

catchment management plan

EA - THAMES - BOX 9



BRENT & CRANE action plan

September 1996



ENVIRONMENT
AGENCY

CATCHMENT FACTS

General

| | |
|---------------------------|---|
| Population: | 1, 042, 369 (1991 estimate) |
| Area: | 151 km ² (Brent) 124 km ² (Crane) 275 km ² (Total) |
| No. of local authorities: | 9 |
| Highest point: | 120m AOD (Harrow-on-the-Hill) |
| Lowest point: | 5m AOD (confluence of the River Brent and the River Thames) |

Water Resources

| | |
|-------------------------------|--|
| Average annual rainfall: | 673mm (Brent) 636mm (Crane) |
| No. of licensed abstractions: | 13 (Brent) 15 (Crane) 28 (Total) |
| Total licensed abstraction: | 1, 857, 599 m ³ /year (Brent) 3, 396, 928 m ³ /year (Crane) 5, 254, 527 m ³ /year (Total) |

Flood Defence

| | |
|------------------------------|----------------------|
| Length of main river: | 111 km |
| Area of modelled floodplain: | 8.13 km ² |

Navigation

| | |
|--|------|
| Length of navigable watercourse/canal: | 27km |
| No. of locks: | 12 |

Water Quality

| | |
|---|------|
| No. of pollution incidents (1992-1994): | 558 |
| Major: | 1 |
| Significant: | 64 |
| Minor: | 493 |
| Lengths (km) of main river classified under the GQA (General Quality Assessment) (1992-1994): | |
| Class A | 0 |
| Class B | 0 |
| Class C | 27.2 |
| Class D | 38.8 |
| Class E | 10.1 |
| not assessed: | 34.9 |

CATCHMENT VISION

The urbanised nature of the Brent and Crane catchments dictates the problems and issues that affect the water environment. Whilst it is unlikely that the balance of land uses will change significantly, future land use management will provide opportunities to protect, restore and enhance the water environment.

At present the Brent and Crane catchments have predominately poor and fair water quality and which affects the ecological and recreational benefits that can be gained from the rivers, streams and canals within them. It is therefore essential that in order to breath new life into the catchments, water quality issues should take the highest priority and form the key objective for this plan.

In trying to solve the problems within the catchments the Environment Agency needs to have the full support of the community. Without informing and involving the public of our ideas for the future management of these catchments, the plan will undoubtedly achieve less than with their support.

In order to achieve this plan's vision of a healthy water environment for the Brent and Crane catchments, the following five objectives will need to be tackled:

- ◆ continue to investigate, and alleviate where possible, all pollution incidents within the catchments and in addition develop, with Thames Water, a strategy for investigating and remediating sewage pollution of the catchment's watercourses within the Boroughs of Barnet, Brent, Ealing, Harrow and Hillingdon;
- ◆ continue to provide adequate flood protection for the public across the catchments and look at the feasibility of future schemes on the Silk Stream, Edgware Brook and Deans Brook;
- ◆ promote and enhance recreational opportunities upon the rivers, Grand Union Canal and Brent Reservoir, where it is appropriate to do so;
- ◆ seek opportunities to enhance stretches of visually and ecologically degraded river channels and corridors. This is especially relevant to the redevelopment of the Brent Cross Centre and possible development of Heathrow Airport;
- ◆ work in partnership with various Local Agenda 21 initiatives and community groups to develop new ideas and projects for environmental improvement in the future.

In order to achieve sustained improvements, we must ensure that the diverse actions are coordinated between the large numbers of organisations that have a responsibility and willingness to tackle them. Improved communications and partnership working will be the key to successful action on the ground.

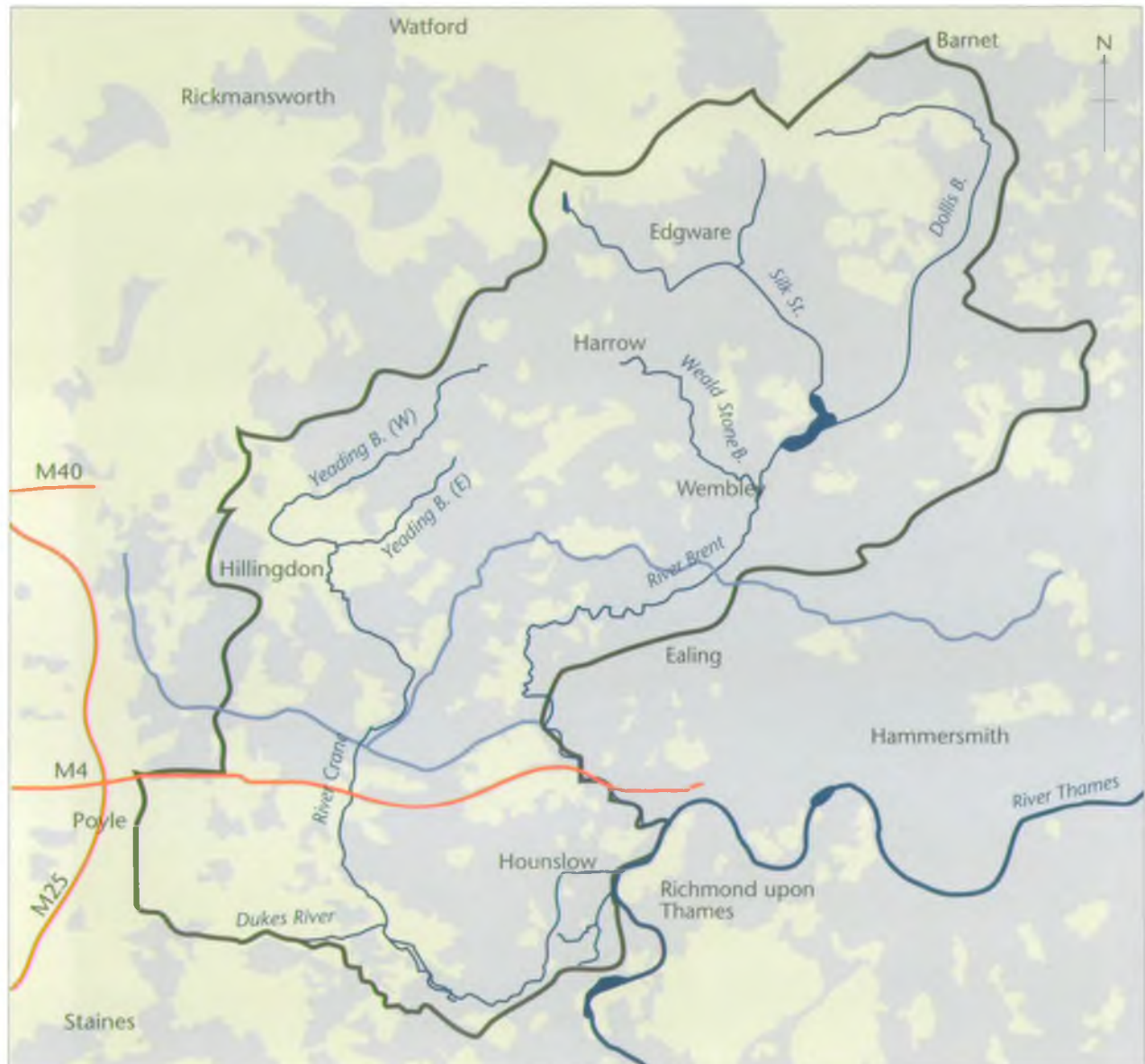
This Action Plan represents only the start of this process and comments on any new or additional issues facing the catchments would be greatly appreciated. These issues will be addressed each year in an annual review of the Action Plan, which will report on progress made over the previous year. After five years there will be a complete review of the plan.

ENVIRONMENT AGENCY



068636

BRENT & CRANE CMP OVERVIEW MAP



Catchment Management
Plan Boundary

Watercourses

Motorways



Urban Areas

Canal

Open Space



Scale (approx)
0 5 km

Name:

Organisation:

Address:

Post Code:

Phone Number:



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Further Comments:



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If you have any comments to make or
require further information please fill in
your details on the reverse.

Mr Stuart Reilly
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FOREWORD

The discussions over the future management of the Brent and Crane catchments come at a time of exciting change for environmental management in England and Wales. The Environment Agency, formed in April 1996, will integrate the future management of air, water and land which should result in more efficient use of resources, as well as more effective management.

The Agency has set itself the aim of protecting and enhancing the whole environment through the promotion of 'sustainable development', which was defined by the Brundtland Commission in 1987 as "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The Agency looks forward to the opportunity of working in partnership with both the local community and other organisations in order to achieve this aim.

The Brent and Crane catchments are influenced significantly by urban pressures. The cumulative impact of development over the last century has had a major influence on the character of the catchments and has inevitably degraded the environment. This plan is a working document that can be used to redress the problems of the past and bring about beneficial changes. Among these changes will be: improved water quality; appropriate standards of flood defence; more recreational opportunities; and creating visually and ecologically enhanced river corridors.

By taking these actions, we can take the first steps toward realising the vision of a healthy water environment for the Brent and Crane catchments.

Viscount Mills
North East Area Manager
Environment Agency
Thames Region

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The Environment Agency acknowledge all those organisations and individuals that have contributed to the process of producing this Action Plan and in particular wish to thank the library services of the London Boroughs of Ealing, Hounslow, Brent and Barnet for their kind permission to reproduce some of the photographs and illustrations which appear in this plan.

INTRODUCTION

The Environment Agency was formed in April 1996 by bringing together the National Rivers Authority (NRA), Her Majesty's Inspectorate of Pollution (HMIP), the Waste Regulation Authorities (WRAs) and some units of the Department of the Environment dealing with the technical aspects of waste and contaminated land. The Agency therefore has an important role to play in the environmental management of England and Wales. Its principal aim, as set out in the Environment Act 1995, is to:

"protect or enhance the environment, taken as a whole, in order to play its part in attaining the objective of sustainable development."

The Brent and Crane Catchment Management Plan was started by the NRA before the Environment Agency was formed. The NRA, established in 1989, was the principal organisation responsible for safeguarding the water environment in England and Wales. It had statutory responsibilities for water quality, water resources, flood defence, fisheries, conservation, recreation and navigation (on certain stretches of water). In their role as managers of the water environment they attempted to reconcile the conflicts between the various competing uses. These functions and aims will continue in the Environment Agency.

In the future, the Environment Agency will develop the process of catchment planning introduced by the NRA to cover all its responsibilities, including waste regulation and air quality. The product of this new process will be Local Environment Agency Plans (LEAPs) rather than Catchment Management Plans (CMPs). The Brent and Crane plan will however remain a catchment plan as it was started prior to the formation of the Environment Agency and will continue to focus on the water environment.

The Environment Agency places particular importance on planning for the future of the environment through an integrated approach to management. We recognise the need to work with local authorities, communities, landowners, industry and other agencies whose activities and uses interact with, and influence the environment.

Catchment Management Plans (CMPs)

The water environment is subject to a wide variety of uses which invariably interact and sometimes conflict with each other. The process of catchment management planning has been developed to help manage these interactions and conflicts for the overall benefit of the water environment and its users. Through catchment planning, the Environment Agency aims to establish a long term vision for the catchments. To meet this vision, we set objectives for environmental improvements and prevention of future environmental damage whilst considering the many demands on the water environment in the catchments. This process has and will involve the following stages:

- **Informal Liaison**
(June 1995 - July 1995)

We contacted and met with key organisations, local authorities and interested groups to discuss issues relevant to the catchments and to identify possible actions.

- **Production of Consultation Report**
(June 1995 - Dec 1995)

This report contains information about the catchments, its uses, resources, activities and its present status. It describes issues arising within the catchments and possible actions to address them.

- **Formal Public Consultation**
(December 1995 - March 1996)

The Consultation Report was sent to interested external bodies and members of the public for their comments.

- **Production of the Action Plan**
(March 1996 - September 1996)

Views are taken on board and actions to deal with the key issues are identified and programmed.

- **Annual Reviews**
(over the next five years)

A review is undertaken on the progress made in implementing the Action Plan.

- **Full Review of the CMP**

A full review of the CMP will be undertaken after five years (2001).

REVIEW OF THE PUBLIC CONSULTATION PROCESS

The Brent and Crane Catchment Management Plan Consultation Report was launched at Syon Park, Middlesex on the **8th December 1995**. During January and February 1996, four public open evenings were held around the catchments. A total of 110 people took the opportunity to come and meet Environment Agency staff (then NRA staff) and discuss their local rivers with us.

Over 350 copies of the Consultation Report were sent out to organisations and individuals interested in the catchments. Copies were also supplied to local libraries and secondary schools in the catchments. In addition, there was extensive coverage of the report in the local newspapers. The consultation period for this report lasted 13 weeks, up to the **8th March 1996**, (although a number of comments were received up to the end of May).

In total **78** groups or individuals made written or verbal representations on the Consultation Report (see Appendix I). A full report on public consultation and copies of the comments made are available from the Environment Agency (see page 29). The key points raised were:

- concern over poor water quality, in particular as a result of sewage pollution and urban run-off;
- the need for improved pedestrian and cycle access to rivers and riverside areas for informal recreation and the promotion of the use of the canal;
- concern about flooding, particularly in the vicinity of Edgware Brook, Deans Brook and Silk Stream;
- concern over the poor physical appearance of many sections of river corridor, the condition of riverside habitats and the amount of litter and rubbish along the channels;
- the need for additional information and better communications between those working within the catchments.
- there was general support for the style and content of the Consultation Report. Respondents generally appreciated the opportunity to be involved in the catchment planning process and at the depth of information provided about the catchments.



Osterley Park,
Isleworth

CATCHMENT OVERVIEW

The Brent and Crane catchments cover an area of 275 square kilometres on the north-west corner of London, with just over 1 million people living in the catchments. The catchments are predominately urban in character and include Edgware, Hendon, Harrow, Wembley, Hillingdon, Hounslow and Ealing. Major road and rail corridors into central London cross the catchments and Heathrow Airport lies in its south-west corner.

The Brent and Crane rivers both drain into the River Thames. The lower reaches of the River Brent are navigable downstream of its confluence with the Grand Union Canal (GUC) at Green Lane, Hanwell. Whereas, the lower reaches of the Crane are tidal for a short distance before its confluence with the River Thames at Isleworth. Within the Brent and Crane catchments there are two stretches of the GUC - the Main Line and the Paddington Arm, which British Waterways are responsible for managing.

The Brent catchment contains the Brent Reservoir, which is also known as the Welsh Harp, and was built in 1835 to provide a water supply to the GUC. It is no longer required for this purpose and is now important as a recreational resource, in terms of its nature conservation value and because it provides flood water storage.

There are many tributaries joining the Brent and Crane rivers. These rivers and streams are critical as they provide a local amenity and wildlife resource. A number of these tributaries have had a history of flooding problems and have led to flood alleviation projects being undertaken on the Yeading Brook, Deans Brook and Wealdstone Brook, as well as the Brent and Crane rivers themselves.

The mouth of the tidal River Crane



The rivers of the Brent and Crane catchments flow through mainly urbanised areas, and as a result are at risk from different types of pollution compared with rural rivers. Surface water run-off from roads containing oil and other pollutants has a major impact. The catchments also suffer from problems with the sewerage system, including

domestic misconnections of foul water to surface water sewers and blocked storm water overflows. The poor water quality, particularly in the Brent catchment, has a significant effect on both the fisheries and biological quality of the rivers.

A significant proportion of the accessible open space within the catchments is associated with the river and canal corridors. The value of these open areas has been recognised by the local planning authorities who have designated most of these areas as Green Belt, Metropolitan Open Land, and/or Green Chains. Riverside walks are plentiful throughout the catchments, although obstructions such as major roads and the tube system currently interrupt the network in several locations.



The Grand Union Canal, north of Hanwell Locks

The catchments are the subject of some major development proposals. Of particular note, is the possible expansion of Heathrow Airport, the development of Prospect Park and highway improvements, including motorway widening. All of these developments present a concern to the Agency over their potential impact on the water environment.

RIVER QUALITY OBJECTIVES

River Quality Objectives (RQOs) are water quality targets set by the Environment Agency. These are being developed for all the recognised uses to which reaches of river may be put. There are five proposed uses: River Ecosystem; Special Ecosystem; Abstraction for Potable Water Supply; Agricultural Abstraction; and Water Sports.

RQOs may be made statutory by the Government. The objectives would then become known as Statutory Water Quality Objectives (SWQOs). A timetable for this is awaited from the Government.

To date, standards have only been developed for the River Ecosystem (RE) use whilst the others are under development. The RE classification has 5 classes:

- RE1: Water of very good quality suitable for all fish species.
- RE2: Water of good quality suitable for all fish species.
- RE3: Water of fair quality suitable for high class coarse fish populations.
- RE4: Water of fair quality suitable for coarse fish populations.
- RE5: Water of poor quality which is likely to limit coarse fish populations.

These RQOs consist of short-term and some long-term targets. The short-term targets indicate the quality that is achievable within a 10 year horizon of planned investment and or action by the Environment Agency. Long-term

targets indicate a quality that is achievable at some point beyond a 10 year horizon if future improvements can be funded. To date only short term RQOs have been set for the Brent and Crane catchments.

Catchment Management Planning provides an opportunity for the Environment Agency to obtain a public view on the long term objectives for reaches of river. This process will continue through the Annual Reviews of the Brent and Crane Catchment Plan.

The Brent and Crane Catchments

Water Quality within the catchments is directly affected by its urban nature, with most pollution being diffuse and difficult to trace. Whilst Thames Water Utilities have begun to tackle sewer overflows through the AMP2 process, the absence of any sewage treatment works (STWs) that discharge into the catchments, Mogden STW discharges into the River Thames, means that expenditure will be limited. However, priorities will also be pursued through the AMP3 process.

Although short term improvements can be made through tackling individual misconnections, major investment will be required to achieve a significant improvement in River Quality Objectives.

| River | Reach | Length (km) | Short-Term RQO |
|--------------------------|--|-------------|----------------|
| Crane | Yeading Brook - Dukes River (Lower) | 10.2 | RE3 |
| Crane | Dukes River (Lower) - Tideway | 3.4 | RE3 |
| Duke of Northumberland's | Colne - Crane | 9.3 | RE3 |
| Yeading Brook | Confluence of Yeading B. East & West - Crane | 7.8 | RE3 |
| Yeading Brook East | Source - Yeading Brook | 6.7 | RE5 |
| Yeading Brook West | Source - Yeading Brook | 11.3 | RE4 |
| Duke of Northumberland's | Crane - Tideway | 4.3 | RE3 |
| Brent | Confluence Dollis/Mutton B. - Neasden Lane SWO | 4.7 | RE4 |
| Brent | Neasden Lane SWO - Wembley Brook | 2.9 | RE4 |
| Brent | Wembley Brook - Costons Brook | 6.9 | RE4 |
| Brent | Costons Brook - Wyke Stream | 6.1 | RE5 |
| Brent/GUC | Wyke Stream - Tideway | 3.4 | RE4 |
| Brent | Hendon - Brent | 1.8 | RE4 |
| GUC | Iron Bridge - Brent | 8.4 | RE3 |
| GUC | Bull's Bridge - Canal Feeder * | 14.0 | RE5 |
| Silk Stream | Edgeware - Welsh Harp (Brent) | 5.3 | RE4 |

* Although this reach of the GUC has been set at RE5 this is to be reviewed. The low objective is considered to be due to algal activity in the canal which affects the measure of organic matter (BOD). Assessment methods are currently being reviewed to objectively exclude BODs due to algal activity from the assessment of water quality. The objective will be reviewed in 1997. It should be noted that the Agency has a policy of no deterioration of quality due to new or existing discharges, thus we will not allow a change of more than 10% in any of the key determinands if this could cause significant environmental change.

LAND USE GUIDANCE

The broad aim of the catchment planning process is to promote the sustainable use of the water environment through effective land and resource management. In this way we can ensure that the needs of the present can be met without compromising the ability of future generations to meet their own needs. The role of the Environment Agency in supporting the principles of sustainable development is to ensure that all factors that may influence the environment are properly considered.

The way that land is used in a catchment can cause changes to the river environment, for example:

- housing and industrial development bring demand for water supply, sewerage, an increased risk of pollution and changes in the local river hydrology;
- development in the floodplain can damage conservation interests as well as causing an increased risk of flooding.

The control of land use and development is the responsibility of local planning authorities through the implementation of Town and Country Planning legislation. The Environment Agency are a consultee in the planning process. Local authorities produce statutory development plans which set out the framework for land use change. The Environment Agency works closely with local authorities to ensure the inclusion of policies in these plans, to protect and enhance the environment.

Thames 21 - A Planning Perspective and Sustainable Strategy for the Thames Region

A further dimension to the Agency's role in the planning system was added by the publication of Thames 21 in September, 1995. This document provides a regional context for the preparation of CMPs by identifying strategic development issues which land use plans need to address. Thames 21 sets out how the Agency is embracing the principles of sustainable development. These principles include:

- levels and locations of future major development can only satisfactorily be identified after the environment has been assessed at a strategic level;
- the polluter should pay for the costs of pollution;
- the precautionary principle should be applied in decision making (i.e. impacts are unclear, development should not proceed until further safeguards or mitigation measures are agreed);
- thresholds of environmental capacities must be identified and respected;

- partnership working and community involvement are essential for practical implementation of these principles.

Guidance for the Brent and Crane

The Brent and Crane catchments are characterized by extensive urban development. Older development is concentrated closer to central London whilst newer development is located in the suburbs created during the inter war years, largely as a result of improvements made to the transport infrastructure.

There are a number of major development pressure points identified in Thames 21 which are located within the Brent and Crane catchments. These include the possible expansion of Heathrow Airport and the construction of Terminal 5, highway improvements including the widening of the M25, M4 and M40 and an additional spur road associated with Terminal 5.

Throughout the consultation period a number of land use related issues have been raised which relate to both catchment wide and site specific problems. The following land use guidance is specific to these catchments and planning authorities will be encouraged to refer to it in their land use plans. The guidance is also relevant to developers formulating their proposals and planning authorities when determining planning applications.



LAND USE GUIDANCE

Agency Guidance 1

Surface water storage should be considered for all development affecting the Yeading Brook, Wealdstone Brook, Silk Stream, Dollis Brook and Edgware Brook.

Background: The urban nature of many tributaries in the Brent and Crane catchments mean that rivers respond very quickly to rain storms ie. they are 'flashy'. The tributaries therefore have to cope with unnatural extremes of flow, high flows during storms and low flows during dry periods. This in turn has led to the need for man made river channels further downstream to cope with such conditions. In order to combat this, storm water could be stored in tanks or balancing ponds before being slowly discharged into rivers and thus reducing peak flows and improving water quality.

Implementation: The Environment Agency is currently undertaking research into this issue and can give advice on the design of storage facilities.

Relevant Legislation: WRA '91, LDA '91 and Circular 30/92.

Agency Guidance 2

Developers will be encouraged to undertake regeneration of natural river corridors as part of development proposals where appropriate. The following sites in particular could be targeted:

- Brentford Island and the surrounding area;
- the extension of Brent Cross Shopping Centre.

Background: Many urban tributaries have been degraded through historic development. Opportunities exist when redevelopment is proposed to restore these channels and adjacent habitats.

Implementation: It may be possible to secure improvements to the river corridor through the use of Section 106 agreements, landscape surveys or land drainage consents. The Environment Agency can also provide advice on riverside enhancements.

Relevant Legislation: TCPA '90, P&CA '91, LDA '91 and WRA '91.

Agency Guidance 3

New development will not normally be permitted where it is at direct risk of flooding or will lead to the increased risk of flooding elsewhere.

Background: A number of flood alleviation schemes have been implemented in the catchments in the past. However, it is recognised that flooding on several watercourses such as the Silk Stream, Edgware and Deans Brooks still causes damage and disruption.

Implementation: Feasibility studies on the Silk Stream, Edgware and Deans Brooks are currently underway. The Environment Agency will provide updated details of the flood plain via S.105 surveys.

Relevant Legislation: WRA '91, LDA '91, Circular 30/92 and PPG 12.

Agency Guidance 4

Proposed development alongside the Mutton, Wealdstone, Kenton and Dollis Brooks' shall take special precautions to ensure that pollution prevention measures are incorporated as part of any detailed proposals.

Background: The aforementioned tributaries suffer from poor water quality as a combined result of polluting discharges to the river and removal of the natural corridor.

Implementation: Works that could be implemented when opportunities arise, include:

- de-culverting;
- replacing engineered river sections with natural channel;
- installing local reed beds.

The EA can provide advice on a site by site basis.

Relevant Legislation: EPA '90, WRA '91 and PPG 23.

LAND USE GUIDANCE

Agency Guidance 5

Redevelopment of suspected contaminated sites must be preceded by a site investigation. Protection from contamination and remedial works must be agreed in advance and implemented before any development takes place.

Background: When redevelopment occurs, ground disturbance can release contaminants into groundwater or rivers.

Implementation: The Environment Agency can assist in identifying sites likely to be contaminated and help in determining the methodology for a site investigation.

Relevant Legislation: EPA '90, WRA '91, PPG 23 and PPG 12.

Agency Guidance 6

New development adjoining watercourses will incorporate suitable access arrangements where appropriate.

Background: The West London Waterways Walks promote a series of walks based on river corridors and is supported by a partnership of London Borough's, the Countryside Commission, London Canals Committee, British Waterways and the Environment Agency. When complete, these paths will provide valuable 'green chains' through the catchments and will link to a London wide network promoted by the London Walking Forum.

Implementation: The Environment Agency will promote the paths through the catchment planning process and where feasible, land drainage consents will be used to develop the path network further.

Relevant Legislation: T&CPA '90 and WRA '91.

Agency Guidance 7

Developers will be encouraged to undertake a voluntary environmental assessment on any development scheme having a significant impact on the water environment.

Background: It can often save time for all parties involved in a development if an environmental assessment is undertaken at an early stage in the design process.

Implementation: The Environment Agency can provide advice on the criteria which should be used in the environmental assessment.

Relevant Legislation: T&CP (Assessment of Environmental Effects) Regulations '88 and Circular 15/88.

Agency Guidance 2

Future development proposals should demonstrate that there is both adequate sewerage infrastructure and availability of water supply to cope with the increased demand that will be caused.

Background: There is evidence that parts of the sewerage system within the catchments are currently working to capacity and therefore new development may generate this situation. Planning authorities will need to consider major development proposals carefully to satisfy themselves that this issue has been adequately addressed by the proponent. This is fundamental to ensure development is sustainable.

Implementation: The Environment Agency will encourage local authorities to ensure that the sewerage and water supply infrastructure is adequate for all new development and that they include relevant policies in their development plans.

Relevant Legislation: T&CPA '90 and PPG 23.

Agency Guidance 9

Developers should incorporate suitable water efficiency measures in any new development proposals.

Background: There is a delicate balance between the quantity of water abstracted to meet public supply requirements in London and the quality and ecology of the River Thames as it passes through London. Managing growth in demand for water and raising awareness of water use efficiency are key elements of the EA's strategies to maintain that balance in the future.

Implementation: The Environment Agency will continue to inform the general public and raise awareness of water issues and the opportunities for water conservation and efficiency, and the benefits they can provide economically and environmentally. The EA will also work closely with local authorities to provide timely guidance on the promotion of water efficiency measures.

Relevant Legislation: WRA 91, EA 1995, PPG 12.

CATCHMENT ACTIONS

This section of the Action Plan sets out the actions that have been identified in order to achieve the vision for the Brent and Crane catchments. It will be necessary to implement these actions (see p.10-27) and the policies in the Land Use Guidance (p.6-8) to realise this vision fully. The actions have been grouped under broadly the same headings as the issues identified in the Brent and Crane Catchment Management Plan Consultation Report, namely:

- Water Quality
- River Corridors
- Land Use
- Amenity and Recreation
- Litter
- Information and Communication
- Brent Reservoir
- Flood Defence
- Fish Management

The actions under each of these headings are presented in groups which have a common overall objective. For each specific action, a timetable and the names of those parties responsible for their implementation are given. Costs are also outlined where possible. The name of a contact for each action is also given and is listed with their telephone number in Appendix V.

These actions result from a combination of existing and planned activities and from the comments received through the consultation process.

It is possible that circumstances, priorities and funding availability may change during the plan period. The commitment to the following actions will be monitored and reviewed against such changes as part of the annual review process. This should ensure that the plan is up to date, and adapts to changing circumstances.

Each action is prefixed by the letters 'BC'. This enables each action to be easily identified and referenced and not confused with actions in other catchment plans.

Key to Action Tables

- ◆ action forms part of an organisation's regular work.
- date for a projected action.
- duration of projected future action.
- > indicates action ongoing.

Note: it is not always possible to identify the exact amount/and or source of funding for particular actions.

WATER QUALITY

The quality of the water within the catchments is variable, with the River Brent generally exhibiting a poorer standard than that of the River Crane and its tributaries. A principle aim of the Environment Agency's water quality strategy is to achieve a continuing improvement in the quality of rivers through the control of pollution. To achieve this aim, the Environment Agency seeks to maintain waters that are already of high quality, to improve waters of poor quality and to ensure that all waters are of an appropriate quality for their agreed use.

Tackling the root causes of poor water quality is going to be a long and costly job. To this end, it is important that the co-operation of other organisations is secured to maximise the benefits for the water environment. In order to address the problems of water quality in the catchments, the following actions cover: water quality catchment wide; pollution from urban run-off; sewage pollution; algae and nutrient enrichment; contaminated land; and oil pollution.

Water Quality - Catchment Wide

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|-----|---|------|-----------------|------------------|------|------|------|------|---------|
| Set a framework for sustainable long term water quality improvement within the catchments rivers and waterways. | BC1 | Investigate the feasibility of allocating water quality objectives for main rivers in the catchments which are currently not classified. | EA | | to be determined | | | | | |
| | BC2 | Review the assessment methods used to set the RE classes for the Grand Union Canal. <i>The low objectives for part of the GUC are considered to be due to algal activity in the canal which affects the measure of organic matter (BOD).</i> | EA | BW | to be determined | | | | | |
| | BC3 | Continue to investigate, and alleviate where possible, the causes of pollution in the catchments. | EA | TWUL/LAs | | | | | | |
| Contacts: BC1 & 2 - Andzej Nowosielski BC3 - Al Norton | | | | | | | | | | |
| Tackle high priority water quality problems | BC4 | Look at the potential of employing a specific project officer to deal with domestic misconnections in particular problem areas within the catchments. | EA | TWUL/LAs | 50 | | | | | |
| Contact: BC4 - Bob Walker | | | | | | | | | | |
| Broaden public knowledge of the causes of poor water quality and how it affects rivers. | BC5 | Develop a strategy for targeting particular groups and areas causing pollution. | EA | TWUL/LAs | 3 | | | | | |
| | BC6 | Carry out publicity campaigns targeting groups and areas prioritised in the above strategy. these may include: - pollution prevention inspections of specific industrial/trading estates in the catchments offering expert advice. | EA | TWUL/LAs RAs | | | | | | |

Water Quality - Catchment Wide contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|-----|---|------|------------|------------------|------|------|------|------|---------|
| BC6 contd: | | - in conjunction with Thames Water and local authorities notify home owners of their responsibilities regarding the misconnection of foul water drainage to the surface water system. | | | 2 | | | | | |
| Contacts: BC5 - Al Norton BC6 - Pete Rudd BC7 - John Gardiner/ Brian Knights | BC7 | Discuss with higher education establishments the possibility of using the catchments as a student study area for water quality issues. | EA | MU/UW | to be determined | | | | | |

Water Quality - Pollution from Urban Run-off

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|-----|---|------------|------------|------------------|------|------|------|------|---------|
| Minimise polluted surface water run-off entering watercourses. | BC8 | Examine whether the two different pilot reed bed schemes installed in rivers in the North East Area would be suitable for treating urban run-off in the Brent and Crane catchments. | EA | LAs BW | to be determined | | | | | |
| Contacts: BC8 - Al Norton BC9 - Pete Rudd | BC9 | Encourage local authorities to undertake regular clearance of road silt and oil traps | EA/ LAs | | ◆ | | | | | |

Water Quality - Sewage Pollution

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|---|------|-------------|------------------|------|------|------|------|---------|
| Reduce the amount of sewage entering the river network. | BC10 | Continue to investigate causes of sewage pollution in the catchments. Prioritise the most serious problems with regard to domestic misconnections and discharges from combined sewer overflows and identify remedial action as part of the AMP 2 & AMP 3 processes. | EA | LAs TWUL | to be determined | | | | | |
| | BC11 | Promote the Thames Water Utilities Ltd "Bag it and Bin it" initiative. | TWUL | EA | ◆ | | | | | |
| | BC12 | Encourage local authorities through their enforcement and building regulation officers to check new and existing developments for misconnections. | LAs | TWUL EA | ◆ | | | | | |

Water Quality - Sewage Pollution contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|---|------|-------------|------------------|------|------|------|------|---------|
| | BC13 | Encourage TWUL to investigate the potential of a certificate system for correct drainage as a method of addressing the problem of misconnections. | EA | LAs TWUL | to be determined | | | | | |
| | BC14 | In conjunction with TWUL undertake a pilot project on a small stream within the catchments to target domestic pollution sources, including a mailshot or door to door visits where the most contamination occurs. | EA | LAs TWUL | to be determined | | | | | |
| Contacts: BC10& 13 - Bob Walker BC11 - SteveDowse BC12 - Pete Rudd BC14 - Al Norton | | | | | | | | | | |

Water Quality - Algae and Nutrient Enrichment

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|---|------|---------------------------|---------------|------|------|------|------|---------|
| Ensure that wherever possible the detrimental effects of algal growth are minimised. | BC15 | Publish and promote the findings of the national strategy for eutrophication control and identify how this relates to the catchments. | EA | LAs LEU LWT WHCC | 1 | | | | | |
| | BC16 | Investigate whether areas in the Brent and Crane catchments should be identified as a national study area for algal blooms | EA | LAs | 2 | | | | | |
| Contact: BC15 & 16 - Janet Moore | | | | | | | | | | |

Water Quality - Contaminated Land and Pollution of Surface and Groundwaters

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|----------|---------------------------|------------------|------|------|------|------|---------|
| Ensure that existing contaminated land is managed in the least damaging way to the water environment and that the risk of pollution from the redevelopment of contaminated land and potentially contaminating activities are minimised. | BC17 | Assess planning applications and impose conditions and suitable design criteria to ensure that development and redevelopment of contaminated land does not result in an unacceptable risk or impact on the water environment. Provide pollution prevention advice and apply prosecution policy as necessary. | EA | LAs/Dev | | | | | | |
| | BC18 | Undertake a project to quantify the level of pollution from the Southall Gas Works site and ensure that this is minimised . | EA | BG/BW LB Eal LB Hil | | | | | | |
| | BC19 | Ensure that as part of the redevelopment of the Minet Tip site, Hayes that all necessary procedures are undertaken to minimise the risk of pollution. | BW EA | LB Hil LB Eal | to be determined | | | | | |

Water Quality - Contaminated Land and Pollution of Surface and Groundwaters contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|--|------|--------------|---------------|------|------|------|------|---------|
| Contacts: BC17 - Ian Moxon BC18 - Al Norton BC19 - Mark Bensted BC20 - Carla Sealey | BC20 | Ensure that appropriate remedial measures are taken to tackle existing ground water contamination at the Central Fuel Terminal, Heathrow Airport. | EA | BAA Pr Co | ◆ | ■ | ■ | ■ | ■ | ■ > |
| | | | | | | | | | | |
| Ensure that existing and proposed mineral extraction and waste disposal sites do not have an unacceptable impact on the water environment. | BC21 | Assess planning applications and impose conditions and suitable design criteria to ensure that proposals for mineral extraction or waste disposal do not result in an unacceptable impact on the water environment and that existing sites are appropriately managed . | EA | LAs/Dev | ◆ | ■ | ■ | ■ | ■ | ■ > |
| Contact BC21 - Ian Moxon | | | | | | | | | | |

Water Quality - Oil Pollution

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|--|------|---------------|---------------|------|------|------|------|---------|
| Minimise the amount of oil entering the water environment. | BC22 | Discuss with local authorities ways to encourage the recycling of waste oil and the promotion of methods of safe disposal. | EA | LA | ◆ | ■ | ■ | | | |
| | BC23 | Promote where appropriate the use of oil separators on new development. | EA | LAs/Dev BW | ◆ | ■ | ■ | ■ | ■ | ■ > |
| | BC24 | Continue to undertake the Agencies pollution prevention activities, including the oil care campaign . | EA | LAs | ◆ | ■ | ■ | ■ | ■ | ■ > |
| Contacts: BC22 & 24 - Pete Rudd BC23 - Al Norton | | | | | | | | | | |

The Edgware
Brook near
Bentley Priory



RIVER CORRIDORS

Within the catchments, problems concerning the natural and physical environment within and surrounding the channels are quite widespread. This is mainly due to the urban nature of the catchments. Problems manifest themselves in the form of the river landscape, ecology and geomorphology and include the extensive use of man made materials and culverting, management of invasive plant species and maintaining river flows and water levels. The significance of these issues varies throughout the catchments, however, many such as culverting are extremely difficult and costly to rectify. The actions in this section attempt to suggest viable options for the long term improvement of the catchments river corridors.

River Corridors - Landscape, Ecology and Geomorphology

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|---|------|------------|---------------|------|------|------|------|---------|
| Evaluate and understand the positive and negative aspects of the current river landscape, ecology and geomorphology. | BC25 | Undertake a scoping study of the Brent catchment, identifying potential sites for landscape enhancement eg. Tokyngton Park. | EA | LAs | 4 | | | | | |
| | BC26 | Carry out a landscape survey of the river catchments. This will identify areas in need of protection and enhancement's. | EA | LAs | 20 | | | | | |
| | BC27 | Carry out a geomorphological survey of the rivers in the catchments. This will identify reaches with the highest protection and enhancement values. | EA | | 20 | | | | | |
| | BC28 | Carry out a river corridor survey of the River Crane when funds become available. | EA | | 6 | | | | | |
| | BC29 | Continue to undertake biological and bacteriological monitoring of the catchments on a routine basis. | EA | | | | | | | |
| | BC30 | Undertake a detailed survey of the Grand Union Canal using the CHEAT method in order to accurately reflect the biological quality of the canal. | EA | BW | | | | | | |
| | BC31 | Issue a guidance note highlighting the biological importance of the headwaters of both catchments. | EA | | 1 | | | | | |
| Contacts: BC25 - Richard Hellie BC26 - Richard Copas BC27 - Andrew Brookes BC28 - Alistair Driver BC29 & 31 - Dave Leeming BC30 - Leslie Ruse BC31 - Janet Moore BC32 - Meg Game | BC32 | Publish an Ecology Handbook on the London Borough of Brent and revise the Ecology Handbook for the London Borough of Barnet. (It is hoped that work will start on both of the handbooks during 97/98 if funds allow) | LEU | LBBa | 20 | | | | | > |

River Corridors - Landscape, Ecology and Geomorphology contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|---|-------|-------------------------|------------------|------|------|------|------|---------|
| Implement physical improvements to the river corridor landscape. | BC33 | Create and implement a rolling programme of landscape improvements for the period 1998/9-2000, based on the landscape survey above. This will be on a priority basis taking account of funding and practical implementation issues. | EA | LAs | to be determined | | | | | > |
| | BC34 | Provide advice and assistance to riparian landowners on tree planting, maintenance and bank treatment. | TLS | EA LAs LEU LWT | ◆ | | | | | > |
| | BC35 | Produce a database of all the Scheduled Ancient Monuments (SAMs) within the catchments | EA | EH LAs | to be determined | | | | | > |
| | BC36 | Undertake open space improvements in Burnt Oak, including environmental improvements alongside the Silk Stream. | LBBa | MAFF | 300 | | | | | > |
| | | (The improvements are currently the subject of a public consultation exercise by the London Borough of Barnet.) | | | | | | | | |
| Contacts: BC33 - Richard Copas BC34 - Donna Clack BC35 - Phil Catherall BC36 - Elspeth Forsyth BC37- Colin Roome | BC37 | Submit, and implement if successful, an application to MAFF for Countryside Stewardship in the Yeading Valley. | LBHil | MAFF | 30 over 10 yrs | | | | | > |
| | | (The application by the London Borough of Hillingdon covers approx. 35ha along the Yeading Brook in Hayes and includes ponds, scrapes, tree and hedgerow planting, enhancements to meadows and access provisions.) | | | | | | | | |



Warncliffe Viaduct, Hanwell (circa 1929)

River Corridors - Landscape, Ecology and Geomorphology contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|------|--------------------------------|---------------|------|------|------|------|---------|
| Improve the aquatic and riverside habitats of the catchments and promote bio-diversity. | BC38 | Re-instate two old meanders downstream of Hanwell Bridge to create slow flow areas during flood conditions and two mid channel islands which will act as wildlife refuges. This will have both nature conservation and fisheries benefits. | | | | | | | | |
| | | - de-silt upstream meander; | EA | | 10 | | | | | |
| | | - carry out feasibility study on re digging the downstream meander. | EA | | 10 | | | | | |
| | BC39 | Create and implement a rolling programme of habitat improvement and diversification works in the catchments. This will be on a priority basis taking account of funding and practical implementation issues. Works may include: | EA | LAs RO VO LWT LEU | ◆ | | | | | |
| | | - investigating the potential of enhancements to the back loops along rivers in the catchments eg. Brent Park and Manor Park; | | | | | | | | |
| | | - reducing the amount of hard banks and bed reinforcements; | | | | | | | | |
| | | - reinstating natural river channels; | | | | | | | | |
| Contact: BC38 & BC39 KimThirlby | | - reducing the effects of impounded water. | | | | | | | | |
| Encourage wider participation in landscape and conservation improvements. | BC40 | Organise Environment Agency working days within the catchments. Potential locations include: | EA | LWT LAs BW EN WHCC | 2 | • | • | • | • | • |
| Contact: BC40 - Stuart Reilly | | - Crane Park Island; | | | | | | | | |
| | | - Brent Reservoir. | | | | | | | | |



Wealdstone Brook, redesigned channel

River Corridors - Man Made Materials and Culverting

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|------|------------|---------------|------|------|------|------|---------|
| Reduce the visual and ecological impact of man made materials used in channels within the catchments. | BC41 | Seek enhancements to river channels through the planning system. | EA | LAs | ◆ | ■ | ■ | ■ | ■ | ■ > |
| | BC42 | Undertake a study of toe-boarding on the SilkStream, Edgware Brook and Deans Brook This will identify the extent and condition of the existing toe-boarding, explore options for removal and recommend an implementation strategy. Such a study would also inform the ongoing feasibility study on flood alleviation works focusing on these watercourses (see BC84). | EA | | 65 | ■ | | | | |
| Contacts: BC41 - Trevor Brawn BC42 - Mike Pomfrett | | | | | | | | | | |
| Open up watercourses in culverts within the catchments. | BC43 | Produce an Environment Agency strategy on culverting. | EA | | ◆ | ■ | | | | |
| | BC44 | Promote the above strategy to interested parties, ie: local authorities and developers. | EA | | ◆ | | ■ | | | |
| Contact: BC43 & 44 - Hugh Howes | | | | | | | | | | |

River Brent at the junction of the M1 and the North Circular Road



Invasive plant species - the River Brent, Uxbridge Road, Hanwell

River Corridors - Managing Invasive Plant Species

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|--|------|--------------------------------------|---------------|------|------|------|------|---------|
| Reduce the detrimental effects of invasive plant species on river habitats and the potential risk to human health. | BC45 | Assign appropriate strategies to tackle invasive plant species such as Giant Hogweed, Japanese Knotweed and Himalayan Balsam to the rivers in the Brent and Crane catchments. This will be based on the standard categories included in the national guidance produced by the Environmental Agency and delivered through the flood defence maintenance programme. | EA | LAs LWT LEU EN RO CTR | ◆ | ■ ■ | | | | |
| Contact: BC45 - Kim Thirlby | | | | | | | | | | |

River Corridors - Maintaining River Flows and Water Levels

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|--|-------|--------------------|------------------|-----------|-----------|-----------|-----------|-------------|
| Make the most beneficial use of water flowing through the catchments. | BC46 | Encourage new development to include low flow channels as part of any proposed designs. | EA | LAs | ◆ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ > |
| | BC47 | Support the research project currently being undertaken by CIRIA into urban run-off and promote the use of more porous materials for hard surfaces to increase permeability and return more water to the rivers. | CIRIA | EA | ◆ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ > |
| Contacts: BC46 - Trevor Brawn BC47 - James Burstow | | | | | | | | | | |
| Draw up Water Level Management Plans (WLMPs) for all water related SSSIs. | BC48 | Produce Water Level Management Plans (WLMP) for Bentley Priory and Syon Park SSSIs. (also see action no. BC80 with reference to Brent Reservoir SSSI) | EA | EN LAs | 6 | | ■ ■ ■ ■ ■ | | | |
| Contact: BC48 - Chris Catling | | | | | | | | | | |
| Manage future demand for water so that all reasonable needs, including those of the environment, can be met. | BC49 | Promote water efficiency and raise awareness of the need to conserve water. | TWUL | EA TVWC NSWC | to be determined | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ > |
| Contact: BC49 - Steve Dowse | | | | | | | | | | |

LAND USE

The Brent and Crane catchments are populated by over 1 million people and as a result there is considerable pressure placed upon the land and how it is used. Development located near to rivers and elsewhere in the catchments can have implications for the water environment. Currently the largest proposed development in the catchments is Terminal 5 at Heathrow Airport. However, development can also provide an opportunity to achieve environmental improvements and in turn can provide a catalyst for economic regeneration. These and other issues related to land use are addressed by the actions in this section.

Land Use - Sustainable Development

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|------|-------------------------|---------------|------|------|------|------|---------|
| Ensure that new development in the catchments is sustainable. | BC50 | Develop suitable catchment wide indicators, to assess the progress of the action plan | EA | LPAC LAs | ◆ | | | | | |
| | BC51 | Ensure all statutory land use plans incorporate the interests of the Agency and continue to input the Agency's ideas to local planning authorities, and other relevant agencies, on state of the environment reports, Local Agenda 21 initiatives and other strategies implementing the principles of sustainable development. | EA | LPAC | ◆ | | | | | |
| | BC52 | Produce a paper on the Environment Agency's role in the Local Agenda 21 process. | EA | LAs EN LWT LEU | 3 | | | | | |
| Contacts: BC50 - Ann Symonds BC51 - Stuart Reilly BC52 - Ric Eales | | | | | | | | | | |

Land Use - Heathrow Terminal 5

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|------|--------------------|---------------|------|------|------|------|---------|
| Safeguard the water environment from any adverse impacts resulting from the proposed Heathrow Terminal 5. | BC53 | Put the Environment Agency's case to the public inquiry regarding the proposed Terminal 5 at Heathrow Airport. The Agency will seek to ensure that there are no unacceptable impacts on the water environment and, should the scheme go ahead, that enhancements to the local watercourses are maximised. | EA | LAs CoVP RPK | 130 | | | | | |
| | BC54 | As part of the Agency's sustainability strategy for the Thames Region, 'Thames 21', produce an analysis of the capacity of the water environment in the lower Crane catchment to deal with new development. | EA | LAs CoVP | 2 | | | | | |
| Contacts: BC53 - Tony Sitch BC54 - Ann Symonds | | | | | | | | | | |

Land Use - Government and European Funding

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|---|------|---------------------------------|--|------|------|------|------|---------|
| Assist in securing Government and European funding for enhancements to the water environment. | BC55 | Assist and offer support to those partners who are planning or have already submitted bids and work to bring about environmental improvements. Current bids and ongoing projects include: - Wembley Stadium; - River Thames Hampton to Kew; - Brent Reservoir/Welsh Harp; - Havelock Community Regeneration project; - Grand Union Canal Hayes to West Drayton; - London Walking Forum. | EA | LAs BW TLS WHCC LWF | ◆ | | | | | > |
| | BC56 | BW to facilitate partnership meetings in order to progress the North London Waterways Project SRB bid. (the total bid,including match funding, is expected to be approx. £21M.) | BW | EA LAs GWT | 21000 | | | | | |
| | BC57 | Assist and offer support to the Brentford Regeneration Partnership with their programme which will promote environmental improvements and access provision through the development of several key sites and a number of other projects including: - riverside business development; - interactive visitor centre at the Steam Museum; - tourism walks programme; - enhancement to Thames side; - waterside enhancement projects. | BRP | EA BE LBHo Pr Co | ◆ 255 380 47 30.8 162.3 | | | | | |
| | BC58 | Assist and offer support to the Park Royal Partnership with their environment improvement programme, which includes open space and canal improvements. | PRP | LAs EA BW Pr Co | to be determined | | | | | |
| Contact: BC55 to 58 - Stuart Reilly | | | | | | | | | | |

Land Use - Drainage Policy and Flooding

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|------|-------------|------------------|------|------|------|------|---------|
| Promote a co-ordinate drainage policy for the catchments. | BC59 | Establish a forum to involve local authorities in discussions between the EA and Thames Water Utilities regarding drainage issues in the catchments. | EA | TWUL LAs | 25 | * | * | * | * | * |
| | BC60 | In line with the recommendations of Circular 30/92, the EA will provide local authorities with up to date information on the extent of river flood plains. | EA | LAs | to be determined | | | | | |
| Contacts: BC59 - John Meekings BC60 - Dak Gor | | | | | | | | | | |

Aerial
Photograph of
Brentford
(circa 1929)



The River Brent
- the tidal
reaches at
Brentford
(1996)

The meeting of
the Grand
Union Canal
and the river
Brent from
Brentford
Bridge (1946)



AMENITY AND RECREATION

The catchments provide relatively few opportunities for water based recreation, with water quality and the types of channel limiting what can take place. The Brent Reservoir provides for sailing, canoeing and windsurfing, but few opportunities for fishing exist within the catchments. The river corridors and the Grand Union Canal do, however, provide a series of linear open spaces that are a particularly important resource for walkers and cyclists. The improvement of the existing recreational provisions are addressed in the actions below.

Amenity and Use - Improving Provisions

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|------|---------------------------------------|------------------|------|------|------|------|---------|
| Improve the provision of recreation facilities in the catchments. | BC61 | Support the work of the Western Sector of the London Walking Forum (LWF), which will be taking over the work initiated by WLWW, and other groups involved in improving access and recreation in the catchments. <i>Safety is an important consideration for waterside access and particular note should be taken of the advice issued by BW in "The Waterways Code - Cycling on the Towpath".</i> | LAs | EA LWF BW WHCC BCU CTC | ◆ | ■ | ■ | ■ | ■ | ■ > |
| | BC62 | Develop an information strategy relating to recreational development within the catchments. | EA | | to be determined | ■ | | | | |
| | BC63 | Support initiatives to increase the navigational use, both commercial and recreational, of the canal and rivers and the provision of additional facilities and access points for canoeing. | BW | LAs BCU IWA EA | ◆ | ■ | ■ | ■ | ■ | ■ > |
| Contacts: BC61 & 63 - Colin Woodward BC62 - Andrew Graham | | | | | | | | | | |

Amenity and Use - Improving Provisions contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|---|---|------------|------------------|------|------|------|------|---------|
| Improve access to rivers and recreation facilities in the catchments. | BC64 | Continue to support programmes to improve pedestrian and cyclist access within the catchments and the creation of links to strategic routes and the rights of way network. This includes the 'Greenways' initiatives in the Heathrow area. | LAs LWF CTC Sust BAA HATF RAs | EA | ◆ | | | | | |
| | BC65 | Support proposals to improve access at specific locations. Major obstructions and problems along the network include: - under Hanwell Bridge on the R. Brent; - Brent River Park to the Thames; - London Underground line on the R. Brent; - Brentham Club, Meadvale Road on the R. Brent; - Cavelry Tunnel, Feltham Marshalling Yard on the R. Crane; - the eastern bank of the R. Crane near the DHL offices; - a link between the GUC and the R. Brent at the North Circular Viaduct. | LAs LWF CTC Sust | EA | to be determined | | | | | |
| | BC66 | Identify funding for publicity leaflets relating to the new Yeading Brook walkway. | EA | WLWW | 1 | | | | | |
| | BC67 | Enhance the connecting walks up the Duke of Northumberland and Crane Rivers. Remove some of the trees overhanging the lower reaches of the tidal Crane; encourage adjacent garden owners to create a wild meadow strip close to the river's edge; encourage bankside vegetation by modifying the steep walls of the lower stretches. | TLS LWF LAs RO | EA | to be determined | | | | | |
| | BC68 | Connect access along the canal and river edge at Brentford, designing the frontage to fit the dockland character. | TLS LBH BW | EA | to be determined | | | | | |
| Contacts: BC64& 65 - Colin Woodward BC66 - Andrew Graham BC67 & 68 - Donna Clack | | | | | | | | | | |

LITTER

Accumulation of litter and rubbish in rivers is a particular problem in any heavily urbanised catchment. Education, enforcement action, and prevention all have a role to play in tackling this problem.

Litter in the Catchments

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 |
|---|------|--|-----------|------------|---------------|------|------|------|------|------|
| Reduce the amount of litter and rubbish in the catchments watercourses. | BC69 | Discuss with supermarkets ways of reducing the number of trolleys being removed from their premises and being dumped in rivers. | EA | LAs | 2 | | | | | |
| | BC70 | Discuss with local authorities the possibility of providing additional signage at litter hotspots and the design of development sites to minimise litter accumulation. | EA LAs | | ◆ | | | | | |
| Contacts: | | | | | | | | | | |
| BC69 - Stuart Reilly | | | | | | | | | | |
| BC70 - Nigel Bray | | | | | | | | | | |










Litter and rubbish collected from the River Brent at Hanwell



INFORMATION AND COMMUNICATION

It has become apparent during the consultation phase of the plan, that there was confusion over the role and responsibilities of the former National Rivers Authority (NRA). This can have only been increased by the creation of the Environment Agency which replaced the NRA in April 1996. Information for the general public about the Agency and the other bodies and organisations involved in managing the environment needs to be provided. This information will need to educate and raise awareness of the Agencies function and role.

Information and Communication - Raising Awareness

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|---|--|------|---|---|---|------|------|------|---------|
| Ensure good communications between all groups active in the planning and management of the water environment. Contact: BC71 - Stuart Reilly | BC71 | Hold annual catchment meetings to discuss current problems, opportunities and issues as well as progress on actions identified in this Action Plan. The first meeting will be held on the 30 September 1997 . | EA | | 1 | | * | * | * | * |
| Continue raising awareness of the consequences of individual actions on the water environment. | BC72 | Environment Agency to contact residents associations to inform them of the CMP and actions planned for their local rivers and to invite comments. | EA | RAs LAs | 1 |  | | | | |
| BC73 | Environment Agency to participate in and provide information for Local Agenda 21 projects, Environment Week Fairs, work days and other events to raise awareness of local rivers and the water environment. | EA | VO |  |      | | | | | > |
| Promote interest and education about rivers through schools. Contact: BC74 - Jean Harper | BC74 | Investigate the demand from schools for additional information on local rivers. Initiatives could include: - a schools pack; - school visits targeting secondary schools; - an Environment Agency Internet site. | EA | Sch | to be determined |   | | | | |

Information and Communication - Raising Awareness contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|------|------------|---------------|------|------|------|------|---------|
| <p>Raise the profile of rivers within the catchments.</p> <p>Contact: BC75 - Trevor Brown</p> | BC75 | Investigate the possibility of ensuring that all bridge works include signs to name the river that is being crossed through Environment Agency's Land Drainage Consents. | EA | LAs | ◆ | ■ | ■ | ■ | ■ | ■ > |

BRENT RESERVOIR

The Brent Reservoir is an important resource within the catchments for both nature conservation and recreation, it also provides flood storage. The future management of the reservoir needs to carefully balance between these potentially conflicting demands. The Welsh Harp Consultative Committee acts as a coordinating body between the three organisations which hold legal title to the land, namely British Waterways, London Borough of Barnet and the London Borough of Brent, and other interest groups. The Committee are in the process of producing a management strategy for the reservoir.

Brent Reservoir - Future Management

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|--|----------------------------------|-------------------------------------|------------------|------|------|------|------|---------|
| Ensure the future management of the reservoir satisfactorily balances the potentially conflicting demands of flood attenuation, nature conservation and recreation for the maximum benefit of the environment, local people and user groups | BC76 | Support and actively participate in the work of the WHCC and the preparation of the Management Strategy | EA WHCC LBBr LBBa BW | | ◆ | ■ | ■ | ■ | ■ | ■ > |
| | BC77 | Support the Millennium Bid for the Brent Reservoir and other opportunities for funding which may arise | LHBR LBBa WHCC BW | EA | to be determined | ■ | ■ | | | |
| | BC78 | Create a water quality reed bed on the reservoir. This project is dependant on 50% funding from industry and should go ahead in 1996/7 if this is forthcoming. | EA WHCG | BW Pr Co WHCC | 60 | ■ | | | | |
| | BC79 | Investigate the feasibility of hydroelectric power generation from the Brent Reservoir Dam to supply energy to the field centre in nearby Birchen Grove. The LB Brent are currently developing this potential project through the European Ecos/Ouverture programme which is being led by the City of Foggia in Italy. The main objective is to promote and raise awareness of energy efficiency. Funding is also being sort from the Guinness 'Water of Life' project. | LBBr | NLP Guinness WHCC BW EA | to be determined | ■ | ■ | | | |
| | BC80 | Produce a Water Level Management Plan (WLMP) for the Brent Reservoir SSSI. | EA | BW EN WHCC WHCG | 3 | ■ | | | | |

Brent Reservoir - Future Management contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|--|------|--------------------------------------|---------------|------|------|------|------|---------|
| Contacts: BC76 & 77 - Stuart Reilly BC78 & 80 - Chris Catling BC79 & 81 - Dave Carrol | BC81 | Investigate the feasibility of a programme of improvements at the Brent Reservoir to provide and encourage interpretation and education, nature conservation and recreation. | LBB | NLP Guinness WHCC BW EA. | 20 | | | | | |
| | | This potential project is being promoted by the LB Brent and if successful the 'Water of Life' fund could provide some £20k over 3 years. | | | | | | | | |



Aerial photograph of the silk stream winding into the Welsh Harp 1920

FLOOD DEFENCE

The Brent and Crane catchments have a long history of flooding, however the construction of flood defence works in the past has substantially reduced this risk. A large amount of effort is expended in maintaining this level of protection. This included regular maintenance to ensure that the free passage of water is not impeded and larger scale works, such as dredging, to ensure river channels are capable of carrying flood flows. There is also a continual programme of major new works to ensure future flood prevention, including the maintenance of river control structures. Where flooding remains a problem, the feasibility of alleviation works are studied.

Flood Defence - Management of Flood Risk

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|---|----------|------------|-----------------------------|-----------------------------|-------------|-------------|-------------|-------------|
| Reduce surface water entering rivers during storms. Contact: BC82 - Trevor Brawn | BC82 | Encourage local planning authorities to adopt conditions requiring surface water storage on developments and to implement such policies through the development control process. | EA | LAs | ◆ | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> |
| Assess and understand the risk of flooding throughout the catchments. Contacts: BC83 - Mike Pomfrett BC84 - Keith Lead | BC83 | Carry out a feasibility study into flood alleviation works on the Silk Stream, Edgware Brook and Deans Brook (note: the duration of the feasibility study is dependant on interim results and is under constant review.) | EA | | to be determined | <div></div> | <div></div> | | | |
| | BC84 | Continue discussions with BW to find an acceptable solution to the flooding issues at the Brentford Island site. | BW EA | | ◆ | <div></div> | | | | |
| Minimise the number of people and properties at risk of flooding, with due regard for the environment and other interests. Contact: BC85- Nigel Bray | BC85 | Maintain free passage of water on a day to day basis by regular removal of obstructions, weed cutting and tree management on all the main rivers in the catchments as required. - annual planned hand maintenance for Crane catchment - annual planned hand maintenance for Brent catchment | EA | | | 51 per annum <div></div> | <div></div> | | | |
| | | | | | 73 per annum <div></div> | <div></div> | | | | |

Flood Defence - Management of Flood Risk contd...

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|---|------|---|------|------------|---------------|------------------------|------|------|------|---------|
| Manage Environment Agency assets efficiently, effectively, with due regard to Health and Safety and other legislation to maintain existing standards of service from flooding. | BC86 | Implement and manage routine maintenance works to flood defence structures. Inspect river structures and carry out necessary repairs in accordance with operational priorities. | | | | | | | | |
| | | - annual planned structures maintenance costs for the Crane catchment | EA | | 49 per annum | <div><div></div></div> | > | | | |
| | | - annual planned structures maintenance costs for the Brent catchment | EA | | 66 per annum | <div><div></div></div> | > | | | |
| Contact: BC86 - Dave Murphy | | | | | | | | | | |
| Ensure consistency of main river status of channels forming a flood alleviation scheme. | BC87 | Review designations of main river within the catchments, including: | EA | LAs | ◆ | <div><div></div></div> | | | | |
| | | - to review main river status of Hayes Bypass Channel | | | | | | | | |
| Contact: BC87 - John Wills | | | | | | | | | | |

Flooding at Greenford from the corner of Costons Lane (1905)





Flooding on the River Brent (date unknown)

FISH MANAGEMENT

The quality of the fisheries habitat in the catchments are predominately poor, with only the lower reaches of the Brent, Crane and the Duke of Northumberland's River being of moderate quality. However, opportunities still exist to enhance the overall quality of the fisheries. Fish are an excellent indicator of water quality and could provide a useful measure of the success or failure of any water quality initiatives that are undertaken in the future.

Fish Management - Managing and Enhancing the Fisheries Resource

| Objective | No. | Action | Lead | Partner(s) | Ttl cost (£k) | 96/7 | 97/8 | 98/9 | 99/0 | 2000 on |
|--|------|---|------|-------------------------|------------------|---|------|------|------|---------|
| Manage and enhance the fisheries resource within the catchments. | BC88 | Undertake desilting and habitat improvement works to the River Crane Mill Stream through Hounslow Heath Golf Course. | EA | LBH | 15 |  | | | | |
| | BC89 | Using the recommendations of the Crane and Duke of Northumberland's River fisheries survey, identify potential projects to improve fisheries management and the river habitat. Potential projects may include: <ul style="list-style-type: none"> - a qualitative survey of the Hayes Bypass channel; - further investigations of the fish populations around Crane Park; - promoting habitat improvement opportunities arising from planning and development proposals, liaison with riparian owners and local authorities; - removing hard revetment and reinstating bank profiles wherever opportunities arise; - highlighting sensitive sites and their appropriate management to the flood defence section; - artificial channel narrowing and meander reinstatement wherever opportunities arise; - selective thinning of the canopy at Cranford Park to promote the growth of instream and marginal plants; - investigation of the flow regime of the channels in and around Crane Park. | EA | LAs LWT LEW EN | to be determined |  | | | | |
| | BC90 | Using the results of previous fisheries surveys within the catchments undertake site specific monitoring reports to look at the key issues highlighted in the above programme. | EA | | to be determined | * | * | * | * | * |
| Contacts: BC88 & 89 - Steve Coates BC90 - Mike Exeter | | | | | | | | | | |

FUTURE REVIEW AND MONITORING

The Environment Agency along with other bodies named in this plan will be responsible for implementing the actions contained within it. The Action Plan itself will be monitored on an annual basis. The first of these reviews will be in September 1997. These reviews will examine the need to update the plan in light of changes that have taken place in the catchments, the Agency's priorities and the availability of resources. The review documents will take the form of short progress reports, detailing what work has been achieved and comparing this with what was planned.

Many of the actions contained in this plan are to undertake feasibility and further investigation studies. The Annual Reviews will include additional actions that arise as a result of such studies. The period between full revisions of the CMP will normally be 5 years.

Further details regarding this CMP or the catchments generally can be obtained from:

Stuart Reilly - Catchment Manager

Environment Agency
Thames Region
The Grange
97 Crossbrook Street
Waltham Cross
Hertfordshire
EN8 8HE

TEL: 01992 645067

APPENDIX I: ORGANISATIONS RESPONDING TO THE CONSULTATION REPORT

Brentford Waterside Forum
Brent River Park Association
British Canoe Union
British Gas Properties
British Waterways
CARE
Countryside Commission
Cyclist Touring Club
Ealing Wildlife Network
English Heritage
English Nature
Feltham Forum
Finchley Garden Village Residents Association
Finchley Society
Fitzjohn Avenue Area Residents Association
Friends of the Earth - Harrow
Hampstead Garden Suburb Residents Association
Herts and Middlesex Wildlife Trust - Barnet
Heston Residents Association
Hillingdon Federation of Residents and Tenant Associations
Inland Waterways Association
Isleworth Canoe Club
Laingfield and Moat Mount Residents Association
Lincoln Avenue Estate Residents Association
London Borough of Barnet
London Borough of Ealing
London Borough of Harrow
London Borough of Hounslow
London Borough of Hillingdon
London Borough of Richmond Upon Thames
London Ecology Unit
London Waste Regulation Authority
MAFF
Northolt Village Residents Association
Northwick Park Residents Association
Ramblers Association
River Brent and Canal Society
Selbourne Society
South Ruislip Residents Association
Thames Landscape Strategy
Thames Water Utilities
Watling Chase Community Forest
UNA Hounslow
Welsh Harp Conservation Group
Welsh Harp Sailing Base
West London Waterway Walks
Willowtree Marina Ltd
Woodside Park Residents Association

In addition to these organisations, 30 individuals also responded to the Consultation Report.



APPENDIX V: CONTACTS FOR CATCHMENT ACTIONS

| Name | Organisation | Phone No | Name | Organisation | Phone No |
|-----------------|------------------------------------|---------------|--------------------|------------------------------|---------------|
| Fran Bayley | Environment Agency | 01734 535557 | Martin Japes | Environment Agency | 01992 645465 |
| Mark Bensted | British Waterways | 0171 286 6101 | Brian Knights | University of Westminster | 0171 911 5000 |
| Trevor Brawn | Environment Agency | 01992 645066 | Dave Leeming | Environment Agency | 01992 645093 |
| Nigel Bray | Environment Agency | 01992 645455 | Jack Levy | Environment Agency | 0171 735 9993 |
| Andrew Brookes | Environment Agency | 01734 535712 | Dave Carrol | London Borough of Brent | 0181 900 5315 |
| James Burstow | Environment Agency | 01992 645069 | John Meekings | Environment Agency | 01992 645064 |
| Chris Catling | Environment Agency | 01992 645492 | Janet Moore | Environment Agency | 01992 645073 |
| Phil Catterall | Environment Agency | 01628 777533 | Ian Moxon | Environment Agency | 01992 645056 |
| Donna Clack | Thames Landscape Strategy | 0181 9483209 | Dave Murphy | Environment Agency | 01992 645038 |
| Steve Coates | Environment Agency | 01992 645090 | Al Norton | Environment Agency | 01992 645496 |
| Richard Copas | Environment Agency | 01734 535565 | Andzej Nowosielski | Environment Agency | 01734 535429 |
| Mike Dicker | Environment Agency | 01992 645476 | Mike Pomfrett | Environment Agency | 01992 645041 |
| Steve Dowse | Thames Water Utilities Ltd | 01734 593728 | Colin Roome | London Borough of Hillingdon | 01895 250456 |
| Mike Exeter | Environment Agency | 01992 645049 | Stuart Reilly | Environment Agency | 01992 645067 |
| Elsbeth Forsyth | London Borough of Barnet | 0181 3594469 | Pete Rudd | Environment Agency | 01992 645082 |
| Meg Game | London Ecology Unit | 0171 267 7944 | Leslie Ruse | Environment Agency | 01734 535939 |
| John Gardiner | Univrity of Middlesex | 0181 363 3117 | Carla Sealey | Environment Agency | 01992 645057 |
| Andrew Graham | Environment Agency | 01734 535562 | Dak Gor | Environment Agency | 01992 645039 |
| Chris Haggett | Environment Agency | 01992 645008 | Ann Symonds | Environment Agency | 01992 535751 |
| Jean Harper | Environment Agency | 01734 535505 | Kim Thirlby | Environment Agency | 01992 645498 |
| Richard Hellier | Environment Agency | 01734 535566 | Richard Tyner | Environment Agency | 01992 645062 |
| Anna Hopwood | Thames Water Utilities Ltd | 01734 591159 | Bob Walker | Environment Agency | 01992 645050 |
| Hugh Howes | Environment Agency | 01374 535792 | Colin Woolward | Environment Agency | 01734 535561 |
| Tony Hutchinson | Brentford Regeneration Partnership | 0181 400 8500 | | | |

APPENDIX IV: GLOSSARY OF TERMS AND ABBREVIATIONS

| | | | |
|------------------------|--|----------------|---|
| AMP Plan | Asset Management Plan - used by TWUL to plan expenditure over a 10 year period | LBHo | London Borough of Hounslow |
| AOD | Above Ordnance Datum | LCC | London Cycling Campaign |
| BAA | British Airports Authority | LDA '91 | Land Drainage Act 1991 |
| BCU | British Canoe Union | LEAP | Local Environmental Agency Plan |
| BG | British Gas | LEU | London Ecology Unit |
| BOD | Biochemical Oxygen Demand - measure of oxygen required to breakdown all organic material in a water body | LPAC | London Planning Advisory Committee |
| | | LWF | London Walking Forum |
| BRP | Brentford Regeneration Partnership | LWT | London Wildlife Trust |
| BW | British Waterways | MAFF | Ministry of Agriculture, Fisheries and Food |
| Catchment | Area from which rainfall flows into a river | Misconnection | Foul water pipes connected to the surface water sewer |
| CHEAT | Chironomid Exuviae Assessment Technique | MU | Middlesex University |
| CIRIA | Construction Industry Research and Information Association | NLP | New Leaf Partnership |
| | | NRA | National Rivers Authority |
| CMP | Catchment Management Plan | NSWC | North Surrey Water Company |
| CSO | Combined Sewer Overflows, sewers which carry both surface and foul water need overflow facilities into rivers for heavy storms | P&CA '91 | Planning and Compensation Act 1991 |
| | | PPG 12 | Policy Planning Guidance Note 12 - Development Plans and Regional Planning Guidance |
| CTR | Civic Trust - Richmond | PPG 23 | Policy Planning Guidance Note 23 - Planning and Pollution Control |
| Culvert | A river underground in a pipe. | PRP | Park Royal Partnership |
| CVP | Crane Valley Park | Pr Co | Private Companies |
| CoVP | Colne Valley Park | RAS | Resident Associations |
| CTC | Cyclist Touring Club | RE | River Ecosystem |
| Dev | Developers | Riparian owner | A person/organisation with property rights on a river bank |
| DoE | Department of the Environment | RO | Riparian Owner |
| EA | Environment Agency | RPk | Royal Parks |
| EH | English Heritage | RQO | River Quality Objective |
| EN | English Nature | SAM | Scheduled Ancient Monument |
| EPA '90 | Environmental Protection Act 1990 | Sch | School |
| Environmental Capacity | The point at which development passes from being sustainable to unsustainable | SSSI | Site of Special Scientific Interest |
| Eutrophic | Water with very high nutrient levels | STW | Sewage Treatment Works |
| Fauna | Animals, birds, insects | Sp. Adv. | Specialist advisors (in this case relating to disabled access) |
| Flood Plain | Land adjacent to a watercourse over which water would naturally flow during a flood | Sust | Sustrans |
| Flora | Plants | SWQO | Statutory Water Quality Objective |
| GQA | General Quality Assessment | TBC | Tidy Britain Campaign |
| Groundwater | Water contained in the pores and fissures of aquifers (water bearing strata) | T&CPA '90 | Town and Country Planning Act 1990 |
| GUC | Grand Union Canal | TLS | Thames Landscape Strategy |
| GWT | Groundwork Trust | TWUL | Thames Water Utilities Limited |
| HATF | Heathrow Area Transport Forum | TVWC | Three Valleys Water Company |
| HMIP | Her Majesty's Inspectorate of Pollution | UDP | Unitary Development Plan (Statutory plan to shape development within each London Borough) |
| HMWT | Herts & Middlesex Wildlife Trust | UM | University of Middlesex |
| IWA | Inland Waterways Association | UW | University of Westminster |
| Las | Local Authorities | VO | Voluntary Organisations |
| LB | London Borough | WCCF | Watling Chase Community Forest |
| LBBa | London Borough of Barnet | WHCC | Welsh Harp Conservation Committee |
| LBBr | London Borough of Brent | WLWW | West London Waterway Walks |
| LBEal | London Borough of Ealing | WRA '91 | Water Resources Act 1991 |
| LBHil | London Borough of Hillingdon | WRAs | Waste Regulation Authorities |

APPENDIX III: CORRECTIONS FROM THE CONSULTATION REPORT

| Page No | Correction/Omission | Page No | Correction/Omission |
|---------|--|---------|---|
| 21 | Ordinary Watercourses map - ordinary watercourses incorrectly shown in the same blue as main rivers | 53 | Water Abstraction Licences map - the area between River Brent and Ealing is served by Thames Water |
| 24 | Table 3 - Kingston is a 'Royal' not 'London' Borough | 59 | Urban Development map - part of the boundary of the community forest is inaccurate and it also now extends south of Watford |
| 24 | Table 3 - Watling Chase Community Forest Plan (1994) omitted | 61 | 4th para - note flooding also took place in other years on the Edgware/Deans Brooks including 1977, 1984, 1987 and 1988 |
| 27 | Geology map - hatched lines omitted from river gravels in the key | 73 | Water Quality: Compliance with Short-Term RQOs map - the catchment plan boundary shown in the key should be black not green |
| 36 | 4th para - should read 'Bentley Priory' not 'Berkley Priory' | 106 | 2nd para under Background Information - should read 'Tokyngton' not 'Tockington' |
| 37 | Ecology map - Moat Mount Site of Metropolitan Importance has been downgraded and should now be deleted | | Fold-out map part of the route of the Grand Union Canal is not shown |
| 37 | Ecology map - all the Grand Union Canal is a Site of Metropolitan Importance in the London Borough of Ealing | | |
| 42 | 6th para - 'Crane Park' should read 'Crane Park Area of Opportunity' | | |
| 44 | 1st para - the Crane Corridor is also MOL in the London Borough of Richmond | | |
| 44 | 4th para - the London Borough of Ealing call their Archaeological Priority Sites 'Archaeological Interest Areas' and include the Brent Valley. | | |
| 45 | 2nd para - the Grand Union Canal Company was formed in 1929 not 1829 | | |
| 46 | 1st para - Hanwell Locks is a Scheduled Ancient Monument (not plural) | | |
| 47 | Navigation and Boating map - there is a new boat yard, Willowtree Marina, in Yeading that is omitted from the map | | |
| 49 | Amenity and Recreation map - the London Walking Forum routes should be referred to as the 'London Outer Orbital Path' and the 'Capital Ring' | | |
| 49 | Amenity and Recreation map - the route of the foot path along the Dollis Brook is inaccurate/incomplete | | |

APPENDIX II: ROUTINE WORK DONE BY THE ENVIRONMENT AGENCY

The Environment Agency has a number of roles and responsibilities which it fulfils to protect and improve the water environment. These include:

Water Quality:

- consenting to and charging for discharges to rivers;
- responding to pollution incidents;
- prosecuting polluters;
- sampling water quality;
- carrying out biological and bacteriological surveys;
- setting water quality targets;
- protecting groundwater quality.

Flood Defence:

- maintaining free passage of water by dredging, bank trimming and rubbish clearance;
- identifying and constructing flood defence works;
- forecasting and warning of flood situations.

Water Resources:

- measuring rainfall, river flows and groundwater resources;
- licensing water abstractions;
- promoting water efficiency and conservation measures.

Fisheries, Conservation and Recreation:

- surveying the health and numbers of fish populations;
- rescuing fish in emergency situations;
- regulating fisheries licences;
- protecting and enhancing natural riverine habitats, including banks and floodplain's;
- promoting public access to rivers and the general enjoyment of the riverside.

Planning:

- responding to planning application consultations;
- promoting policies to protect and enhance the water environment in development plans;
- ensuring that all development in or near rivers protects and enhance the water environment by issuing Land Drainage consents;
- producing CMPs/LEAPs to integrate the Environment Agency's work with activities being undertaken by other organisations.

Integrated Pollution Control:

- regulating air quality by operating Integrated Pollution Control (IPC) for certain industrial processes;
- authorising prescribed processes and ensuring operators comply with the pollution prevention and control standards laid down;
- making appropriate checks to ensure IPC authorizations are being complied with, investigating any complaints and attending to serious pollution events;
- regulating the holding, use and disposal of radioactive substances.

Waste Regulation:

- licensing of waste management activities through the imposition of appropriate conditions;
- supervision of licensed activities and the operation of enforcement procedures;
- regulating and monitoring the movement of Special Waste ie. those that are considered dangerous to life and require cradle to grave monitoring;
- the Registration of Waste Carriers, Waste Brokers and activities exempt from licensing;
- collecting of information about waste arisings and the preparation of a waste disposal plan;
- promotion of Duty of Care.

General:

- promoting rivers as valuable natural assets;
- making information available through the Environment Agency's Public Register;
- monitoring and enforcement action to ensure that all the above are implemented and complied with.

MANAGEMENT AND CONTACTS:

The Environment Agency delivers a service to its customers, with the emphasis on authority and accountability at the most local level possible. It aims to be cost-effective and efficient and to offer the best service and value for money.

Head Office is responsible for overall policy and relationships with national bodies including Government.

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Fax: 0121 711 5824

WELSH

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St Mellons Business Park
St Mellons
Cardiff CF3 0LT
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Fax: 01222 798 555



For general enquiries please call your local Environment Agency office. If you are unsure who to contact, or which is your local office, please call our general enquiry line.

ENVIRONMENT AGENCY GENERAL ENQUIRY LINE

0645 333 111

The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water.

ENVIRONMENT AGENCY EMERGENCY HOTLINE

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