the London Borough of Redbridge. It aims to design and implement improvements to the River Roding and Roding Valley Park, in consultation with the local community.

## Chilterns Chalk Streams Project

The Chilterns Chalk Streams Project covers all the chalk streams and valleys in the Chilterns, an area covered by the Colne and Thames (Benson to Hurley, Pang and Wye) catchments. The project aims to conserve and enhance the streams and their associated wildlife and to increase public understanding and enjoyment of them. It also promotes water efficiency, making the link between our use of water and the chalk stream environment.

## High Profile Issues Of The Last Twelve Months

### Foot and Mouth Disease

North East Area has been fortunate enough not to have experienced any cases of Foot and Mouth Disease. Even so, precautions (such as access restrictions) have meant that the Agency has been unable to carry out some of its duties. Our annual sampling of rivers for water quality have been affected, as have other activities, which involve work in the countryside.

On a national scale, the Agency continues to play a major role in ensuring that in the fight against the disease the potential risk of ground and surface water pollution (through the burial of carcasses and the disinfection process) is minimised.

### Flooding

In September 2000, the Agency launched a new flood warning system, consisting of 4 stages: Flood Watch, Flood Warning, Severe Flood Warning and All Clear. Approximately 33,100 properties in the LEAP area have



been identified as being in the indicative floodplain – at risk of flooding once in 100 years. However, there is likely to be a higher risk to a smaller number of properties, generally those situated closer to the river. This figure does not take into account protection provided by flood defences.

The general public is informed of Flood Warnings through local radio and TV news bulletins, the Automated Voice Messaging System (AVM) and Floodline. The Flood Warning Team for North East Area operates from Hatfield.

All properties within the indicative floodplain have received a "red letter" mailshot as part of the 2001 flood awareness week. Properties already on the AVM system will receive a new Flood Directory, which is a mini information pack and telephone directory covering all aspects of flooding and flood warning in their area.

Following the flood event in 2000, the Agency conducted an investigation into how we performed and areas we could improve on. The results can be found in "Autumn 2000 Floods Review Regional Report" which is available on request. We are expecting another busy winter this year due to groundwater levels remaining high throughout the summer.

More specific local information about last year's flooding, and action the Agency intends to take, can be found in the catchment pages further on in this publication.



# Background Information and Other Issues

## Water Resources

The Agency is working with Thames Water and Three Valleys Water to ensure the sustainable use of water resources and the implementation of Leakage Management Plans. Together we are promoting water efficiency in industry, schools and households.

## Abstraction Management

The Agency is developing Catchment Abstraction Management Strategies (CAMS). The information they provide will allow us to decide how much water can be sustainably removed from a catchment by abstractors and other water users, whilst maintaining a healthy environment. They will be applied to new abstraction license applications and will review those already in operation. CAMS will be developed through a process of stakeholder consultation and will complement LEAPs.



Rivers are an integral part of the city landscape

## Waste

The Area is under increasing pressure to find new ways of reducing the amount of waste produced and dealing with its waste sustainably. Local authorities are compiling Recycling Strategies, on which the Agency provides comments. Site inspections and checks on waste carriers are a regular activity for the Agency, sometimes in conjunction with the police.

## Contaminated Land

Following last year's Contaminated Land Regulations most local authorities have now compiled Inspection Strategies. A database of contaminated sites in each of their areas must now be maintained.

## Conservation and Fisheries

Wherever possible, the Agency seeks to return rivers that have been altered to a natural state, to protect the river corridor from development and to improve habitats and promote biodiversity "the variety of life". We do this in partnership with local groups such as the Local Wildlife Trusts, English Nature, and Groundwork.

A national evaluation is currently being carried out into Fisheries Action Plans (FAPs) with the view to carrying out a FAP in all LEAP areas next year. Also on a national scale "A Partnership Plan for Increasing Participation in Angling" is being put together which may take over some of the work formerly carried out under the Urban Fisheries Development Project

## Endocrine Disruption

Research has shown that there is a strong correlation between the proportion of sewage effluent in a river and the number of male fish containing both male and female characteristics, such as eggs in the testes. This is due to 'endocrine disrupters', substances that interfere with the hormonal systems of animals. These include natural and synthetic substances such as alkylphenols. At the present time research has only looked at fish in the River Lee (where 57% of male roach were found to be affected) but there is no reason to assume that it is not affecting other rivers in the area. This of course causes great concern to the Agency.





*The Agency monitors emissions from major industrial processes*

Following the publication of the Agency "Strategy for Endocrine Disrupting Substances", in 2000, the Agency has conducted further research into causes and consequences of oestrogenic effects in wild fish. This work is being published in late autumn of 2001.

## Habitats Directive

The Habitats Directive aims to conserve European biodiversity by designating a network of sites that are the most significant in Europe for specific habitats and species (i.e. rare or endangered habitat types and/or plants and animals).

The Agency has responsibilities under the new regulations to review consents and assess new consent applications to ensure they will not have a negative environmental impact on these sites (Special Areas of

Conservation (SACs) and Special Protection Areas (SPAs)).

## Water Pollution

The Agency is working with others to improve water quality in the area. The water companies have been set targets to improve Sewage Treatment Works (STWs) releases by 2005. The Agency is also working to resolve pollution from domestic misconnections. These occur when toilets, washing machines, dishwashers and showers etc. are connected to the surface water drain (discharging to a watercourse) instead of the foul sewer (which carries dirty water to the STW for treatment). If you see any pollution please call our **Emergency Hotline** free on **0800 80 70 60**.

Another major cause of water pollution is engine oil being tipped down drains in the street when people change the oil in their cars. These drains are connected to the surface water system so are discharged straight into streams or rivers. Used oil should be taken to your nearest used oil bank, the location of which can be found by calling the **Oil Bank Line** free on **0800 66 33 66**.

## Air Pollution

The Agency has been liaising with local authorities to establish a process for working together to achieve National Air Quality Strategy objectives. We publish a pollution inventory on our website and are currently producing a National policy on incineration, stating the Agency's role in regulating incinerators.

## Climate Change

The Agency is in the front line on climate change, both as a regulator of processes that give rise to about half of the current emissions of greenhouse gases, and as the body responsible for many functions that will be affected by a changing climate, such as flood defence. Climate change is a key theme in our Vision, and we are a lead partner in the South East Climate Change Impacts Partnership, covering the South East England Development Agency area. We are working together with many partners to adapt to climate change in an integrated manner.



## Colne LEAP 2001

The Colne LEAP Area is based on a surface water catchment that covers an area of 1014km<sup>2</sup>. It is situated north-west of the London metropolitan area. The area extends from southern Bedfordshire to the point where the Colne joins the River Thames, taking in west Hertfordshire, east Buckinghamshire and parts of west London.

### Major Developments

The Colne LEAP area falls within both the East and South of England Regional Development Agencies boundaries, which are working to achieve sustainable economic growth. There are a number of major developments in the catchment which the Agency has been involved with, summaries can be found below.

#### ● Hatfield Aerodrome

The redevelopment of the former aerodrome to the west of Hatfield has begun with the construction of the infrastructure roads, the University Campus building, a major office complex and warehousing facilities well underway. The overall development includes recreational, commercial, educational, retail and mixed tenure housing. The Ellenbrook has been de-culverted and diverted along a route through the greenbelt and will have 10 metre buffer strips either side. Two large balancing ponds including reed beds are to be dug and oversize pipes laid to control the discharge of surface water from the development down to a greenfield discharge rate for the whole site. The bid for European funds for implementing a



water management and sustainable drainage system was rejected. The River Nast is **not** being de-culverted as part of the development. However, there may be a further opportunity to have the River Nast opened up through the planning process if the site owners seek to exercise their mineral extraction rights over the greenbelt land to the west of the aerodrome site.

#### ● London International Freight Exchange (LIFE)

LIFE is a proposal for a major freight intermodal development on a 182 hectare site between Slough and the M25. The application includes railway works, warehousing, road haulage facilities, mineral extraction and recreational facilities. The proposed site is located in green belt land and lies within the Colne Valley Park. Slough Borough Council refused the planning application and the Public Inquiry finished in September 2000. The Agency gave evidence on matters including flood defence, contaminated land, aquatic ecology, greenhouse gas emissions and sustainable development. The Inspector has now issued his report and a decision by the Secretary of State for the Environment, Food and Rural Affairs is expected by the end of 2001.



Water vole





*A typical major development in the Colne catchment*

### ● Amersham plc

The public is to be consulted by the Agency over an application from Amersham plc to revise its authorisation permitting the disposal of radioactive waste from the site at White Lion Road in Amersham. The consultation, which will take place early in 2002, will give members of the public the opportunity to receive copies of the draft authorisation, by mail or by visiting the Agency's web site. There will also be meetings in the Amersham area. The consultation process will be advertised in the local press and at that time copies of the documents may be requested from the Agency.

## The Agency and the Greater London Authority (GLA)

The London Boroughs of Hillingdon, Harrow and Barnet, which form part of this LEAP area, also fall within the GLA.

## Water Resources

In the last year monitoring of the Misbourne and Ver has started to assess the impact of the Alleviation of Low Flows Schemes (ALF's) which were carried out. The Bulbourne ALF will be implemented by 2005. An investigation has commenced to find the causes of low flows in the River Gade. Telemetry is to be installed in the Misbourne catchment following 2000's high groundwater levels to help us better understand the hydrology of the area.

## Flooding

Floodplain maps for the Colne LEAP area should be completed by December 2001, approximately 19,000 properties in the LEAP area have been identified as being in the indicative floodplain. A flood warning station on Radlett Brook is due to be installed this year, with two further stations timetabled for the Hilfield Brook and Harts Bourne by 2004. A raingauge should also be in place in the Northwood area in the next two years. The information they provide will be invaluable in guiding the flood warning team when issuing warnings on watercourses in times of flood.

Following the heavy and prolonged rainfall of October and November 2000, the River Colne overtopped its banks and drainage problems increased the flooding problem at London Colney, with 40 properties being submerged by water. Several properties were flooded in Colney Heath, Stanwell Moor Village and Watford. Approximately 20 homes were flooded by the County Ditch at Colnbrook, Slough, and the Mimms Brook flooded several properties in Warrengate Road, North Mymms.

In February 2001, the County Ditch at Colnbrook flooded again, inundating approximately 70 homes. The Misbourne, Chess & Ver flooded several properties throughout the winter, due to very high groundwater levels giving rise to exceptionally high river levels. (The Misbourne is now flowing along its whole course for the first time in over 50 years).

As a result of the flooding last year, many new AVM recipients and flood wardens have been recruited in London Colney. There are also several new recipients from Watford, a few from the Ver, Chess and Misbourne areas. Properties already on the AVM system will receive a new Flood Directory, which is a mini info pack & telephone directory on all aspects of flooding and flood warning in their area. In the last 12 months, 63 Flood Watches and 23 Flood Warnings were issued and approximately 190 properties were flooded.

## Abstraction Management

The Colne CAMS is due to be developed between October 2004 and March 2007.



## Contaminated Land

The study of contaminated land and groundwater at St Albans Gas Works is now complete.

The Agency is investigating the pollution of groundwater by bromate from a former industrial site in Sandridge, on the outskirts of St Albans. The bromate was disturbed during redevelopment works in the 1980's, and has escaped in to the groundwater from where it has spread west towards Hatfield and Essenden causing the closure of two public water supply boreholes. The Agency is assessing whether any remedial work can be undertaken, and if so we will attempt to enforce the Polluter Pays Principle.

## Conservation and Fisheries

In the last year Biodiversity Action Plans for Hertfordshire, Chilterns AONB and Colne Valley Regional Park have been produced. Water Level Management Plans for Denham Lock Wood and Frays Farm Meadows Sites of Special Scientific Interest (SSSI's) have been written. A strategic river habitat survey on the Chess is complete, and the Colne in Watford has been surveyed for water voles and other mammals (e.g. otters and mink). This year we will be monitoring the impact and recovery of the Colne at West Drayton following it being dredged as part of the Lower Colne Improvement Scheme. We will also be looking for sites suitable for reintroducing the Starfruit plant.

The Colne catchment contains a large number of chalk streams, which are identified as a priority habitat in the Habitats Directive due to the high level of biodiversity they are home to. The Agency has a key role in protecting and restoring this habitat and as such is involved in a range of schemes concerned with chalk streams and rivers.

Several projects have been undertaken through Chilterns Chalk Streams Project this year, such as the restoration of a ford on the River Ver in St Albans.

## Habitats Directive

One of the designated European sites is partially situated in the Colne LEAP area, the South West London Waterbodies.

South West London Waterbodies SPA is comprised of seven SSSI's: Kempton Park Reservoirs, Knight and Bessborough Reservoirs, Thorpe Park No 1 Gravel Pit, Wraysbury Reservoir, Staines Moor and Wraysbury and Hythe End Gravel Pits. Its designation is due to it supporting populations of two rare bird species, Gadwall and Shoveler, both of which spend part of the year at the SSSI's.

## Water Pollution

This year the Agency will carry out an assessment to discover if drainage from an industrial site in Hemel Hempstead is affecting the water quality of the River Red and the Ver into which it flows.

## Waste

Flytipping and the operation of unlicensed waste sites is a major problem in North West London and its outskirts.

The Agency's Enforcement Team are tackling this problem in an intelligence led targeted way, with a view to prosecuting the criminals involved.



*The vast majority of waste will end up in landfill*



## Roding Beam & Ingrebourne LEAP 2001



The Roding, Beam & Ingrebourne (RBI) LEAP covers an area of 550km<sup>2</sup>. The northern extent of the LEAP Area is close to Stansted Airport and the River Thames marks the southern boundary. The area can be split into two distinct parts. The north of the area being largely rural, with green belt designation, whilst sprawling to the south is east London.

### Major Developments

The RBI LEAP area falls within the borders of two Development Agencies, London and East of England, which are working to achieve sustainable economic growth. There are a number of major developments in the catchment which the Agency has been involved with, summaries can be found below.

#### ● Barking Reach

The Barking Reach residential development is of interest to the Agency due to the potential culverting of watercourses, development adjacent to the Buzzard Mouth Stream, the remediation of land heavily contaminated by a long history of industrial use and the development of housing within 50 metres of the former Renwick Road landfill. The Agency is commenting on planning applications as they come in.

#### ● A120 Road Improvements

The Agency is consulting with the developers, Balfour Beatty, to try to ensure that the environmental impacts of the road are minimised.

#### ● The Channel Tunnel Rail Link

The initial construction of the Channel Tunnel Rail Link (CTRL) was anticipated to commence in April 1998. However, delays have meant that the main construction work is not programmed to commence in the LEAP area before 2001.

Within the LEAP area, the construction of the CTRL will entail construction of new crossings over the Rivers Beam and Ingrebourne and many other watercourses. The Agency is currently involved in detailed discussions regarding all of these river crossings, to ensure their design and construction minimises the impact upon the riverine environment. Significant lengths of new watercourses are to be excavated to compensate for any resultant losses of habitat. The Inner Thames Marshes must also be protected from adverse impacts of the construction.

### The Agency and the Greater London Authority (GLA)

Nearly half of the RBI LEAP area also falls within the GLA boundary covering the London Boroughs of Barking and Dagenham, Havering, Newham and Redbridge.

### Rainham and Dagenham SRB Partnership

The London Boroughs of Havering and Barking & Dagenham, together with Ford Motor Company, have been successful in gaining Single Regeneration Bid 5 funding for projects in the Rainham and Dagenham areas. The objective is specifically to promote economic and environmental regeneration involving the expenditure of hundreds of millions of pounds. The Agency is keen to develop links with this exciting new partnership.

### Water Pollution

This year the Agency will be undertaking a study to see which surface water outfalls (SWO's) have the most significant impact on the river life in the Roding. This study will take until 2003 to complete.



## Flooding

Floodplain maps for the RBI LEAP area are underway, and 7,630 properties have been identified as being in the indicative floodplain. New rain gauge's in the Upper Roding and Lower Ingrebourne catchments will be installed in the next three years. The information they provide will be invaluable in guiding the flood warning team when issuing warnings on watercourses in times of flood. In the last twelve months, 41 Flood Watches, 6 Flood Warnings and 1 Severe Flood Warning were issued.

Following heavy and prolonged rain in the autumn and winter of 2000, the River Roding overtopped flood defences at Wanstead and at other locations to a lesser degree. Severe flooding was recorded in Woodford and Ilford, with 250 properties reportedly inundated.

Flood Wardens have been recruited at the lower end of the Roding as a result of the recent flooding. There are substantial numbers already on the AVM system but more have been recruited.

## Abstraction Management

The Roding Beam and Ingrebourne CAMS is currently under development and should be completed in spring 2003.

## Contaminated Land

The study into contamination at Luxborough Lane, Woodford Bridge, is completed and recommends that no action need be taken. Routine monitoring will continue.

## Conservation and Fisheries

A Regional Biodiversity Strategy and Action Plan has been compiled. There is an ongoing programme of environmental enhancements in the RBI LEAP area and further surveys continue to improve our knowledge of important species and habitats. A macroinvertebrate survey of the Ingrebourne's tributaries was completed this year.

This year the Agency will start restoring the lake in Gilwell Park, Chingford, for use as a dedicated junior angling centre. This will be completed by March 2003 and we will be working in partnership with the Scouts Association.

## Rainham, Wennington and Aveley Marshes Nature Reserve

The Agency is the Operating Authority and an important partner in the RSPB's development of a major urban fringe visitor reserve on a portion of the "Rainham" or Inner Thames Marshes Site of Special Scientific Interest. The site covers 352 hectares (870 acres) with a good water supply, impressive existing bird numbers and other important existing and potential habitats in close proximity.

The aim of the RSPB is to restore the Marshes to optimal biodiversity potential and create a bird/wildlife spectacle. To achieve this there is a real need for working in partnership with others to ensure the successful creation and running of such a large and important ecological asset.

## Habitats Directive

There are 4 European sites (2 SPA's and 2 SAC's) in North-East Thames area, one of which occurs in the RBI LEAP area, Epping Forest.

Epping Forest cSAC, containing the Epping Forest Site of Special Scientific Interest, is designated for its rare woodland type (Beech forest on acid soil) and because it is home to the stag beetle. It also has important dry and wet heathland.

## Waste

Flytipping and the operation of unlicensed waste sites is a major problem in North East London and its outskirts, the Agency's Enforcement team are tackling this problem in an intelligence led targeted way, with a view to prosecuting the criminals involved.



Scrap metal yard



## Upper Lee LEAP 2001

The Upper Lee LEAP Area covers the rivers that drain into the River Lee from its source north of Luton downstream to Feildes Weir, near Hoddesdon, including the Rivers Mimram, Bean, Rib, Ash and Stort. It covers an area of 1033km<sup>2</sup> and forms parts of the larger Lee Valley basin that drains southward to join the Thames in east London. Significant urban areas include Luton, Stevenage, Harlow and Sawbridgeworth, however much of the land is designated as Green Belt to prevent unrestricted urban sprawl. The rest of the area is predominantly open farmland interspersed with river valleys.

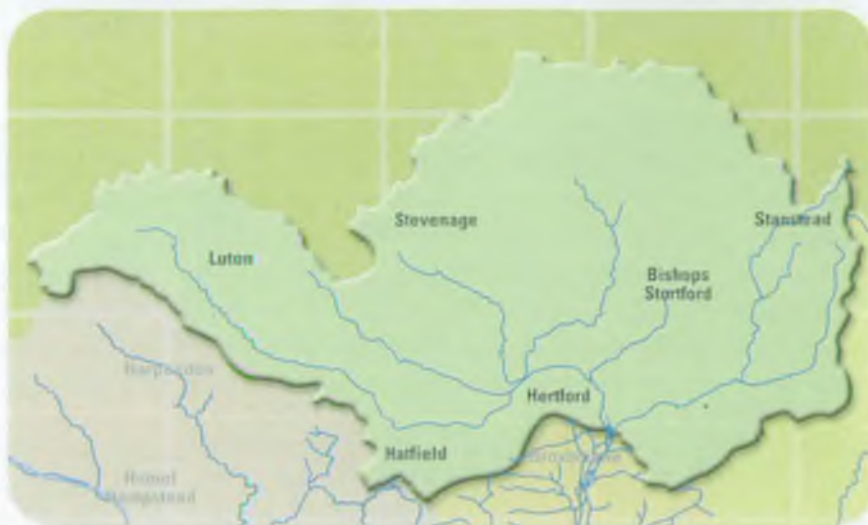
### Major Developments

The Upper LEAP area falls within the borders of the East of England Development Agency, which is working to achieve sustainable economic growth. There are a number of major developments in the catchment which the Agency has been involved with, summaries can be found below.

- **Housing Development  
West of Stevenage**

The first application for this development came in for 5000 dwellings, this has now been reduced to 3600. The aim is to provide for the housing demands of Hertfordshire by creating a more sustainable urban development. For example, the public transport system is designed to be far more efficient than Stevenage's existing one, with increases in services and links to local towns.

The Agency has commented on several aspects of the development: drainage, site contamination, groundwater protection, IPC sites in close proximity, the creation of lakes/ponds, the Norton Green Landfill Site and the general size of the development. The Agency objected to a proposed sewage storage tank in the Elder Way Flood Storage Reservoir, and inadequate storm attenuation for the public surface water sewer.



- **Stansted Airport Expansion**

A planning application was submitted by BAA to Uttlesford District Council on 1st August 2001. The application is for a terminal extension, apron site, a cargo facility, aircraft maintenance facility, short and long term car parks, new office development, road improvements, extension to fuel farm and improvements/extension to the Bus, Rail & Coach station. An Environment Statement was also submitted with the application, which the Agency will comment on.

- **A120 Road Improvements**

The Agency is consulting with the developers, Balfour Beatty, to try to ensure that the environmental impacts of the road are minimised.



Agency monitoring



## Flooding

Approximately 7850 properties in the LEAP area have been identified as being in the indicative floodplain. Floodplain maps for the Upper Lee LEAP area are underway and over the next three years Flood Warning stations and/or rain gauges will be installed in the Ash, Mimram, Rib and Stort catchments. The information they provide will be invaluable in guiding the flood warning team when issuing warnings on watercourses in times of flood.

New AVM recipients and Flood Wardens have been recruited, mainly targeted around Welwyn & Hertford following the extreme weather experienced in the last few months of 2000. In this time 20 properties were flooded by the River Stort in the High Street in Bishops Stortford and also in Sawbridgeworth. 37 homes were flooded at Stansted Mountfichet by the Ugley Brook. Industrial premises in Harlow Mill and Roydon Chalet Estate were also inundated. In the last 12 months, 118 Flood Watches, 15 Flood Warnings and 2 Severe Flood Warnings were issued.

## Abstraction Management

The Upper Lee CAMS will be undertaken between July 2002 and January 2005.

## Contaminated Land

The Agency is investigating the pollution of groundwater by bromate from a former industrial site in Sandridge, on the outskirts of St Albans. The bromate was disturbed during redevelopment works in the 1980's, and has escaped in to the groundwater from where it has spread west towards Hatfield and Essenden causing the closure of two public water supply boreholes. The Agency is assessing whether any remedial work can be undertaken, and if so we will attempt to enforce the Polluter Pays Principle.



*An angler enjoying the benefits of improved river quality*



*Everyone can do their bit to help improve the environment*

## Conservation and Fisheries

In the last year a Regional biodiversity Strategy and Action Plan has been published. A Water Vole Conservation Handbook was sent out to all local authorities and an otter survey (as part of a national scheme) has taken place. This year an assessment of the benefit of the restoration scheme on the Mimram at Archers Green and Water End Local Nature Reserve (LNR) is being undertaken.



## North London LEAP 2001

The North London LEAP Area covers 14 north London Boroughs, and an area outside of the city's boundary up to the confluence of the River Stort with the River Lee at Hoddesdon, Herts. It covers 655km<sup>2</sup> and is home to nearly a quarter of London's population. As a result, the catchments in this LEAP are predominantly urbanised, contrasting with a few adjoining rural pockets of Hertfordshire and Essex. Major transport links also feature in the area, with Heathrow Airport lying in the south west corner in addition to many main road and rail corridors into central London.

### Major Developments

North London falls within the boundary of the London Development Agency (LDA), which is working to achieve sustainable economic growth.

The Agency continues to comment and offer advice when required on developments such as those at Brentford Lock, Cricklewood, Enfield Island Village, Fulham Football Club, Wembley Stadium and RAF Stanmore. In the last twelve months we have been involved in two major developments in the catchment, summaries of which can be found below.

#### ● Heathrow, Terminal 5

It was announced in November that the development of a fifth terminal at Heathrow Airport will be going ahead. BAA has commenced the design process and the Agency is a consultee in this. We will be advising on issues including pollution and flooding, waste management and disposal of contaminated waste during construction and operation. We are also encouraging the incorporation of environmental enhancements to local rivers and the Colne Valley, and the translocation of water voles from the proposed site onto a nearby SSSI.

#### ● Picketts Lock Leisure Complex

The Agency commented on the demolition of the Lee Valley Leisure Centre and the erection of a National Athletics Stadium back in July. The main concerns of the Agency were planting schemes, the



Landscaping Management Plan, landfill gas risk, extensive changes to the floodplain (the impact of which had not been determined), risk of contamination to groundwater and general concerns about surface water drainage. These concerns were all dealt with by requesting conditions are attached to any planning permission granted.

A further response in early September in response to the Environmental Statement stressed the need for the protection of natural habitats, especially in urban areas.

### Flooding

Approximately 46,200 properties in the LEAP area have been identified as being in the indicative floodplain. In the last 12 months, 129 Flood Watches and 14 Flood Warnings were issued. The heavy and prolonged rain of the Autumn and Winter of 2000 led to approximately 300 properties in the LEAP area being flooded.

Floodplain maps for the North London LEAP area are underway and improved telemetry and gauging stations are being installed on the Ching, Cobbins and Pymmes Brooks. These should be operational by the end of the year and will provide more detailed information on watercourses and how they respond in flood conditions. Work is due to start on installing equipment on the Salmons & Turkey Brooks in 2002. This information will be invaluable in guiding the flood warning team when



issuing warnings on watercourses in times of flood.

Since the flooding of last year, areas at risk from the Silk Stream, Deans Brook & Edgware Brook in the Brent catchment, and Stanstead Abbots on the Lee have been targeted for AVM/flood warden recruitment. Specific areas of the Crane catchment are due to be targeted in the near future.

## Abstraction Management

The North London CAMS will be undertaken between April 2004 and January 2006.

## Conservation and Fisheries

In the last year, a Biodiversity Strategy and Action Plan for the region has been published, Water Level Management Plans for Bentley Priory, Syon Park and Turnford and Cheshunt Pits have been produced and the Thames Reedbed and National Otter Surveys have been completed. To encourage the spread of water voles toe boarding has been removed from the banks of the River Crane through Crane Park, and to encourage water related recreation the Lee Valley Pathway cycle and pedestrian route through Nazeing Meads Lagoon is now in place. An assessment of the ecological value of Silvermeads, Broxbourne, is being undertaken following environmental enhancements (pollarding, scrub removal and reflooding) at the site.



The Thames Barrier protects central London from flooding

## Habitats Directive

There are three designated sites in North London, Epping Forest SAC, Lee Valley SPA and Wormley Hoddesdonpark Woods SAC.

Epping Forest cSAC, containing the Epping Forest SSSI, is also designated for its rare woodland type (Beech forest on acid soil) and because it is home to the stag beetle. It also has important dry and wet heathland.

Lee Valley SPA is composed of four SSSI's: Amwell Quarry, Rye Meads, Turnford and Cheshunt Pits and Walthamstow Reservoir. This complex of important sites is home to several important bird species, Bittern, Gadwall and Shoveler, the plant Whorled Watermilfoil, and the insect Waterboatman (*micronecta minutissima*). Because of the complexity of the site and its protected species a site group has been established to bring together the various bodies involved in managing the area.

Wormley Hoddesdonpark Woods cSAC is comprised of the north and south Sites of Special Scientific Interest (SSSI's) of the same name. Their importance is as due to their woodland type, Oak-Hornbeam forest.

## Waste

Waste is of increasing concern in the capital as currently, the majority of London's waste is transported to surrounding counties for landfilling. However, available space for landfill sites will run out in the next few decades.

Flytipping and the operation of unlicensed waste sites is a major problem in North London and its outskirts, the Agency's Enforcement team are tackling this problem in an intelligence led targeted way, with a view to prosecuting the criminals involved.

*N.B The Agency has also published 'The Environment Agency in North London' to complement this Annual Review.*



## North East Area – Our Environment

Covering an area from Heathrow in the west to Rainham in the east, from the Thames in the south up to Stevenage, the Agency's Thames North East Area is home to just over 10% of the UK's population, some 6 million people, in 44 local authorities

This population swells by over a million people every day as they come to work in the City. The Square Mile has the headquarters of some of the world's most prestigious and respected financial, banking, legal and insurance institutions, while the rest of London north of the Thames accounts for industries as varied as a Ford motor vehicle plant, a smelting works and a brewery.

NE Area also contains the Houses of Parliament (where the 53 MPs representing the area sit) and Buckingham Palace. This, together with Downing Street, Whitehall, the Head Offices of most Government departments, and the Executive Offices of the Agency, not only run the UK, but have a significant contribution in most global issues through our membership of the G8, the European Union and the Commonwealth, and our close relationship with the United States.



*A pollution incident waiting to happen*

NE Area has three of the most significant infrastructure projects seen since the immediate post war period - the Channel Tunnel Rail Link, and the proposed developments of Heathrow Terminal 5 and Stanstead Airport. Luton and City Airports are also within our boundary. Other development pressures include the ongoing urban expansion across the Area on both green and brown field sites.

NE Area is home to many companies carrying out potentially polluting activities as part of their work. These include manufacturing industries, an incinerator and a nuclear site. The Agency must aim to prevent or minimise these impacts, through regulation and advice on good environmental practice.

We also produce 19% of the waste in the UK, with Londoners alone producing 1.5 tonnes of rubbish per person per year. We must look ahead to ways to reduce our waste, as sites suitable for landfill will run out in the area within the next few decades.

NE Area also contains large swathes of countryside including the eastern edge of the Chilterns Area of Outstanding Natural Beauty, from which chalk rivers, containing species and habitats of European significance flow. The area is home to rare mammals such as water voles and otters, protected birds, the bittern and marsh warbler, as well as close to 200 fish species, and various reptiles, trees and plants including Great Crested Newts, Starfruit and Black Poplar.

Whilst the chalk streams of the Chilterns are teeming with life other rivers such as the Brent and the Lower Lee



*Flooding became a major issue during winter 2000*



continue to suffer from poor water quality and significant levels of pollution. The high level of development in the area, especially where building has occurred on the floodplain, contributes to the fact that 80,678 residential and commercial properties are considered to be at risk of flooding.

Despite this diversity and many examples of environmental good practice, there are many challenges ahead. NE Area has 4 designated European Objective 2 Areas (areas with high levels of social deprivation); 9 of the 20 most deprived council wards in the country are in NE Area.

The Agency will strive over the coming year to enhance the good areas and improve others to make the Area a more pleasant place for both people and wildlife. New actions which will commence this year will cover a wide range of issues, including the installation of more flood warning equipment, monitoring of groundwater levels, increasing angling opportunities, compiling an inventory of Agency owned sites of cultural/heritage interest and further ecological investigations.

## Contacts

If you would like a copy of all the LEAP Actions for the NE Area or the Annual Reviews for the other LEAP areas, please contact the LEAPs & Partnerships Team, Environment Agency:

**Telephone: 01707 632394**



*Water quality monitoring is part of our day to day work*



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- Area Administrative Boundaries
- - - Regional Boundary
- Area Office
- ▲ Regional Headquarters

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